‘Money is Accounting’ – is this idea ripe for the world?

Research Colloquium Report

29th October 2018, Goetheanum, Dornach (Switzerland)

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Written by Fionn Meier (assisted by CHB)

Participants: Christian Czesla, Christopher Houghton Budd, Daniel Mäder, Fionn Meier, Jean-Marc Decressonnière, Marc Desaules, Stephan Eisenhut, Sylvain Coiplet. Apologies: Arthur Edwards, Cristóbal Ortín, Leif Sonstenes.

Almost a hundred years ago, Rudolf Steiner formulated the idea that money is to be understood as the world’s bookkeeping. If one observes what has (or rather has not) been taken up by others since that time, it seems like this idea has disappeared. Or perhaps it just fell into the earth, where it needed to ripen for a certain time? If so, where do we stand today? Has it now become an idea that can shine its light into the world?

The aim of this research colloquium was to bring together those people, who in recent years have been actively researching this idea. Although at first sight it seems to have got lost, since the mid 1980s one can observe that various people have started to focus on it in the Anthroposophical Movement. For example, work that has been done within the context of the Economics Conference, but also in Germany by Christian Czesla and Benediktus Hardorp[1], and more recently also by Stephan Eisenhut. The research colloquium, organised under the auspices of the Economics Conference, was invitation-based in order to keep a tight focus on the topic, for which reason it was also conducted in German.

Michaelic Inspiration

The morning was filled with a brief introduction and five short keynote speeches, which this report summarises. The introduction by Christopher Houghton Budd drew attention to the two ‘cousins’ that in his view need to work together – namely, the English and the German peoples. Having been set apart at the beginning of the 20th century, the question is now whether they can come together by way of a common understanding of economic life, and through the medium of accounting in particular. Likewise, can a bridge be built between the Anthroposophical Movement and the academic world?

For Houghton Budd, the key to both is the idea that ‘money is accounting’. In fact, this idea already lives in both German and English contexts[2], holding this colloquium was an instance of these two different ‘mind-sets’ continuing to work together. Moreover, the idea that ‘money is accounting’ is not unknown in today’s academic and policy circles, as one can discover if one lives in both worlds.[3]

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[1] Dr. Benediktus Hardorp was a tax consultant in Germany. He died in 2014.
[2] See Meier F. & Houghton Budd, C. (2018) *Perspectives in Finance*, available at http://www.lulu.com/shop/fionn-meier-christopher-houghton-budd/perspectives-in-finance/paperback/product-23863522.html?ppn=1
[3] See Contribution 1 below.

Houghton Budd then presented a second idea. Today's economic life is almost everywhere predicated on the image of the 'invisible hand' formulated by Adam Smith in his book 'The Wealth of Nations' (1776). In this book, this image was not given much attention; indeed, it was no more than a little side thought[4] and yet its influence on economic thinking has been and continues to be huge. In Houghton Budd's view, the reason for this is that this image contains a 'half-truth', and as such can be seen as an Ahrimanic inspiration. But the idea that 'money is accounting' can also be seen as just a 'little side thought', only in this case it is a Michaelic inspiration. As such, it can stand on its own feet, serving as a true guide for modern economic life.

Five Contributions

1. 'Money is Accounting' in the Context of Contemporary Economic Thinking

The first talk, given by Fionn Meier, considered how the idea of 'money is accounting' sits in contemporary economic thinking. He presented two theses:

1. Closer consideration of the evolution of economic science reveals that its necessary next step it to arrive at, and base itself on, the idea that 'money is bookkeeping'.

2. Although not integrated into economic science at the beginning of the 20th century, the idea that 'money is bookkeeping' was already then in the minds of some of the most important and influential economists, notwithstanding the challenges this poses in terms of epistemology.

In order to understand the first thesis, one needs first to consider the concept of money as a 'means of exchange', something that is usually thought of only in physical terms, namely, as a 'thing' that goes between the goods and services exchanged. This basic idea is still the most common in today's economic textbooks. However, in reality such a 'thing' is not necessarily needed to mediate exchange; indeed, in today's 'cashless' world it is almost obsolete!

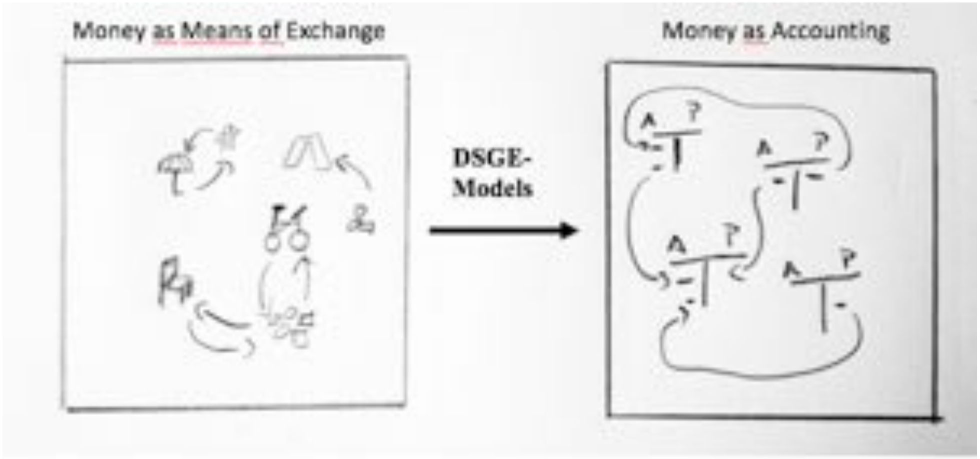
The fact that nothing physical is needed to mediate the exchange of goods and services is reflected in a more advanced economic model, the DSGE-Model (from Dynamic Stochastic General Equilibrium). In this model, 'money as a thing' does not exist; only goods and services are exchanged. The relative prices are calculated and fixed so that all market participants can exchange their goods. The exchange is not mediated by a 'thing', but by a set of mathematical equations. What comes 'between' has lost the physical character of coins or notes and become purely 'virtual', an abstract operation in the mind of economists that does not happen in the physical world as such. The model obviates the need for an outer, physical thing to mediate exchange.

From a certain point of view this new theory reflects a real change in modern economic history. Money has indeed become more and more 'dematerialised'. However, as growing numbers of economists are realising, especially since 2008, the mathematical

[4] It appears briefly in Book IV, Chapter II.

equations used in the DSGE-Models are not suited for understanding the monetary side of economic life, which although not physical is nonetheless real.[5]

But how, then, is money to be understood? The solution to this conundrum of modern economics is to recognise that money is indeed 'virtual', and does not need to have a physical form, but that this cannot be captured by a set of mathematical equations. It can only be understood via accounting, that is to say, by 'money is bookkeeping'.



From Means of Exchange to 'Money as Accounting'. Illustration by Fionn Meier.

This is the next step in economics. That this idea is 'in the air' today and only needs to be taken up is also hinted at by the fact that already at the beginning of the 20th century it had already been discovered and described independently by different authors. We know this in the case of Rudolf Steiner's 1922 economics course, given to students in order to enable them to develop a thinking that is apt to understanding the dynamics of a closed 'world economy'. However, one can also find this idea in the work of John Maynard Keynes and Joseph Schumpeter. Independently of each other in the 1930s, both were writing their treatises on money. Schumpeter did not finish his (it was published only recently[6]), but reading that book one can see how he tries to formulate an economic theory based on the idea that 'money is accounting'. For example, the chapter on *The Essence of Money* starts with the image of a "social central bookkeeping, which registers all economic activities occurring in the area of study and this provides a complete picture of economic life processes and also of economic accounting and payment processes".[7] Schumpeter states that "his idea is supposed, first, to explain to us the essence of the social institution of money". Interestingly, however, instead of exemplifying what this means in concrete terms, he ended his book in 'mid-sentence' and did not publish it.[8]

[5] See, for example, Colin Rogers (2018) "The Conceptual Flaw in the Microeconomic Foundations of Dynamic Stochastic General Equilibrium Models", *Review of Political Economy*, 30:1, 72-83: https://doi.org/10.1080/09538259.2018.1442894
[6] Schumpeter, J.A. (2014), Treatise on Money, Aalten: Wordbridge Publishing.
[7] Ibid. p. 215.
[8] On Schumpeter's attempt see: Michell, J., 2014. Book review: "treatise on money" by J. A. Schumpeter. Economic issues, 19 (2), 86–88. Available at http://eprints.uwe.ac.uk/24020/13/Schumpeter-Treatise3.pdf

In Keynes's work, published in 1930[9], one can see how closely he studied the accounting process in link with monetary processes. However, he only later developed a monetary concept that completely got rid of the idea of money as a 'thing' – when formulating the idea of an international 'clearing union' which at the 1944 Bretton Woods Conference he proposed as a foundation for the world monetary system after the Second World War.[10] Shortly after his proposal was refused by the Americans, Keynes died of a heart attack, and so was unable to develop the idea any further.

There were also other economists at the beginning of the 20th century who attempted to make accounting the basis of economics. But, as McCloskey and Klamer show in their article "Accounting as the master metaphor of economics"[11], none of these attempts succeeded. Instead, as already noted, economics instead took the path of mathematical equations (of which the DSGE-Model is the most prominent instance).

The second thesis Meier presented addressed the question, why at the beginning of the 20th century economics did not integrate and base itself on accounting, given that by then this idea was already in the minds of some of the most important and influential economists of that time. Meier's explanation is that although with 'conventional thinking' one can reach the idea of 'money is accounting', it is impossible to hold onto this idea without changing one's epistemology, one's way of thinking. The conventional way of thinking maybe apt for understanding the physical world, but for that it relies on reductionism, the law of contradiction and the positive/normative divide. However, if one takes the idea of 'money is accounting' as one's starting point, this foundation does not hold anymore.[12] The reason is simple – if money is understood as accounting, it becomes a non-physical phenomenon, and yet the thinking needed to understand non-physical phenomena is different. Steiner describes this thinking in terms of imagination, inspiration and intuition, which he characterises as different ways of thinking.[13]

The reason, therefore, that the idea of 'money is accounting' has not been taken up, neither in the academic world nor in the Anthroposophical Movement, is simply that the ability to think in this new way has not yet been developed enough in either realm. And so today, if this analysis is correct, the question whether we will be able to give economics a real foundation by basing it on the idea that 'money is bookkeeping' still depends on whether we are able to develop the kind of thinking that can rely on its own ground – the act of thinking as such – and thereby (like today's money) no longer depends on the physical world and sense perception.

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[9] Keynes, J.M. (1953 [1930]), A Treatise on Money, London: MacMillan and Co., Limited.

[10] See Amato, M. and Fantacci, L. (2014), "Back to which Bretton Woods? Liquidity and clearing as alternative principles for reforming international payments", Cambridge Journal of Economics, 38(6).

[11] Klamer, A. and McCloskey, D. (1992), "Accounting as the master metaphor of economics", European Accounting Review, 1(2), pp. 147–60.

[12] See the treatment of this topic in Meier's Masters Thesis: 'Money as accounting: Historical and theoretical issues' (2017), University of Fribourg, Switzerland.

[13] Steiner describes these three modes of thinking in many places, but perhaps most to the point is their mention in 'Stages of Higher Knowledge' (GA 12).

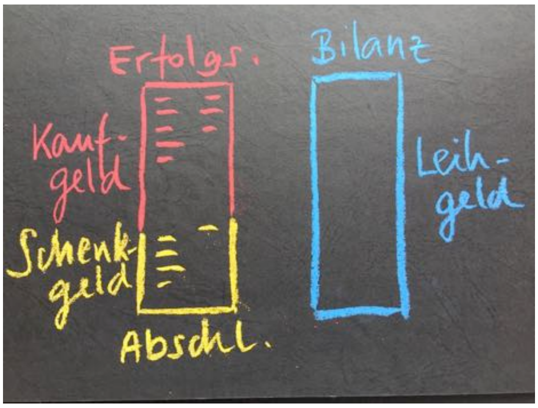
2. Three Kinds of Money and their Reflection in Double-Entry Bookkeeping

Next, Marc Desaules talked about an idea, on which he has been working for more than twenty years already, that addresses the fact that in Rudolf Steiner's work one not only finds the idea that 'money is accounting', but also that there are 'three kinds of money'.

Steiner calls these 'purchase money', 'loan money' and 'gift money', and says that they are qualitatively different and that we have to learn to distinguish between them in order to be able to manage today's one-world economic life. However, when characterising these different kinds of money – their specific quality, their economic role, and also how they metamorphose from one to the other – Steiner does not make any direct link to accounting. How, then, does accounting (understood as money) relate to these three kinds of money?

Desaules told how in the 1990s he realised that if one studies double-entry bookkeeping one can find in it the three qualities that Steiner describes in regard to 'purchase money', 'loan money' and 'gift money'. He has developed his thoughts further since then, however, the basic idea is still the same. The first time he published this idea was in 1997 in an article with the title "Awakening to Global Bookkeeping" in the magazine *e2 – Journal of Associative Economics*.[14]

To illustrate this insight Desaules looked closer at the three aspects of double-entry bookkeeping – the income and expenditure account (the left column in the image below), the balance sheet (the right column) and the closing entries.



Three Kinds of Money. Illustration by Marc Desaules.

According to him, the income and expenditure accounts can be characterised a reflection of what one has done in the past. Everything that one has bought or sold leaves its trace in these accounts (shown as red in the drawing). After a period, the overall difference can be calculated (surplus or deficit); the result is then transferred to the balance sheet, and the accounts are reset to zero. As such, these accounts always measure a stream that flows in and out of the entity. A further important characteristic of the numbers in these accounts is that they cannot be discussed. Because they reflect external facts, they are precise and objective. And yet, if a loaf of bread has been bought, the number in the income and expenditure account does not say whether that bread still exists. Meaning, income and

[14] Available in English and German on https://economics.goetheanum.org/publications/articles-and-papers

expenditure accounts do not give any information about what actually exists at the time one looks at them. They only refer to what has happened. Hence, these numbers can also be said to be *nominal.*

In contrast, the balance sheet reveals the situation at a certain point in time. The active side comprises the items that can be used for undertaking an activity; while the passive side reflects how the active side is capitalised. In contrast to the objectivity of the numbers in the income and expenditure accounts, the balance sheet numbers are subject to estimation. The value of a chair or a machine in the balance sheet is not the same as when it has been bought, but its exact value can only be guessed. In this sense, while the numbers in the balance sheet cannot be said to be precise and objective, they nevertheless reflect something that is still there. Hence, they are *real*.[15]

Lastly, the closing entries. During the closing, the income and expenditure accounts are set to zero and the resulting difference is put on the balance sheet. A closer look can reveal that this process has the quality of a distribution. Nothing is exchanged, but the result for the period is shared, so to speak, with the land, labour and capital that enabled the activity to take place.

The thesis of Desaules is that the red part of the income and expenditure accounts reflects buying and selling – what Steiner calls 'purchase money'. The balance sheet, shown blue, comprises, on the active side, assets whose value depends on the capacity of their user, which is exactly what Steiner characterises as 'loan money'.[16] The closing entries (shown yellow) reflect a distribution of profit between land, labour and capital, the so-called 'factors of production, but now remunerated in a way that in principle allows their financing, such that they do not need to become part of the economic process itself (i.e. treated as commodities).

If this link between the three aspects of double-entry bookkeeping and the three kinds of money is true, as Desaules argues it is, this would enable us to measure the amount of the three kinds of money and thereby allow us to keep economic life in balance. Further, as Desaules remarked at the end of his presentation, the different qualities of the income and expenditure accounts and the balance sheet can also be found in Steiner's characterisation of the two pillars that guided the initiates in the mysteries in Hibernia.[17] Therewith, this new understanding of money and accounting not only allows us to keep the economy in balance, it also allows us to experience in a modern way what has been experienced in the old mysteries.

3. The Basic Inner Gestures of Double-Entry Bookkeeping and their Potential for Training and Cognition

In a third contribution, Christian Czesla spoke about the potential of double-entry bookkeeping for knowledge and training. As an introduction, he showed the participants a print of a work of art and then the same picture, only this time "tidied up" by Urs Wehrli. He asked the question which of the pictures could be understood as a characteristic picture for bookkeeping.

[15] This is the basis of the distinction between 'nominal' and 'real' accounts in modern bookkeeping.
[16] These two links have recently also been made by Stephan Eisenhut. See Contribution 5 below.
[17] See GA 232, lectures on 7th and 8th December 1923.

Source: Wehrli U. (2004), Kunst Aufräumen, Kein & Aber, Königsstein, pp. 22-23.

For Czesla, it is clear that double-entry bookkeeping, a special cultural technique, must be regarded as art. Today, however, bookkeeping is mostly understood as the systematic collection of data in order to determine profit. Through such an understanding, the economic processes can no longer be brought into the picture. In this case, just as an artist combines colours to form a speaking picture, so the bookkeeper needs to arrange his or her data into a picture in such a way that the life of the enterprise in its manifold external relations and internal workings is made evident.

According to Czesla, the 36 chapters on double-entry bookkeeping[18], written by the friar and mathematician Luca Pacioli in 1494, are still one of the best teaching aids for learning the craft of accounting. Pacioli was the first to describe systematically and in context the process of posting to account and counter account, thus expressing the equilibrium gestures and the completion of the changes through the capital account – time-space accounting in a closed system. In this way, accounting becomes an instrument of perception by means of which entrepreneurs make “reasonable and permitted profits” (as opposed to modern profit maximising). Pacioli uses this term already in chapter 2 to make clear that profit is necessary in economic life, but that it needs measure and morality.

The Templars, who early on developed “consciousness soul qualities”, also invented the first precursors of double-entry bookkeeping. This is no coincidence. For the “consciousness soul” poses the question of objective truth in the world: What does truth mean in social reality? And in the mirror image of bookkeeping there is the possibility of finding an answer to this riddle.

But, as Czesla further explained, today this mirror is corrupted, for example, by prescribing more and more the graded format instead of the account method. While the latter emphasizes the principle of balance, the former focuses solely on the last number, the net worth. Many companies try to maximize this today and therefore their bookkeeping is arranged in such a way that this can be calculated and seen as easily as possible. However, this has consequences, especially in the form of smaller firms being driven out of the market or merged into bigger enterprises. In Germany, for example, in the last 10 years about 8 out of 10 of the smaller bakeries have disappeared.

[18] ‘The Rules of Double-Entry Bookkeeping’ were originally published as the 11th Treatise in Section Nine of the *Summa de Arithmetica, Geometria, Proportioni et Proportionalita*.

Czesla illustrated the balance quality of pure double-entry bookkeeping and the associated potential for knowledge of social interrelationships by means of a simple accounting example:

Cash 3.00	Sales 3.00
Where	Whence
Destination	Source
Future	Past

In this example, it could be the sale of a loaf of bread. The price is the element that bridges between the past and the future. Rudolf Steiner calls the price the "cardinal question of economic life".[19] It determines future social conditions, e.g. whether the 8/10 bakeries perish or not.

Another aspect that Czesla took up is the training potential of such a simple bookkeeping example. As Czesla explained, the internalization of such accounting records leads to the realization that every action has a counter-effect. Thus, the learning of double-entry bookkeeping can also be considered as a preliminary exercise for the understanding of karma.

The accounting records are part of bookkeeping. They are brought together and represented in the so-called 'chart of accounts'. These charts of accounts are very important and should be given much more attention than is usually the case today. Czesla pointed out that today, for example, many Waldorf schools use a chart of accounts that was developed for industry. Little wonder, then, that teachers no longer understand economic fundamentals and are less and less able to carry out their actual work! The chart of accounts has to be designed differently depending on the institution, so that it can reflect the life of the institution concerned and thus make it accessible to the forces of consciousness.[20]

As Czesla further explained, accounting is also necessary for associative management. It makes it possible to educate the 'intuitive feeling' (in German: *empfindende Erfahrung)* of which Rudolf Steiner speaks in the tenth lecture of his Economics Course as the basis of judgement for associative pricing. According to Czesla, three levels of knowledge participation are necessary for 'intuitive feeling' to develop on the basis of bookkeeping. First of all, bookkeeping contains pure numbers that can be recorded as mere facts. Second, there is information about the connections that can be derived from these numbers. Third, the dialogue or exchange that can then happen based on the available information.

After passing through these three stages, an 'intuitive feeling' can emerge. The places where this exchange is possible are the associations. If, in the associations, bookkeeping becomes the basis of a dialogue about the production, distribution and consumption of goods, then this 'intuitive feeling' in turn makes it possible for the possibility of creative,

[19] Third lecture in the Economics Course (GA 340)
[20] In Quickbooks, for example, one can choose a default or tailored chart of accounts, or indeed, create one's own.

quasi 'self-active intelligence' (in German: *selbsttätige Vernunft*),[21] to occur in economic life, also in the tenth lecture, something Steiner saw as essential for coordinating economic processes in a healthy way. This also shows how the 'invisible hand' can be transformed into a 'visible hand' by bookkeeping.

Czesla ended his contribution with another picture, which for him symbolizes how the present Zeitgeist, Michael, is also the patron saint of accountants.

Detail from the antependium of the Michael Altar of the Master of Luca (Catalonia), c. 1200.

4. Is there 'Credit and Money Creation' in Steiner's Work?

In the fourth presentation, Sylvain Coiplet addressed the question of Steiner's position regarding the so-called 'creation of credit money'. This question is relevant insofar as it is generally assumed today that money, which exists as book money only in the form of numbers in the bookkeeping of banks, is put into circulation by loans from commercial banks. Does this mean that today's literature describes a process to which Rudolf Steiner also implicitly refers when he says that 'money is bookkeeping'?

Coiplet first pointed out that Rudolf Steiner makes many statements about money that at first sight seem contradictory. One finds, for example, statements that money should have a commodity character, and again statements that say just the opposite. Regarding the idea of money as bookkeeping, however, Steiner is consistent:

> "What will be available in the monetary system will only be a kind of roving bookkeeping[22] tracking the exchange of goods between people belonging to the economic area. The monetary base will comprise accorded credit balances that will then be reduced when one obtains something that is needed for one's needs. The monetary system will be a kind of roving bookkeeping."

R. Steiner, 30.5.1919 (GA 337a)

[21] "The economic process can only be sound when such a wise *self-active intelligence* is working within it. This can only happen if human beings are united together – human beings who have the economic process within them as pictures, piece by piece; and, being united in associations, they complement and correct one another, so that the right circulation can take place in the whole economic process." – Rudolf Steiner, 10th lecture of *Economics – The World as One Economy*, New Economy Publications, Canterbury 1996.
[22] In German: "wandelnde Buchführung".

But when does Steiner talk about money not being a commodity? According to Coiplet, this is always the case when he talks about money not needing cover in the form of gold or any other metal, the reason being that gold has a fictitious value and therefore cannot guarantee the value of money. In the other places, where on the contrary Steiner speaks of the necessary commodity character of money, he does so, according to Coiplet's analysis, where he points out that money arises at the nature pole, i.e. in connection with work applied to land or nature.

In the 12th lecture of the Economics Course Steiner expresses this as follows:

> "…the important thing is to bring about sensibly and in accordance with reason the things which happen any way in the economic process, but behind a mask. Money, when it has served its purpose, must be collected up. And then once more, at the beginning of the process of purchase and sale, it must receive its original value. That is to say, it receives its new date stamp and passes into the hands of those who are dealing once more with those products of nature which are just beginning to pass into the sphere of labour. For here it is pure purchase and sale that are going on. This is the associative method of economic management."

R. Steiner, 4.8.1922 (GA 340)

In this context, one could also say that Rudolf Steiner assumes the 'creation of purchase money' rather than the 'creation of credit money'. As Coiplet further explained, although Steiner does not make any direct statements against the current form of 'credit money creation', there are statements that indirectly speak against it:

> "Just think how the mere abstract economy in money can detach itself from real conditions. Take Germany before 1914, when 5 to 6 billion marks in capital were saved and earned in about a year. New issues, also including mortgage bonds, land register debts and everything that was spent on luxury buildings, new dwellings and the like, that together gave about 11 billion marks before the year 1914. The capital saved was 5 to 6 billion, new emissions amounted to 11 billion, twice as much! What does that mean? That means: one moves beyond the real economy, because the real economy has to be worked out: beyond the real economy there is the capital value, twice what the real capital value is. Because the capital value would have been allowed only from new issues and lien obligations at a value of 5 to 6 billion mark notes. That was in reality there."

R. Steiner, 26.4.1920 (GA 334)

From this passage emerges the idea that in a healthy economy capital should consist only of capital earned and saved and should not be created by the creation of money through lending. In another passage, which according to Coiplet also indirectly shows that Steiner is against the 'creation of credit money', he speaks of the problems arising from 'overcapitalization'.[23] As Steiner points out at this point, industry tends to overcapitalize, making money too cheap and industrial products too expensive compared to agricultural products. If these two factors are taken together, it becomes clear that, for Steiner, not

[23] R. Steiner, 12.10.1920, second evening discussion (GA 337b).

only the creation of credit money in connection with the acquisition of property rights (e.g. in the form of shares) is problematic, but also as concerns the acquisition of new means of production.

So, how can money be created in the form of bookkeeping instead? What would ‘purchase money creation’ look like? According to Coiplet, this can be derived from the definition of money as a ‘call on goods’ (German: *Anweisung auf Ware)*, which Steiner puts forward in the “Key Points of Social Questions”[24] and other places. Coiplet suggests that someone who delivers goods to the economic area in question should receive a call on goods in return, which can be recorded in the accounts. New money then arises only in connection with the creation of new goods, as a call on goods to be delivered, rather than as a right to work without return of labour, as is usually the case today.

5. Problems of Today’s Monetary System and the Approach of a Money-Based Regional Settlement Association

Stephan Eisenhut continued the theme of Coiplet by sketching how an accounting system can be set up in which money is created as ‘purchase money’ at the nature pole. First, he presented the basic problem of today’s monetary and financial system by means of a comprehensive historical overview of the development of the various sectors and their proportions.

Around 800 AD, about 99% of the population were farmers, next to them existed the aristocratic ruling class and a very small part lived in monasteries. This ratio of intellectual activity and work done on nature developed further in the urban-rural polarity. Trade and commerce developed in the city. Agriculture benefited from the cultural techniques developed in certain monasteries, which led to such an increase in yields that it was possible to supply the growing cities. These three sectors are still used as categories in economics today: the primary sector (primary production), the secondary sector (manufacturing) and the tertiary sector (services).

While in the early Middle Ages almost the entire population was active in agriculture, the figure in Germany today is only about 1.4%. This small number does not permit sustainable and healthy agriculture, as can be seen by anyone looking at the situation today. But how could such a reversal of proportions occur?

Eisenhut further pointed out in his contribution how this is connected with the emergence of the nation-state, the introduction of the central bank system, and the ability to purchase land and other property rights. The latter was regarded by the bourgeoisie as a dismantling of the prerogatives of the nobility and thus as progress. However, the possibility of selling land and property rights to companies meant that these rights could be used for lucrative trade. This in turn resulted in more and more money being diverted from the goods market into money markets. In order to compensate for the latter, the states tried to bring money into the commodity markets through debt-financed demand policies. More and more new money was created by the central and commercial banking system through the purchase of government bonds. This is despite the fact that the

[24] *Towards Social Renewal*. Rudolf Steiner. Rudolf Steiner Press, London [1919] 1977 (GA 23).

problem is not solved in this way, since in the medium term the additional money created will be absorbed by the money markets, where it will drive up prices.

According to Eisenhut, the saleability of land and property rights and the current central banking system are mutually dependent. By enabling the 'fictitious values' to be traded in the financial market, today's central banking system distorts the accounting (i.e. money) of the real economic process. If property rights and land and enterprises were no longer traded as goods and commodities and the monetary system were designed as a means for exchanging goods and services, the transactions would have to be processed via a clearing system similar to that of Keynes's International Clearing Union with the Bancor as its unit of account, as is indeed happening today in many local currencies based on the clearing principle.[25]

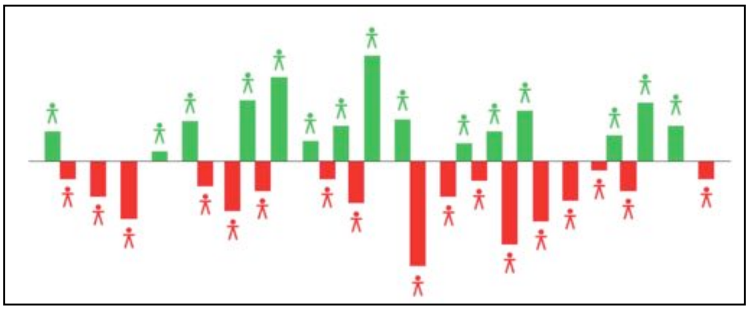


Illustration of the Clearing Principle by Stephan Eisenhut.

As Eisenhut went on to explain, however, such a clearing system would have to be "calibrated" to original production, in contrast to most existing systems today, so that all prices could ultimately be traced back to products that serve basic needs. If one were to ask, for example, how many people are needed in agriculture if it is to be both sustainable and sufficient to supply the entire population, then completely different agricultural prices would have to be worked towards. For example, it could be stated that in Germany, instead of 0.9 million, about 4.5 million people are needed in agriculture. This would significantly increase the statistical share of agriculture in today's value added (GDP). From a macroeconomic point of view, however, this would not be an increase in price, but merely a shift in the relations between those working in the various sectors of the economy.

In a clearing system, money can be created wherever there are suitable means of production, qualified people who can work on these means of production, and justified need for these services. New money is then created by booking a service expected in the future. This can be done against the usual means of production, but it can also be done against the 'means of production' (e.g. a school building) in which a teacher gives a lesson. The only decisive factor is whether the various means of production and the number of people working on them are in the right relation to each other. If money is intended as bookkeeping, one can consciously make these relations accessible to a common design.

[25] Eisenhut mentioned the Sardex project in sardinia (www.sardex.net), as an example of what he understands Keynes to have had in mind.

Eisenhut ended by briefly outlining how this type of settlement currency relates to the income statement of individual companies. The clearing house links the income and expenditure of the individual companies. Thus, he comes to the same conclusion as Desaules, that purchase money is reflected in the income statement. As Eisenhut further indicated, but could not elaborate further in his contribution due to time constraints, his considerations also lead to the fact that loan money must be seen in connection with the balance sheets of individual companies (which is also in agreement with Desaules's methodology).

Next Step(s)?

In the discussion that followed in the afternoon, we considered what next steps could be taken so that the idea that 'money is bookkeeping' can come into today's general discourse. A common agreement was reached among the participants that a key part of future research needs to focus on how accounting can become a true mirror of the economic process.

For example, how would accounting look if land, labour and capital were not considered as commodities? Desaules, Czesla und Mäder spoke of how they have already put into practice certain new ways of accounting – for example, an accounting that treats labour not as a commodity but instead treats remuneration as a sharing of the profits of the firm.

Is it possible to develop a shared accounting standard, which can be put into practice by any entrepreneurs who want to reflect in their accounts that they together with their co-workers, the capital in their firms, and the land they use cannot be treated as commodities? As Czesla said, if such an undistorted accounting standard could be made public, this might have some major effects.