The Ontology of Capital Explained by the Notion of Property Claims

Leonidas Zelmanovitz

Senior Fellow, Liberty Fund, Indianapolis IN
lzelmanovitz@libertyfund.org

Abstract

The debate about the nature of capital has been portrayed as a dichotomy between capital as composed by material goods and capital as funds expressed in monetary terms. It has been recognized in the literature that the different ontologies discussed offer 'at best a very partial account' and that is the reason why a more comprehensive ontology of capital is needed. This paper explores how much that portrait is accurate historically and as a depiction of the current state of the debate about the nature of capital. It concludes with the idea that such a view is in general a correct one, and that the notion of property claims over goods that exist in the real world is the answer to the need for a more complete ontology of capital.

1. Introduction

One of the most widely used concepts in economics is that of capital, and yet there is no consensus about its meaning. According to the Merriam-Webster Dictionary Website, the use of the word capital in English with a financial meaning started in the 16th century, probably derived from either French or Italian. These 'financial' meanings include 'accumulated goods to produce other goods' and 'accumulated possessions calculated to bring in income.'[1] The classical economists started to use the term with these colloquial 'financial' meanings, but soon they began to find new meanings for the concept. The marginal revolution starting in the 1870s has not changed that and therefore, to this day, economists have applied the concept of capital to describe many different things.

---

[1] Merriam-Webster Dictionary Website (2020); '9 Financial words with surprising origins - a capital bruise, a budget of news, the fund of a bottle, and more', in *Words at Play*. Retrieved online on September 21, 2020 from https://www.merriam-webster.com/words-at-play/financial-word-origins/capital

Arguably, this imprecision in the use of the concept goes well beyond semantic differences. It reflects contrasting views about the subject matter. That is to say, it is about the very nature of capital that there is no consensus, and this unsettled ontology of capital has undeniably hindered the advance of our knowledge about capital. As we know, the entire enterprise of scientific enquiry serves the purpose of better understanding reality, and the formulation of ontological hypotheses are tools for that purpose. To the extent that there is no agreement about what the phenomenon we want to study is, it is obvious that for that reason alone further advance of our knowledge has been hindered. This is attested by the current state of our understanding about capital after more than two hundred years of debate on the subject.[2]

After this brief introduction, let us present the structure of the paper as follows. In the next section, the dual nature of capital is discussed, and it is argued that capital not only exists *in natura* and is represented in the abstract world, but also that the relations between what exists and the ways in which they are represented matter. In section 3, the 'representational theory of capital' (RTC) is presented. In section 4, the claim that capital is represented by property claims is argued. In section 5, some implications of the existing instruments by which capital is represented are discussed. Section 6 brings the article to its conclusion.

2. Does Capital Have a Dual Nature?

It is generally argued that there are basically two schools of thought on what the nature of capital is. They are, respectively, the school that understands capital as 'material goods' and the school that sees capital as a 'fund,' that is as an amount of resources with a monetary expression. For

[2] For further discussions on 'defining the nature of something', see Rasmussen, D.B., and D. Den Uyl (2020), *The Realist Turn: Repositioning Liberalism*, Cham, Switzerland: Palgrave MacMillan.

the purposes of this article, following the late Sir John Hicks,[3] whose terminology was also used by Endres and Harper,[4] we will call the first school '*materialist*' and the latter '*fundist*'. Hicks himself maintains that the distinction 'is quite ancient.'[5] In Hicks's article, he mentions an interesting discussion among 'fundists' about whether the value of capital should be determined as 'backward looking', to accrued costs, or 'forward looking' to discounted future income.[6]

For the purposes of the present article, Hicks's main insight in his article is the thought experiment that he attributes to Henry Thornton, of conceiving the entire economy in a single balance sheet. In that balance sheet, once all debts and other claims have been cancelled, there would remain just the real goods on the asset side and the 'fund' of capital on the liability side.[7] This is an implicit concept of representation.[8]

There are many different conceptions of capital in each of these two categories,[9] with differences about, say, which material goods are or are not capital, or which funds are capital and which are not. There are even some conceptions of capital that understand it as both material goods and funds of financial resources. However, these categories still stand, both in the history

[3] Hicks, J. (1974), 'Capital controversies: ancient and modern', *American Economic Review*, Papers and Proceedings 64. available on-line at: www.jtor.org/stable/1816058.

[4] Endres, A.M., and D.A. Harper (2020), 'Capital in the history of economic thought: charting the ontological underworld', *Cambridge Journal of Economics* 44.

[5] Hicks, *op. cit.*

[6] Hicks, *op. cit.*

[7] Hicks, *op. cit.*

[8] For further discussions on the limitations of the distinction as discussed by Hicks, see Kirzner, I. (1974), 'The theory of capital' (as reprinted in *The Foundations of Modern Austrian Economics*, Dolan, E.G. ed., Kansas City: Sheed and Ward, 1976).

[9] Like any other theoretical propositions, ontological conceptions may be classified according to their main characteristics, for instance, Hicks talks about 'both schools' when discussing the economists who see the nature of capital as one of 'real goods' or as a 'fund'.

of economic thought and in current debates about capital, as the basic categories in which the nature of capital may be classified.

Discussions as recorded in the history of economic thought are extremely useful for current debates as they help us to understand how we evolved to the existing state of the art. The argument in this article is that capital should be understood as being both real world phenomena and their representation as social constructs in the form of property claims, and not a mere statement that capital should be considered as both rather than either/or. Therefore, it is far from being a narrow claim. On the contrary, it offers a theoretical framework to understand capital as a social relation - with diverse and complex forms of representations - including the one proposed by Marx. To say that capital is represented by 'property rights with a spectrum of liquidity' is neither ahistorical nor reductionist, since all forms of claims over all forms of capital as they can be apprehended *ex natura* may be so represented.

An example of the application of this classification may be found in Eduard Braun's recent article on how Austrian economists use the concept of capital as either heterogeneous material goods, or as homogeneous funds, and sometimes as both, and the implications of that for their theorizing.[10] Braun uses the same classification to define the 'Cambridge capital controversy' as between neoclassical economists arguing for a conception of capital that is homogeneous and measurable, and neo-Ricardian economists rejecting that on the grounds of the materiality of capital goods.[11]

[10] Braun, E. (2020), 'Capital as in capitalism, or capital as in capital goods, or both?', *Review of Austrian Economics*, 33. First published online on February 15, 2018.

[11] Braun, *op. cit.*

Further references to the dichotomy between the *materialist* and the *fundist* conceptions of capital may be found in David Harper and Anthony Endres's excellent summary of the explorations on the nature of capital in the history of economic thought.[12] In that article, they recognize that the different ontologies discussed offer 'at best a very partial account,' and that is the reason why a more comprehensive ontology of capital is needed. More than two hundred years of enquiry has not produced a more comprehensive ontology of capital and therefore we have *only* the existing partial accounts. We may well conclude that what we currently call capital is not reducible to a single concept. That would be an acceptable outcome, although some of the better minds in the field do not seem prepared to give up yet.[13] That is not to say that an eventual ontological position valid for all analytical cases could not adopt a view, following Menger, that capital was a 'genus' possessing many forms[14] which, incidentally, is similar to the ontological proposal presented in this article. Furthermore, I appreciate their effort to 'advance beyond the dualistic ontology' of capital, as stated in their conclusion. That is also my aim.

Harper and Endres intend to advance beyond the dualistic ontology by pointing out the different aspects of capital theory that were the focus of the scholars when they were proposing their ontologies, and the role those ontologies play in their respective theoretical edifices. I do not think that any further references to the literature are now necessary to stress the prevalence of the dual nature of capital. As we will argue below, this interpretation of capital is wrong. Rather,

[12] Endres and Harper, *op. cit.*

[13] For a presentation of John Smithin's argument for the futility of such an effort, see Smithin, J. (2018), *Rethinking the Theory of Money, Credit, and Macroeconomics: A New Statement for the Twenty-First Century*, Lanham, MD: Lexington Books. For a brief discussion of his thesis, see the section "Can capital theory be abolished?' in Zelmanovitz, L. (2020), *The Representational Theory of Capital – Property Rights and the Reification of Capital*. Lanham, MD: Lexington Books.

[14] Endres and Harper, *op. cit*.

capital may be better understood by applying the notion of property claims. Furthermore, this thesis of interpreting capital as represented by property claims encompasses the insights captured both by the dual nature of capital as material goods and as a fund with a monetary expression.

The present article does not intend to develop the argument in much more detail, something I have done in my recent book on *The Representational Theory of Capital*.[15] The goal of this article is just to focus on the ontological account, which is to be presented in order to offer an alternative to the existing conceptions of what capital is - rather than on its connections to existing problems found in the literature.

3. The Representational Theory of Capital

However, I have a somewhat different take on both the history and the current state of the debate. As it will become clear below, this different take may be summarized as saying that, neither in the literature of the past nor in current debates, the positions of the different authors have been based on so clear-cut distinction. My view is the following: - the view that there is a dual nature to capital is wrong both as an understanding of the history of economic thought and as the state of our understanding today.[16]

Starting with Böhm-Bawerk's article in 1881, 'Whether legal rights and relationships are economic goods',[17] it has been assumed (mostly implicitly) by many economists that capital

[15] Zelmanovitz, *op. cit.*

[16] Genuine ontological work requires a logical foundation, including the principle of the absolute. If it can be demonstrated that capital is not only capital goods, nor funds with monetary expressions, not even the sum of both, but that capital also exists as a social relation of property claims over goods in the real world, then, calling the alternative conception 'wrong' seems to be the 'right' thing to do. At least, until this conception may come also to be falsified.

[17] Böhm-Bawerk, Eugene (1881), 'Whether legal rights and relationships are economic goods' (as reprinted in *Shorter Classics of Böhm-Bawerk*, Volume I South Holland, IL: Libertarian Press).

goods are represented by property titles like anything else that exists in the world (when these things are not *res nullius*). That claim, of course, it is not an absolute claim. Nonetheless, the fact remains that some understanding of a 'relation' between goods in the real side of the economy and the financial side is a basic presumption for most economists. It is one with a long tradition, but one that rarely is made explicit, and even less so is any understanding of the 'representational' nature of that relation. In the 1881 piece, Böhm-Bawerk made clear the existence of a real and an abstract side in the economy, and that capital goods are represented in the abstract side of the economy by legal rights and relationships. It is true that this piece has been somewhat forgotten by the profession and never become canonic. Yet, the theorizing is there, and it seems to me a mistaken interpretation of his argument to say that because legal rights are not part of the real side of the economy, they are not of economic value. It seems to me even to be absurd to say that. This is the reason why the author of the present article has proposed to rehabilitate the old Böhm-Bawerkian 'rights and relationships' view, by offering a formal model,[18] with the hope that now it will be given the consideration that it deserves. For instance, it is difficult to imagine how Menger's ontology of economic goods, in 1871, with categories such as 'economic good', 'commodity', and 'exchange' could be conceived without the concept of property rights and the representation of claims over goods *ex natura* in the abstract realm in which those claims are 'exchanged'. And yet, there are discussions of Menger's classification that do not explicitly mention them.[19]

[18] Zelmanovitz, *op. cit.*

[19] For example, see Zuniga, Gloria (1999), 'An ontology of economic objects', *American Journal of Economics and Sociology*, April. Available on-line at: https://mpra.ub.uni-muenchen.de/5566/1/MPRA_paper_5566.pdf

Exceptionally, that assumption was made explicit by Lachman, in Chapter VI of *Capital and its Structure*, when he discusses the relations between the material goods in the structure of production and the property claims representing them in the asset structure. However, Lachman acknowledges the relation matter-of-factly, without discussing its significance or any of its implications. For instance, he mentions that sometimes capital goods are 'directly' represented in the asset structure, and sometimes they are not, without any elaboration.[20]

An example of this is that the stock of some intermediary goods, say, tires, owned by a car assembly corporation, are at one and the same time a certain quantity of material goods and an entry in the financial statements of the same corporation, as part of their inventory and therefore of their working capital. To advance the example further let us suppose the corporation needs cash. In order to achieve that, they may decide to sell some of the tires they have as part of their inventory or, alternatively, they may issue a promissory note with that inventory of tires as a collateral. We are talking about the same tires and they have both a material existence and an abstract representation at the same time, to the extent that someone has a claim over them, they are the property of someone.

Therefore, capital goods and processes do have an existence in this world, even if some of them are immaterial, like intellectual property (IP), and, at the same time, they are represented in property claims with different degrees of liquidity. It is worth noting that capital goods have myriad attributes, some of which are in the public domain and others in the private domain, but unless something belongs to no one, they are all captured by property titles. Which is, by the way, what means to be in the 'public domain'. That is not to say that there is just a single definition of property rights. On the contrary, property rights have different bundles of features

[20] Lachman, L., (1956), *Capital & Its Structure* (as reprinted by The Ludwig von Mises Institute, Auburn, AL: 2007).

and what serves to define proprietorship of land is different from what serves to define IP, what serves to define public uses is different from what serves to define private uses. Yet, a minimal commonality among these diverse claims exists and that is why, for the purposes of the formal model, we may talk about all those different claims as if they were all 'property claims'.[21]

The formal model mentioned above is based on a very simple proposition, that on Earth, where there is only one species of rational beings, everything that exists belongs either to someone or to no-one, that is Wt = Pr + Rn. It is from this basic enunciation, after some elaboration, that I derive the model for a representational theory of capital (RTC).[22]

Let us consider some examples. First, imagine a piece of agricultural land. That land has a property title, say a freehold deed. And yet, because agricultural land varies immensely in its features, its value is not clear, therefore, the demand for any given piece of land is limited to a relatively small number of potential buyers. Now, let us imagine that that piece of land belongs to a real estate investment trust (REIT) specialized in the ownership of agricultural land, one that has its shares traded in some organized secondary market like the New York Stock Exchange (NYSE). Any day of the year that the NYSE is open, you can buy or sell the shares of that REIT with minimal difference between the bid and asked price, a price you know because it is made public by the stock exchange in real time as the transactions are cleared. In the first example, the land has good title, but its value is not liquid and certain. The best you can do is to estimate a range around x US dollars per acre. While, in the second example, the shares of the REIT

[21] For a discussion about the contributions of Hernando de Soto (in *The Other Path* and *The Mystery of Capital*), and others, on the mechanisms for representing capital both in the formal and in the informal sector, and the economic consequences of that, see Zelmanovitz, *op. cit.*

[22] Out of necessity, for the sake of the formal model, security of possession, in the broadest sense possible is reduced to a single 'bundle' of rights called 'property right'. That is not to say that such simplification is an adequate description of reality, it is not, and it is not meant to be that. For details, see Zelmanovitz, *op. cit.*

represent ownership of the land owned by the REIT, those shares have a market price made public second by second by the NYSE. The price may vary from second to second, but it is liquid and certain at any particular moment.

When we think about the nature of capital, between the heterogeneous collections of material goods, and the funds kept in assets with monetary properties, say, cash, bank deposits, or shares of money market mutual funds, there is an immense continuum of other claims on property with varied degrees of liquidity. Capital goods are represented directly by some property titles, such as the freehold deed on the agricultural land or the shares of an REIT owning similar land. Claims on capital goods may be general claims on property given by ownership of monetary instruments that are so 'liquid' as to represent a potential claim on everything that is for sale, including capital goods. Therefore, it is a somewhat impoverished vision to see the dichotomy, both in history and in our current understanding of capital, as one between conceptions of capital as material goods and as funds. It would be better to say that the 'dual nature' of capital is a dichotomy between the real (even if immaterial) capital that exists in the world and the different forms in which claims over them are represented, some of them being so liquid as to have monetary properties. If the nature of capital can be understood in that way, capital will still have a 'dialectic' nature, but it is one that elucidates why capital is at the same time composed by goods, ideas, and processes *and* the claims over them. One that will help us to understand why the relation between capital as material goods and the claims over them are sometimes direct and at other times they are not.[23] And also, one that will help us to visualize

[23] There are many circumstances in which there is not a 'direct' relation between capital as material goods (and processes) and claims over them. Some of those circumstances have to do with the fact that the nature of some financial instruments are derivatives of equity claims, for instance, all debt instruments. Another example of the 'indirect' relation between some financial instruments and the structure of production of society, which all stream of revenues ultimately come from, are instruments of public debt issued against tax revenues, being those particular

why the monetary expression of some claims may be actualized in an exchange, and others may be frustrated.

Take, for instance, Jacques Rueff's concept of 'false rights' that was used in order to explain the operations of monetary inflation.[24] For Rueff the government, by the use of its monetary prerogatives may create claims on goods by the production of exogenous money, which have no correspondence to the production of goods for sale in the market. It is this disconnect between 'goods' and 'claims on goods' that frustrates the expectations of the holders of some of the claims, since that equivalence was broken by the introduction of 'false rights'. Similar effects may happen to representations of capital that no longer represent claims over things in the real world as happens with unsustainable levels of public debt or with shares in money-losing businesses. As we can see from these examples, with the application of the notion of the representation of capital goods by property claims, a significant portion of the perplexities encountered in the discussions about capital in the literature can be dispelled. As we can see from the references in the literature already mentioned, this notion of representation has already been present, albeit mostly implicitly and underdeveloped, in the debates about the nature of capital. The attribution of either a 'materialist' or a 'fundist' position to some of the participants in those debates misses the subtleties of their reasoning. Finally, if the RTC is accepted, and applied by economists, as involving *both* the object of property claims and the property claims themselves, this notion of property rights with a spectrum of liquidity may allow for a unified

taxes or the general funds of the state. They are, in essence, claims on the streams of revenue that the equity claims over the structure of production are entitled to, and in this sense, they are derivatives of those claims.

[24] Rueff, J. (1964), *El Orden Social*, Madrid: Ediciones de Aguilar, S.A.

ontology to be applied in all cases - as required by the different research agendas followed by the different researchers.[25]

4. The Claim Explained

The RTC proposes that in the abstract side of the economy, financial instruments are particularly liquid forms of property claims over things that exist in the real world, particularly over capital goods, ideas and processes. This central claim of the RTC is based on the fact that in the abstract realm of social constructs, all human societies create instruments to symbolize claims on things that exist in the real world in order to communicate how their use is determined in any given society. We may call all those arrangements property rights in a very broad sense. A tribal society may have had collective property rights vested in the entire tribe, a modern society may have a complex structure with different forms of collective and private property rights represented by a myriad of different instruments. An international treaty determines the common property of the ocean to all nations but recognizes territorial waters and special economic zones to sovereign states. The constitution of a country may determine that the bodies of water are public and private property starts on the shore at high tide. The civil law of a country may determine the rigorous procedures to register real estate as private property claims to be opposed *erga hominem*, and a less rigorous procedure may be required to register movable forms of personal property. Common law and customs may define the limits of a property in a rural area and in a dense urban area differently. In Roman times, the transmission and acquisition of a real

[25] I understand how bold is the claim that the present proposal represents a 'unified ontology' of capital. I do not claim, however, to have 'discovered' it, but simply to have called attention to what has been with us since the above mentioned piece in 1881 by Bohm-Bawerk, something that has had clear applications such as in Rueff's *Social Order* (*op. cit.*). At most, my claim is to have proposed a formal presentation of the argument that capital is to be understood as either goods that exist in the world or property claims over those goods. This is an understanding that provides a comprehensive framework.

estate property was done by an elaborated ceremony, with emphasis on the presence of testimony in order to represent that the claim over that property was transferred from Caius to Titus and then belonged to Titus. In Brazil, where I was born, a country with a continental legal system, there is a network of public registrars covering the entire country and any transference of real estate property is only recognized to have occurred once the contract transferring a given piece of real estate is registered in the office in the jurisdiction of that property. Claims over Bitcoin are registered in the decentralized ledger provided by the network of computers managing the block-chains in which the transactions with that crypto-currency are registered. In all the examples above, there are goods (material and immaterial) in the real world that are represented by different forms of property claims. The representation, therefore, is common to all human societies, what varies are the forms it takes.

Capital is perhaps the most difficult concept to understand in economics and there are many reasons for that. For one, we apply the concept of capital to many different things and it is impossible to be explicit at every time to make clear what we have in mind when referring to capital in that instance. The way in which the science of economics has evolved adds to the confusion. Economists understand capital either as collections of heterogeneous 'goods' applied to the production of more goods, or as homogeneous financial 'funds' that are available. When treated as 'goods', capital is usually distinguished from 'consumer goods'. When treated as 'funds', capital is usually expressed as sums of money. Both uses of the concept are correct, but incomplete, according to the RTC. What is proposed by the RTC is that there is a representation of all capital 'goods', being them material or immaterial, in different forms of property claims, being some of those forms, instruments that are so liquid as to be 'as good as money'. This proposal is simply an extension to capital of the idea that everything that exists in society belongs to someone or it is a *res nullius*.

Because capital ‘goods’ are represented by different forms of property claims not only financial instruments, there is a relation between capital ‘goods’ and financial instruments. However, this is not a direct relation. There are some capital goods that are not represented by financial instruments (but by other forms of property titles), and there are financial instruments that do not represent capital goods (debt instruments in general, public debt in particular, derivatives, *etc*.). If, for the sake of simplicity, we adopt a model by which only equity titles have direct claims over the production of more goods and the stream of revenues associated with them, then all the debt claims over streams of revenues are derivative of the equity claims, and public debt is derivate of the taxing prerogatives of the sovereign over the stream of revenues that originated in the production of more goods and services. In this sense, there are financial instruments, such as titles representative of public debt, that do not represent capital ‘goods’ in the real world.

In a monetary economy, there is a relation, but not a direct relation, between the quantity of goods for sale and the stock of money. In other words, prices are not absolutely inelastic. In the same way as stated above, there is a relation, albeit not a direct one, between capital in the real side of the economy and claims over wealth in the abstract side of the economy. The fact that these relations are not Cartesian seems to be a good thing. Because exchanges are indirect and cleared by money, we have a price system that has elevated humankind to the complex division of labor and level productivity that we have today. This very same aspect of reality, however, allows for some manipulation of the money supply that, in its most malignant form, degenerates into hyperinflation and dis-coordination of economic activities.

The heterogeneous feature of capital goods, ideas, and processes in the real world, among many possible dimensions, exists over a continuum between the extreme of 'consumer goodness' and 'capitalness'. Some goods are 'capital' not because of any intrinsic characteristic, but because an entrepreneur found a way to put it to use in order to produce more goods. Therefore, not even the amount of capital goods in existence at any given time is certain, much less the many manifestations in which claims over their production are contracted among the individual economic agents.

5. 'Good Money' and 'Good' Financial Instruments

The result of what has just been stated is to suggest that the fact that these relations are not direct may actually be a good thing. But, in order to assess whether something is good or bad, we need to stipulate first what its function is. Money's primary function in society is to facilitate the coordination of economic activities among its members, that is, to facilitate the division of labor. That is done by serving as an instrument that is a medium of exchange and means of payment in general, a unit of account and a store of value. Good money is a money that performs better that ultimate function; and for that, we do not need to delve into the question of which of its instrumental functions, if any, takes precedence over the others.[26] Other goals, such as being an instrument for the fiscal needs of the state, are secondary goals and will be better performed if the monetary instruments perform well their primary function. The representation of capital by property claims, among them, financial instruments, serves the function of facilitating the

[26] That is not to say that inquiries on the nature of money are not worthwhile and illuminating about its role in human societies, quite the opposite is true. It is just the case that the argument here about the role of money in advancing social coordination is done by serving as an instrument for *all* those ends, so, no need to advance that discussion here. For my thoughts on the essence of money, see Zelmanovitz, Leonidas (2016) *The Ontology and Function of Money: The Philosophical Fundamentals of Monetary Institutions*. Lanham, MD: Lexington Books.

mobilization of the real wealth in society to produce more goods. This representation may be considered good, or bad, as a consequence of how well it fulfills that primary function.

Thinking about the applications of the RTC, arguably the forms by which capital in the real world is represented by financial instruments in capital markets in different societies may be compared and ranked according to their efficiency. For example, I argue that the representation of claims, which derives from the taxing prerogatives of the sovereign - that is, instruments of public debt - as if they were similar to investments in capital formation, is a distortion in our system of how capital is represented via financial instruments. Such a distortion compromises the efficiency of the system. In order to make such a claim, however, we need to move a step back, get some distance from the arrangements that we currently have in place, and conceive of a Weberian ideal type. Once we have done that, we may be able to assess how much our current arrangements differ from the most efficient arrangement we are able to conceive.[27] Ideally, I think, the fact that investments in public debt are only marginally related to capital formation, even in a very broad sense, is reason enough to have them categorized separately from instruments that do represent real wealth. For instance, prior to the current pandemic, the deficit of the US federal budget was about 20% of all expenditures, and capital formation, even in the vague and imprecise way in which it is considered in the national accounts, amounted to only 12% of the budget. In applying just the 'golden rule' of public finances (which determines that debt should not be used to pay for expenses), only 60% of the debt would adhere to the rule. Not

[27] One possible improvement over current arrangements would be the adoption of a monetary policy such as the 'zero real policy rate' (ZRPR) that is, a monetary policy that would keep real interest rates 'low but still positive', as advocated by Smithin on many occasions as, for example in Smithin, J. (2008), 'The rate of interest, monetary policy, and the concept of 'thrift'', *International Journal of Political Economy* 37. The distortions pointed out here, I would argue, go beyond sound management of monetary policy, since distortions like the ones mentioned here are caused by excesses in fiscal policy, that for one reason or another, have not yet been captured in the pricing of the financial instruments representative of public debt.

to mention that it is doubtful whether that 60% of the debt would generate sufficient revenue to repay the investors of that portion of the debt, much less the whole.[28]

Nowadays, of course, things have only gotten worse. It is a distortion in the allocation of capital in society that pensioners and other savers, who would require to be able to access consumption of goods in the future, think that they are investing in a capital structure that would generate goods in the future sufficient to meet their needs. In reality, their savings are being spent in current consumption of beneficiaries of Uncle Sam's (that is, the American government's) largesse. Such a distortion of our perception of the reality translates into statements such as that we are experiencing low growth because we are awash with savings, that there is an excess of savings, etc.[29] The reality, however, is that the existing savings have been consumed and no capital formation sufficient to generate the income necessary to repay all the existing claims exists. In an ideal type of capital markets, claims on present real wealth or the production of future wealth would be distinct from claims deriving from the powers to tax. Note, that it not that the power to tax may entitle even a better assurance of its repayment. That may or may not be the case, but this is not the point. The point is that the claims do not represent what

[28] Such reasoning, incidentally, is even compatible with the arguments of Modern Monetary Theory, if MMT is understood just as an instrument for transferring purchasing power from the public to certain politically decided ends, under a framework that acknowledges the scarcity of real resources, as proposed, for instance, by Nersisyan, Y., and R. Wray (2019) 'How to pay for the green new deal', *Working Paper #931*, Levy Economics Institute, Bard College, NY. For a brief discussion of their claim in that paper, see Zelmanovitz (2019), 'Modern monetary theory and the moral equivalent of war', posted on *Law & Liberty* on November. https://lawliberty.org/modern-monetary-theory-and-the-moral-equivalent-of-war/

[29] The distortion mentioned here should not be confounded with the 'paradox of thrift' as described by Keynes. Keynes was pointing out the existence of real savings (represented by financial claims against private debtors with equity positions on the existing structure of production, that is, industrial plants, warehouses, shops*, etc.*) under circumstances of the business cycle that would not recommend further investments. What I am mentioning here is the existence of financial claims owned by savers and owed by the government, which have spent the borrowed resources not in productive endeavors but on current spending or, at the very least, on unprofitable investments. Such a destruction of real wealth, for different reasons, has not yet been completely reflected on the pricing of those claims. Be that as it may, it is, in my opinion, a different case from the one described by Keynes and therefore may require a different solution.

they were supposed to represent, that is, a match between new savings and new investments in the production of future goods, which, hopefully, will be sufficient to repay the saver plus remunerate the investor for the privation of their present consumption.

6. Conclusion

The RTC affirms that capital cannot be understood just as goods and processes on the real side of the economy, or financial instruments in the abstract side of the economy, or even both. By bringing the concept of property claims to the fore, the RTC argues that capital may only be understood if we acknowledge that capital goods in the real side of the economy are represented by property claims in the abstract side. By acknowledging that a relation of representation exists, it necessarily follows from this that the ways in which the legal institutions of a given society allow for that representation to happen may turn out to be better, more efficient, than other institutional designs. To escape from the false dichotomy that has plagued capital theory seems to be the first step necessary to accept this more nuanced ontology of capital, and that is the purpose intended with this paper. Given the RTC proposal that is, once it is accepted that every piece of capital *in natura* is represented by some property claim, and that every financial instrument is a form of a property claim (which entitles us to ask, a claim on what?), I think I have offered not only a tool to identify the causes of some of our maladies, such as slow economic growth, but also to assess concrete proposals of how to address the shortcomings in our current institutional arrangements. I would like to conclude by inviting others to make good use of this tool in order to increase our wellbeing, both at the societal and individual levels.