



# The Original Meaning of ‘Liquidity Trap’ in the Early Discussions Between Robertson and Keynes

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## 17.1 INTRODUCTION

The concept of ‘liquidity trap’ has recently seen a revival in macroeconomics.<sup>1</sup> It was first resumed at the end of the 1990s as a theoretical tool to interpret the stagnation of the Japanese economy (Krugman 1998). After the outbreak of the global financial crisis, it was used as an analytical device to explain the persistence of low levels of economic activity and the failure of conventional monetary policy to boost the economy (Blanchard et al. 2010; Werning 2011; Korinek and Simsek 2014).

The definition of ‘liquidity trap’, however, is not univocal; indeed, there are differing views on the analytical conditions that characterize it

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(e.g. Krugman 2010; Barends 2011). In most textbooks and macroeconomic models, the liquidity trap is identified with the so-called zero lower bound on interest rates (e.g. Blanchard 2017). Other well-known contributions have, by contrast, stressed that monetary policy may prove ineffective even at positive levels of the interest rate (e.g. Hicks 1937, 1939; Fellner 1992). The impression is that, despite its wide use in macroeconomics textbooks and modelling, there is some ambiguity as to what the liquidity trap really is and the theoretical reasons for its occurrence.<sup>2</sup>

In the article that contributed to reviving the use of the concept, Krugman (1998, p. 137) identified the liquidity trap as a condition of ineffectiveness of monetary policy occurring when money and bonds become perfect substitutes, at a zero level of the nominal interest rate. This situation is known in literature as the ‘zero lower bound’, since it is assumed that the nominal interest rate cannot become negative.<sup>3</sup> This interpretation of the liquidity trap is also endorsed by Blanchard (2017, pp. 80–81), who directly refers to Keynes: ‘The concept of a liquidity trap (i.e. a situation in which increasing the amount of money [“Liquidity”] does not have an effect on the interest rate [the liquidity is “trapped”]), was developed by Keynes in the 1930s, although the expression itself came later’ (Blanchard 2017, p. 80, square brackets in the original text).

However, this definition does not correspond to Keynes’s description of the case of ineffectiveness of monetary policy envisaged in Chapter 15 of the *General Theory*:

There is the possibility that, ... after the rate of interest has fallen to a certain level, liquidity-preference can become virtually absolute in the sense that almost everyone prefers cash to holding a debt which yields so low a rate of interest. In this event the monetary authority would have lost effective control over the rate of interest. (Keynes [1936] 1973, p. 207)

According to Keynes, as already noted by Barends (2011), ineffectiveness of monetary policy is not associated with perfect substitutability between money and bonds (at an interest rate equal to zero) but rather with the opposite condition, i.e. that money is *absolutely* preferred to any other asset (at a low level of the interest rate). In Keynes’s perspective, as this chapter will clarify, the possible failure of monetary policy to influence the interest rate<sup>4</sup> is ascribed to the inherent characteristics of money as a store of value in a context of ‘radical’ uncertainty, which makes liquidity behave as a ‘trap’, rather than to the instance of an interest rate equal

or very close to zero. As we shall see, in Keynes and Robertson's early discussions on this issue, liquidity is not 'trapped', as Blanchard's reading of Keynes's thought suggests, but liquidity is itself the trap.

In the *General Theory* (*GT*), nevertheless, the loss of control over the interest rate by the central bank is described as a very rare occurrence: 'whilst this limiting case might become practically important in the future, I know of no example of it hitherto' (Keynes [1936] 1973, p. 207). The only instance that he mentions concerns 'a financial crisis or crisis of liquidation' in the US in 1932, 'when scarcely anyone could be induced to part with holdings of money *on any reasonable terms*' (Keynes [1936] 1973, pp. 207–208, emphasis added).

In a lecture entitled 'The economic prospects 1932', Keynes had described the situation precisely in terms of a 'competitive struggle for liquidity' induced by uncertainty about the future value of assets, financed with liabilities fixed in monetary terms:

We are now in the phase where the risk of carrying assets with borrowed money is so great that there is a competitive panic to get liquid. And each individual who succeeds in getting more liquid forces down the price of assets in the process of getting liquid, with the result that the margins of other individuals are impaired and their courage undermined. And so the process continues. (Keynes [1932] 1982, pp. 39–40)

The misalignment between Keynes's analysis of the phenomenon and the way contemporary macroeconomists understand the liquidity trap calls for closer investigation into the original meaning of the expression. Only two scholars have specifically devoted attention to the way the liquidity trap concept evolved in the history of economic thought: Boianovsky (2004), who focused mainly on Hicks's interpretation of the liquidity trap and the following developments in macroeconomics, and Barends (2011, 2018), who put it in relation with the 'banana parable' used by Keynes in his *Treatise on Money* to illustrate the paradox of thrift. None of these contributions analyse the correspondence between Keynes and Robertson subsequent to publication of the *GT* on the role of liquidity as a 'trap', which is the central part of our investigation.<sup>5</sup>

## 17.2 ROBERTSON–KEYNES EXCHANGES IN 1936

The first reference we found in Robertson's writings to the word 'trap' in relation to liquidity is contained in 'Some Notes on Mr. Keynes' General

Theory of Employment', published in the *Quarterly Journal of Economics* (*QJE*) in November 1936. Robertson had sent a copy to Keynes,<sup>6</sup> who carefully read and commented on it, as testified by his handwritten annotations in the margins (Keynes Papers, KP hereafter, L/R/121–133).<sup>7</sup> Numerous studies have been dedicated to the correspondence between Keynes and Robertson (Presley 1992a; Mizen et al. 1997; Moggridge 2006; Sanfilippo 2005, 2008), as well as their intellectual and personal relationship (Samuelson 1963; Hicks 1964; Dennison 1968; Robinson 1975; Moggridge 1992; Skidelsky 1992; Fletcher 2000), not to speak of the liquidity preference vs. loanable funds controversy, which saw them sharply opposed on the question of interest rate determination (e.g. Hicks 1939; Presley 1992b; Fletcher 2000). Nevertheless, to the best of our knowledge, no study has hitherto focused on Keynes's manuscript comments on Robertson's 1936 article, and particularly those regarding the possible ineffectiveness of monetary policy. Analysis of this unpublished material is one of the contributions offered in this chapter, together with closer analysis of the correspondence that has been published but has received only scant reference in the literature, and in particular Keynes's letter containing his notes on Robertson's review, and Robertson's reply with his counternotes.<sup>8</sup>

When, on 28 August 1936, Robertson wrote to Keynes to inform him that he had spent 'a lot of time' on the *GT* that Summer and that he intended to publish 'in the *QJE* or elsewhere' some notes on the book without any further confrontation with him, Keynes (then Editor of the *Economic Journal*) replied:

I agree that it is much better that you should print your criticisms without any further prior debate with me. But I would be grateful if you could let me have them for the E.J. The number of contributions sent me, which deal with different aspects of my book, is embarrassing me as editor and it is difficult to decide how many it is right and reasonable to print. But it would help the position a good deal if I could have a critique from you; at any rate it might do a little to protect me from the charge of making the E.J. a propagandist organ! (letter from JMK to DHR, 20 September 1936, Robertson Papers, C2/5/13–17)<sup>9</sup>

Robertson evidently did not accept Keynes's offer, since he eventually published his paper in the *QJE*. It is impossible to say if this decision was due merely to the fact that he had already sent the manuscript to the *QJE*

or also to the need he felt to mark a distance from Keynes and the Keynesian creed. Having received Robertson's *QJE* article, Keynes replied to him both privately and publicly. As far as the public debate is concerned, Keynes published in the *QJE* the famous article (1937a), in which he provided not only a clarification of the notion of 'fundamental' uncertainty in the *GT*, but also a collective reply to the reviews that appeared in the November 1936 issue of the *QJE*, including the one by Robertson.<sup>10</sup> But Keynes also replied to Robertson in private, in a letter dated 13 December 1936,<sup>11</sup> where he refers to the annotations he had written in the margins of his paper, clarifying that he had summarized 'the substance' of them in the letter. Nevertheless, comparing Keynes's original manuscript comments on his copy of Robertson's article and what Keynes wrote in the above letter—as we may have expected, given the different nature of the two documents—we have found several significant differences, and this is why we consider Keynes's manuscript annotations worth investigating in their own right, as we shall see in the next section.

Indeed, the annotations in the margins represent Keynes's first and unfiltered reaction on reading Robertson's published comments—which Keynes had not seen before, as we have reconstructed above. These annotations were jotted down by Keynes for his own use, while we may presume that the letter sent to Robertson was a mediated text, which had been 'adjusted' by Keynes in relation to the intended reader (Robertson himself); a reader who was not simply a colleague, a long-life friend, a fundamental collaborator of Keynes in the 1920s and a staunch opponent in the 1930s, but also one of the most renowned Cambridge monetary economists at the time.<sup>12</sup>

Robertson, in turn, made his own manuscript 'counternotes' on specific points in Keynes's letter and sent them back to Keynes at the end of December, together with an accompanying letter, some general comments on Keynes's remarks and an additional note written '[a]fter reading Harrod's *Econometrica* article and discussing it with Pigou' (in Keynes 1973, p. 99).<sup>13</sup>

The two letters, together with their respective notes and counternotes, represent relevant sources of information for our study on the origin of the notion of 'liquidity trap'.

### 17.3 ROBERTSON'S ANALYSIS OF LIQUIDITY AS A TRAP IN THE 1936 ARTICLE AND THE ENSUING DEBATE WITH KEYNES

While the first two sections of Robertson's review are devoted to a discussion of effective demand and the multiplier, the third section focuses on Keynes's treatment of the interest rate. Robertson answers to the liquidity preference theory with his own loanable funds theory. We shall not enter into the arguments that Robertson uses to refute Keynes's theory of interest, since they belong to a much broader controversy that continued over several years and has been extensively discussed in the literature.<sup>14</sup> Suffice it to recall here that in Keynes's liquidity preference theory the interest rate 'serves to equate demand and supply of hoards' (Keynes 1973, p. 213), whereas Robertson explains the interest rate as the price equating the demand and supply of loanable funds (Robertson 1936, p. 183). It is only towards the end of Robertson's article, in §8, that Robertson discusses the potential threat that the liquidity preference represents for real investments. He also acknowledges that a monetary expansion may not be an effective countermeasure against this threat. This is where Robertson describes liquidity itself as a potential 'trap for savings'.

Robertson is concerned with the consequences of an act of saving that takes the form of a purchase of securities on the stock market. If there is a negatively inclined liquidity preference, and if the producers of consumption goods do not issue new securities to cover the losses following from the reduced sales, then an increase in savings will cause the prices of securities to rise, and hence the interest rate to decline; this, in turn, will induce part of the public to hold an increased quantity of money, and hence to sell part of their securities, partially counterbalancing the purchase of securities on the part of those who have increased their savings, and so will dampen the reduction of the interest rate caused by the enhanced savings.

If, on the contrary, the demand for money is not affected by changes in the interest rate (i.e. if the liquidity preference schedule is a vertical line), then the increase in savings will lead to a more substantial increase in the price of securities, and hence to a more substantial reduction in the interest rate, since the increased demand for securities will not be counterbalanced by an increased supply. Therefore, the existence of a negatively sloping liquidity preference will reduce the expansionary effects of an increase in savings on investments and income.

Here Robertson makes some concessions to Keynes's perspective admitting that the interest rate is at least partially a monetary phenomenon, depending on the demand for money for the purpose of holding it and not only of spending it on real investments. Hence, Robertson concludes that: 'Liquidity appears on the demand side of the market for savings as an equal partner (tho no more) with Productivity, and as a potential source of damage' (Robertson 1936, p. 189).

In other words, savings may take the form of investments (with a view to enhancing productivity) or of hoarding (liquidity); in the latter case, they will have a harmful effect in terms of lower income. Robertson insists that the options of hoarding and investing are 'equal partners', thereby suggesting, as he has claimed from the beginning of his *Notes*, that the demand for money does not depend only on 'the desire of holding more money in lieu of income-yielding assets' but also on the 'prospect of using more money profitably in business' (Robertson 1936, p. 176).

In the last part of the article, Robertson suggests that such a situation would call for an expansionary monetary policy, or in other words for a reduction of the bank rate to match the (now lower) 'natural rate' in order to ensure that money be 'neutral' (and that savings be equal to investments) (Robertson 1936, p. 189, fn. 7). Keynes reacts to this passage noting in the margin: 'Impossible to say until "neutral" is defined' (L/R/132). In his letter of reply to Robertson, Keynes makes his perplexity even more explicit, by adding: 'I believe it [neutral money] to be a nonsense notion' (Keynes 1973, p. 93). This passage is of crucial importance, because it bears evidence of a radical difference between the positions of Robertson and Keynes. Robertson remained of the idea, throughout his life, that 'the trouble about [Keynes's] theory is that while it tells us something about what determines the divergence between the actual and the normal rates, it tells us nothing whatever about what determines the normal rate and therefore, given the degree of divergence, the actual rate' (Robertson 1963a, p. 65; see also Robertson 1940a, p. 25 and a letter to R.F. Harrod [Harrod 2003, vol. 2, p. 589], quoted by Bridel 2019, p. 6).

This is the true theoretical ridge that marks the divergence and misunderstanding between the two Cambridge economists (and the strands of thought that they have inspired). Robertson believes that Keynes, with the liquidity preference, captured only a factor of temporary disturbance, failing to explain the structural determinants of the natural interest rate, namely 'thrift' and 'productivity', i.e. savings and investments. Keynes,

instead, does not even believe in the existence of a natural interest rate and is not afraid ‘to leave the rate of interest hanging in the air’ (Keynes 1973, p. 212), and to make it depend entirely on the speculative demand for money in relation to the supply of money to accommodate it. Indeed, in the logic of the *GT*, there is nothing natural about the interest rate: on the contrary, it is ‘highly conventional’ (Keynes [1936] 1973, p. 203). Significantly, Robertson does not reply on this point in his counternotes: it remains his blind spot, which causes him to miss the essence of the liquidity preference theory as a full and consistent theory of the interest rate.

In fact, Robertson concedes that it is theoretically possible that, under certain circumstances, liquidity preference can create a difficulty for monetary policy to reduce the interest rate with a view to boosting the economy. However, Robertson immediately advances several counterarguments to downplay the role of liquidity preference in preventing the interest rate from falling (to the level required to restore what he calls equilibrium), particularly in the long run.

(1) Robertson’s first objection to the relevance of monetary policy ineffectiveness revolves around the speculative demand for money as a decisive component of the liquidity preference in the determination of the interest rate: ‘According to Mr. Keynes, the liquidity schedule proper is a phenomenon of “speculation,” turning on the expectation of *reversals* in the downward movement of interest rates. It is not evident that it is right to attach much importance to it in connection with the long period problem now under discussion’ (Robertson 1936, p. 189).

Robertson seems to suggest that, since the speculative demand for money depends on the expectation of future increases in the interest rate, it should be relevant only in the short run (where indeed fluctuations of the interest rate can be expected).

It is worth noting that this notion of the speculative demand for money advanced by Robertson is consistent with the notion implied by Keynes in *GT*, where he describes the speculative demand as dependent on ‘the desire on the part of certain individuals to hold cash (because at that level they feel “bearish” of the future of bonds)’ (Keynes [1936] 1973, p. 171).

It is all the more surprising, then, that on reading the passage quoted above, Keynes should suggest a significant correction in the description of the factor underlying the liquidity preference: in fact, he put brackets around the expression ‘the expectation of *reversals* in the downward



movement of interest rates' and proposed to substitute it with 'the uncertainty of the future'.

This correction seems to signal a significant shift in what Keynes himself regarded as the determinants of the liquidity preference (and hence, through the latter, of the interest rate): this is, indeed, the first instance in which Keynes lays emphasis on the fact that the demand for money may be determined not so much by the expectation of a change in the interest rate as, rather, by the fear of unexpected changes. In other words (adhering more closely to Keynes's *Theory of Probability*), what counts for the decision to retain cash is not merely the probability associated with future interest rates, but the 'weight of the arguments' upon which those probabilities are calculated.<sup>15</sup> Hence, the demand for money may be altered by a change not only in expectations but also in the degree of confidence with which expectations are held.

Given the dramatic implications of this new perspective, it is even more surprising that this comment is the only major note that Keynes did not include in the letter he sent to Robertson. It is hard to believe that Keynes deliberately decided to exclude this point because he thought that it was not relevant. It is perhaps safer to assume, instead, that Keynes believed the issue to be too important to leave to a short note at the bottom of a letter. In fact, it seems to capture a crucial aspect of the liquidity preference, to which Keynes eventually gave prominence in his 1937 article for the *QJE* where he intended to better clarify the aspects of his theory to which he attached most importance. It is here that Keynes—as is well known<sup>16</sup>—defines the interest rate as 'the measure of the degree of our disquietude', reflecting lack of confidence in the ability to produce reliable forecasts in the face of radical uncertainty (Keynes 1937a, p. 216).

(2) Robertson's second argument against the danger of hoarding revolves around the other component of the demand for money. In fact, Robertson argues that also the demand for money for transaction and precautionary purposes may respond to variations in the interest rate. Moreover, he suggests that those who hold money for these purposes will weigh the advantage of holding money (in terms of convenience and security) against the disadvantage of not earning the 'rate of return actually obtainable from investment'. Therefore, Robertson concludes that, in the long run, the interest rate will depend predominantly on Productivity rather than on Liquidity [preference]: 'Liquidity in the long run appears perhaps rather as a kind of ghost or poor relation of Productivity than as its equal partner, and as likely to furnish a progressively less dangerous

*trap for savings* as, with a successful process of saving, the normal rate of interest declines' (Robertson 1936, p. 190; emphasis added).

This observation reiterates Robertson's argument that, in the long run, the interest rate is mainly determined by real factors (the productivity of capital), rather than by monetary factors (liquidity preference).

Keynes objects, both in the pencil notes and in his letter of reply to Robertson, that the causal relationship is necessarily reversed, since productivity depends on investments, which in turn depend on the interest rate: 'But productivity depends on quantum of capital which depends on what liquidity preference has been. This sentence looks like a relapse into a confusion between the marginal efficiency of capital and the rate of interest' (Keynes 1973, p. 94).

Once again, Keynes's remarks seem to be guided by the intention, not to dispute the relevance of productivity in affecting the interest rate, but to show that it only enters the picture 'through the back door', i.e. under the conditions for the supply of loans that are determined by the liquidity preference.

To this Robertson replies in his counternotes insisting on the fact that, even when we consider the demand for money as determined by the 'convenience and security' of holding it (instead of spending it), it is only possible to translate such convenience into a quantity by referring to the return that the money would yield if it were invested:

I do not think you have apprehended my point (2), which is that the translation of a schedule of psychic doses of convenience and security into a schedule of rates per cent will be influenced by the rate of return obtainable from investment, – people who, when capital is scarce, would regard the  $n^{\text{th}}$  dose of convenience and security as worth (say) 8 per cent will, when capital is abundant, come to regard it as only worth (say) 5 per cent. I'm afraid this sentence shows our minds are still pretty far from meeting! (Keynes 1973, p. 94)

Robertson's argument builds on the implicit application of a concept of the marginal utility and opportunity cost of holding money, as opposed to investing it. Following this line of reasoning, however, Robertson fails to acknowledge that the 'convenience and security' of holding cash depend on the uncertainty of the future, and not on the level of the interest rate.

In fact, concluding his review Robertson accuses Keynes of having unduly complicated the whole matter: 'I could wish that Mr. Keynes had

found it possible to say his say about it without, as I think, encumbering our judgments with an apparatus which accords to Liquidity a unique position in the theory of interest to which, even in the short run, it is not, I have attempted to argue, entitled' (Robertson 1936, p. 191).

To which Keynes replies epigrammatically, both in the manuscript notes and in the letter, in a final attempt to distil in one sentence the gist of his entire theory of the interest rate: 'What I say is that other factors work *through* liquidity' (KP L/R/132; emphasis in the original).

But Robertson, even on this occasion, remains faithful to his loanable funds theory, as the counternotes testify: 'And I say that liquidity preference proper, defined usefully like the Marshallian K and not so as to be a portmanteau of everything, works through affecting the supply of loanable funds!' (Keynes 1973, p. 94).

It is this line of reasoning that Robertson would continue to develop even in his subsequent writings, as we shall see in the next section.

#### 17.4 THE DEVELOPMENT OF THE CONCEPT OF 'LIQUIDITY TRAP' IN ROBERTSON'S WRITINGS AFTER 1936

After the intense theoretical confrontation with Keynes in the autumn of 1936, Robertson returned to the subject in two subsequent writings to discuss the risk that liquidity might behave as 'a trap'. The first occasion was his rejoinder to Keynes's article 'Alternative theories of the rate of interest', published in September 1937 in the *EJ*, where he discussed the theme again, although he did not use the wording 'liquidity trap'; the other is his essay on 'Mr. Keynes and the rate of interest', which opens his book *Essays in Monetary Theory*, where the expression first appeared (Robertson 1940b, p. 35).

In the rejoinder, Robertson clarifies some points which are relevant to our reconstruction. In his opinion, the liquidity function 'is ultimately a reflection of less ghostly forces', i.e. a less dangerous source of damage for the economic system as a whole, than argued by Keynes (a view that, with very similar wording, he had already expressed in Robertson 1936, p. 190). Notwithstanding this position, he is ready to admit that the variability of the liquidity function plays a significant role in causing short-term fluctuations; and also that—following Hawtrey (1937) and Hicks (1937)—“liquidity” considerations might in certain conditions set

a limit to the practicable fall in the long-term rate of interest' (Robertson 1937, pp. 433–434). What he considers unacceptable is Keynes's denial of the connection between idle money and the process of savings (Keynes 1937a, b). According to Robertson, in fact, even if it is true 'that a shift may occur in the liquidity function without any change occurring in the desire to save' (Robertson 1937, p. 434), it is also true that the role of the liquidity function as a '*chronic* obstacle to the growth of wealth' (emphasis in the original) can be justified not so much on the basis of its variability, but on the ground of its supposed (infinite) elasticity, which in Robertson's understanding of the matter makes liquidity 'a death-trap (from the social point of view) for acts of thrift' (Robertson 1937, p. 434). Robertson's claim (Robertson 1937, p. 435) is grounded on the line of thought advanced by Keynes himself in the 'banana parable' in the *Treatise on Money*, where the 'devil of excessive thriftiness' had been first underlined. This explains why it is particularly difficult for Robertson to follow Keynes in his 'new' theoretical position, accusing him of an 'astonishing change of front' on this point. It is paradoxical for Robertson to see that once he had made the effort (Robertson 1936, p. 188, fn. 6) to concede the validity of Keynes's reasoning on the potential risk of additional acts of thrift in the *Treatise on Money*, Keynes had changed his mind again, formulating in the *GT* a new theory of the interest rate in which savings have no role at all. The final conclusion of Robertson's discussion is a reaffirmation of the same view:

Whether the sting of the liquidity function lies in its variability or elasticity, the degree of its malignity *will* find reflection in the behaviour of idle money. And our knowledge ... seems to support the view ... that the antics of the liquidity function (broadly interpreted) are a significant ingredient in the story of industrial fluctuation, but that its importance as a secular obstacle to the growth of wealth is unproven. (Robertson 1937, p. 435, emphasis in the original)

What Robertson means by 'our knowledge' is simply the traditional theory of the interest rate based on the more or less explicit view that, in the long run, where the forces of thrift are balanced with those of productivity, a 'natural' interest rate will necessarily tend to prevail.

The 1940 essay offers the most systematic account given by Robertson of past discussions with Keynes, and, to some extent, the conclusive one.<sup>17</sup> Returning to the question of what happens in the economic

system if a person decides to divert an amount of his income from consumption to buying an equivalent amount of securities, Robertson defines as a 'siding or a trap' the circumstance that, when the interest rate starts to decrease, some people will be induced to sell securities and hold increased money balances, which will counteract the initial fall of the interest rate (Robertson 1940b, pp. 18–19). At the end of the essay, Robertson then comes to the other aspect of the liquidity trap, linked to the expansionary monetary policy in the long run, and it is exactly here that the famous expression appears: 'How far is the existence of the liquidity trap for thrift likely to hamper the banking system in its long run task of executing the chosen policy, and so bringing the fruits of thrift to birth?' (Robertson 1940b, p. 34).

Here Robertson is substantially repeating the same arguments as in his review of the *GT*, while at the same time he seems here to understand, better than in 1936, that the desire for liquidity due to the speculative motive (Keynes's liquidity preference) is affected by 'uncertainty in a broader sense' (Robertson 1940b, p. 35). On this specific point, nevertheless, Robertson does not change his optimistic position as far as the long run is concerned<sup>18</sup>:

To an enormous extent the contemporary troubles of the world are due to the prolonged prevalence of a state of affairs that is neither peace nor war; real peace would do more than anything – more even than real war – not only to raise the curve of marginal productivity of investable funds, but to rotate and stiffen the roof of the liquidity trap into a straight line as vertical and rigid as Mr. Chamberlain's umbrella. (Robertson 1940b, p. 35)

Here Robertson appears to be following Keynes's argument, not only in accepting the idea that the liquidity preference may affect the interest rate, but also in ascribing the liquidity preference to uncertainty, particularly with regard to the incipient state of war (and indeed to a chronic blurring of the distinction between war and peace). But he also reiterates his belief that, ultimately, a steady state will prevail, in which the interest rate will no longer depend on the demand for money as a protection against uncertainty (and hence the liquidity preference curve will become vertical), but solely on the need to finance real investments.

## 17.5 CONCLUSIONS

In this chapter, we have provided a reconstruction of the original meaning of ‘liquidity trap’ through a detailed analysis of the early theoretical exchanges between Keynes and Robertson between 1936 and 1940, where the expression was coined. From our investigation, we may draw the following provisional conclusions.

The concept of a ‘liquidity trap’ is a discovery made by Robertson: meditating on the *GT*, he captures with the metaphor of the trap the possibility that money hoarding may represent an obstacle to a fall in the interest rate. Robertson’s attention is caught by the possibility that the beneficial effects of saving, or of monetary expansion, can be offset by the accumulation of idle balances.

However, having admitted this possibility, Robertson tends to attribute minor importance to it. He remains ultimately convinced, on the basis of his own theory, that counterforces will be activated so as to overcome this block and restore the natural interest rate. He therefore tends to downplay the practical relevance of the liquidity trap as an explanation of persistent economic depression.

Keynes, on the contrary, even though he had barely touched upon the inefficacy of monetary policy in the *GT*, is stimulated by Robertson’s remarks on the possibility that liquidity could play the role of a *chronic* obstacle to full employment and eventually appears to have recognized the relevance of this case, emphasizing the importance of the propensity to hoard in holding the interest rate at a level that is not compatible with full employment. In particular, it is only upon reading Robertson’s review that Keynes becomes aware of the fact that not only is uncertainty about the future interest rate the necessary condition for the existence of the liquidity preference (as he had written in Keynes [1936] 1973, p. 168), but that the degree of uncertainty about the future, i.e. the lack of confidence in formulating expectations, is a major determinant of the level of the interest rate (as he would state explicitly only in Keynes 1937a, p. 216).

However, even when Keynes eventually acknowledged the importance of the point raised by Robertson for his theory of the interest rate as ‘barometer of the degree of our distrust of our own calculations and conventions concerning the future’ (Keynes 1937a, p. 216), he did not pick up the expression ‘liquidity trap’, which eventually entered and gained prominence in economic analysis with a rather different meaning.

In fact, the expression 'liquidity trap' would have remained buried in economic literature, leaving no trace in policy debate, if John Hicks had not picked it out in his review of Robertson's 1940 book and had not associated it with Keynes's idea of the existence of a floor to the interest rate (Hicks 1942, p. 56), visualizing it, in the framework of the IS–LM model, as the left horizontal segment of the LL curve (Hicks 1957, pp. 279 and 286), thereby influencing all the subsequent debate.<sup>19</sup>

However—as we have seen—the notion was employed by Robertson with a wider analytical meaning, and in a different context than the IS–LM model, to refer to the power of liquidity, considered as an alternative form of wealth, to divert savings from becoming investment. This may explain why Robertson himself, in his 1940 essay, did not make the association of his 'liquidity trap' with the left horizontal segment of the LL curve, despite his intense exchanges with Hicks and his general sympathy with the latter's approach. In Robertson's reasoning, this 'chronic obstacle to the growth of wealth' or 'this potential source of damage' does not have to do merely with the ineffectiveness of monetary expansion at low (or zero) levels of the interest rate, but in principle can occur at whatever level of the interest rate, and in any case at a level exceeding that which is necessary to reach full employment.

Unlike the prevailing use of the concept in contemporary literature, for Robertson 'liquidity trap' does not mean a trap *for liquidity*, which prevents monetary expansion from feeding through to interest rates, but the trap *of liquidity*, or in other words the trap for savings represented by the accumulation of idle balances. It is the demand for money as a store of wealth and as a hedge against uncertainty that prevents the transformation of savings into investments.

Having discovered this concept, however, Robertson hastily dismisses its possible relevance in explaining persistent economic slumps. In Robertson's view, the role that liquidity preference could in principle exercise in accounting for short-run fluctuations cannot be admitted as acting in a long run, where the forces of productivity will sooner or later regain their influence in determining the interest rate. Robertson was ready to follow Keynes, but only up to the point where this did not lead him to question his faith in the neoclassical traditional apparatus.

For Keynes, instead, the impossibility of reducing the interest rate further is not due to speculation, in the sense of expectation of reversal in the downturn trend of the interest rate and thus a condition that will sooner or later be overcome (as believed by Robertson), but is due rather

to the ‘radical’ uncertainty of the future, against which liquidity can provide only illusory protection. This central message by Keynes, which gives uncertainty a definite analytical role in accounting for long-term stagnation, may prove particularly relevant, and perhaps more useful for an understanding of the conditions of most economies throughout the world today, than the more restricted notion of liquidity trap that has prevailed hitherto in economic analysis.

## NOTES

1. For an overview of the changing fortunes of the concept of liquidity trap in macroeconomic thought, see Boianovsky (2004, pp. 92–93).
2. Quite recently, even the possibility of the liquidity trap occurring has been questioned from a neoclassical perspective (Ahiakpor 2018).
3. Over the past few years, in fact, interest rates have dropped below zero: nominal yields on excess bank reserves, as well as on numerous government and corporate bonds, are negative. However, to the extent that investors have the alternative possibility of holding wealth in the form of cash, interest rates cannot fall below zero by more than the carrying costs of cash. This means that, if the lower bound is not zero, it is only slightly lower.
4. Following the assumption made by Keynes in the *General Theory*, we shall make abstraction from the existence of various rates of interest for debts of different maturities (Keynes [1936] 1973, p. 167, fn. 2). For a discussion of Keynes’s analysis of the term structure of interest rates, see Fantacci et al. (2014).
5. Dow and Dow (1988) and Tily (2007) considered the correspondence between Robertson and Keynes in 1936 to clarify some theoretical aspects of their systems of thought but made only scant reference to the concept of liquidity trap, without discussing its first use and meaning.
6. The document is undated, but it was certainly sent between November (the date of publication of the article) and 13 December 1936 (the date of Keynes’s reply).
7. Keynes Papers are kept at King’s College, Modern Archives, Cambridge, UK (catalogue at <https://janus.lib.cam.ac.uk/db/node.xsp?id=EAD/GBR/0272/PP/JMK>; quoted archive numbers refer to this catalogue).
8. We believe that the correspondence greatly helps to contextualize and better understand the theoretical controversies among Cambridge economists, as Marcuzzo and Rosselli (2005) have excellently shown.



9. Robertson Papers are kept at the Wren Library, Trinity College, Cambridge, UK (catalogue at <https://janus.lib.cam.ac.uk/db/node.xsp?id=EAD%2FGBR%2F0016%2FROBERTSON>; quoted archive numbers refer to this catalogue).
10. The debate between Keynes and Robertson on the liquidity preference theory continued for a couple of years in the pages of several journals (Keynes 1937b, c, 1938; Robertson 1937, 1938a, b).
11. KP GTE/2/4/78–86 (published in Keynes 1973, pp. 89–95).
12. Robertson was the author of the famous Cambridge Handbook on *Money* (Robertson [1922], rev. ed. 1928) and *Banking Policy and the Price Level* (Robertson 1926).
13. The letter, together with the additional note, is published in Keynes (1973, pp. 95–100). Robertson's counternotes to Keynes's letter are reproduced in the footnotes to the latter (Keynes 1973, pp. 89–95).
14. See Bibow (2000) and Bridel (2019) for two recent reappraisals of the debate from different viewpoints.
15. On this point, see Cristiano (2019).
16. See, e.g., Kregel (1976), Davidson (1978), Chick (1983).
17. Even though it was not the last time Robertson dealt with the matter (see, e.g., Robertson 1947).
18. See also Robertson (1940c, 1963b, c), where he refutes Keynes's stagnation thesis once again.
19. Even in relation to the notion of liquidity trap, one can argue what Bridel (2019, p. 4) has shown to be true more generally, namely that Robertson had a major influence on Hicks in establishing the neoclassical synthesis.

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