

Friedrich A. Lutz’ Epistemological and Methodological Messages During the German-Language Business Cycle Debate

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Abstract

Friedrich A. Lutz’ 1932 habilitation thesis is considered the last highlight in a German-language business cycle debate that took place during the interwar period. This debate, initiated by Adolf Löwe, concentrated on the necessary conditions in defining a dynamic theory that should explain the business cycle understood as a dynamic disequilibrium phenomenon in a deductive way. This article contributes to Lutz scholarship by focusing on Lutz’ criticism of Clément Juglar’s “unconditional” observations. This constituted the basis for the problematic concept of wave-like fluctuation subsequently adopted by the Historical School and Joseph Schumpeter. I establish a relationship between Lutz’ criticism and his statement that this perspective does not find support in economic history. Lutz asserted that each crisis represents a unique historical phenomenon caused by specific factors whose impact on the economy depends on its institutional framework. From this, I derive an epistemological claim, namely that the equilibrium tendencies within the market order should be the subject of inquiry, and a methodological call, namely the development of models showing hypothetically what factors can disturb these tendencies. The paper contextualizes Lutz’ criticism and messages into the formation of the Freiburg School’s research program.

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1. Introduction

In his lecture “Understanding of Business Cycles” (1977) at the Kiel Institute for the World Economy, Robert E. Lucas claimed that he had provided a solution to a long-standing problem fundamental for pre-Keynesian economic analysis. Lucas

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formulated this problem by quoting a passage from Friedrich A. Hayek's habilitation thesis *Monetary Theory and the Trade Cycle* (1933) that "[T]he incorporation of cyclical phenomena into the system of economic equilibrium theory, with which they are in apparent contradiction, remains the crucial problem of Trade Cycle Theory" (1977, 7). In a footnote, Hayek had elaborated that by equilibrium he meant the "modern theory of the general interdependence of all economic quantities" developed by the Lausanne School (1966 [1933], 42).¹ Lucas characterized this as the Walrasian influence on Hayek, thus interpreting modern equilibrium business cycle theories as a continuation of a pre-Keynesian research program (Hoover 1988, 231–232; Rühl 1994, 168).

Lucas' quotation was subject to vast criticism. He was not aware of the fact that during the interwar period, German-speaking economists understood equilibrium to mean the natural tendencies within an economic system of markets to clear. In this context, the cycle was understood as a process of movement away from equilibrium, i. e. as a disequilibrium dynamic phenomenon (Arena 1994, 211; Klausinger 2013, 12). Furthermore, it is not widely known that Hayek's thesis was a response to Adolf Löwe's paper "Wie ist Konjunkturtheorie überhaupt möglich?" (1926).² This paper gave rise to a methodological debate in the German-language area because it pointed out the discrepancy between the dominant equilibrium approach of economic theory and observed dynamics of the business cycle. Löwe claimed that the equilibrium approach deprives economists the opportunity to formulate dynamic theories aiming to explain the business cycle. Solving this antinomic problem, it was alleged, required the abandonment of the notion of equilibrium and the development of new dynamic theory.

Friedrich A. Lutz's habilitation *Das Konjunkturproblem in der Nationalökonomie* (1932)³ was considered "the last word in this debate" (Rühl 1994, 188) that "should be considered indispensable for any truly comprehensive account of the origins of contemporary equilibrium business cycle theories" (Rühl 1997b, 416).⁴ Lutz stressed that crisis is an individual economic phenomenon. Hence, all attempts to squeeze crises into general business cycles either resulted in mere descriptions or in models of pure logic failing to explain reality. A crisis, Lutz suggested, has to be studied with the propositions derived from the economic equilibrium theory. This thesis was published as the second volume in the series of treatises *Probleme der theoretischen Nationalökonomie* edited by Walter Eucken, the founder of the Freiburg School. At a later

¹ It is crucial to mention that Hayek's footnote cited Leonhard Miksch's dissertational thesis *Gibt es eine allgemeine Überproduktion?* (1929). Leonhard Miksch (1901–1950) was considered one of the most gifted students of Walter Eucken (1891–1950), one of the founders of the Freiburg School (Berndt and Goldschmidt 2005). This will be discussed extensively later in the context of the formation of the Freiburg School.

² For the English translation, see Löwe (1997).

³ Only parts of the thesis were translated into English, see Lutz (2002).

⁴ Hagemann (2002) and Dal Pont Legrand and Hagemann (2013) refer positively to Rühl's verdict about Lutz' contribution to German-language business cycle debate.

stage, Eucken formulated a message akin to Lutz' in the context of his solution to the Great Antinomy, namely that the business cycle should actually be abandoned as a subject of inquiry from economics.

This paper derives two messages from Lutz' habilitation thesis: one epistemological and one methodological. The aim is to establish the intellectual nexus between Lutz' ideas and Eucken's research program whereby Lutz himself underscored that the conversations and discussions with Eucken played a formative role in the process of writing his thesis (Lutz 1932, Preface; Veit-Bachmann 2003, 12). Furthermore, I propose that these messages play an important role in the context of the current quest for the general theories of deep downturns (Stiglitz 2016), particularly when contemporary economists recognize that they emphasize mimicking the cycle and thereby neglect the explanation of the propagation mechanism (Stiglitz 2018; Dal Pont Le-grand and Hagemann 2019). This article is structured as follows: Section 2 discusses the historicity of the German-language business cycle debate. Section 3 considers Lutz' thesis in the context of the debate. Section 4 derives the epistemological and methodological messages from his thesis. Section 5 examines various reactions to Lutz' thesis. Section 6 offers a conclusion, summarizing the main results.

2. Aspects of the German-Language Business Cycle Debate

2.1 Joseph Schumpeter's Relevance for German-Speaking Economists

The First World War not only changed the political landscape in German-language countries, but it also had a decisive impact on their economies. Hyperinflation and the surge in unemployment in the early 1920s were considered immediate economic consequences of the war. Historians of economic thought (e.g. Balabkins 1988 77; Barkai 1991, 38–39; Caldwell 2004, 95; Lenel 2008 [1989], 295) assert that during this period, German economists were unable to explain the problems in a theoretical way and thus failed in proposing economic policy measures necessary to combat the economic slump effectively. One of the possible reasons for this was that the German Historical School still played a crucial role in the German academy. Its descriptive methods were dominant in the education of younger economists, and thus German-language economics was becoming evermore isolated from the developments of Anglo-Saxon economics. In an effort to emancipate themselves and to break with these methods, younger economists endeavored to end this isolation. One of the most pronounced groups was the “German Ricardians” whose most notable members were Walter Eucken, Alexander Rüstow, Wilhelm Röpke, Adolf Löwe, and the Austrians Friedrich A. Hayek and Ludwig v. Mises. According to historians, one of the many reasons why the group failed to become a more permanent factor was Joseph Schumpeter's decline to join the group and particularly his paper “Gustav v. Schmoller und die Probleme von heute” (2018 [1926]), in which he emphasized the relevance of

Schmoller's research program, who was one of the leading representatives of the younger German Historical School. Schumpeter's largely positive disposition caused the indignation of younger theoretically-minded scholars (Janssen 1998, 29–30; Köster 2011, 227–229; Dathe and Hedtke 2018, 6).

For the younger scholars, Schumpeter's writings and particularly his concepts and terms played a decisive role in the context of their emancipation. His habilitation thesis *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie* (1908)⁵ and *Theorie der wirtschaftlichen Entwicklung* (1911)⁶ exercised a strong impact on their way of thinking. Schumpeter defined that *Theorie der wirtschaftlichen Entwicklung* was the complementary work to his habilitation thesis, which itself was concerned with the static problem in economics where Léon Walras and his equilibrium system represented the cornerstone of the book. *Theorie der wirtschaftlichen Entwicklung*, contrarily, was primarily occupied with the concept of dynamics influenced by Karl Marx' vision of the long-term development of capitalism, and which remained Schumpeter's life-long challenge (Schumpeter 1949 [1934], viii; Dal Pont Legrand and Hagemann 2013, 223).

He described that the static theory reflected by the Walrasian system of general equilibrium is concerned with conditions of equilibrium and the economy adjusting to this equilibrium after change in system fundamentals. The German-speaking economists defined the system fundamentals as “data.” Derived from Latin, *datum* (pl. data) means something “given” to the observing economist, which is outside of explanation of economic theory (Schumpeter 1949 [1934], 5 and 11; Hayek 1937, 38–39).⁷ Data could thus be a level of technological progress, tastes, preferences etc. Economic theory based on a static system derives its insights with the help of the “variation method” which studies how the system reacts to this change, and which claims that the system only adapts to the new data constellations *without* affecting the structure of the equilibrium. This makes an equilibrium a gravitational point towards which the economy moves (Rühl 1994, 168–169 and 174–175).

In contrast, in line with Marx' understanding of capitalism, Schumpeter defined that a dynamic theory should explain the endogenous movement of the economy arising from the inherently antagonistic powers within capitalism. This causes the change in the structure of the equilibrium, i. e. movement of the gravitational point in the system. This change arises spontaneously, discontinuously, and endogenously, creating wave-like movements representing the cyclical fluctuations and characterizing the nature of the capitalist system. However, in contrast to Marx, Schumpeter's view was not that capitalism would be dissolved with an attendant turn to socialism, but that the cycle is the integral part of the growth process of capitalism (Schumpeter

⁵ For the English translation, see Schumpeter (2010).

⁶ For the English translation, see Schumpeter (1949 [1934]).

⁷ It is important to note that Hayek distinguished between two levels of data: on the individual and at the market (macroeconomic) level (1937, 38–39; see also Caldwell 2004, 207–208).

1949 [1934], 5–7 and 213–214; Schneider 1951, 104–108; Rühl 1994, 179–188; Dal Pont Legrand and Hagemann 2017, 247).

2.2 Adolf Löwe – Friedrich A. Hayek Methodological Discussions

The conflict between static theory and observed dynamic nature of capitalism in Schumpeter's works is a focal point in Emil Lederer's essay "Konjunktur und Krise" (1925)⁸ and Adolf Löwe's "Wie ist Konjunkturtheorie überhaupt möglich?" (1926). Löwe's thesis is of particular interest because it gave rise to the methodological debate in the German-language area (Hagemann 1994, 102; Gehrke 1997, 235). Löwe rejected the concept of equilibrium as a tool of analysis because the dynamic nature of the cycle shows that modern capitalist economies are always diverging from any equilibrium state. The reason for this is that any convergence towards equilibrium is always disturbed by a systemic (i.e. endogenous) factor. As a result, the disequilibrium phases – boom and depression – represent permanent states of the modern capitalist system expressed by "generality and solidarity of the movement of the circulation factors [i. e. economic magnitudes, LG] and their periodic turnover" (Löwe 1997, 53). This stands in complete contrast to the motion of economic magnitudes determined by the variation method based on the premises of equilibrium and of convergence towards equilibrium. In order to eliminate this discrepancy between theory and reality, and solve the antinomy, Löwe advocated for the abolition of equilibrium as an archimedic point of deduction and, consequently, the formulation of these conditions from which the motion of economic variables reflecting the dynamics of capitalism can be logically deduced, thus providing the basis for dynamic theory:

The business cycle problem is not a reproach for, but a reproach against the static system, because in it it is an antinomic problem. It is solvable only in a system in which the polarity of upswing and crisis arises analytically from the conditions of the system just as the undisturbed adjustment derives from the conditions of the static system (1997, 267).

This "brilliant" (Kuznets 1930a; Kuznets 1930b) article emphasizing the incompatibility between the static theory of general equilibrium and the dynamic nature of the cycle gave rise to the methodological debate in the German-language area, involving numerous young scholars, where one of the most prominent representatives was Friedrich A. von Hayek.⁹ His earlier work resulted as a response to Löwe's thesis (Hayek 1966 [1933], 15 and 27–28; see also Hagemann 1994, 102; Hagemann 1997, 406) and later provided the basis for his habilitation thesis *Monetary Theory and the Trade Cycle* (Hayek 1966 [1933]). Löwe and Hayek adopted Schumpeter's distinction between static (as adaptation) and dynamic (as development), defining them as "two

⁸ See Löwe (1925).

⁹ Löwe's paper furthermore inspired Harrod to develop his business cycle theory by constructing an instable system (Besomi 2002).

structurally distinct systems of motion” (Klausinger 2013, 15; Löwe 1925, 357). Hayek (1966 [1933], 43 and 59–60) agreed with Löwe that cyclical fluctuations cannot be caused by an exogenous change in data, because the system adapts to this change. The causal factor for the cycle ought to be identified *within* the capitalist system which is able to dissolve the relationships among the economic elements constituting the system. This was the reason for their agreement that an endogenous business cycle theory would be the only appropriate representation of observed reality, where the factor causing the cycle would be set as an axiomatic assumption in the theory. The dynamics of this factor would cause cyclical fluctuations, while at the same time these dynamics should be fundamental for the existence of capitalism (Hayek 1966 [1933], 32–33; Rühl 1994, 169–175).

Despite this methodological agreement, there was a divergence in opinions regarding the factor causing the cycle, on the one hand, and the role of equilibrium in the context of business cycle research, on the other. Löwe, influenced by Schumpeter and Marx, argued that technological progress is the systemic factor, whereas Hayek claimed that the modern credit mechanism was the responsible factor for making the system oscillate. In this sense, Hayek introduced the English view formulated by Ralph Hawtrey (1913) and popularized by Ludwig von Mises (1924 [1912]) in the German-language area (Röpke 1936, 111). Regarding the equilibrium concept, Hayek, in contrast to Löwe, emphasized that this is an indispensable tool for analysis of the business cycle phenomenon. First, in methodological terms, it is a starting point where the cycle was considered a movement away from equilibrium and which makes the equilibrium a fundamental benchmark to study the business cycle (Hayek 1966 [1933], 183). Second, it is central from a theoretical point of view, because this allows for a clarification of the impact of the discrepancy between the monetary and the natural rate of interest on the production structure (Hayek 1967 [1935], 35). Third, general equilibrium in particular is necessary to grasp the interconnections among the economic variables and the different industrial groups (Hayek 1966 [1933], 42). Fourth, the tendency towards equilibrium should be an empirical characteristic of the market economy, so that “economics ceases to be an exercise in pure logic and becomes an empirical science” (Hayek 1937, 44). As a result, the problem of the business cycle is not to abandon equilibrium, but to demonstrate how credit creation, i. e. the dynamic element, disturbs the interconnections of economic variables in the static system. This can only happen when the assumptions are widened by incorporating the concept of time “so that cyclical fluctuations would follow from these as a necessary consequence, just as the general propositions of the theory of price followed from the narrower assumptions of equilibrium theory” (Hayek 1966 [1933], 30; Hayek 1966 [1933], 93; Klausinger 2013, 12–15).

3. Friedrich A. Lutz' Contribution to the Debate

Friedrich A. Lutz' habilitation thesis *Das Konjunkturproblem in der National-ökonomie* represents the last highlight of this debate (Rühl 1994, 188). Lutz started studying economics at Berlin and was the first doctoral student of Walter Eucken during Eucken's brief tenure at Tübingen (1925–1927) with his thesis *Der Kampf um den Kapitalbegriff in der neuesten Zeit* (1927). As already mentioned, Eucken was a member of the "German Ricardians" who were seeking to emancipate themselves from the descriptive methods of the Historical School. The University of Freiburg justified his appointment as a professor of economics by arguing that Eucken would promote such abstract, theoretical thinking at Freiburg.¹⁰ There, Lutz defended the habilitation thesis *Das Konjunkturproblem in der Nationalökonomie* (1932) under Eucken. The habilitation was published four years after the meeting of the *Verein für Socialpolitik* in Zurich in 1928, the climax of the business cycle debate. Lutz thus became Eucken's first student entitled to teach at university (Brintzinger 1996, 76 and 45; Veit-Bachmann 2003, 12).

3.1 Friedrich A. Lutz and the Formation of the Freiburg School of Economics

However, this was not the first thesis written in the context of the debate and supervised by Eucken. His student, Leonhard Miksch (1901–1950) wrote a dissertational thesis *Gibt es eine allgemeine Überproduktion?* (1929). This was a fundamental problem in Löwe's thesis because "[i]f a business cycle theory cannot be built, the 'general over – production' will not only drive the economy but also economic theory into a crisis" (1997, 175). Famous from Hayek's footnote (1966 [1933], 42) which was cited by Lucas (1977), Miksch (1929, 5–13) studied how the concept of equilibrium had evolved from Jean B. Say's and James Mill's writings to the research program of the Lausanne School. In the context of this study, Miksch discussed how the Classics explained the problem of general overproduction. He rejected the idea that there is an inherent reason within the exchange process that causes the overproduction and thus the crisis, i. e. a disequilibrium. Hence, the tendency towards equilibrium is an underlying assumption of markets (Arena 1994, 211). However, money and particularly credit are factors that facilitate the exchange process, but which can also disturb the coordination mechanism and give rise to overproduction (Köhler 2019, 23). In this sense, Miksch joined the faction of monetary business theorists during the debate. He derived the methodological message that the concept of equilibrium and the variation method are two necessary tools of analysis. In this sense,

¹⁰ Initially, the University of Freiburg tried to attract Schumpeter, who in turn declined and stayed at Bonn. The university appointed Eucken, who was third on the list (Brintzinger 1996, 38–39).

he criticized the Historical School for its call to abandon equilibrium reasoning in arguing that because it had been deployed by the Classics, it thus represented an abstract approach detached from reality (Miksch 1929, 93–95).¹¹

The methods of the Classics became the cornerstone of his teacher's intellectual legacy and particularly of his criticism towards the Historical School and statistical research that was becoming dominant at the time. This is evident in the culmination of Eucken's research program, in *The Foundations of Economics* (1950), which expanded this criticism and aimed to reformulate the methods of the Classics (Watkins 1953, 131–132). Eucken's criticism was interpreted as "part of a general reaction against the nineteenth century's deification of history" where "the belief that what is right is what is agreeable to the historical process and that what is wrong is what the historical process will not allow to succeed..." (*ibid.*, 132). Eucken delineated the conflict between the methods of the Classics, which he denoted as rationalistic, and the Historical School as well as statistical research, described as empiricist, in his essay "Was leistet die nationalökonomische Theorie" (1954 [1934]). This essay can be considered programmatic for the Freiburg School (Goldschmidt 2013, 136). It was the introduction of a new series, *Probleme der theoretischen Nationalökonomie*, edited and published by Eucken. As a "German Ricardian," he described that this series aimed to apply the deductive approach of the classical economists in the explanation of economic problems (Eucken 1954 [1934], 51). The application will be understood by discussing Lutz' habilitation thesis, which makes up the second volume of the series.

Lutz' treatise consists of six chapters. The first four chapters deal with the historical development of the methods used to define the subject of inquiry in the context of business cycle research and its solutions. In the last two chapters, Lutz formulated his contribution to the tension between the business cycle and the equilibrium approach, the central topic of the business cycle debate. In the first chapter "The Business Cycle Problem within the Framework of the Classical Theories," Lutz discussed how the Classics dealt with the problem of crisis. Here, Lutz delineated the nexus between his and Miksch's thesis, namely that he focuses on the methodological question concerning the tools of analysis whereas Miksch concentrates on the content of classical economists' theories. The second chapter "The Mixture between Theoretical Analysis and Unanalyzed Facts: The Hybrid Theories"¹² discussed the theories of Clément Juglar, Gustav Cassel, Albert Aftalion and of the Historical School. The third chapter "Return to, and Extension of, the Pure Theory"¹³ discusses the theories of Joseph Schumpeter, Friedrich A. Hayek, and Adolf Löwe, whereby the fourth chapter "Complete Abandonment of the Theory and Turning to the Facts: The Statistical Business Cycle Research" gives an extensive account of the statistical and econo-

¹¹ For more about the intellectual legacy of Leonhard Miksch, see Berndt and Goldschmidt (2005).

¹² Hybrid theories is the translation of "Mischtheorien" in Lutz (2002, 231).

¹³ As translated in Lutz (2002, 177).

metric research prevalent at the time of Wesley Mitchell, Ernst Wagemann, and Ragnar Frisch.

Of particular interest are the first four chapters because they were not intended to be a contribution to the history of economic thought, but rather a study of how the crisis problem of the Classics had turned into the complex business cycle theories in the early 1930s, and how the methods to solve these problems had changed (Lutz 1932, 138). Lutz represented the change in the subject of inquiry and the methods as an evolutionary process where “[e]ach step led almost inevitably to the next one” (Lutz 2002, 212). According to Eucken (1932, 5), to discuss the history of the business cycle research as an evolutionary process represents an innovative contribution compared to the descriptive accounts of Eugen v. Bergmann,¹⁴ Arthur Spiethoff,¹⁵ and Wesley Mitchell,¹⁶ because in this way Lutz was able to show that the course of business cycle research was not random or arbitrary, but rather closely related to the general development of scientific methods. A tantamount juxtaposition between Bergmann's *Die Wirtschaftskrisen: Geschichte der nationalökonomischen Krisentheorien* (1895) and Lutz' thesis was carried out by Joseph Schumpeter in his *History of Economic Analysis*, where he underscored the analytical superiority of Lutz' thesis over Bergmann's book (1954, 739).

3.2 Friedrich A. Lutz' Response to the Debate

Lutz evaluated the main messages of the business cycle debate in the third chapter “Return to, and Extension of, the Pure Theory” (2002, 177). He justified the title by hinting at the efforts of the debate participants to pursue more precision in their theoretical works, thereby emancipating themselves from the descriptive methods of the Historical School and returning “to the path already trodden by the classical economists” (*ibid.*, 178). First, they attempted to construct a deductive theory of the business cycle tantamount to the methods of the Classics who also developed deductive explanations of observed phenomena. Second, these attempts gave rise to methodological discussions about the role of analytical tools like equilibrium, convergence towards equilibrium, and the variation method. Such discussions were characteristic for the systematic thinking of the Classics which stand in complete contrast to the research program of the Historical School because the latter had

¹⁴ Eugen Woldemar Konstantin v. Bergmann (1857–1919) is a largely forgotten economist whose book *Die Wirtschaftskrisen: Geschichte der nationalökonomischen Krisentheorien* (1895) was referred to by Schumpeter as an extensive treatment of business cycle theories.

¹⁵ Arthur Spiethoff (1873–1957) was a leading business cycle theorist. As a doctoral student of Gustav v. Schmoller, he was also one of the most prominent representatives of the Historical School.

¹⁶ Wesley Mitchell (1874–1948) was a US economist and one of the most prominent statisticians who contributed to business cycle research.

abandoned these tools with the aim of developing “realistic” theories (Lutz 1932, 75 and 82–84).

Lutz accentuated the importance of Löwe’s article because he called attention to a relevant antinomic problem between dynamic reality and the static nature of the dominant equilibrium theory. However, Lutz stressed that Löwe and the other debate participants had not formulated uniform concepts regarding the business cycle phenomenon (Lutz 1932, 82–84; see also Köster 2011, 255). Löwe concentrated on the solidarity and generality in the movement of economic magnitudes and their periodic reversal of direction. Lutz argued that these were two completely different problems and “the explanation of the first problem does not imply an explanation of the periodic reversal of direction and vice versa” (2002, 203). Lutz discerned within Löwe’s concept that the notion of solidarity and generality in the movement of economic magnitudes represents the cornerstone of his understanding of business cycles.

However, according to Lutz, Löwe failed to define this systemic (endogenous) factor that causes this motion, since technological progress is just a change in a *datum*, such as occur with changes in needs and tastes or changes in knowledge. First, the reason for these changes is located outside of the exchange process. The changes should be considered as hypothetical, but not a necessary result of the exchange process and thus not subject to any economic law. Second, technological progress does not dissolve the static relationships postulated by the dominant equilibrium approach. Its impact on the economic system must be studied with the help of this approach because this allows the economist to ascertain how the change in the technological level affects the relationship between the dependent variables. Lutz (1932, 114–116) formulated that the roundaboutness of production and money are the factors that give rise to the downward cumulative process. In this response, Miksch’s solution to the problem of overproduction could probably have played a fundamental role (1929, 93–96).

The second concept represents the focal point of the business cycle theories developed by Hayek and Schumpeter. They understood the business cycle as the inevitable and periodic recurrence of crises whereas the course of the crisis was not exactly understood as a cumulative downward process. In order to prove the periodic recurrence of crisis, Schumpeter and Hayek attempted to develop a dynamic system by incorporating these premises into the static system from which the cycle follows deductively. Lutz criticized Hayek’s theory because the cycle is based on change in data (discrepancy between the natural and monetary interest) whose occurrence cannot be formulated as a necessary economic phenomenon. Furthermore, his theory relied on the slow reactionary mechanism of the modern capitalist system which does not allow the prompt reestablishment of equilibrium. This is the underlying explanation of how boom periods occur that inevitably turn out to crises (Hayek 1966 [1933], 139–140). Lutz criticized the assumption of a slow reactionary mechanism because this was not justified with economic reasoning. As a result, in Lutz’ view (1932, 113), Hayek failed to construct the dynamic system he was pursuing.

Of particular interest is Lutz' critical account of Schumpeter's dynamic theory on two grounds. First, the static proprietor (*der statische Wirt*) was an assumption akin to irrational behavior that represented a violation of the assumptions underlying general economic theory. In Schumpeter's theory, however, the main purpose of the assumption was to attract entrepreneurs by swarms, rather than continuously, thus giving rise to wave-like fluctuations (2002, 194; see also Schumpeter 1949 [1934], 214). The static proprietor is an unrealistic but fundamentally necessary premise for Schumpeter's business cycle theory, because otherwise "he [Schumpeter, LG] could not have escaped the tendency towards equilibrium" (Lutz 2002, 209). The second problem was the assumption of the active entrepreneurs who enter the market with their new combinations and exploit profit opportunities. This is, according to Lutz, nothing other than technological progress, something that was already discussed as a change in datum and thus an unequivocal example for Schumpeter's failure to formulate an endogenous business cycle theory (Lutz 1932, 122–126).

3.2.1 *The Subject of Inquiry Itself is Problematic in Business Cycle Research*

Lutz' criticism of the attempts to prove the periodic recurrence of crisis represents his most fruitful contribution to the business cycle debate. This is akin to today's criticism of business cycle theorists whose models attempt to mimic cyclical fluctuation, thereby neglecting the importance of the propagation mechanism (Dal Pont Legrand and Hagemann 2019). Lutz noted that the idea of periodic recurrence originates from the empirical research conducted by Clément Juglar through his statistical investigations. Juglar also formulated a critique of the Classics that they failed to understand that crises are always preceded by a boom, and that the former always recurs in periodic manner. Lutz' criticism is diametrically opposed to Schumpeter's account that stressed the relevance of Juglar's research program and declared his concept of wave-like fluctuations as the undisputed problem of business cycle research (Schumpeter 1949 [1934], 214). However, Lutz criticized Juglar's methods on two levels. First, he disputed Juglar's "unconditional" observation that gave rise to the unjustified concept of wave-like fluctuations and thus provided the basis for the problematic subject of inquiry. Second, he suggested that Juglar treated the pure observation itself as sufficient to provide the general dynamic law describing the periodic recurrence of crises.¹⁷

Lutz' criticism of Juglar's methods should be understood as a part of his general criticism of the research methods prevailing in economics during the late 19th century. As Eucken underscored in his report, Lutz characterized that the evolution of methods

¹⁷ Citing the crucial passage in Juglar's work in the original French: "Sans faire intervenir aucune théorie, aucune hypothèse, l'observation seule des faits a suffi pour dégager la loi des crises et de leur périodicité" (1889, XV).

deployed in crisis research did not take place randomly or in an arbitrary way, but rather that it was intimately related to the general development of scientific methods. In the second chapter, Lutz suggested that during the late 19th century science in general was pursuing more realism in its research, thereby emancipating itself from abstract theories of the Enlightenment. This influenced the methods of observation and the formulation of the subject of inquiry. Lutz dichotomized between those scientific strands using abstract theories as the methods of the Classics, the main representatives of the Enlightenment, and scientific strands pursuing more realism, the economists of the late 19th and early 20th centuries. The representatives of the Historical School belong to the latter group as well (Lutz 1932, 30–35). In his report of Lutz' thesis, Eucken characterized Lutz' juxtaposition of the two methods of observation and formulation of subject of inquiry as "excellently worked out" (Eucken 1932, 6), a juxtaposition that was the cornerstone of Eucken's methodological essay "Was leistet die nationalökonomische Theorie?"

In line with his teacher's essay, Lutz treated the methods of the Classics as a benchmark for his criticism of the research methods fundamental for the economics of the late 19th and early 20th centuries. This is unequivocal example for how Lutz' thesis was written in the context of Eucken's intellectual legacy oriented against, as Watkins formulated it, the "nineteenth century's deification of history." (Watkins 1953, 132). Lutz claimed that the Classics would never have formulated the research problem based on pure observation, something that had been promoted by Juglar. The classical economists formulated their research problems under consideration of the general economic system based on the premises of equilibrium and of a tendency towards equilibrium where Say's theorem plays a fundamental role. As discussed previously, these premises were explored extensively by Miksch (1929, 5–13). According to Lutz, the subject of inquiry represents an important thought process that should be carried out by the method of abstraction so that economists can explain the observed phenomenon in deductive manner. Or as Lutz put it, the observed phenomenon should be constructed in such a way so that it can be integrated into an already defined economic system entailing equilibrium. In this sense, the Classics elevated the crisis as a general economic problem by formulating it with terms and concepts deducible from this system. Probably influenced by Miksch's investigations, Lutz noted that the Classics described the crisis as a general sale at a loss which does not imply the impossibility to sell products, but rather that selling price is not able to cover costs. They attempted to explain the reason for this discrepancy in the same deductive way as the problem of prices and distribution (Lutz 1932, 3–6; Miksch 1929, 2–4).

In contrast, the representatives of the Historical School and the "realistic" strand in economics, such as Albert Aftalion, Gustav Cassel, and Mikhail Tugan-Baranowsky, strived for an "unbiased" and "unconditional" observation that was free from any theoretical dogma. This desire for realism required that one should start observing the phenomenon, describe this phenomenon occurring in different points of time and place, and finally compare the different descriptions. Thus, they intended to achieve a realistic formulation of the observed phenomenon that should serve as a basis for a

realistic explanation. For Lutz, this method of observation and thus formulation of the subject of inquiry gave rise to the opposite effect. Instead of realistic formulation, the subject of inquiry moved away from any realism because of the subjectivity of researchers. They interpreted and elevated the observed phenomena into a theoretical question based either on superficial examination or on personal experience. Lacking an abstract theory which provided the criteria for the subject of inquiry was the penultimate problem (1932, 28–30; see also Eucken 1954 [1934], 50).

In Lutz' view, cyclical fluctuation exemplifies such subject of inquiry. Juglar formulated this from the pure observation without considering abstract theory, such as a theory of exchange process or of the equilibrating powers of markets. From the frequent occurrence of crisis, Juglar concluded that capitalism is prone to crisis and the periodic recurrence of crisis is its underlying feature. Had he conducted his observations based on market theory, and particularly the theory of exchange process developed by the Classics, Juglar could have realized that the factors causing disequilibrium lie outside of the exchange process, such as technological progress, the discovery of new markets, and changes in money supply (1932, 31–34). The problem arose, however, when the notion of cyclical fluctuation was integrated into their research program by leading economists, including representatives of the Historical School who attempted to formulate “‘metaphysics’ of regular and systematic oscillations” (Rühl 1994, 178). All these attempts either ended up as pure descriptions of the observed phenomena or logical models completely detached from reality. They were not able to explain the severity of the Depression and thus provide the basis for economic policy (Lutz 1932, 79–81; 122–125; 161–165). This will be the subject of analysis in the next section.

3.2.2 The Problematic Subject of Inquiry – the Basis for Problematic Theories

Lutz' critical account of how the subject of inquiry was formulated based on pure observation explains his emphasis that the business cycle research is problematic, even the subject of inquiry itself (Lutz 1932, 40; Rühl 1997a, 243). Lutz (1933a, 91) concluded that this subject of inquiry had inevitably led to problematic solutions which did not expand our knowledge in understanding and explaining the crisis.¹⁸ Lutz divided three strands according to the methods deployed in order to prove the periodic recurrence of crisis. The first is represented by the already discussed “realistic theories” – denoted by Lutz as “hybrid theories.” Lutz integrated the methods of the Historical School and Gustav Cassel's and Emil Lederer's business cycle theories into these theories. They are a mixture of theoretical considerations and reference to

¹⁸ He writes: “die Problemstellung schreibt die Lösungsmethode zwangsläufig vor” (Lutz 1933a, 91).

unexplained facts; the latter were introduced with the mere aim to construct the desired dynamics showing the periodic recurrence of crisis.

Lutz characterized the next two strands as derivatives of the hybrid theories. The second strand tried to abandon descriptive elements and pursued the deductive explanation of the cycle. The already discussed theories of Hayek and Schumpeter belonged to this strand. In contrast to the hybrid theories, they formulated general premises from which the dynamic theory should follow logically. The third strand represents statistical research which, according to Lutz, abandoned theoretical considerations and concentrated on the descriptive part of the hybrid theories. Its main representatives were Wesley Mitchell, Ernst Wagemann, and Ragnar Frisch. Lutz (1932, 136–137) argued that statistical research can describe facts, something that is central to his solution to the business cycle problem; it is not, however, a substitute for the theoretical approach.

Lutz' ultimate verdict on the business cycle debate is that the construction of pure deductive business cycle theories, i.e. what Löwe, Hayek, and Schumpeter were actually pursuing, is possible. However, the result would be a perfectly logical model that would inevitably be based on unrealistic assumptions: "from that everything else follows logically" (Lutz 2002, 195). Consequently, they could achieve precision and some internal logic. However, these theories were bound to fail in explaining reality (Lutz 1932, 124–125). Later, Eucken would criticize such pure logical models as an "intellectual game like chess. Certain conditions are fixed and then deductive reasoning has a full field to play in" (1950, 349). In his reply to Gustav Clausning's critique, which had been an immediate response to the thesis, Lutz (1933a, 91) defined that to construct a dynamic theory showing the periodic recurrence of crisis is tantamount to developing a dynamic theory of periodic recurrence of wars, whereby in the commemorative volume for Arthur Spiethoff, Eucken (1933, 75) compared Spiethoff's standard conception of the cycle with the standard conception of the cycle of revolutions that should provide the basis for a dynamic theory of revolutions.

Lutz formulated that the Great Depression represented a test for the ability of business cycle theories to explain the phenomenon of crisis which none of them was able to pass. Not only Schumpeter's but also Gustav Cassel's and John M. Keynes' theories failed to explain the severity of the Depression. These economists either described the observed facts or deduced some theoretical insights from general economic theory in order to explain the observations, but never deployed their business cycle theories (Lutz 1932, 145–146). This failure to explain deep downturns is relevant even today, for example when economists emphasize the inability of DSGE models to analyze the persistence and amplitude of exogenous shocks (Stiglitz 2018). The persistence of the Depression might be one of the reasons why Lutz and subsequently Eucken abandoned business cycle theory as an instrument to discuss the phenomenon of crisis.

However, despite their criticism of the representatives of the Historical School, Lutz (1933a, 88–89) and Eucken (1954 [1934], 46) stressed the relevance of their

research program because their descriptions revealed the crisis as a unique historical process. Their descriptive accounts demonstrated the different duration of each crisis, on the one hand, and the different motion of the economic magnitudes during the crisis, on the other. For Lutz and Eucken, this is unequivocal proof that each crisis was caused by a specific factor pertaining to time and space. Lutz claimed that even though we can recognize that the boom period precedes the crisis and determines its severity, this is not sufficient to claim that the cycle itself is caused by a general factor from which we can develop a general law. Lutz exemplified this by delineating the differences between two boom periods 1903–1907 and 1926–1928 that gave rise to different courses of ensuing crises. Here, it was not only different impulses, but also the institutional frameworks at these points of time which gave rise to the individual course of crises (Lutz 1933a, 87). A similar comparison between two boom periods 1903–1907 and 1933–1939 would later be conducted by Eucken in order to show how the institutional framework can affect the economic process, which in turn determines the severity of economic crises. In this sense, Eucken justified the explanation of the observed phenomena with the help of economic orders (Eucken 1950, 251–252). The sociologists Wilhelm Meyer (2002, 302–303) and Hans Albert (2009, 95) stressed that this comparison was used by Eucken to demonstrate the fruitfulness of his concept of economic orders and thus to solve the central problem of the social sciences concerning the relationship between theory and history.

Consequently, Lutz claimed that the solution could not be found in developing a new dynamic theory with a general law of periodic recurrence, because periodic recurrences do not exist. Based on Carl Menger, Lutz suggested that only social phenomena which can be reduced to type, and typical relationships that require explanation, are conducive to general laws. The types can be the general nature of exchange, of prices, of rents, of interest rates, of supply, of demand etc. whereas the typical relationships can be how the increase in prices affects the supply, for example. Theoretical research ought to analyze the types and typical relationships. In contrast, historical research is concerned with the individual phenomenon by investigating its nature and the development within the context in which this phenomenon occurred (Lutz 1932, 3–4 and 163; Menger 1985 [1883], 35–40). From this, Lutz derived that the crisis is an individual phenomenon whose explanation should be carried out by historical and theoretical research, a dualism in explanation. Only in this way is one able to understand the persistence and deepness of the crisis.

4. Friedrich A. Lutz' Epistemological and Methodological Messages

4.1 The Epistemological Message – On the Subject of Inquiry

Lucas started his Kiel lecture with the question “Why is it that, in capitalist economies, aggregate variables undergo repeated fluctuations about trend, all of

essentially the same character?" (1977, 7). Twenty-seven years later, in his presidential address to the American Economic Association, he proclaimed that "[m]acroeconomics was born as a distinct field in the 1940s, as a part of the intellectual response to the Great Depression. The term then referred to the body of knowledge and expertise that we hoped would prevent the recurrence of that economic disaster. My thesis in this lecture is that macroeconomics in this original sense has succeeded: Its central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades" (2003, 1). Using Lutz' arguments, I claim the last financial crisis proved that Lucas was in both cases wrong: in 1977 he formulated the wrong subject of inquiry; in 2003 he formulated the wrong observation.

The question arises whether when he delivered his presidential address, he failed to record the aggregates that would have predicted the financial crisis of 2007–2008. The latter was caused by the rapid development of securitization, in the form of mortgage backed securities, which aimed at securitizing the credit provision to households with low creditworthiness. The credit provision was enhanced by lower interest rates in the Bill Clinton and George W. Bush administrations, encouraging homeownership through government housing policies (Hellwig 2009; The Financial Crisis Inquiry Commission 2011). Lutz would have said that all of these are changes in system fundamentals in the sense of economic theory, i.e. data: the securitization – change in technological level; the lower interest rate – change in money supply; the decision of Clinton administration – change in the laws. According to Lutz and the German-speaking economists during the interwar period, the reason for these changes cannot be predicted and explained deductively by the economic theory. They are not outcomes of any economic law because they do not arise from the exchange process, but outside of it. However, these changes should be studied separately within the static system in order to crystallize their impact on exchange relationships.

Pure observation without systemic thinking was the cornerstone of Lutz' critical discussion of Juglar's and the Historical School's method of how they formulated the subject of inquiry because from the frequent occurrence of crisis they concluded that this phenomenon is inherent to capitalism. For Lutz, the methodology of the Classics represented a closed scientific approach how to formulate the subject of inquiry. They formulated it via the method of abstraction method based upon a thought system whose premises are equilibrium and the tendency towards equilibrium. Lutz' claim might be perceived as tautological in that the Classics would have rejected the concept of periodic recurrence of crisis because their thought system did not entail its inclusion. However, Hayek argued in "Economics and Knowledge" that only if we assert that the market economy possesses the tendency towards equilibrium, then "economics ceases to be an exercise in pure logic and becomes an empirical science" (1937, 44). And Klausinger continued "the tendency towards equilibrium cannot be refuted a priori" (1990, 67). Hayek formulated this message during a period when leading socialists like Oskar Lange and Abba P. Lerner were advocating for market socialism. They claimed that if there is a market for consumer goods, then a market for

producer goods is not necessary and should be abolished because their values can be calculated based on the capital goods used in the production of consumer goods. In this sense, the fluctuation of the production of producer goods would be controlled, and thus the business cycle would become obsolete (Boettke 2018, 128–129; Caldwell 2004, 218–219).

Hayek's statement can be interpreted as the ultimate answer to Lutz' dilemma. Lutz' *epistemological message* could be that we are not supposed to prove why the exchange process is prone to crisis, but, on the contrary, why within a market order this process converges to equilibrium and secures efficiency in the use of resources. This would not only enable the economists to understand how markets work, but this would also allow us to formulate hypothetical cases based on the general theory of markets pointing out when they fail to achieve the state of equilibrium, i. e. the crisis. This exploration allows us to formulate and even study realistic assumptions, e. g. human behavior, the contextual knowledge of individuals (remember the ad-hoc assumption of rational expectations (Klausinger 1990) or the static proprietor in Schumpeter's theory with the aim to create the cycle), and the importance of institutions for facilitating the exchange process. From this, we can understand Lutz' message of what constitutes and how to deduce general economic phenomena: prices, wages, the interest rate, capital, money etc. that ought to be subject to deductive theory. Only in this way, as an interpretation of Lutz' thesis, can economists expand the theoretical knowledge which is fundamental for the explanation of observed phenomena. Consequently, the question is not why there is a periodic recurrence of crisis, but what the possible reasons for deep downturns could be.

4.2 The Methodological Message

4.2.1 *The Pure Theoretical Approach – The Construction of Models*

These general phenomena (the process of price formation, interest rate formation) should be explored with the help of different case studies, highlighting differences among competitive and monopolistic markets with or without technical peculiarities of production, durable goods, etc. (Lutz 1932, 152–158; see also Eucken 1954 [1934], 7). Encouraging case studies is Lutz' *methodological message* and represents the first step how to explain a specific crisis. These case studies are tantamount to the ideal types later developed by Eucken that serve as models representing the preparatory work in order to explain the observed phenomenon (*ibid.*, 7).¹⁹

¹⁹ Goldschmidt (2013) discusses the origins of the concept of ideal types in Eucken's intellectual legacy. Furthermore, on the relationship between Eucken's economic orders and the business cycle debate, see Blümle and Goldschmidt (2006).

Lutz (1932, 166–167) claimed that with the help of case studies, the economist should employ the variation method. This method, first discussed in Schumpeter's habilitation thesis (1908) and criticized by Löwe (1926) during the business cycle debate because it failed to explain the dynamic motion observed in reality, was implemented by Miksch (1929), and would later be deployed by Eucken's *Kapital-theoretische Untersuchungen* (1954 [1934], 132–188) and in *The Foundations of Economics* (1950, 253–255). This method is also the cornerstone of Hayek's capital analysis based on intertemporal equilibrium in *The Pure Theory of Capital* (1950 [1941], 152; Lachmann 1937, 34–35).²⁰ Lutz and Eucken characterized the variation method as the thought experiment which allows for the study of the impact of data change on the existing equilibrium, and thus on price, wage, interest rate formation in competitive, monopolistic markets, etc. The new data constellation determines the structural relationships among the economic variables, e.g. the price structure in the economy, and thus the new equilibrium system, whereas the process towards the new (final) state of equilibrium, the internal dynamic will be determined by the frictions (price rigidities, wage rigidities etc.) arising from the assumptions of the model (Lutz 1932, 144). Eucken emphasized the superiority of the variation method over the comparative statics carried out by the Classics (Eucken 1950, 253–255; Lutz 1944, 214). Here is the crucial passage:

The method of variation is that breaking up hypothetical static state by varying one of the “outside” data for the system as a whole. Then one studies what alterations in the whole system of economic relationships have to follow, in which order they take place, and what frictions will take effect until a new static state is arrived at. We start, therefore, from a static condition in an exchange economy with a particular mixture of monopolistic and competitive markets and with a particular monetary system (Eucken 1950, 253).

4.2.2 The Statistical Approach – A Concrete Explanation of Historical Events

These abstract models represent analytical instruments that should assist in dissecting a concrete historical event. “The aim is to *understand* the concrete situation, not merely to establish the facts” (Lutz 2002, 212; Lutz 1944, 211). Statistical research represents the second step in understanding a specific historical event. It describes the individual phenomenon, on the one hand, and the context within which this phenomenon occurred, on the other hand. The analysis of this phenomenon should be conducted with the help of the insights derived from the static system, however, within the observed conditions in the actual case, i.e. the context stated by statistics (Lutz 1932, 154–160). In other words, the economist should choose the case study which explains the observed variation in a datum in order to explain the observed phenomenon:

²⁰ It should be mentioned that this method was also used by Mises (1978 [1960], 117).

The ready-made theoretical clothes only have to be tried on the specific case and the ones that fit chosen, so to speak (Lutz 2002, 214).

If the theoretically defined propositions do not match the phenomenon observed in reality, statistics must determine the specific accompanying factors, frictions or moments which occur simultaneously, even if it is independent of the change in *datum*. These accompanying factors can reinforce or counteract the impact of this change on the structural relationships within the system. This can explain why the theoretically stated influence diverges from that observed in reality. Statistics should also determine the magnitude of change in a *datum*. Therefore, statistics and theory are two complementary parts which Lutz (1944, 211) defined as dualism in explaining the individual phenomenon. While the theoretical model, with the help of the variation method, can identify the direction of movement of economic variables resulting from the change in a *datum*, statistical research can formulate the magnitude of this change on the economic system, i. e. the deepness of crisis (Lutz 1932, 155–157). In this manner, Lutz attempted to solve the antinomic problem with which the German-speaking business cycle theorists were occupied:

Above all, it [the analysis of the concrete progression of the business cycle, LG] also creates complete freedom for any researcher investigating concrete reality, removing the fetters that a general theory of the business cycle imposes on him. He no longer has to admit that the particular case under investigation is an exception which does not fit the theoretical schema, nor to interpret the facts to make them fit; he is free and can accept reality as it is (2002, 237).

5. Did Friedrich A. Lutz Win the Day?

Cristof Rühl was considered the first scholar who discovered the importance of Lutz' habilitation thesis (Dal Pont Legrand and Hagemann 2013, 250). According to him, “[i]t seems fair to say that Lutz' criticism ‘won’ the day” (Rühl 1994, 200, fn. 27). But the question is whether this really is the case. The most notable reaction to Lutz' thesis is Hayek's Copenhagen lecture “Price Expectations, Monetary Disturbances and Malinvestments” delivered in 1933 (1939 [1935]). Hayek supported Lutz' argument to concentrate on the development of those areas of general economic theory, particularly money and capital, which were needed to explain an individual cycle rather than to develop a general theory of cyclical fluctuations. He agreed with Lutz that if economists wanted to gain knowledge in the field of money and capital, they must study these phenomena with the help of the static approach.²¹ In this sense, he agreed with Lutz' critique of the attempts to develop a (new) dynamic approach serving as the basis for endogenous business cycle theories (*ibid.*, 136–137). Five

²¹ Hayek discussed the contemporary attempts to develop new dynamic theories in order to explain the business cycle problem. Hayek reminded the reader how he also tried to solve the dynamic problem of business cycles based on the theory of equilibrium by incorporating money and time into the concept of equilibrium (*ibid.*, 137–138).

years after the Copenhagen lecture, Hayek still adhered to Lutz' argument when he participated in a discussion "Is the Trade Cycle a Myth" (1938) at the Royal Statistical Society (Rühl 1994, 190). There, he emphasized once again how important it is to study the problem of capital and money in order to explain a specific crisis "instead of a vain search after the common characteristics of all cycles" (Snow 1938, 579).

In contrast to Hayek's positive review, Lutz' idea to concentrate on an individual crisis was generally rejected by leading economists. Besides the already discussed review of Gustav Clausing (1933a), the reviews of Fritz Burchardt (1934), Adolf Löwe's closest collaborator (Hagemann 1994, 106), Oskar Lange (1934), and Erich Carell (1933), whose book *Sozialökonomische Theorie und Konjunkturproblem* (1929) played a relevant role during the debate (Kuznets 1930, 390), did not share Lutz' idea of abandoning the business cycle as a subject of inquiry in economics. Along these critical reviews, Bernard F. Haley (1933) of Stanford University discussed the thesis in the *American Economic Review* summarizing Lutz' main ideas. Even though he did not comment on Lutz' central message, this review demonstrates how well American economists were aware of German economic research.

In contrast, Clausing criticized Lutz because he rejected the concept of the business cycle from the viewpoint of static theory in an unjustified way. Clausing claimed that cyclical fluctuations are inherent to the economic process in advanced capitalism. He even claimed that Lutz' requirement to abandon business cycle theory was tantamount to abandoning general economic theory and to reducing economic science into "price-value-rent" theory as Schumpeter had claimed (Clausing 1933a, 95–96). Fritz Burchardt first paid tribute to Lutz' treatise because it demonstrated in a clear way how the subject of inquiry and the methods in the area of the business cycle research had changed throughout the history of economic analysis. However, he stressed that the regular appearance of crises required the construction of a general scheme. Burchardt acknowledged Lutz' claim that there was a potential danger that this approach would deprive economists from being able to explain a crisis. In order to avoid the danger of achieving a monism or constructing a too rigid scheme, this scheme should be further updated by statistical observations (Burchardt 1933, 100). Furthermore, Burchardt discussed critically that Lutz had only concentrated on the downward movement of the business cycle. For him, it is also important to construct the reversal from depression to upswing deductively in an analogous way to Lutz' preferred study of the movement from the upswing to depression. The explanation of these motions made equilibrium a problematic concept. Burchardt agreed with Lutz concerning the classical pattern of thinking, i. e. data variation, as a necessary analytical instrument; however, this data variation should also be studied in a dynamic system, "unemployment with generally unused capacity." (Burchardt 1933, 102). These had been unusual assumptions for the Classics, but they should be considered during the study of credit expansion or capital formation. So, they would ascertain completely different impact on the endogenous variables than in a static system (Burchardt 1933, 101–102).

Oskar Lange claimed that the frequent recurrence of crises necessitates dynamic theories à la Schumpeter or Marx.²² Lange agreed with Lutz that Schumpeter's concept of the static proprietor was not perfectly formulated, because his distinction between static proprietor and active entrepreneur was more psychological than economical. The static proprietor acts based on given data, i. e. a given production function, whereas the active entrepreneur modifies his production function and thus sets economic development in motion. Despite this critical remark, Lange underscored that Lutz carried out a valuable discussion of the role of statistics in the research of business cycles. Lange even stressed that these chapters were "among the best known to the reviewer" (Lange 1934, 387, my translation). In contrast to Burchardt's criticism, Lange emphasized the relevance of Lutz' methodological message to study the changes in data with the help of equilibrium case studies as a preparatory step to study the business cycle: "The stimulus offered by the author in this direction cannot be overestimated" (Lange 1934, 387, my translation), even comparing it with the methodology of the later Noble Prize laureate Jan Tinbergen, who studied the processes of equilibrium adjustment based on models with various time-lags.

The intellectual nexus between Lutz' methodological message and Tinbergen's research program was also underscored by Hans Bayer's article "Wirtschaftsentwicklung und Konjunkturstabilisierung" (1953). According to Bayer (*ibid.*, 49–53), Tinbergen and his student Jacques J. Polak showed in *Dynamics in Business Cycles* (1949) how important the structure of the economy is for understanding the individual cycle, very much in line with Lutz' reasoning. In later work supporting Marx' theories as fundamental for the explanation of capitalism, Lange once again esteemed Lutz' achievements. He discussed these theories attempting to explain the periodic recurrence of the cycle based on equilibrium theory. Here, he distinguished between two strands: either by seeking the forces for periodic recurrences outside of the economic system, e. g. meteorological. Or the crisis is an accidental phenomenon, whose historical uniqueness necessitates the explanation with the help of the existing equilibrium system. The latter "has been argued very ably by Friedrich Lutz" (Lange 1935, 196, fn. 1).

6. Conclusion

This article focused on Friedrich A. Lutz' habilitation thesis *Das Konjunkturproblem in der Nationalökonomie* (1932) which was considered the last highlight in the German-language business cycle debate, contributing to the existing literature (Rühl 1994; Dal Pont Legrand and Hagemann 2013) by concentrating on Lutz' explicit criticism of how the concept of periodic recurrence of crises was formulated. As Eucken stated, Lutz aimed to delineate the development of crisis research in the

²² He even praised Hayek's and Mises' monetary business cycle theories and recommended that they can be further expanded if it is shown how banks expand their loans based on profit prospects (Lange 1934, 386).

context of the general development of scientific methods. The concept of periodic recurrence stems from the empiricism and historicism of the 19th century when science in general was striving for realism. For Lutz, Clément Juglar's "unconditional" observation led to the problematic definition of the research question, a definition that was accepted by the Historical School and those economists pursuing more "realism" in their research. According to Lutz, this problematic formulation provided the basis for methods that either ended up as mere descriptions, as hybrid theories of Gustav Cassel and Emil Lederer, or as pure logical theories, as that of Schumpeter. The descriptions and the logical theories deprived the economists to explain the severity of crises (Lutz 1932 145–147).

In order to avoid subjective formulations of research questions, Lutz referred to general equilibrium theory, and in particular the premise of tendencies towards equilibrium within the exchange process. This should be the benchmark for the formulation of these general phenomena (such as the formation of prices, wages, capital and money) that are conducive to deductive theory. This is the epistemological message that this paper derived from Lutz' thesis. Furthermore, there is a methodological message concerning the models that should be developed in order to explain these phenomena. These models represent general Walrasian equilibrium theorizing, reflecting the interdependences of the exchange relationships with whose help the formation of prices, wage, capital and money ought to be explained. The economist's task is to develop (dynamic) thought experiments by varying one of the data in the system in order to study its impact on the exchange relationships. The dynamics resulting from this change in data depend on case study-based specific frictions (price, wage rigidities etc.).

In this way, the economist is able to point out how the same change in one datum can have different effects on the economics. That these case studies would later be developed by Eucken as ideal types that should be used as a method to bridge the gulf between theory and reality constitutes Eucken's solution to the Great Antinomy. These case studies (or ideal types) represent preparatory work for explaining a concrete historical event. This explanation is supported by statistical research, because statistics describe the observed phenomenon, i.e. crisis, and determines the accompanying frictions and moments occurring with the observed phenomenon. The general theory and the concrete explanation comprise Lutz' methodological message how to study each historical event. In conclusion, it really only was Hayek who accepted Lutz' main messages. This might have been the reason why Lutz was invited to spend the academic year 1934–1935 at the London School of Economics, where he established life-long contacts, among others with Hayek and Lionel Robbins. However, considering the reactions of the other German-speaking economists, it is hardly discernible whether Lutz really "won the day."

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