

# Karl Brunner and the Konstanz Seminar

Jürgen von Hagen<sup>\*</sup>

Department of Economics, University of Bonn, Kelley School  
of Business, Indiana University, and CEPR

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## Abstract

Karl Brunner founded the Konstanz Seminar on Monetary Theory and Policy together with Alan Meltzer in 1970. Brunner and Meltzer intended the Konstanz Seminar to be primarily a teaching institution – young and promising academic economists and central bankers from Germany and Switzerland should have an opportunity to meet with the best monetary macroeconomists from the US and the UK to learn how to do modern macroeconomic science. Karl Brunner presided over the Konstanz Seminar until his death shortly before the 20<sup>th</sup> conference in 1989. I review the speakers and topics of the Konstanz Seminar over those 20 years as a way of illustrating the development of thought and debate over that period. I also analyze the impact the seminar had on monetary policy in Germany and Switzerland. The Konstanz Seminar, which will celebrate its 50<sup>th</sup> anniversary in 2019, remains part of Karl Brunner's intellectual legacy in Europe.

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<sup>\*</sup>Department of Economics, Lennéstrasse 37, D-53113 Bonn, Germany, [vonhagen@uni-bonn.de](mailto:vonhagen@uni-bonn.de). I thank Ernst Baltensperger, Michele Fratianni, Dale Henderson, David Laidler, Patrick Minford, and Georg Rich for helpful comments on an earlier draft of this paper.

## I. Introduction

The first time I attended the *Konstanz Seminar on Monetary Theory and Policy* was in June 1982. The proceedings took place in the conference room of *Hotel Loechnerhaus* on Reichenau Island, about 10 km outside the city of Konstanz. The conference room was a rectangle with tables arranged in a large U shape. Karl always sat at the left front, directing the discussion and keeping a list of who was participating in it. Manfred J. M. Neumann, the man in charge of the organization, sat next to him. He had assured (and warned) me before the conference that anybody who did not speak up during the discussion at least once would never be invited again. At the front side of the room was a large black board on which presenters and discussants drew diagrams and wrote key statements. Overhead projectors and slides came in the late 1980s. Also at the front side of the room stood *The Flag*: a large flag with green, blue, red, gold, and black stripes and  $MV=PY$  written in black letters on dark red ground on the top. The flag was a gift from the hotel manager, Mr. Leistner, who liked Karl Brunner and economists a lot and knew nothing about economics apart from that equation.

I was Manfred Neumann's doctoral student at the time. With his warning in mind, I raised my hand at some point during the discussion and made a comment. Karl's reply was that my thinking was rather misguided. After the session, he came to me to say that I should not be discouraged by his remark – that it was good and important to be active in academic discourse even at the risk of being criticized. Being a doctoral student at the University of Bonn, I was already accustomed to that principle, but for many young academics in Germany, Austria, and Switzerland, that was a huge change in culture from what they were used to at their home institutions.

Being at the Konstanz Seminar was awe-inspiring for me as it certainly was for the many young German, Swiss, and Austrian academics who had participated in earlier years and would do so later on. It was awe-inspiring to interact with the famous US and British economists whose papers I had studied for my exams and doctoral studies. At the 1982 Konstanz Seminar, that included Robert J. Barro, Willem H. Buiter, Alex Cukierman, Dale W. Henderson, and Bennet T. McCallum, and, of course, Karl Brunner and Allan Meltzer. But with all the awe, my own and my fellow young participants' hero was Anatole B. (Ted)

Balbach, then the research director of the St Louis Fed. Ted had earned his PhD from UCLA under Karl Brunner's supervision, he knew the current research well and had good judgment concerning its quality and relevance. But Ted's outstanding quality was his sense of humor and friendliness towards us youngsters, which helped us feel comfortable in such an outstanding academic environment.

In this paper, I review the history of the Konstanz Seminar as it developed under Karl Brunner's direction from 1970 until 1989. Section II is dedicated to the origins, the purpose, and the organization of the Konstanz Seminar. Section III considers the people who attended the seminar during the years when Karl directed it. Section IV reviews the topics and papers presented during that period both to assess the academic quality and to see to what extent the Konstanz Seminar was a *monetarist event* as its critics often argued. Section V concludes with a look towards the 50<sup>th</sup> anniversary seminar which will be held in June 2019, still in the same room where Karl sat for many years.

## **II. Origins, Purpose, and Organization**

In 1969, Karl Brunner was appointed as *permanent visiting professor* ("Ständiger Gastprofessor") at the University of Konstanz, which had been founded in the 1960s as an institution dedicated to graduate and doctoral studies and research. Karl immediately started a research project on monetary theory and policy and hired several young Germans as academic assistants. Among them was Manfred J. M. Neumann. Manfred had earned his PhD from the University of Marburg in 1966 with a thesis on the practices of trade between West and East Germany. He had worked for Deutsche Bundesbank for a few years but was eager to get back into academic research. As Karl's assistant, he was in charge of organizing the first Konstanz Seminar on Monetary Theory and Policy in 1970. Karl must have liked his approach and success, since he left that task to Manfred from then on, even after Manfred left the University of Konstanz to take a professorship at the Free University of Berlin in 1973.

The first and the second Konstanz Seminars took place on the campus of the University of Konstanz. But in 1972, Karl Brunner decided to move the Seminar to the Island of Reichenau, because, apart from being in the hotel under Karl's supervision, the participants had few opportunities to go out to late-night drinks there. The Seminar was held at the Hotel

Loechnerhaus; some participants stayed in smaller hotels on the island. Also in 1972, Karl introduced the conference dinner, which was – and still continues to be – held at Hotel Waaghaus in Gottlieben, a small historical town on the Swiss side of Lake Konstanz. From 1973 onwards, Manfred Neumann hired a ship to transport the entire Seminar there. Table 1 shows that the basic structure of the program remained largely unchanged over the 20 years covered in this paper.

The Konstanz Seminar on Monetary Theory and Policy was among Karl's first initiatives in Germany. Upon his return to Western Europe, Karl was shocked by what he thought was a poor state of macroeconomics and monetary economics particularly on the Continent. In a private communication written to me in 1999, Karl's long-time friend, former PhD student, and frequent co-author Allan H. Meltzer wrote to me: "Karl returned to Europe in the late 1960s as a professor at the newly formed University of Konstanz. He was struck by two things especially. One was the large amount of Marxism and neo-Marxism in West Germany. Second was the gap between the quality of research and teaching of economics in the US and Germany. Interlaken aimed at the first problem, Konstanz at the second.<sup>1</sup> Briefly, this second aim was reflected in the structure. There were always a few US or UK economists working actively at the research frontier. Later, Korteweg and Bomhoff added a high-quality Dutch component. These efforts aimed at the young people, the assistants especially who would be the future of economics in Germany and elsewhere in Europe. A second theme was policy. There was always a leading policymaker who presented his ideas and interacted with the academics. We learned about the problems as they saw them. They learned about the analysis as we saw it. We hoped for some convergence, also more openness."

In his *Introduction to the Proceedings of the First Konstanzer Seminar on Monetary Theory and Policy*<sup>2</sup> Karl explained: "The Conference was designed to encourage empirical and analytical work in Europe and particularly in Germany in the field of monetary policy and monetary analysis. The European scene mirrors in many ways US experiences. The division of "monetary theory" and "monetary policy" into separate, unrelated realms of discourse still persists in Europe to a large extent. But theory without application to our environment is

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<sup>1</sup> Karl Brunner also founded the *Interlaken Seminar on Analysis and Ideology* as an annual meeting of economists, other social scientists, and philosophers in Interlaken, Switzerland, around the same time he started the Konstanz Seminar.

<sup>2</sup> Karl Brunner (ed.), *Proceedings of the First Konstanzer Seminar on Monetary Theory and Policy. Beiheft 1 zu Kredit und Kapital*, Berlin: Duncker und Humblodt 1972

useless and policy discussion or judgments not based on analysis are dangerous. Productive cognition and reliable policy both depend on the development of a monetary analysis which yields propositions applicable by policymakers to rational decision making.”<sup>3</sup> In the same *Proceedings*, Manfred J. M. Neumann added: “The foundation of the Konstanz Seminar on Monetary Theory and Policy, which will take place annually from now on, is based on the idea that debates on monetary theory in Germany and other European countries should be led out of their narrow, domestic perspectives. As it has turned out, European research has for a long time taken only sporadic notice of new developments in the international and especially the US research during the last decade. The consequence has been – not only for the German-speaking countries – that work on monetary theory here has not kept pace (quoting Issing) and are frequently unconnected to the international debate (quoting Artur Woll). A permanent European forum on monetary theory such as the Konstanz Seminar on Monetary Theory and Policy could contribute to the removal of this unsatisfactory and, eventually, fatal situation. It offers the opportunity of starting and intensifying a direct dialogue between European and American monetary theorists and members of monetary policy institutions and to expose research from Germany to the test of international critique.”<sup>4</sup>

These statements convey a sense of urgency of the need for a change in the German and Continental European academic and policymaking cultures Karl, Allan, and Manfred felt when they started the Konstanz Seminar. Karl intended it mainly as a pedagogical device to bring state-of-the-art monetary and macroeconomic research especially to Germany and the German-speaking academic and central banker community. From the beginning, this intention was reflected by the fact that the Konstanz Seminar emphasized (and still emphasizes) open exchange about research and policy more than other conferences. It remains the only conference I know of where discussants get more time to critique a paper than authors get to present it, and there is more time allocated to the general discussion from the floor than to the authors and discussants together. At the early conferences, an entire afternoon session of 2.5 hours was devoted to a *General Discussion of Major Points Covered in Previous Discussions after an Introductory Survey by the Chairman*. Sometimes, an

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<sup>3</sup> Ibid. P. 7

<sup>4</sup> Manfred J. M. Neumann, *Konstanzer Seminar on Monetary Theory an Policy 1970*. In: Karl Brunner, *Processings* p. 10-11

individual session was announced as a *continuation of the previous discussion*, referring to the preceding session in which two papers had been presented and discussed already. In these discussions, Karl encouraged an open and rather harsh style of criticism, which was foreign to German academics. At the time, the Bundesbank, like many other European central banks, did not have a research department. Therefore, open exchange of views between academics and policy makers in the Konstanz Seminar style was similarly unusual.

The Konstanz Seminar was designed to change that. This was reflected in the structure of its programs. The Seminar always started with an informal gathering of all participants over drinks on the eve before the first full conference day, initially at the student bar of the University of Konstanz, later at Hotel Loechnerhaus. Because of the logistics – traveling to Konstanz from other parts of Germany and Europe takes a long time even today – all participants had to be there the night before the Seminar started. From 1970 to 1984, each Seminar lasted three full days with sessions in the morning and in the afternoon. From 1975 on, the afternoon session on the second day was skipped, partly to give participants an opportunity for sightseeing, partly to give them an opportunity to work on joint research. From 1984 on, the afternoon session on the third day was canceled to allow European participants to travel home that day – US participants had to stay another night to catch flights the next morning. Karl always insisted that all participants stay for the full conference – anyone who showed up late or departed early would never be invited again except if he had very good reasons that Karl found compelling. Starting in 1976, the Seminar featured panel sessions devoted to current economic policy issues.<sup>5</sup> Panelists were academics or, preferably, representatives of monetary policy institutions. In later years, central bank

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<sup>5</sup> The topic of that panel was not announced in the program in 1976, 1977, 1978 1983. The panels had the following participants and participants: *Current issues in central bank policy* with Kurt Schiltknecht (Swiss National Bank) and Mark H. Willes (FRB Minneapolis) in 1979; *The Green Book Monetary Policy Prepared by the Bank of England* with Charles Goodheart (Bank of England), Mark. H. Willes (FRB Minneapolis), and Kurt Schiltknecht (Swiss National Bank) in 1980; *An Evaluation of President Reagan's Economic Policy* with no panelists but general discussion chaired by Karl Brunner in 1981; *Economic Policy in the UK* with panelists spontaneously selected and not announced in the program in 1982; *Some Reflections on the Experience With Monetary Targeting Over the Past Ten Years* with Helmut Schlesinger (Deutsche Bundesbank) in 1984; *Japan's Monetary Policy Over the Past 10 Years* with Yoshio Suzuki (Bank of Japan) in 1985; *International Monetary Reform* with panelists selected spontaneously in 1986; *The World Debt Problem* with Allan Meltzer and Joseph Bisignano (Bank for International Settlements, Basel) in 1987; *International Monetary Policy* with panelists selected spontaneously in 1988; *International Monetary Cooperation: Do We Need it and in Which Way?* With Markus Lusser (Swiss National Bank), Helmut Schlesinger (Deutsche Bundesbank), and Yoshio Suzuki (Bank of Japan) in 1989.

presidents and presidents of regional Federal Reserve banks were invited as speakers to these sessions. Karl encouraged lively and heated debate in these discussions.

It is interesting to compare the Konstanz Seminar with the other conference series Karl Brunner started around the same time, the *Carnegie Rochester Conference Series on Public Policy*, which had its first rendition in 1973 and was organized jointly by Karl and Allan Meltzer. In their introduction to the proceedings of the April 1973 conference, Karl and Allan wrote: "Policies depend not only on theories and evidence, but on the structure of policymaking bodies and the procedures by which policies are made, implemented and changed. The conferences direct the attention of economists to major problems of economic policy and institutional arrangements. We hope that the papers and the conferences will encourage further research on policy and on the effects of national agencies and international institutions on the choice of policies. The Carnegie-Rochester Conference is an open forum. Participants are united by their interest in the issues discussed and by their belief that analysis, evidence and informed discussion have lasting effects on the public and its institutions."<sup>6</sup> There are similarities, but also clear differences in the two conferences. The similarities are the interest in economic policy, the conviction that academic research and practical policymaking can and should benefit from an exchange of ideas, and the emphasis on open debate. In this, Carnegie-Rochester wanted to distinguish itself from Brookings. In his 1999 private communication to me, Allan Meltzer explained: "To our view, Brookings ran estimations on this or that function but did not connect their work to economic theory. Carnegie-Rochester mostly did the opposite. Also, Karl was always interested in having sessions on important government reports."

But the Carnegie Rochester Conference was much broader in its thematic approach than the Konstanz Seminar. It addressed all areas of *public policy* whereas the Konstanz Seminar was more narrowly dedicated to research in *monetary theory and policy*. As Allan Meltzer put it in the same communication to me: "Konstanz was much more a training enterprise by example. Learn by observing. Learn to criticize substantively. Learn to take criticism and improve your work. Learn to formulate falsifiable hypotheses. Etc. Carnegie-Rochester was a research conference among leading researchers." One indication of the different intentions

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<sup>6</sup> Karl Brunner and Allan H. Meltzer (1974), *Introduction to the Series. Carnegie-Rochester Conference Series on Public Policy I*, 1976, p ii.

Karl Brunner pursued with the Konstanz and the Carnegie-Rochester Conferences is that, apart from the first Seminar in 1970, the papers presented at Konstanz Seminars were never published in conference volumes or special journal issues. In contrast, the papers presented at the Carnegie-Rochester Conferences were, from the beginning, published, first in a special series under the same title as the conferences and later in conjunction with the *Journal of Monetary Economics* which Karl had founded in 1975.

Organizing and managing the Konstanz Seminar was Manfred J. M. Neumann's task. Having worked at the Bundesbank for a few years, Manfred had good connections to German central bankers and was able to attract a good number of leading Bundesbank economists to the Seminar. It is not clear how the work was shared between Karl and Manfred, nor whether there was ever a formal transition of the responsibility for the Seminar from Karl to Manfred. In Allan Meltzer's words: "For many years, Karl gave general directions and Manfred did most of the program and organization. Since they had similar aims and worked together well, there was no sharp break as far as I know. ... Karl left people alone as long as he was satisfied with what they were doing."

Karl Brunner and Manfred J. M. Neumann managed to get some sponsors from the private sector to provide the financing of the Konstanz Seminar, an indication of their entrepreneurial spirit and skill. Prominent among them were Deutsche Girozentrale – Deutsche Kommunalbank and Deutscher Sparkassenverband. Karl's friends Wolf-Dieter Becker and Gerhard Zweig must have been instrumental in providing that financing. Neither one was a true monetary economist, but they deeply appreciated Karl's style of open and honest debate and his general free-market orientation, which was rare in Germany in those days.<sup>7</sup> Later, the Bundesbank, the Swiss National Bank, the Dutch Central Bank, the Austrian National Bank, and the Bank for International Settlements became regular sponsors of the Seminar, too. In addition, several private banks made regular contributions. In 1979, Manfred Neumann founded the *Verein Konstanzer Seminar* (Konstanz Seminar Association), a charity organization that collected the finances. Once again, Becker and Zweig were helpful in this initiative. For several years, the Association fought a legal battle against the German

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<sup>7</sup> Even some members of the Bundesbank Council at the time favored French-style central planning of credit and investment and a majority of them regarded the German economy as dominated by powerful monopolies and labor unions. See Juergen von Hagen, *A New Approach to Monetary Policy (1971-8)*. In: Deutsche Bundesbank (ed.), *Fifty Years of the Deutsche Mark, Central Bank and the Currency in Germany since 1948*. Oxford: Oxford University Press 1999



tax authorities who did not appreciate the value of academic debate and thought that a seminar on the shores of Lake Konstanz could only be a boondoggle for academics that did not deserve a charity status. A tax court finally cleared the association.

### III. People

In this section, I look at the participants of the Konstanz Seminars in which Karl Brunner actively took place. I include 1989, which took place after he had passed away, because Karl was probably still involved in the organization of the program to some extent at that time. Unfortunately, a full set of records of participants does not exist for all years from 1970 to 1989. I have lists of participants only for 1970 (names without affiliations), 1977, 1979, 1980, 1982 and 1984. For the other years, participants can only be retrieved from the programs which do exist for all years, but it is clear that this is only a subset. In the tables below, “year Konstanz” refers to the first year in which I find a person recorded as a participant. Multiple attendances were common. In fact, Karl and Manfred often invited a person first as a participant without being on the program, then, if they approved of him or her, gave him or her a charge as a discussant the following year, and finally invited him or her as an author.

Table 2 reports the junior academics from Germany attending Konstanz conferences between 1970 and 1989. Here, *junior* means persons not being part of the German academic establishment, yet. Academic careers take longer in Germany until a person reaches the status of professor, due to more time spent in secondary school, and several, sometimes many years spent as a postdoc working on a second thesis called *Habilitation*. The table shows that the Konstanz Seminar gathered an entire generation of German monetary economists, all born between 1935 and 1945. Born in December 1940, Manfred J. M. Neumann was 29 years old when he organized the first Konstanz Seminar and thus fell right into the middle of that age group. That first Konstanz Seminar alone brought together 14 junior academics from Germany, one fifth of the total participation of 70. In total, I identify 42 junior academics over those 20 years. There may well have been more who did not give papers nor serve as discussants. As time went by, obviously the birth years moved up, too.

Table 2 also reports the universities where these individuals had obtained their PhDs. It shows that they came from a large number of different places. There is thus no indication that Karl had a particular preference in this regard, which might have been the case had he

invited these participants based on their belonging to particular academic schools or ideological orientation. There is also a wide range of academic reputation of the institutions where the participants had obtained their PhDs.<sup>8</sup>

Some research on personal histories using data from the 1986 and 1990 directories of members of the German Economics Association (*Verein für Socialpolitik*) and from the internet allowed me to check which of these participants subsequently obtained a professorship. In the 1980s and early 1990s, it was pretty much expected of a German economics professor to be a member of the *Verein* so that this is a reasonably reliable indicator. Table 2 indicates that I did not find a record of a faculty position for only six of the 42 junior participants. Of these six, Janocha stayed as a researcher at the Kiel Institute for World Economics, Pfister worked for the German Council of Economic Experts and then for a large bank, Buscher worked for different economic research institutes, and Wurzel for the OECD. That is, they still had significant careers as economists and remained active in economic research and/or policy. The vast majority, however, later held professorships at German universities. The table again shows a large degree of variation of the places where they ended up in terms of academic reputation and quality. Karl obviously wanted the junior participants he invited to be serious and promising researchers, but he did not go just for a small elite.

But the Konstanz Seminar was not meant for junior academics from Germany alone. Table 3 lists the junior participants from other European countries during the first decade of the Konstanz Seminar. It shows that there were a good number participants especially from Austria and Switzerland, but also from France, the UK, Belgium, Italy, and the Netherlands, all belonging to the same cohort of people born in the second half of the 1930s and the first half of the 1940s. It seems, though, that Karl was more selective with regard to the (expected) academic quality of this group, as I find almost exclusively names of people who had very distinguished careers afterwards.<sup>9</sup> One member of this group, Mario Monti, even

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<sup>8</sup> In his comments on this paper, Ernst Baltensperger suggested that it was part of Karl Brunner's character as a missionary to invite people "who had not yet converted to his views as long as he judged that there was potential." The list of invitees certainly supports that proposition.

<sup>9</sup> The Table may well underestimate the number of young academics from Austria and Switzerland as there were probably a number who attended the Seminar but had no role on the program. Ernst Baltensperger mentioned Karl Brunner's academic assistants at the University of Bern, Thomas Lys, Claudio Loderer, and

became Prime Minister of Italy; Antonio Fazio later became president of the Banca d'Italia, Tommaso Padoa-Schioppa and Paolo Savona served as ministers of the Italian government. Overall, Karl's pedagogical intentions with the Seminar seem to have been primarily directed at Germany.

I list Laidler and Parkin among "junior" participants in Table 3 purely for age reasons. In fact, both were already established academics at the University of Manchester at the time, and their ties to Karl Brunner dated back to several years before the first Konstanz Seminar, which Laidler attended. In a comment on an earlier draft of this paper, David Laidler explained to me: "Like me, Michael, who got it from me at Essex, and Alex Swoboda to mention another, had caught the bug [of monetarism] in the early to mid 60s, and had already found this a big advantage in our careers! Of course in my case, Karl was still one of the influences from about 1964 onwards, when I was at Berkeley and met him at UCLA, as was Harry G. Johnson, my teacher at Chicago - not forgetting Friedman and Schwartz!" Laidler and Parkin were leading a monetary research program at the University of Manchester at the time.

The heavy emphasis Karl put on the idea of using the Konstanz Seminar as a pedagogical device is clearly revealed also by comparing the number of junior participants from Germany with the number of senior participants, who are listed in Table 4. At the first Seminar, there were only five senior academic participants, a third of the number of junior academics. That alone must have made it an outstanding event in Germany at the time.

In the years that followed, not many senior German academics were added to the list. The ones who did attend the Seminar were of high academic standing in Germany at the time and most of them held views on monetary theory and policy which were very different from Karl Brunner's and Manfred J. M. Neumann's. Heinz Koenig, Wilhelm Krelle, and Rudolf Richter were leading members of their departments at the Universities of Mannheim, Bonn, and Saarbruecken, respectively, and contributed importantly to bringing these departments to the top among German economics departments. Krelle and Koenig both worked on large-scale, Keynesian-type macroeconometric models; Krelle was Larry Klein's German partner in his *Project LINK*, which aimed at building a model for the world economy. Claus Koehler was

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Bruno Gehrig. I also recall Tobias F. Roetheli, a doctoral student of Jürg Niehans, but these names do not appear on the programs nor on the few list of participants from those years.

a member of the German Council of Economic Experts and, from 1974 to 1990, a member of the Bundesbank Council. Koehler thought that money was relatively unimportant in the macro economy, that the money stock was not controllable by the central bank, and that price stability could be achieved by a steady growth of bank liquidity rather than money.<sup>10</sup> Werner Ehrlicher was a member of the Academic Advisory Council of the German Minister of Finance, Rector of the University of Hamburg and founding editor of the German journal *Kredit und Kapital* (now *Credit and Capital Markets*) which published the first proceedings of the Konstanz Seminar. Norbert Kloten was a member of the German Council of Economic Experts and became president of the Landeszentralbank Baden-Württemberg. Wolfgang Stuetzel was a member of the German Council of Economic Experts, too. Artur Woll was founding rector of the University of Siegen and author of one of the most influential economics textbooks in Germany.<sup>11</sup> Peter Bernholz was a monetary economist and historian from the University of Frankfurt; he later moved on to Basel. Both Reinhard Pohl and Bruno Nullau came from the German Institute of Economic Research (DIW) in Berlin, an institution with a staunch Keynesian bent at the time. Although he was born in 1936, I include Otmar Issing among the senior academics in this table, because he was already a full professor at the University of Erlangen-Nuernberg in 1970. Issing became a member of the Council of Economic Experts in 1988, a member of the Bundesbank Council in 1990, and the ECB's first Chief Economist in 1998. This quick review shows that Karl had no ideological bias in selecting the senior German participants, either. Among the people listed in Table 4, only Peter Bernholz, Norbert Kloten, and Artur Woll became frequent participants in the 1970s and 1980s.

The observation that Karl invited relatively few senior academic economists from Germany is open to two interpretations. One is that Karl did not invite more of them thinking that his pedagogical intentions would not succeed with the older group. Alternatively, he may have invited more senior academics but they chose not to attend because of Karl's reputation in Germany of being a staunch monetarist, while most senior German economists during that

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<sup>10</sup> Claus Koehler, *Thesen und Gegenthesen. Bemerkungen zu Milton Friedmans monetärem Konzept des „New Liberalism“*. *Weltwirtschaftliches Archiv* 105, 1970, 31-44

<sup>11</sup> I list Issing and Woll with Konstanz years of 1971, because Manfred J. M. Neumann quotes them with comments on the Seminar in his introduction to the 1972 publication of the proceedings but they are not listed among the 1970 participants.

period held strong Keynesian convictions. I have no data supporting or rejecting either one of these interpretations.

Table 5 shows the academic participants from the US during 1970 to 1989. Here, we see a more even mix of relatively senior and junior individuals and the latter were rising stars like Robert Barro, Rudiger Dornbusch, Robert King, Charles Plosser, and Kenneth Singleton. Altogether, the participants from the US were clearly much more advanced and visible researchers than those from Germany, especially the junior ones. This again reflects Karl's pedagogical intentions. Karl would often engage junior participants from Germany as discussants of papers presented by junior or senior participants from the US and vice versa, thus forcing both sides into open discussions.

Tables 6A-6C list the institutional participants from Germany, other European countries, and non-European countries, the latter predominantly from the US. These tables make it very obvious that the Konstanz Seminar also served as a forum for the exchange of ideas and for open discussion between central bankers, which had been the other pedagogical intention with which Karl had started the Seminar. The Konstanz Seminar attracted a large number of economists from within the Federal Reserve System, which was probably a result of Karl's and Allan Meltzer's strong connections within the Fed. To some extent, it may also have been a way of facilitating the financing of the Seminar, since institutional participants were expected to pay for their own accommodation and travel. Still, these tables suggest that the Seminar created a kind of discourse community among central bankers at a time when such a community did not yet exist in Europe.

Another part of building that community was the participation of a number of journalists at the Konstanz Seminar during the 1970s and 1980s. On the list of participants, I find journalists from important newspapers and magazines including Business Week, The New York Times, Frankfurter Allgemeine, US News and World Report, Neue Zuercher Zeitung, and Wirtschaftswoche.

#### **IV. Topics and Papers**

Table 7 presents a list of the topics of papers presented at the Konstanz Seminar on Monetary Theory and Policy from 1970 to 1989. I define six groups of topics: *Monetary*

*Policy* contains papers dealing with the supply and control of money, monetary policy indicators and targets, and other aspects of central bank policies; *Monetary Macro* contains papers presenting theoretical and empirical monetary macroeconomic models including models of the demand for money; *International Macro* contains papers dealing with issues in international macro and finance such as models of the balance of payments, capital flows, and exchange rates but with no particular focus on monetary policy; *International Monetary Policy* contains papers dealing with monetary policy in open economies, including strategic aspects of monetary policy in that context; *General Macro* contains papers dealing with macroeconomic models with no special focus on money such as Brunner's and Meltzer's "Monetarist Framework for Aggregative Analysis" presented at the first Konstanz Seminar and, later on, rational-expectations macro models with no particular focus on monetary policy; *Other* contains everything else. Of course, there is considerable heterogeneity in terms of specific topics within each group. Furthermore, the papers reflect the development of macroeconomics generally during those two decades, especially the rise of rational expectations modeling, the analysis of strategic aspects of central bank policy, and the modeling of central bank credibility.

A first impression of this table is that Karl Brunner and Manfred J. M. Neumann kept the Seminar strongly focused on monetary macroeconomics and policy. Of a total of 190 papers, only three are classified as *other*.<sup>12</sup> With a total of 13 papers, papers dealing with *general macroeconomics* were also relatively rare.<sup>13</sup> Most of these were presented between 1978 and 1986, when rational expectations and real business cycle modeling emerged in macroeconomics.

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<sup>12</sup> „Tariffs and the Distributon of Income: The Importance of Factor Specificity" by Michael Mussa presented in 1973; "Tax-induced Current Account Deficits" presented by Kari Puumanen in 1976; "Alternative Approaches to the Theory of the Banking Firm" presented by Ernst Baltensperger in 1978

<sup>13</sup> „Theory of Employment and Unemployment" presented by Karl Brunner and Allan Meltzer in 1978; "Wage Contracts and Risk Sharing by implicit and Firm-Indexing" presented by Felix Fitzroy in 1979; "Keynesian and Monetarist Analysis of Oil Price Shocks" presented by Michael Schmid in 1980; "Forecasts of the German Economy: An Evaluation Based on Rational Expectations" presented by Herbert S. Buscher and Manfred J. M. Neumann in 1981; "Granger Casality and Stabilization Policy" presented by Willem H. Buiter in 1982; "Rational Expectations in a Multilateral Model" presented by Patrick Minford in 1982; "Are Bond-financed Deficits Inflationary?" presented by Bennett T. McCallum in 1982; "Is the Business Cycle a Keynesian or a Classical Phenomenon?" presented by Michael Parker in 1985; "Information, Aggregation, and Macroeconomics: The Case of Consumption" presented by Marvin Goodfriend in 1986; "Debt Contracts and Financial Intermediation: An Agency Perspective" presented by Jan Pieter Krahn in 1986; "Fiscal Policy in a Model with Rational Expectations – Theoretical Aspects and Empirical Tests for West Germany" presented by Volbert Alexander in 1986.

With 61 papers in total, those related closely to the supply of money, monetary control and monetary policy form the largest group. There were only six years in which there was no paper presented which dealt with these issues. But there is a clear shift over time in emphasis from these themes to international macro and international monetary policy. In the second decade of the Konstanz Seminar, merely 10 papers dealt with monetary policy issues specifically, compared to 29 in the group of international macro and finance and 13 in the group of international monetary policy. In contrast, the flow of monetary macroeconomics papers was much more steady, with 21 papers in the first and 24 papers in the second decade.

Not publishing the papers helped Karl Brunner and Manfred J. M. Neumann attract some of the best and most influential papers written by US economists to be presented to the mostly young European economists participating at the Konstanz Seminar, which greatly added to the Seminar's pedagogical value. A detailed assessment of the quality of the papers presented at Konstanz Seminars between 1970 and 1999 can be found in Fratianni and von Hagen (2001).<sup>14</sup> Here, I just mention that some of the papers presented by American authors in the first 20 years found their way into the top US general and macroeconomics journals, the *Journal of Political Economy* (8), the *American Economic Review* (5), *Econometrica* (1), the *Quarterly Journal of Economics* (1), the *International Economic Review* (1), the *Journal of Economic Literature* (1), the *Journal of Monetary Economics* (10), the *Journal of Finance* (1), the *Journal of Money, Credit, and Banking* (5), the *Journal of International Economics* (2), and the *Journal of Macroeconomics* (1). One paper from that period was published in the *Economic Journal* and many more in less prestigious journals. Papers given by German and other European authors began to appear in journals, too, during the 1980s, and there was a clear tendency of German authors to shift from German to international journals.

What role did *monetarism* play in the Konstanz Seminar? This is a natural question to ask particularly in light of the fact that many German economists at the time suspected the Seminar to be a bridgehead of *monetarism* on the European continent. Karl Brunner had first used the label *monetarism* in a 1968 lecture at the Federal Reserve Bank of St. Louis, where he summarized the *monetarist thesis* as follows: "(i) Federal Reserve actions dominate the

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<sup>14</sup> Michele Fratianni and Juergen von Hagen, *The Konstanz Seminar at 30*. [European Journal of Political Economy](#) 17, 2001, 641-64

movement of the monetary base over time; (ii) movements of the monetary base dominate movements of the money supply over the business cycle; and, (iii) accelerations or decelerations of the money supply are closely followed by accelerations or decelerations in economic activity. Therefore, the Monetarist thesis puts forth the proposition that actions of the Federal Reserve are transmitted to economic activity via the resulting movements in the monetary base and money supply, which initiate the adjustments in relative prices of assets, liabilities and the production of new assets.”<sup>15</sup> However, in a paper published in *Weltwirtschaftliches Archiv* – a prominent German economics journal – in 1970, he gave a much broader meaning to the term, explaining that monetarism rested on four major propositions: (1), that the relative price of real capital was more important than the interest rate in the transmission of monetary impulses; (2), that the private sector of the economy and the market system were inherently stable and more so than the political sector; (3) that monetary impulses were the dominant disturbances causing fluctuations in output and employment; and, (4), that there is, in the long run at least, a separation of aggregative from allocative forces.<sup>16</sup> Taken together, these four propositions constitute both a world view and a particular macro economic model. The fourth proposition is a statement of the classical dichotomy and implies the neutrality of money. The second was generally and implicitly shared by most participants of the Konstanz Seminar, but not a significant topic of Seminar papers. The first and the third propositions, in contrast, were subject to much analysis and debate especially in the first decade of the Seminar.

Brunner’s and Meltzer’s presented their particular macroeconomic model, dubbed an *aggregative framework*, at the first Konstanz Seminar and again in 1976.<sup>17</sup> The framework featured markets for output, money, and credit, the market for real capital being in the

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<sup>15</sup> Karl Brunner, *The Role of Money and Monetary Policy*. Federal Reserve Bank of St. Louis *Quarterly Review* July 1968, 9-24, p. 24. For a discussion of Brunner’s and Meltzer’s concept of monetarism see David Laidler, *Promoting and Defending Monetarism – Reflections on Four Papers by Karl Brunner*, [this volume chapter ???](#) Mauro Boianovsky explains that the notion of *monetarism* had emerged already in the early 1960s in Latin American circles of economists, where it described a position according to which fighting inflation required macroeconomic stabilization rather than structural policies. See his *Celso Furtado and the Structuralist-Monetarist Debate on Economic Stabilization in Latin America*, *History of Political Economy* 44(2012), 277-330.

<sup>16</sup> Karl Brunner, *The Monetarist Revolution in Monetary Theory*, *Weltwirtschaftliches Archiv* 105, 1970, 1-30, p. 2.

<sup>17</sup> The paper presented at the first Konstanz Seminar was entitled *A Monetarist Hypothesis of Economic Fluctuations* and published as *A Monetarist Framework for Aggregative Analysis in Proceedings of the First Konstanz Seminar on Monetary Theory and Monetary Policy*, Karl Brunner (ed.), *Kredit und Kapital* Beiheft 1, Berlin: Duncker & Humblodt 1972. The 1976 paper was entitled *The Path of Prices and Output* and published as *An Aggregative Framework for a Closed Economy* in Jerome L. Stein (ed.), *Monetarism*, Amsterdam: North Holland 1976.



background by Walras's Law, but no explicit labor market. In contrast to the standard Keynesian model, where credit and real capital are perfect substitutes, the distinction between these two was at the core of the analysis. It was based on assumptions about the costs of adjustment of real capital and of information. The interplay between the three asset markets determined the model's reaction to monetary and fiscal impulses in the short, the intermediate, and the long run. Such impulses mattered, because they disturbed the asset market equilibrium and drove relative asset prices away from their equilibrium values. In this regard, the framework was similar in spirit to Tobin's (1969) *General Equilibrium Approach*.<sup>18</sup> The transmission of such shocks to the output market worked predominantly through their effect on the relative price of real capital rather than the interest rate as in the IS-LM model. Credit was offered by banks or issued in the bonds market and the money supply (currency and demand deposits held by the nonbank sector) was the result of the interaction between the nonbank sector, the banking sector, and the central bank. There was also a distinction between an anticipated rate of money growth and unanticipated changes in that rate. Anticipated money growth only affected the rate of inflation with no real effects; money was *super-neutral* in the Brunner-Meltzer framework. Adjustment costs and imperfect information caused private agents to react sluggishly to exogenous shocks; information frictions being at the core of Brunner's and Meltzer's theory of money.<sup>19</sup>

It is interesting to see how this framework compares to dynamic, stochastic general-equilibrium macro models used today. Brunner's and Meltzer's arguments anticipated the distinction between expected and unexpected policies that became important with rational expectations modeling. Their argument about information costs causing sluggish reactions was similar to current concepts ideas of rational inattention and sticky information.<sup>20</sup> Their emphasis on the role of the banking sector for the transmission of macroeconomic shocks antedated the development of macro models with financial and credit markets based on incomplete contracts or incomplete markets. Altogether, this seems pretty modern. Many of the ideas underlying Brunner's and Meltzer's analysis are conventional wisdom today. But,

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<sup>18</sup> James Tobin, *A General Equilibrium Approach to Monetary Policy*. *Journal of Money, Credit, and Banking* 1, 1969, 15-29.

<sup>19</sup> See Karl Brunner and Allan H. Meltzer, *The Uses of Money: Money in the Theory of an Exchange Economy*. *American Economic Review* 61, 1971, 784-805

<sup>20</sup> N. Gregory Mankiw and Ricardo Reis, *Sticky Information Versus Sticky Prices: A Proposal to Replace the New Keynesian Phillips Curve*. *Quarterly Journal of Economics* 117, 2002, 1295-1328; Christopher A. Sims, *Implications of Rational Inattention*, *Journal of Monetary Economics* 50, 2003, 665-690,

as David Laidler wrote in a review of Karl Brunner's monetary economics: "It is hard to conceive of just how outlandish and old-fashioned a body of ideas of Monetarism seemed when Friedman, Brunner, and a few others began to propound it in the 1950s and 1960s, or how fierce was the controversy when the combined effect of their persistence and real-world economic circumstances got it debated in the 1970s. The fact remains that the conventional wisdom of the early 1960s, embodied in Paul Samuelson's "Neo-classical synthesis" had it that: market mechanisms were incapable of coordinating certain decentralized choices, specifically those regarding saving and investment; the monetary sector was the principal barrier to the dissemination of information and incentives by way of relative price signals; and the knowledge available to the authorities, monetary but particularly fiscal, was clearly sufficient to enable them to act so as to improve systematically the private sector's performance."<sup>21</sup> Laidler is certainly right with regard to the general intellectual climate among economists in Germany in the 1960s and 1970s. Keynesianism and the Neo-classical synthesis dominated the thinking about macroeconomics and monetary policy and Brunner's new ideas were met with plain hatred in many circles.<sup>22</sup>

Karl Brunner and Allan Meltzer produced a series of papers in the late 1960s and 1970s developing this model. The reactions of real output and the price level to monetary and fiscal impulses depended critically on the distinction between anticipated and unanticipated developments. Only unanticipated monetary impulses had real effects. Furthermore, the reactions depended on the absolute and relative sizes of a flurry of partial elasticities of the reduced-form relationships to changes in the stocks of money, credit, and capital. Brunner and Meltzer could determine the signs of these reactions only by making assumptions about the size of the individual elasticities, but they had no strong ground to base them on. In the end, therefore, their analysis and propositions seemed relatively opaque and arbitrary, the

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<sup>21</sup> David E. W. Laidler, *Karl Brunner's Monetary Economics – An Appreciation*. Journal of Money, Credit, and Banking 23, 1991, 634-658, p. 639

<sup>22</sup> In Jürgen von Hagen, **Fehler! Nur Hauptdokument** *Geldpolitik auf Neuen Wegen (1971-1978)*, Deutsche Bundesbank (ed.), *Fünfzig Jahre Deutsche Mark* München: C.H. Beck 1998, 439-73, I have shown that this characterization of the intellectual climate among economists also characterized the debates of the Bundesbank Council in the early 1970s. As late as 1981, Manfred J. M.'s appointment as professor at the University of Bonn met with strong student protest against a monetarist faculty member.

main critique Dornbusch and Rasche voiced in their discussions of the version of the model published in Stein (1976).<sup>23</sup>

Why then did their framework appear at Konstanz Seminars only in 1970 and 1976 and is largely forgotten today? My interpretation is a combination of lack of technology and academic self-restraint. Brunner and Meltzer simply did not have the computing techniques and facilities that every grad student has today to solve a complicated model of that kind. As a result, their analysis seemed cumbersome and cryptic compared to the conventional Keynesian two-asset plus output-market framework. Moreover, macro economists today seem to have no reservations against assigning numbers to a host of critical parameters of their models that determine the kind of elasticities Brunner and Meltzer could not pin down, as long as these parameters can be called *deep* (describing preferences and technologies) and *microfounded* (based on microeconomic evidence), and other macroeconomists use them, too. I guess that Brunner and Meltzer felt that they could not take such a bold and arbitrary approach. But short of that, they seem to have given up on their own framework themselves in the 1970s.<sup>24</sup>

At the 1978 Konstanz Seminar, Karl Brunner and Allan Meltzer presented a partial equilibrium model of the labor market as an alternative to the Phillips Curve.<sup>25</sup> It complemented the *aggregative framework*, which had no labor market, but had none of the monetarist elements of it. At the 1979 Konstanz Seminar, they presented a paper titled *Information Structure and Optimal Monetary Policy* which I could not track down any more. They also presented, together with Alex Cukierman, *Stagflation, Macroeconomics, and the*

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<sup>23</sup> Rudiger Dornbusch, *Comments*, in: Jerome L. Stein (ed.), *Monetarism*. Amsterdam: North Holland 1976, pp. 104-125; Robert H. Rasche, *Comments*, *ibid.* pp. 126-141. The conference on monetarism of which Stein's volume presents the proceedings took place at Brown University sometimes in 1974 or 1975. Once again, it is a testimony to Karl Brunner's intellectual rigor and openness to criticism of his own work that we find Dornbusch and Rasche, who criticized the Brunner-Meltzer model very harshly at that event, as participants of subsequent Konstanz Seminars.

<sup>24</sup> Allan Meltzer continued to publish papers based on this framework in later years; see e.g. *Monetary, Credit, (And Other) Transmission Processes* in: *The Journal of Economic Perspectives* 9, 1995, 49-72, in which he nicely compares his framework with Ben Bernanke's (1983 *credit view of monetary policy transmission*. (Ben Bernanke, *Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression*, *American Economic Review* 73, 1983, 257-276.) For a review of Meltzer's work see Peter N. Ireland, *Allan Meltzer's Model of the Transition Mechanism and Its Implications for Today*." Mimeo, Boston College November 2017.

<sup>25</sup> Karl Brunner and Allan H. Meltzer, *Theory of Employment and Unemployment*. Working Paper 5-1978, Carnegie-Mellon University Research Showcase @ CMU, Tepper School of Business, <https://pdfs.semanticscholar.org/7e95/31489733438a37d14d3fbb375e97abf73df8.pdf>

*Permanence of Shocks*.<sup>26</sup> That paper featured an IS-LM model augmented by a labor market in which private agents could not distinguish perfectly between permanent and transitory shocks. A year later, the same three authors presented *Money and Economic Activity, Inventories and Business Cycles*.<sup>27</sup> This paper again featured an IS-LM model augmented by a labor market, confusion about permanent and transitory shocks and firm inventories. The inventory mechanism resulted in sluggish adjustment to shocks and cyclical behavior of output and employment. These papers suggest that, faced with the modeling challenges of their *aggregative framework*, Karl Brunner and Allan Meltzer had become more interested in rigorously analyzing the consequences of information frictions at the cost of giving up the monetarist focus on monetary transmission through a richer asset-market structure and the relative price of real capital. Thus, the first proposition of monetarism appeared explicitly only twice on the programs of the Konstanz Seminar, although, of course, it was implicit in many of the discussions of more conventional macroeconomic models presented over the years.

The third proposition of monetarism mentioned above, that monetary impulses are the dominant causes of macroeconomic fluctuations combined with the important tenet of the *aggregative framework* that the stock of money is the result of the interaction between the nonbank sector, the banking sector, and the central bank, requires a separation of changes in the money supply into those caused by central bank policies and those caused by private sector behavior. Brunner and Meltzer developed the multiplier model of the money supply to achieve that separation. The basic idea was that changes in the multiplier predominantly reflect the influence of nonbanks' and banks' portfolio adjustments while changes in the monetary base reflect predominantly central bank policies. The money multiplier thus embedded Brunner's and Meltzer's hypotheses about the portfolio behavior of banks and non-banks and it showed the money supply as being co-determined together with the supply of credit.<sup>28</sup> This was explained partly in the paper Brunner and Meltzer presented at the first

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<sup>26</sup> Published in: *Journal of Monetary Economics* 6, 1980, 467-492

<sup>27</sup> Published in: *Journal of Monetary Economics* 11, 1983, 281-319

<sup>28</sup> See Karl Brunner and Allan H. Meltzer, *A Credit Market Theory of the Money Supply and an Explanation of Two Puzzles in US Monetary Policy*. In: T. Bagioti (ed.), *Investigations in Economic Theory and Methodology, Essays in Honors of Marco Fanno*. Vol. 2, Padova: Cedam 1966, pp. 151-176

Konstanz Seminar and it was the basis for a string of papers analyzing the money supply process in a number of European and non-European countries.<sup>29</sup>

The third proposition of monetarism suggests that, in order to avoid unnecessary uncertainty and macroeconomic fluctuations, central banks should control the money supply and keep it on a steady path compatible with price stability. This raises the question whether and how central banks can control the money supply. A string of papers presented at the Konstanz Seminar was dedicated to that question.<sup>30</sup> Many of these papers focused on technical aspects of money stock control and how central bank operations should be conducted to achieve it. Once the controllability of the money stock has been verified, central banks need to define what they want to target in the intermediate run (a time horizon between a month and a year) in order to achieve price stability, which is possible only over a time horizon of a year or two because of measurement lags and reaction lags. This leads to a discussion of (intermediate) targets of monetary policy, the subject of several papers presented at the Konstanz Seminar over the years, studying various aggregates of money and credit and nominal GDP as potential monetary policy targets.<sup>31</sup> Finally, the

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<sup>29</sup> Dimitrije Dimitijevic, *An Analysis of Money Supply Processes and Monetary Policy in Yugoslavia* and Jürgen Siebke, *An Examination of the German Money Supply Process* both presented at the 1970 Seminar; Bill Dewald, *The Money Supply Process in Australia* and Cornelius Schildbred, *Money Supply in Norway 1959-1970*, both presented 1971; Charles Goodhart, *Analysis of the Determination of the Money Stock*, and Michele Fratianni, *Bank Credit and Money Supply Processes in an Open Economy: A Model Applicable to Italy* presented in 1972; Jacques Mélitz, *Some Results Concerning the French Money Supply* and Pieter Korteweg, *The Supply and Controllability of Money in an Open Economy: The Dutch Experience 1953-1971* presented in 1973; Albert Burger, *Problems of Control Concerning the Money Stock* presented in 1974; Brian Kantor, *The Money Supply Process in South Africa: Explanation, Verification, and Implication* presented in 1976; Rudolf Richter and Hans-Juergen Regier, *Determinants of Free Liquid Reserves in West Germany* and Manfred Neldner *The Determinants of the Currency Ratio, the Time Deposit Ratio, and the Savings Deposit Ratio: An Econometric Analysis for the West German Economy* presented in 1977;

<sup>30</sup> A. James Meigs and William Wolman, *Can Central Banks Control the Money Supply?* and James L. Pierce, *An Evaluation of the Usefulness of Intermediate Operating Targets for the Conduct of U.S. Monetary Policy* (both presented in 1971); James L. Pierce, *Controlling the Money Stock* and Helen T. Fazz, *Short-run Targets for Open Market Operations* (both 1972); Robert Rasche, *Optimal Control and Short-term Policy Decisions on Interest Rates and Monetary Aggregates* (1973); Dieter Duwendag, *The "New Era" of Controlling Monetary Aggregates: Federal Reserve, Swiss National Bank, and Deutsche Bundesbank* and George Freeman, *Controlling Money Growth: Recent Canadian Experience* (both 1977); Michele Fratianni and Mustapha Nabli, *Money Stock Control in EC-Countries* (1978); Herwig Langohr, *Banking System's Refinancing and Base Determination* and Paul Reding, *Bank Borrowing and the Control of the Money Stock in Belgium* (both 1979); Robert Rasche, *An Investigation of the Accuracy of Monetary Control Through Reserve Aggregates* (1981); R. Alton Gilbert, *Conduct of Monetary Policy Under the Non-borrowed Reserves Operating Procedure* (1982); Juergen von Hagen, *Alternative Operating Regimes for Money Stock Control in West Germany: An Empirical Investigation* (1985).

<sup>31</sup> Manfred Willms, *An Empirical Study of Goals and Targets of Monetary Policy* (presented in 1970); Richard G. Davis, *Monetary Aggregates and Federal Reserve Open Market Operations* and Paul Meek, *Open Market Operations and the Monetary and Credit Aggregates 1971* (both 1972); Helmut Wagner, *Nominal Income Targeting versus Money Supply Targeting* (1988)

central banks and outside observers need a reliable measure of the stance of monetary policy which is not biased by endogenous reactions to central bank policies by the private sector. This is the indicator problem of monetary policy strategy and was the subject of a couple of papers over the years.

The list of papers related to the third proposition of monetarism given in the footnotes shows that it influenced the Konstanz Seminar much more than the first proposition. Papers related to it showed up on the program regularly from 1970 to 1988. Particular attention was given to the money supply process in individual countries, Germany and the US, of course, but also the UK, France, Italy, the Netherlands, Norway, Switzerland, Yugoslavia, Australia, and South Africa. Karl Brunner's and Allan Meltzer's approach to money supply analysis put heavy emphasis on the institutional arrangements and regulations of the banking systems and credit markets in individual countries. Continental European economists typically shared this interest in institutions, and the interest in and analysis of institutions and their role in the economy was a topic that became typical for the Konstanz Seminar. In this regard, Karl perhaps saw the Konstanz Seminar as a way of stimulating his American colleagues' interest institutions.<sup>32</sup>

Still, the issues linked to the third proposition of Monetarism were discussed by no more than 31 papers altogether. The discussion of the money supply process vanished from the program at the end of the 1970s. What remained in the 1980s were the different aspects of monetary strategy, i.e. techniques of monetary control, targets, and indicators.

To what extent, then, was the Konstanz Seminar a monetarist event? Clearly, it was strongly influenced by monetarism in the first couple of years. Thereafter, however, the program was much more balanced between different aspects of monetarism and the presentation of other approaches to monetary macroeconomics and policy. Karl Brunner obviously put much higher value and emphasis on building the Konstanz Seminar as an institution for training young German and other European academics and for creating a discursive community among German and other European central bankers than as a stronghold of monetarism. This is no small testimony to his intellectual openness.

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<sup>32</sup> Patrick Minford suggested that to me in a private communication in August 2018.

At the same time, however, the Konstanz Community also became one that shared the basic view that the capitalist macro economy is an inherently stable system that does not need constant intervention and control by the government, and that markets are more efficient mechanisms for the allocation of scarce resources than state planning. At the time when the Konstanz Seminar started, these were clearly identified as *monetarist* convictions and they were strongly contested by large numbers of German and other European economists. So far, history has shown that the *monetarist* convictions were right and to emphasize them seems rather outdated in today's European and North American academic economics communities. One cannot prove causality in this regards, but it is likely that the Konstanz Seminar has made a significant contribution to the spreading of these convictions, albeit a subtle and implicit one.

## V. Impact on Monetary Policy

From the beginning, the Bundesbank and the Swiss National Bank were heavily involved in the Konstanz Seminar, both in terms of sending representatives who presented or discussed papers and were active participants in the debates, and in terms of contributing to the financing of the conferences. Did the Konstanz Seminar influence the thinking about monetary policy and its conduct in these two institutions? This is a natural question to ask, but a difficult one to answer, not the least because Karl Brunner, Allan Meltzer, and soon also Manfred J. M. Neumann had intensive relations with these central banks apart from the Konstanz Seminar.

Still, it is interesting to note the shift in published explanations of their concepts and conduct of monetary policy that characterize both central banks in the early 1970s. At the first Konstanz Seminar, the Bundesbank's chief economist, Heinrich Imler, presented a paper explaining that the Bank's analysis and strategy of monetary policy was centered on the banking sector's *free liquid reserves* which banks could use to create new credit.<sup>33</sup> Given the constraint of pegging the exchange rate, the Bank regarded minimum reserve requirements as its principal tool for domestic policy purposes and was also sympathetic to administrative credit controls. In contrast, the Bank was convinced that it was unable to control the money

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<sup>33</sup> As explained in the chapter by Michael Bordo in this volume, Brunner's and Meltzer's critique of the Fed's *free liquid reserves doctrine* (also called the *Burgess-Riefler doctrine*) played a central role in their early joint work.

supply. The Bank considered the money stock was seen as one of several important indicators, but gave priority to interest rate developments.

Three other papers presented at the first Konstanz Seminar also dealt with German monetary policy. Juergen Siebke presented an analysis of the German money supply process and came to the conclusion that monetary control was possible by influencing the money multiplier. Manfred Willms showed that the money stock was potentially more important as a target of monetary policy than interest rates. Manfred J. M. Neumann showed that the money stock had favorable properties as a monetary indicator.

The breakdown of the Bretton Woods System in early 1973 changed the conditions of monetary policy for the Bundesbank. In the months immediately following the Bundesbank's exit from the exchange-rate peg in March 1973, the Bank aimed at keeping free liquid reserves close to zero, with the result that money market rates became very volatile and free liquid reserves lost their perceived usefulness as a monetary policy target. In December 1974, the Bank published its first monetary target, which was the outgrowth of a particular political compromise on the Bundesbank Council.<sup>34</sup> Within the Bundesbank, monetary targeting was at first regarded as an experiment which might be abandoned if it developed in unfavorable ways. In principle, however, the Bank acknowledged the usefulness of an intermediate target and that its target variable, the *central bank money stock*, could be controlled with reasonable precision.<sup>35</sup> Horst Bockelmann, then the head of the Bundesbank's Statistics Department, presented a paper on "Problems of Monetary Policy in Germany" at the 1974 Konstanz Seminar, about six months before the publication of the first monetary target.

In a private communication to me in August 2018, Reiner Koenig, former head of the Bundesbank's economics department wrote to me:

"During the 1970s and 1980s, the Konstanz Seminars had a significant importance for Germany's monetary policy, albeit in a more indirect way as background information. The academic debate about monetarism at the time was noted within the Bundesbank and contributed much to the changing monetary policy orientation – away from the old control of liquid reserves and towards the concept of monetary targeting. ... The renaissance of the

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<sup>34</sup> See Jürgen von Hagen, *Monetary Targeting in Germany*, *Journal of Monetary Economics* 43, 1999, 681-701

<sup>35</sup> E.g., Horst Bockelmann, *quantitative Targets for Monetary Policy in Germany*. *Banque de France Cahiers Economiques et Monétaires* 6, April 1977, 11-24



money supply as the basis of monetary policy decisions would have been impossible without the work of the monetarists in the US at the time, and the propagation of this school of thought by the Konstanz Seminars in Germany. The appreciation of the Konstanz Seminars is underlined also by the fact that during the critical years of the 1970s and 1980s there were always high-ranking representatives of the Bundesbank present – notably those who were members of the Council or the monetary policy division and had particular responsibility for the preparation of Bundesbank decisions.”

Otmar Issing, who was a member of the Bundesbank Council from 1990 to 1998 and a frequent participant in the early Konstanz Seminars wrote to me in a private communication in September 2018:

From the beginning, representatives of the Bundesbank participated regularly and actively in the Konstanz Seminar. Depending on the topics, the papers presented there and the debates were discussed extensively in Frankfurt. Logically, that was true especially in the context of the introduction of a monetary target. In this regard, Karl Brunner himself played an important role. The Bundesbank pursued a kind of “pragmatic monetarism” which was frequently met with criticism at the Konstanz Seminar. This exchange of views was of great importance for the Bundesbank – a fact which I personally experienced myself.”

Finally, Helmut Schlesinger, who for many years was the head of the economics department of the Bundesbank and the Bank’s president from 1991 to 1993, wrote to me:

“The Konstanz Seminar was an important place for the Bundesbank and for those who worked on concepts of monetary policy. All participants gained a lot from the debates about the thoughts of Karl Brunner, Allan Meltzer, and Manfred Neumann. Within the Bundesbank, they coincided with the transition from the concept of free liquid reserves to the money supply as an intermediate target (with price stability as the ultimate target.) For the representatives of the Bundesbank, the Konstanz Seminar was also the place where they could discuss the arguments of other intellectual approaches to monetary policy, to strengthen the credibility of the new concept of monetary policy and learn from criticism.”

These statements show that the Konstanz Seminar provided important background and stimulus for the Bundesbank’s new approach to monetary policy.

A first paper on Swiss monetary policy was presented at the second Konstanz Seminar in 1971 by Michael Gal and John Lademann of the Swiss National Bank.<sup>36</sup> As explained by Kurt Schiltknecht, the SNB’s former chief economist, the Bank’s policy in the 1960s and early 1970s was equally constraint by the exchange rate peg and focused on banks’ free liquid

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<sup>36</sup> *Possibilities and Limits as Set to a Central Bank Policy Directed to Stability in a Small Country With Widespread International Ties.*

reserves.<sup>37</sup> Freed from the exchange-rate constraint, the Bank adopted the money stock M1 as an intermediate target and announced its first monetary target in late 1974. Within the Swiss National Bank, the proposal to consider a policy of monetary control originally came from John Lademann, who was the head of the SNB's Department of Economics and Statistics, in the early 1970s. Lademann and his colleague Alexander Galli participated in the early Konstanz Seminars. Peter Bernholz suggests that their proposal was the result of discussions Lademann had with Karl Brunner and of the debates he witnessed at the Konstanz Seminar and in which the Swiss National Bank was accused of following wrong policies and was urged to give up the exchange rate target in order to get the money supply under control.<sup>38</sup> Upon Lademann's initiative, then SNB President Leutwiler called together a working group to develop a proposal for a money-supply oriented policy. Kurt Schiltknecht joined that group shortly after coming to the SNB in 1974.<sup>39</sup> Later, he served as the Bank's chief economist. In a private communication to me, Schiltknecht wrote that, although Alexander Galli was writing his PhD dissertation on the money supply in Switzerland under Karl's supervision at the time and was already "infected by the monetarist ideas of Karl and Allan,"<sup>40</sup> the new monetary policy concept the working group developed was based more on Milton Friedman's than on Karl Brunner's work. Schiltknecht had studied Friedman's work while writing his dissertation. After finishing his PhD at the University of Zurich he had spent some time at the Wharton School working with Larry Klein. In 1976, he gave the above-mentioned paper explaining the new monetary policy approach at the Konstanz Seminar, where it was very well received. Schiltknecht recalls that, after that presentation, he developed a very close relationship with Karl Brunner who would frequently call him and discuss aspects of monetary policy with him. For Schiltknecht, the Konstanz Seminar was an important meeting point for researchers and central bankers and certainly contributed to

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<sup>37</sup> Kurt Schiltknecht, *Die Geldpolitik der Schweiz unter dem System flexibler Wechselkurse*. Schweizerische Zeitschrift für Nationalökonomie und Statistik 113, 1977, 1-26. Schiltknecht presented this paper at the 1976 Konstanz Seminar.

<sup>38</sup> Peter Bernholz, *Von der Devisenbann-Wirtschaft zur Geldmengensteuerung*. In: Schweizerische Nationalbank (ed.), Die Schweizerische Nationalbank 1907 – 2007. Zuerich: Verlag Neue Zürcher Zeitung 2007, 119-214, p. 186f.

<sup>39</sup> In his comments on this paper, Ernst Baltensperger pointed out that he and Georg Rich also became part of that group when they returned from the US and joined the SNB in 1977, Rich coming from Carlton University and Baltensperger from Ohio State University, where he had been a colleague of Karl Brunner's.

<sup>40</sup> Kurt Schiltknecht, Untitled paper given at the Karl Brunner Centenary Conference organized by the Swiss National Bank. Mimeo.

the spreading of the monetarist ideas, even though it is impossible to say precisely when and where he and his colleagues first encountered new ideas.

In a private communication to me, former SNB director and chief economist Georg Rich recalls the importance of the exchange of ideas at the Konstanz Seminar for the economists at the SNB. He wrote: “What was decisive was perhaps not the Konstanz Seminar as such but the intensive contact with Karl Brunner. With the transition to flexible exchange rates and a money-stock oriented policy we entered new territory and were thankful for the exchange of ideas with Karl Brunner and other monetary experts. Karl gave us many different suggestions, gave us opportunities to present our ideas to the public in papers and presentations and to get useful feedback. Regarding the Konstanz Seminar, I appreciated particularly that Karl did not invite only like-minded people.”

Monetary targeting helped these two central banks to fend off political pressures on monetary policy. For both, the new approach was successful in that they managed to achieve a much greater degree of price stability than other central banks in Europe during the 1970s and 1980s. Clearly, neither the SNB nor the Bundesbank practiced monetary targeting in a strict, dogmatic way, and Schiltknecht recalls being criticized for that at a Konstanz Seminar.<sup>41</sup> Monetary targets were meant to guide expectations and strengthen the credibility of both Banks’ low-inflation policy.

As mentioned above, there were also several representatives of the Bank of Italy at the early Konstanz Seminars. The Bank of Italy was heavily influenced by the Keynesian ideas of Franco Modigliani and others at MIT. It is interesting, therefore, to see that Karl Brunner had put a paper by Antonio Fazio and Paolo Savona on the program of the second Konstanz Seminar in 1971. The paper advocated Keynesian-style interest rate pegging, which was anathema for Karl Brunner. Nevertheless, the authors must have felt that they were treated very well by Karl and the Konstanz audience and they managed to have the Bank invite Karl Brunner several times for discussions on monetary policy. This relationship culminated in an invitation organized by Mario Monti to give the week-long Mattioli Lectures in Milan in 1987 to an audience of Italian academics, central bankers and bankers which were later published

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<sup>41</sup> Kurt Schildknecht, untitled given at the Karl Brunner Centenary Conference organized by the Swiss National Bank. Mimeo.

by Cambridge University Press and have the fullest exposition of Karl's and Allan's monetarism.<sup>42</sup>

## **VI. Conclusion: The Konstanz Seminar Facing 50 Years**

Did the Konstanz Seminar achieve the pedagogical goals Karl Brunner aimed at? Answering that question with certainty is obviously impossible. It is fair to say, however, that 50 years after the first Konstanz Seminar, the gap between economic research in Germany and the US has been closed. The best German economists nowadays give papers at important economics conferences around the world and publish in the leading professional journals. The best German economics departments nowadays place their best PhD students in leading US economics departments. I do not claim causality here, but my own experience and that of many German macro economists of my generation suggests that participating in the Konstanz Seminar shaped the careers of many young German academics by providing exposure to the work of their American peers and to the critique of those peers of their own work, and by establishing personal relationships and friendships. In this sense, the Seminar achieved its goal.

The same can be said regarding the goal of fostering a culture of open debate and exchange of ideas among central bankers and between them and academics. Today, that culture can be experienced in many conferences and workshops around Europe and North America. Starting in the 1990s, the Center for Economic Policy Research, under the leadership of Richard Portes, did much to promote and improve the dialogue between policymakers and academics in Europe. Today, we take that for granted. But it was not so 50 years ago. The Konstanz Seminar has likely been influential in laying its foundation in the 1970s and 1980s.

A sure sign of success, however, is the fact that the Konstanz Seminar remains alive and well today. It has preserved the unique spirit of open and active exchange about economic research and policy, which it owes its founder. Towards the end of the 1990s, Manfred J. M. Neumann became tired of running it and handed it over to me. After organizing it for almost 20 years, I have recently passed on the leadership to my colleague Keith Kuester at the University of Bonn who, being both an academic and a central banker (Keith worked at the

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<sup>42</sup> Karl Brunner and Allan H. Meltzer, Money and the Economy. The Matteoli Lectures. Cambridge: Cambridge University Press 1993

ECB and the FRB of Philadelphia) seems particularly fit to carry it on. Participants continue to like the unique Konstanz culture of intense discussion. In 2019, we will hold the 50<sup>th</sup> Konstanz Seminar on Monetary Theory and Policy. I once asked the current members of the Konstanz Association whether it would be appropriate to close it on that occasion. The vote was unanimously in favor of going on.

Thus, the Konstanz Seminar is now beginning its third generation. It remains part of Karl Brunner's legacy to the economics profession. Those who attend carry on his spirit of open and honest exchange of arguments for the sake only of finding truth and of the "systematic application of economic analysis to the social problems of the world."<sup>43</sup>

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<sup>43</sup> Karl Brunner, *A Fascination with Economics*. Banca Nazionale del Lavoro Quarterly Review 1981, 403-426, p. 404.

## Appendix Tables

<b>Table 1: Seminar Structure</b>			
Year	Day 1	Day 2	Day 3
1970 (W, T, F)	Morning, Afternoon	Morning, Afternoon	Morning, Afternoon
1971 (T, F, S)	M, A, E	M, A	M, A General Discussion
1972 (W, T, F)	M, A	M, A	M, A General discussion
1973	M, A	M, A	M, A
1974	M, A	M, A	M, A
1975	M, A	M	M, A
1976	M, A, Evening Panel	M	M, A
1977	M, A, Evening Panel	M	M, A
1978	M, A, Evening Panel	M	M, A (one paper)
1979	M, A, Policy Panel	M	M, A
1980	M, A, Policy Panel	M	M, A
1981	M, A, Evening Panel	M	M, A Panel
1982	M, A, Evening Panel	M	M, A Panel
1983	M, A, Evening Panel	M	M, A (one paper)
1984	M, A, Evening Panel	M	M
1985	M, A, Policy Panel	M	M
1986	M, A, Policy Panel	M	M
1987	M, A, Evening Panel	M	M
1988	M, A, Policy Panel	M	M
1989	M, A, Evening Panel	M	M

<b>Table 2: Junior German Academic Participants</b>				
Name	Year Konstanz	Year of Birth	Professorship at University	PhD from
Albeck, Hermann	1970	1935	Saarbruecken	Tuebingen
Cassel, Dieter	1970	1939	Duisburg-Essen	Marburg
Drexler, W.	1970	n.a.	n.a.	Konstanz
Hieber, Manfred	1970	1934	Bonn	Hamburg
Janocha, Peter	1970	1938	n.a.	Kiel
Kath, Dietmar	1970	1937	Duisburg-Essen	Hamburg
Milde, Hellmuth	1970	1941	Trier	
Monissen, Hans G.	1970	1937	Wuerzburg	Hamburg
Neumann, Manfred J. M.	1970	1940	Berlin	Marburg
Schui, Herbert	1970	1940	Hamburg	Konstanz
Siebke, Jürgen	1970	1936	Heidelberg	Bonn
Thieme, H. Jörg	1970	1941	Duesseldorf	Marburg
Timmermann, Vinzenz	1970	1935	Hamburg	Mannheim
Vosgerau, Hans-Jürgen	1970	1931	Konstanz	Heidelberg
Westphal, Uwe	1970	1939	Hamburg	Kiel
Willms, Manfred	1970	1934	Kiel	Bonn
Wolters, Juergen	1974	1940	Berlin	Mannheim
Duwendag, Dieter	1977	1938	Speyer	Muenster
Faulwasser, Bernd	1977	1947	n.a.	Siegen
Läufer, Nikolaus K. A.	1977	1937	Konstanz	Konstanz
Neldner, Manfred	1977	1938	Osnabrück	Bochum
Schröder, Jürgen	1977	1940	Mannheim	Mainz
Vaubel, Roland	1977	1948	Rotterdam	Kiel
Alexander, Volbert	1979	1944	Giessen	Konstanz
Loef, Hans Edi	1979	1944	Siegen	Konstanz
Francke, Hans-Hermann	1980	1943	Hamburg	Freiburg
Gaab, Werner	1980	1939	Essen	Mannheim
Gebauer, Wolfgang	1980	1942	Frankfurt	Frankfurt
Hellwig, Martin	1980	1949	Bonn	Princeton
Ramb, Bernd Thomas	1980	1947	Siegen	Siegen
Schmid, Michael	1980	1940	Hamburg	Mannheim
Buscher, Herbert	1981	1950	n.a.	FU Berlin
Pfister, Jürgen	1981	1952	n.a.	Paderborn
Klein, Martin	1982	1952	Halle	Bonn
Kösters, Wim	1982	1942	Münster	Münster
von Hagen, Juergen	1982	1955	Indiana University	Bonn
Weber, Axel A.	1983	1957	Bonn	Siegen
Wurzel, Eckhard	1983	1957	n.a.	Bonn
Bofinger, Peter	1985	1954	Wuerzburg	Saarbruecken
Ketterer, Karl-Heinz	1985	1944	Karlsruhe	
Kirchgaessner, Gebhard	1987	1948	St. Gallen	Konstanz
Wagner, Helmut	1988	1951	Hamburg	Aachen

<b>Table 3: Junior Academic Participants, Other Countries</b>				
Name	Year Konstanz	Year of Birth	Country	Affiliation
Frisch, Helmut	1977	1936	A	Wien
Tichy, Gunther	1977	1937	A	Graz
De Grauwe, Paul	1979	1946	B	Leuven
Reding, Paul	1979	1950	B	Namur
Frey, Bruno S.	1970	1941	CH	Basel
Swoboda, Alexander	1971	1939	CH	GIS Geneva
Baltensperger, Ernst	1977	1942	CH	Ohio State
Wasserfallen, Walter	1979	1946	CH	Bern
Claassen, Emil	1971	1934	F	Paris-Dauphine
Salin, Pascal	1972	1939	F	Paris-Dauphine
Fourcans, André	1975	1946	F	ESSEC
Monti, Mario	1973	1943	I	Bocconi, Milan
Bomhoff, Ed	1977	1944	NL	Rotterdam
Genberg, Hans	1976	1948	S	GIS Geneva
Parkin, Michael	1971	1939	UK	Manchester
Laidler, David	1970	1938	UK	Manchester
Minford, Patrick	1976	1943	UK	Liverpool

<b>Table 4: Senior German Academic Participants</b>			
Name	Year Konstanz	Year of Birth	University
Bernholz, Peter	1970	1929	Frankfurt
Koenig, Heinz	1970	1927	Mannheim
Nullau, Bruno	1970	1920	DIW, Berlin
Pohl, Reinhard	1970	1928	DIW Berlin
Stuetzel, Wolfgang	1970	1925	Saarbruecken
Issing, Otmar	1971?	1936	Nuernberg-Erlangen
Woll, Artur	1971?	1923	Siegen
Koehler, Claus	1971	1928	Hannover
Krelle, Wilhelm	1976	1916	Bonn
Ehrlicher, Werner	1977	1920	Freiburg
Richter, Rudolf	1979	1926	Saarbruecken
Kloten, Norbert	1982	1926	Tuebingen



Table 5: US Academic Participants					
Name	Home Institution	Year Konstanz	Name	Home Institution	Year Konstanz
Meltzer, Allan	Carnegie Mellon	1970	Mayer, Thomas	UC Davis	1977
Fратиanni, Michele	Indiana	1970	Kantor, Brian	U. of Rochester	1979
Schwartz, Anna J.	NBER	1970	King, Robert	U. of Rochester	1981
William Dewald	Ohio State	1971	McCallum, Ben	U. of Virginia	1981
Ronald Teigen	U. of Michigan	1971	Plosser, Charles	U. of Rochester	1981
Donald Hodgman	U. of Illinois	1971	Gordon, David B.	U. of Rochester	1982
Johnson, Harry	U. of Chicago	1971	Stulz, René	U. of Rochester	1983
Rasche, Robert	Michigan State	1973	Bordo, Michael D.	USC	1984
Aliber, Robert	U. of Chicago	1973	Choudrie, Ehan	Charleton U.	1984
Dornbusch, Rudiger	U. of Rochester	1973	Dutton, Dean S.	Brigham Young	1984
Friedman, Ben	Harvard	1973	Singleton, Kenneth	Carnegie-Mellon	1984
Mussa, Michael	Rochester	1973	Stockman, Alan	U. of Rochester	1984
Witte, James	Indiana	1974	Leijonhufvud, Axel	UCLA	1985
Sjaastad, Larry	U. of Chicago	1975	Salemi, Michael	UC Chapel Hill	1985
Barro, Robert	U. of Rochester	1976	Black, Stanley	UNC	1986
Frenkel, Jacob	U. of Chicago	1977	Kang, Heejoon	Indiana	1986
Rutledge, John	Claremont College	1978	McNelis, Paul	Georgetown	1987
			Von Fuerstenberg, George	Indiana	1988

<b>Table 6A: German Institutional Participants</b>		
<b>Name</b>	<b>Year Konstanz</b>	<b>Institution</b>
Becker, Wolf-Dieter	1970	German Savings Bank Association
Irmler, Heinrich	1970	Deutsche Bundesbank
Ketzel, Eberhard	1970	German Savings Bank Association
Richebächer, Kurt	1970	Dresdner Bank
Savona, Paolo	1970	Banca D'Italia
Schlesinger, Helmut	1970	Deutsche Bundesbank
Zimmer, R.	1970	
Zweig, Gerhard	1970	Deutsche Girozentrale
Bockelmann, Horst	1971	Deutsche Bundesbank
Gebauer, Wolfgang	1976	Deutsche Bundesbank
Friedmann, Willy	1977	Council of Economic Experts
Schloemann, M.	1977	Federal Ministry of Economics
Jahnke, Wilfried	1978	Deutsche Bundesbank
Dudler, Hermann	1979	Deutsche Bundesbank
Klein-Zirbes, Rudolf C.	1979	German Savings Bank Association
Steuer, Werner	1979	Association of the Protection of German Savers
Wieners, Klaus	1979	Westdeutsche Landesbank
Simmert, Diethard B.	1981	German Savings Bank Association
Pfister, Juergen	1981	Council of Economic Experts
Hermann, Heinz	1982	Deutsche Bundesbank
Kleinheyer, Norbert	1982	German Savings Bank Association
Kloten, Norbert	1982	Landeszentralbank Baden-Württemberg
Hartenstein, Dietrich	1984	Deutsche Bundesbank
Hiss, Dieter	1984	Landeszentralbank Berlin
Jaeckel, Hans	1985	Council of Economic Experts

<b>Table 6B: Institutional Participants from Other European Countries</b>			
Name	Year Konstanz	Country	Institution
Dimitrijevic, Dimitrije	1970	Yugoslavia	Central Bank
Gal, Michael	1970	CH	Swiss National Bank
Savona, Paolo	1970	Italy	Banca d'Italia
Fazio, Antonio	1971	Italy	Banca d'Italia
Lademann, John	1971	CH	Swiss National Bank
De Groote, Jacques	1972	Belgium	National Bank of Belgium
Goodhart, Charles	1971	UK	Bank of England
Carosio, Giovanni	1973	Italy	Banca d'Italia
Fase, Martin M. G.	1973	NL	Dutch National Bank
Mélitz, Jacques	1973	France	French Finance Ministry
Padoa-Schioppa, Tomaso	1973	Italy	Banca d'Italia
Miller, Marcus	1974	UK	Bank of England
Puumanen, Kari	1976	SF	Bank of Finland
Schiltknecht, Kurt	1976	CH	Swiss National Bank
Dicks-Mireaux, Leslie	1977	UK	Bank of England
Galli, Alexander	1977	CH	Swiss National Bank
Gerber, Beat	1979	CH	Swiss National Bank
Foot, Michael D.W.K.	1979	UK	Bank of England
Rich, Georg	1979	CH	Swiss National Bank
Middleton, Peter E.	1981	UK	H.M. Treasury
Roth, Jean-Pierre	1981	CH	Swiss National Bank
Korteweg, Pieter	1982	NL	Ministry of Finance
Müller, Bruno	1982	CH	Swiss National Bank
Kohli, Ulrich	1984	CH	Swiss National Bank
Tullio, Giuseppe	1984	Italy	European Commission

<b>Table 6C: Institutional Participants from the US and Other Countries</b>			
Name	Year Konstanz	Country	Institution
Anderson, Lionel C.	1970	US	FRB St. Louis
Heller, Robert	1970	US	FR Board of Governors
Kure, Bunji	1971	Japan	Bank of Japan
Pierce, James L.	1971	US	FRB New York
Wolman, William	1971	US	First National City Bank NY
Davis, Richard G.	1972	US	FRB New York
Fazz, Helen T.	1972	US	FR Board of Governors
Meek, Paul	1972	US	FRB New York
Thomson, Thomas D.	1972	US	FR Board of Governors
Carlson, Keith	1973	US	FRB St. Louis
Johnson, Dudley	1973	US	First National City Bank NY
Kouri, Pentti	1973	US	IMF
Porter, Michael	1973	Australia	Reserve Bank of Australia
Burger, Al	1974	US	FRB Saint Louis
Meigs, James	1974	US	Argus Research
Sweeny, Richard	1975	US	Treasury Department
Henderson, Dale W.	1976	US	FR Board of Governors
Wallich Henry C.	1976	US	FR Board of Governors
Freemsn, George	1977	Canada	Bank of Canada
Weintraub, Robert	1977	US	US House of Representatives
Auerbach, Robert	1979	US	US House of Representatives
Bisignano, Joseph	1979	US	FRB San Francisco
Riechel, Klaus-Walter	1979	US	IMF
Willes, Mark H.	1979	US	FRB Minneapolis
Balbach, Anatole B.	1981	US	FB St. Louis
Canzoneri, Matthew B.	1981	US	FR Board of Governors
Cambiaso Ropert, Jorge	1981	Mexico	Economic and Social Policy Directorate
Cortes Douglas, Hernan	1982	Chile	Center for Policy Studies
Gilbert, R. Alton	1982	US	FRB St. Louis
Howard, David R.	1985	US	FR Board of Governors
Santoni, Gary J.	1985	US	FRB St. Louis
Suzuki, Yoshio	1985	Japan	Bank of Japan
Goodfriend, Marvin	1986	US	FRB Richmond
Belongia, Michael T.	1987	US	FRB St. Louis
O'Driscoll, Gerald P. Jr	1988	US	FRB St. Louis
Stone, Cliff W.	1988	US	FRB St. Louis
Goldstein, Morris	1989	US	IMF

Table 7: Topics of Papers at Konstanz Seminar						
Year	Monetary Policy	Monetary Macro	International Macro	Intern. Monetary Policy	General Macro	Other
1970	7	1	1			
1971	10	2				
1972	7	1		2		
1973	5	2	4			1
1974	7	2	3			
1975		5	6			
1976	3	3	2	1		1
1977	6	2	3			
1978	3	2	1		1	1
1979	3	1	1	2	3	
1980		4	4	1	1	
1981	2	4	1		1	
1982	4		1		3	
1983	1	4	3	1		
1984		2	4	2		
1985	1	4		2	1	
1986		2	3		3	
1987		1	3	3		
1988	2	2	4			
1989		1	6	4		
Sum	61	45	50	18	13	3