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A turning point in the development of Norwegian economics: The establishment of the University Institute of Economics in 1932

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A turning point in the development of Norwegian economics - the establishment of the *University Institute of Economics* in 1932

by

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Abstract

A confluence of circumstances led to the foundation of the University Institute of Economics in Oslo in 1932. Ragnar Frisch was the kingpin in this development. After having been appointed professor of economics and statistics by an unusual decision by the Storting in 1932 he decided to decline an attractive offer of a permanent professorship from Yale University. The decisive factor was the prospect of establishing an empirical research institute at the University, financed by Rockefeller Foundation. The outcome was of major importance for the development of economics and empirical social science in Norway.

Keywords: Ragnar Frisch, Rockefeller Foundation, Norwegian economics

Contents

1. Introduction

The most decisive period in the development of economics as a scientific discipline in Norway is the very beginning of the 1930s. The direction it took can be seen as marked by the foundation of the *University Institute of Economics* from 1 January 1932 at the University of Oslo, the only university in Norway at the time. The two key protagonists behind the foundation were Ragnar Frisch and Ingvar Wedervang, who were co-proposers of the new institute and became joint Directors after its inception. It was founded as an empirical research institute without government funding.

But it was not the foundation of the Institute that was the crucial event. A confluence of circumstances led to the foundation of the Institute and also determined the future of economics in Norway. It really hinged upon one person. The real event was that Ragnar Frisch decided to stay in Norway rather than accept an attractive offer in the United States.

The aim of this essay is to set out the circumstances, efforts and events of that period, in particular the respective roles of the two protagonists, to support the view set out above. The key point in the argument is that there was a considerable likelihood that Frisch - for scientific reasons - would have left Norway for USA if things had come out differently. That would have been a major blow to Norwegian economics and it is hard to se how it could have been counteracted or mitigated to any extent. Furthermore, with Frisch gone it seems less likely that the only other talent of international standing that

appeared during the 1930s, Trygve Haavelmo, would have got the opportunities he needed to reach the achievements he did during the war. Thus Norway might well have been without academic economists of international stature. The preparations for the role that economists would play in the postwar period would have been widely different, and, hence, the role they would play.

Before discussing this confluence of circumstances and events I note that most of them have been presented in other contexts, but in my view not in a sufficiently complete and satisfactory way.[1] I put most emphasis on what has been less well covered in other literature. I also note that two versions or interpretations of the outcome can be distinguished - a little curiously - by the way of referring to the new Institute. At the University of Oslo and in the international literature the Institute is often referred to as ”Frisch’s Institute” while in writings originating from the Norwegian School of Economics and Business Administration, Bergen and by some historians it is denoted as ”Wedervang’s Institute”.[2] Implicit is a somewhat different assessment of the role and importance of the two protagonists.

It is pertinent to point out the importance of the time these events took place. The first years of the 1930s stand out in retrospect as the gloomiest years of the twentieth century in Norwegian economic history (and, indeed, not only in Norway). The unemployment reached unprecedented heights. The understanding of macroeconomic relationships among economic policy makers in this period was limited. The impact of the world wide depression and the contraction of international trade was exacerbated rather than mitigated through the economic policy pursued by domestic policy makers, not least by holding back fiscal expenditures to make these lean years, indeed, for the government funded University. The economic deprivation naturally made a deep impression on both well established and would-be socially conscious economists.

Furthermore, these events happened just prior to major breakthroughs in economics, which in the briefest possible terms could be summarized as the macroeconomic revolution that generated from Keynes’ *General Theory* in

[1] See e.g. Andvig & Thonstad (1928), Bergh & Hanisch (1984), ch.IV.
[2] See e.g. Nordvik (1989), Bergh & Hanisch (1984), p.150ff.

1936, the microeconomic revolution that followed from the rediscovery of Slutsky's seminal 1915 paper in the mid-1930s, and the econometric revolution brought forth by Frisch and others around 1930 to come into full bloom by Haavelmo's wartime contributions and the research programme embarked upon by the *Cowles Commission for Research in Economics* under the leadership of Jacob Marschak from 1943.

A third angle on this point of time in addition to the economic misery and theoretical advance, but not unrelated to them, was the shifting balance of prominence in economic science from European to American universities caused to a large extent by the interwar exodus of European economists which gained speed in the 1920s and came into higher gear in the 1930s. This migration which boosted American universities, enhanced by better economic conditions, can be traced even 30-40 years later in the awards of Nobel Prizes in Economic Science. Of the Prizes awarded in the first seven years from 1969, three prizes went to economists who has started their career in Europe, but ended up in the United States: Simon Kuznets in 1971, Wassily Leontief in 1973, and Tjalling Koopmans in 1975. The list of outstanding economists and statisticians who left Europe for USA is, indeed, long, comprising in addition to those mentioned e.g. John von Neumann, Gottfried Haberler, Abraham Wald, Jacob Marschak, Jerzy Neyman, Adolph Lowe and Joseph Schumpeter. Perhaps the move of the *doyen* of continental economists from Bonn to Harvard in 1932 can be viewed as shifting the barycentre.

What were the confluential events that were decisive for the development that took place? We have to include the following:

(1) Frisch seems to have decided in the mid-1920s to become an econometrician, rather than preparing himself for taking over the family jeweller's business for which he had been groomed. He reconsidered the decision after his father's death in 1928, but stood by his earlier resolve to devote his life to science and went to Yale University for one year in 1930, invited by Irving Fisher. The visit gave him opportunity to develop many of the scientific ideas he would work on in the ensuing years. During his sojourn he was instrumental in founding the *Econometric Society* in

December 1930, having prepared the ground since 1926. As editor he became a prominent figure in the econometric movement.

(2) The University education in economics was substantially upgraded in the 1930s by parliamentary decision. The degree that had existed since 1905 was based on a two-year study in economics and statistics and lagged far behind the development in Sweden and Denmark. A proposal for a new comprehensive five-year study had been prepared since 1928 by the only two professors of economics at the time, Oskar Jæger and Ingvar Wedervang, and was submitted by the University to the Ministry of Church and Education at the end of 1930.

(3) Frisch, who was appointed Lecturer in 1928, was awarded a professorship in an unusual act by the Storting (parliament) in the Spring of 1931. This event would not have occurred without the decisive and shrewd manoeuvring by Wedervang and Jæger within the University and, even more, among the parliamentarians and the Cabinet members.

(4) A proposal for an Economic Research Institute at the University was written as an application for support by Rockefeller Foundation in 1930 by Ragnar Frisch and Ingvar Wedervang. As emphasized in the application, no other financial source was seen as likely to warrant the foundation of an institute.

(5) Rockefeller Foundation decided in late 1931 to fund the proposed institute on the condition that Frisch would be one of its leaders. The decision was taken after a visit by Rockefeller Foundation officials to Norway in June 1931 to discuss the proposal. The initial grant was modest, 5000 dollar per year for five years, but with an incentive option of increasing the amount dollar-by-dollar up to the double each year if additional support was forthcoming from domestic sources.

(6) Frisch decided on the basis of (3)-(5), assuming that (2) would materialize, to decline an offer from Yale University of a permanent professorship, amply remunerated and, more important, with additional resources for experimental research.

After a brief introduction of the two protagonists in section 2 the events as they unfolded are set out in sections 3 to 7. The confluence of events can be seen in different perspectives. With regard to the development of economics as an academic discipline in Norway it may be viewed as a real breakthrough establishing a modern comprehensive study, strengthening the teaching and research staff, emphasizing empirical aspects and providing a basis for the role that economists, economic thinking and later macroeconomic model building would play in the postwar period, with some traits that distinguished it from the development in other countries.

The foundation of the Institute can in a university history perspective be viewed as establishing a foothold for empirical social science, and unlike in some other countries, it took place at the university rather than outside. Sociology, political science and related disciplines were practically non-existent at the University of Oslo at this time.[3] The public interest in results from empirical social science was increasing, but the University was impoverished. The foundation of the new Institute was greeted in newspaper editorials as an important event and attracted interest in business circles.

The Institute was an institute <u>at</u> the University rather than part of it. It was adjoined to the Faculty of Law which had encompassed economics and statistics since the 1840s and remained there until a Faculty of Social Science was established in the 1960s.

The outcome of the events thus had major influence on the career of Ragnar Frisch as well as on the development of empirical social science in Norway. It also constitutes an example of the role played by Rockefeller Foundation's institution building efforts in the interwar period. The final section gives a brief account of some of the activities of Frisch and the Institute in the very first years.

[3] The curriculum in the new economic study would comprise sociology, as, indeed, almost one hundred years earlier the study of law had incorporated lectures in economics and statistics!

2. The protagonists

The most influential person in establishing a Norwegian tradition in economics was Anton Martin Schweigaard who in the 1840s took over the teaching responsibility for economics and statistics at the University on the condition that economics was firmly imbedded as a part of the Faculty of Law. The Schweigaard tradition emphasized liberal economic policies, which he had opportunity to pursue as an influential politician (conservative), as did his successor Torkel H. Aschehoug.[4] The academic community of economists and statisticians remained very small and with much less prominence than in Sweden and Denmark. The only institution outside the University which played any role in empirical economic and statistical research was the Central Bureau of Statistics.

In 1910 the famous Knut Wicksell was invited by the University to sit on a committee to evaluate the candidates for a vacant chair. He found none of the three candidates qualified, but was overruled. Wicksell was not invited back for any further evaluations. By the early 1920s there were two chairs as professors in economics and statistics, one lectureship in economics and one in statistics. The senior professor was Oskar G. Jæger (1863-1933) who was trained as philologist, but shifted his interest to economics and got his doctorate in 1894 with the dissertation "Modern political economy as founded by Adam Smith", the first doctoral dissertation ever on an economic topic in Norway. He became professor in 1902 as the successor to Aschehoug. Jæger played a major role in the establishment of a separate study of economics from 1905. Until then economics had been taught only as part of the study of law. A proposal for a more comprehensive study did not gather sufficient support and the study established was a minor two-year study, which gave the graduates limited opportunities for a career in the government administration.

The other professorship in economics and statistics had been held by Petter T. Aarum since 1917 and was vacated when Aarum died in 1926. It was after committee evaluation given in 1927 to Ingvar Wedervang who had held the

[4] Bergh & Hanisch (1984), chs.I&II.

lectureship in statistics since 1925. The lectureship in economics was held by Wilhelm Keilhau since 1921.

Ingvar Wedervang

Ingvar Wedervang, born 1891, graduated in economics in 1913. He worked as a government statistician (Central Bureau of Statistics), then for a private company (Treschow-Fritzøe) and again in a government agency for about ten years, before he studied in Munich in 1922. He returned to the Central Bureau of Statistics in 1923 and received his doctorate in 1925 with a dissertation on the sex proportion at birth and child mortality.

Wedervang lectured at the University on statistics from 1923, became Lecturer in 1925 and Professor of economics and statistics in 1927. As professor he lectured on applied economics, social and economic statistics, and demography. Wedervang belonged firmly to the school of empirically oriented Norwegian economists in the tradition started by Schweigaard. His work in the 1920s comprised an estimate of national income in Norway and some articles on trade problems.[5] He was not much of a theorist, did not publish in German or English and was not known outside Scandinavia.

Wedervang was instrumental in promoting together with Jæger a plan for a more comprehensive study of economics. Wedervang was an active member in the Norwegian Political Economy Association since the early 1920s and edited the association's journal from 1927 until 1936. In the early 1930s he was much used as a government advisor during trade negotiations. He became the first Rector at the Norwegian School for Business Administration in Bergen from 1937.[6]

Ragnar Frisch

Ragnar Frisch, born as Ragnar Anton Kittil Frisch in Oslo 1895, the only son of silversmith Anton Frisch. After secondary school Frisch worked in the family's jeweller's shop, established by his grandfather, and started an

[5] The doctoral dissertation is Wedervang (1924), the other publications are Wedervang (1926), (1929).
[6] More on Wedervang can be found in Bergh & Hanisch (1984, pp.147-153), Nordvik (1989), Coward (1961).

apprenticeship with another silversmith in Oslo. He began at the same time to study economics, graduated in 1919 and accomplished his journeyman's probation work in 1920.

Frisch became a partner with his father, while continuing studies in economics. In 1921 he was awarded a fellowship for economic studies by the University and spent about two years in Paris and half a year in England, studying mathematics and statistics as well. After the return to Norway in 1923 he was, as the only heir, torn between his scientific interests and family obligations. The business was not in good shape, financially, and the production facilities in need of modernization. The father had suffered losses in the stock market, and the depression made outlooks bleak.

Frisch gave private lectures in economics at the University in 1924 and was appointed assistant professor[7] in 1925, while his father continued to support him. He published his first papers, mostly in probability theory, including some at the Academie des Sciences in Paris in 1924 and 1925. According to what Frisch told Irving Fisher a few years later, he had felt at this time that his only *raison d'être* was scientific work. He had suffered a serious attack of grippe, during which he felt that his life was at stake, or as he told Fisher, "*if I was going to die right away all the waiting tasks in the jewellers trade would not bother me the bit, while some unfinished papers in my desk caused me quite an agony*."[8]

In 1926 Frisch published the often quoted *Sur un problème* essay, a powerful demonstration of how the concept of utility could be given a precise meaning through an axiomatic approach and empirical content in the confrontation between theory and data. In a programmatic article he argued that economic science must be given a better foundation through theoretical and empirical "quantification". Frisch lectured in 1926 on production theory for the first time and initiated the mathematization of the theory. He also submitted his doctoral dissertation, the first dissertation at the University of Oslo on theoretical

[7] Frisch was "adjunktstipendiat", which was a low paid position with teaching duties often held by persons having another job. The appointment was normally for four years.
[8] Letter R. Frisch/I. Fisher, 24 April 1929.

statistics.[9] Frisch can be credited more than anyone else for having introduced modern statistical methods at the University of Oslo.

Frisch was in 1926 awarded a Fellowship from Laura Spelman Rockefeller Memorial (LSRM) for a visit to the United States, for "research on quantification and dynamization of consumption and utility theory and decomposition of statistical time series". Frisch had been active in establishing contact with economists in many European countries, but his contact with American economists and statisticians had until then been quite limited. Frisch left for the United States in March 1927. From Rockefeller Foundation's headquarter in New York he visited several universities and research institutions, where he particularly sought out "mathematical economists" and "statistical economists", which were the current terms in use for the fields that interested him, although he was quite critical of the methods used by many "statistical economists". He got to know a number of American economists, especially Irving Fisher, Wesley Mitchell, Allyn Young and Henry Schultz.[10] Wesley Mitchell had just completed a new book on business cycles, when Frisch turned up and suggested more advanced methods.[11]

The Fellowship was extended for six months stay in Italy and France. Frisch left for Italy in March 1928, but in April his father fell seriously ill and Frisch returned home. Anton Frisch died in May 1928 and left Frisch in a precarious situation. The family business was in a bad state and Frisch was in a dilemma between scientific pursuits and how to provide a living for his wife and mother. But his decision was really taken ("*scientific work was in my own mind the*

[9] The *Sur un problème* essay is Frisch (1926a), the programmatic article Frisch (1926b), and the doctoral dissertation Frisch (1926c). Frisch's lecture notes on production theory were reworked many times from 1926 until the 1960s, but not published internationally until 1963 (in French).

[10] Frisch consulted Allyn Young, Harvard University about leading names in "mathematical economics" and received a list of eight names - Irving Fisher, H. L. Moore, Warren M. Persons, Holbrook Working, Frank H. Knight, Fredrick C. Mills, Mordecai Ezekiel and E. H. Chamberlin - who as Young wrote "…includes practically everyone in this country who has a serious interest in the field of mathematical economics." Young asked Mordecai Ezekiel on Frisch's behalf about leading names within "statistical economics". Ezekiel, who was with the US Department of Agriculture, also mentioned eight names: Henry Schultz, Bradford B. Smith, Hugh B. Killough, Elmer Rauchenstein, Clyde Chambers, Edward M. Daggitt, C. F. Sarle and G. C. Haas.

[11] Mitchell (1927). Mitchell was instrumental in arranging for the distribution of Frisch's mimeographed paper, Frisch (1927).

only raison d'être for my existence"[12]). Frisch spent one year after the father's death to modernize the business, finding means for investment by selling the family home and other assets and found a jeweller willing to run the business for him. His worry was that it could be too late already to prevent bankruptcy.

Frisch was appointed lecturer ("docent") in statistics in the spring of 1928. Before his second visit to the U.S.A. he lectured on statistics and economics for three terms in 1928-29 in a clear break with the traditional teaching. In statistics he introduced new statistical theory and encouraged empirical study of current issues, in economics he drew up an ambitious complete cycle of lectures, which he stuck to in the ensuing years, but left incomplete. He continued to work on new methods for analysis of cycles in economic time series, introduced an approach to dynamic modelling in his *Statikk og dynamikk* essay, and published the *Correlation and Scatter* essay on new econometric methods comprising ideas he had held for some years.[13]

Frisch's achievements so far was astounding. He had already published far more internationally than all his predecessors in Norway together. His econometric approach had no forerunners in Norway. He rose like a giant out of shallow water.

3. The proposal for an economic research institute

Shortly after the University Institute of Economics had been established Frisch presented the research programme to the Norwegian Political Economy Association in February 1932 and praised Wedervang as the one who first had come up with the idea of establishing the Institute. The proposal addressed to Rockefeller Foundation written by Wedervang and Frisch in January 1930 referred to contact with the Foundation's representative in Norway, Professor of Law Fredrik Stang, through several years about the idea of a research institute stating: "*What were previously vague hints and suggestions in regard*

[12] Letter R. Frisch/I. Fisher, 24 April 1929.
[13] The time series paper is Frisch (1928). The *Statikk og dynamikk* essay is Frisch (1929a), in which he introduced the connotations *statics* and *dynamics* got in modern theory. It was partly (sections 4-7 omitted) translated into English in Frisch (1992). The *Correlation and Scatter* essay, which introduced matrix methods in econometrics, is Frisch (1929b).

to the scope of the Institute have now assumed a concrete form in our minds and we are therefore able to submit positive suggestions".[14]

When these "hints and suggestions" had taken place is not entirely clear. Frisch had in USA visited institutions which had benefited from LSRM support for empirical research such as University of Chicago, Columbia University and, not least, the National Bureau of Economic Research (NBER). Had Frisch and Wedervang perhaps discussed the idea after Frisch returned from USA in the spring of 1928?

Fredrik Stang who had received Rockefeller funds for his *Institute for Comparative Research in Human Culture* since the mid-1920s, was told at the end of 1929 by John Van Sickle at the Rockefeller Foundation's office in Paris that the support would be discontinued. Van Sickle had at the same time intimated, that there might be support for other institutions in Norway, especially within social science. Stang may very likely have conveyed this suggestion to Frisch and Wedervang.

We can assume, however, that the idea remained an airy one <u>if</u> it was discussed as early as 1928 as no trace of it has been found. The actual application was written in some haste, only a few weeks after Van Sickle had notified Stang - as a nine page document - at the very last moment. It was signed by Wedervang and Frisch and sent to Rockefeller Foundation's representative in Norway Fredrik Stang, on 17 January 1930, the very same day Ragnar and Marie Frisch took the night train to Gothenburg to board the ship for New York the next day.

Ingvar Wedervang and Ragnar Frisch had different scientific orientation and capability. A common interest could be said to be analysis of empirical data, but even that would be a misrepresentation as their interests in empirical work were rather different. Frisch was already in the international forefront with regard to application of statistics to economic problems and was in touch with leading economists and statisticians in many countries. Frisch was fascinated by the prospects of testing theory empirically in a rigorous way by statistical

[14] Memorandum of an Institute of Economic Research at Oslo University , letter from I. Wedervang & R. Frisch to F. Stang, 17 Jan. 1930. Excerpts from this document is quoted several times below.

methods. Wedervang was a lightweight theoretician, his inclination was to apply theory for practical purposes and to gather long time series of economic (micro) data with no particular analytic purpose in mind.

Frisch expressed to Rockefeller Foundation the difference between Wedervang and himself:

> "*… both Professor Wedervang and I are keenly interested in the realization of a more intimate connection between the study of pure economic theory and the practices and actual life of the various concrete economic units: individuals, concerns etc. While my principal concern is that theory might gain by such a connection, Professor Wedervang first of all has the concrete progress of the economic and business life of the nation at heart. His endeavour is to contribute towards a better and more intelligent application of the economic principles to the practices of economic life.*"[15]

In view of this rather different interest in empirical research it must have been clear to both protagonists that they would never really work together if they succeeded in founding the proposed institute. As soon as the Institute was founded in was for practical purposes divided into two parts with little interaction and with separate reports to Rockefeller Foundation. Perhaps their common interest did not go much beyond finding means for assistants etc. for rather different empirical studies?

The proposal by Wedervang and Frisch stated that it would be entirely useless to address the government or business interests for financing and that existing funds for research in Norway were not in a position to support the creation of an Institute. If the idea should come to anything "… *we see no other way than to ask you to submit our proposal to the Rockefeller Foundation.*"

How much to apply for and how to argue for support from the Rockefeller Foundation? The two proposers (and Stang) nurtured hopes for support, from the vague signals available, but they hardly had any clear idea about what was within range. Frisch had in 1927 visited several Rockefeller Foundation

[15] Quoted from a letter Frisch wrote on the day of departure to acquire financial support from Rockefeller Foundation for Wedervang's visit to USA (see section 4 below), R. Frisch/F. Stang, 17 Jan. 1930.

supported institutions and spent much time at the Foundation's headquarter in New York. He may thus have had opportunity to find out about the Foundation's policy, and also its grants to Sweden and Denmark. It was clear, however, that the two protagonists sought means for a permanent institute:

> "*We may say we are of the opinion that the establishment of a permanent institute of economic research in Norway would be of vital importance. The significance of a country like Norway having such a permanent institution cannot be overestimated. Such an institute forms a natural meeting place where one can discuss and work with current scientific problems. It will have a fructifying effect on the entire scientific life within the domain of economic research in this country. Furthermore, in the event of the institute being permanent, one could take a long view of the work and offer talented young men altogether better working conditions than is possible when the activities of the institute are only of a temporary character.*"

On this argument the proposers found it opportune to ask for "*a grant be made, once and for all, of $ 250 000-300 000 for the establishment of an institute of economic research at Oslo University*". Alternatively, they asked for $15,000 per year over a ten-year period with an option of putting aside some of the means for later use.[16]

What was the content of the proposal? It did not give the impression of a well corroborated programmatic statement, perhaps due to the haste. Frisch's ideas about quantification of economics as expressed in 1926 was clearly present in the proposal. Another idea, more vague and perhaps originating from Wedervang, was to apply theory to industrial data observations: "… *to establish an intimate connection between economic theory and what actually occurs in industry.*"

The proposal expressed Frisch's interest in quantitative studies based on production theory. It stated that economic theory postulates certain main types of productivity laws and demand laws:

[16] The once and for all amount of 250,000-300,000 dollar would by the dollar rate of 1930 (1$ = 4Nkr) inflated to current prices by the official consumption price index come to 25-30 mill. Nkr. At the time this amounted to about 35 percent of the University budget for 1929-30.

> "*The task will then be, in each individual case, to describe the character of the combination of factors, both from a technical and economic point of view, to analyse the functional connection, or law governing the factors through quantitative changes, to study their combination and to explain how this reacts upon the flow of production. As a consequence of an analysis of this kind one may hope to be able to formulate the theoretic laws quantitatively at a central point of the whole theoretic structure of economic science.*"

The approach outlined would be to start with analysis of simple one-commodity production in a single firm and, as more experience was gained, extended to several firms in the same branch and several branches. The choice of suitable branches was surprisingly concretely set out as to comprise concrete, pulp and wood production: "*… it is unnecessary for us to stress the importance of positive results in this field, both in so far as general theory and business economics are concerned.*"

After this sketch of a research programme which gave the impression of being of a very applied nature, the proposers, or rather Frisch, presumably, found it necessary to underline the primacy of theory:

> "*Pure economic theory will form the background for the whole investigation, and it is to its development that we desire to contribute. It is our aim, first and foremost, to consolidate the theory itself by supporting it with empirical data of a descriptive and statistical character.*"

This emphasis on theory would later cause some problems in the Foundation's assessment of the proposal. Frisch also found it opportune to draw a line between himself and some of practitioners of "statistical economics" he had met in USA whom he found put too little emphasis on theory and adequate methods in the analysis of data. The research at the planned institute would apply methods and analysis and data collection used in business economics and statistics, but this description and collection of data was not the main object of the investigation: "*Our whole task will be entirely different from the investigation of a purely descriptional and statistical nature which are now carried out in many countries.*" The argument may have been lost on the

Foundation officials but Frisch at this stage had reached a high level of insight in proper methods of analysing economic observations.

The proposal pointed out that the general research programme that was outlined could be executed in any country which "*takes part in the ordinary activity of the world*" and that "*there is probably a wider appreciation by business men in the more important countries of the fundamental significance of this kind of research work.*" What was then the argument for research in Norway? The proposers might have been on thinner ice with the small-is-beautiful argument that "*… it may safely be said that in a small country, where manufacturing units are smaller and where conditions are less complex, it is easier to obtain manufacturing units of various kinds organized in such a simple manner as to ensure a purer type – a type, so to speak of a primary nature.*"

Although the application gave the impression of optimism and hopes for the future, the proposers took care not to oversell by promising results in the short run: "*We realize to the full that a long time may elapse before we can obtain positive results of a general character, and we do not know whether we shall succeed in going so far as we desire to proceed.*" At the same time the fundamentally new in the quantification programme was pointed out: "*As far as we are aware, the problem in question has not been given any systematic treatment up to the present, and, naturally, this fact makes it impossible to descry all the phases of the problem and its attendant difficulties – and what its solution will demand.*"

After thus describing the main purpose in not too precise terms, underlining both its originality and its difficulties, the proposers proceeded to sketch in more concrete terms which tasks they would attack. Even if these could not "*be said to constitute an original portion of the research work referred to above*", they would nevertheless "*create a basis for the final completion of the task.*" The studies of fluctuations in prices and wages were presented as a common interest, but perhaps a little artificially. Wedervang's interest was related to the use of such material for economic history, while Frisch wanted to use long time series in his cycle studies and methodological approaches. Both interests were expressed in the application.

It was a need for resources for establishing price and wage series a lot further back than official statistics offered, which was only merely back to World War I. The proposers suggested that that the backdating through collection of primary data from archives and files of commercial houses could aim at series back to the beginning of the 19th century. The proposers recognized that the study of such series by itself could not claim originality as research, this was territory well explored as to method, but as it was not done in Norway earlier "*an exhaustive analysis of fluctuations of prices and wages …intrinsically of great interest, entirely irrespective of the close association of these fluctuations with the ultimate object of the Research Institute.*" Such an analysis would make it possible to gain "*a good deal of insight and experience which will stand us in good stead when we come to deal with the much more complex object proper of the Institute.*"

The compilation of historical series, especially prices and wages, was part of the research programme at several of the institutions supported by Rockefeller Foundation in different countries. This was probably known to Frisch and Wedervang, at least they must have been aware of project at the *Socialvetenskapliga institutet* in Stockholm, directed by Gösta Bagge and including Erik Lindahl, Gunnar Myrdal and others.[17]

The economic history angle would allow relating the Norwegian data to corresponding series and analyses from other countries, especially in view of the Norwegian dependency upon international trade: "*… there are few countries, which, in relation to their size and population, have such wide and extensive international interests as Norway.*" To construct price and wage indices by means of these data was not the prime concern, although that ought also to be done. The point was on the contrary "*to throw light exactly on those points which such index-calculations conceal, to bring out certain typical diversities in regard to the individual competing industrial concerns, their market condition, and so forth. It is by these very diversities that we hope to be*

[17] The results from the Stockholm project was published in a series of volumes under the common title *Wages, Cost of Living and National Income in Sweden 1860-1930* edited by Gösta Bagge. The first volume was *The Cost of Living in Sweden*, authored by Gunnar Myrdal, assisted by Sven Bouvin (London: P.S. King & Son, 1933). The second volume was *Wages in Sweden 1860-1930*, published in two parts, the first part comprised mining and manufacturing, authored by Erik Lindahl og Bertil Nyström (London: P.S. King & Son, 1933). All volumes

able to illustrate the character of the underlying principles and laws which govern production and trade."

Frisch's methodical interest and strong involvement in the analysis of time series was also clearly expressed:

> "*[It] will unquestionably be necessary to subject the statistical time-series to a treatment other than that generally applied. Instead of an empirico-mechanical mode of treatment in the determination of a seasonal index, determination of trend by some kind of curve-fitting, and so forth, it is our aim to make a differential analysis of the characters of the underlying components in the time-series through the method developed by the undersigned Ragnar Frisch.*"[18]

A project like this would require resources and time. "*It is obvious that even a partial solution of the working programme drawn up will require many years of comprehensive work. And the various problems will make heavy demands in respect of scientifically trained assistance in the various fields*". First, it would require "*assistants trained in economic science*" and in this regard the situation was that there were "*a number of young economists particularly well qualified for work of the nature comprised in our working programme.*" Frisch might have found suitable candidates in his statistical seminar or attending his lectures, knowing that prospects for work for these students were not too promising and for economic research work almost non-existent.

The project would, furthermore, for the wage and price series require assistance from "*scientists versed in history and who have knowledge of the study of public records and the like*" and for the study of production also from "*men with techno-scientific training and insight*". For such assistants it would be necessary with remuneration which "*does not fall very short of what they can command in a commercial or industrial capacity*". In addition it was necessary with equipment such as "*one or two calculating machines, typewriters, etc.*", while with regard to offices no expenditure was needed as it

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were financed by the Laura Spelman Rockefeller Memorial.

[18] The reference is clearly to Frisch (1927), written during Frisch's sojourn in the United States in 1927 and distributed from Rockefeller Foundation's headquarter in New York.

was taken for granted that "*the University administration will do its utmost to provide the necessary working accommodation for such a research institute.*"

The proposal ended with a very clear statement that the proposed institute not only location wise, but also in terms of organization ought to be part of the University: "*Its scientific character would thereby be clearly indicated, the work would be attached to the centre of economic science in this country and could be directly utilised for other scientific work at the University. And the management would be altogether scientifically pertinent and objective*". The application suggested that the two proposers together with the Rector of the University would constitute the "… *management of the institute with full responsibility for the planning and execution of the work and for the operation of the institute*", unless the Rockefeller Foundation would prefer that the entire academic board of the University should be responsible for the proposed institute. The formulation suggests that the Rector of the University, Professor Sem Sæland, was informed, but that was not the case. His support seems rather to have been taken for granted.

If the proposal was written in haste due to Frisch's departure there was no rush to do anything for Stang. During the first six months Frisch was in the United States the proposal remained on Stang's desk. He informed by letter J. Van Sickle in Paris, however, within two weeks of Frisch's departure that there existed a proposal: "*Dr. Wedervang and Dr. Frisch have collaborated in working out a great plan for an Economic Research Institute at the University of Oslo. Before short I shall have the honour to send you this plan.*"[19] The letter was by the Paris office forwarded to Rockefeller Foundation's Director of Social Science Division Edmund E. Day in New York, but that was also all he got to know about the proposal until Wedervang came to his office in the middle of December 1930 (see section 4 below).

Early in the summer of 1930 Vice Director of the Social Science Division Selskar M. Gunn, who was in charge of the Paris office, came with J. Van Sickle to Oslo to visit Stang's Institute for Comparative Cultural Research in Human Culture. During the meeting Stang was told, as Van Sickle had intimated to him earlier, that his institute could not be considered as social

science and thus could not count on any further support by the Rockefeller Foundation's Social Science Division.[20]

This was bad news for Stang, even if Rockefeller Foundation was generous enough to offer a tapering grant, before it withdrew its support. Stang took the opportunity, naturally, to speak about other possible projects, including the Frisch & Wedervang proposal that he would shortly submit and probably appealed to Gunn and Van Sickle for support.[21]

In an internal memo written by Van Sickle after the meeting he stated:

> "*Thus Professors Frisch and Wedervang were interested in developing an Institute for study of contemporary social problems, apparently after the model of the Copenhagen Institute. … S[tang] appeared anxious lest some of his colleagues should later say that he had used his influence with the R[ockefeller] F[oundation] to keep from our knowledge other possible developments that might compete with the Institute [of Comparative Research in Human Culture] for R. F. Support.*"[22]

Stang submitted the proposal shortly afterwards to the Paris office, but also undefied included proposals for institutes for history and linguistics, respectively, adding: "*I hope you will look upon them as a witness of the vivid activity and the force of development of Norwegian humanistic science, and not find that I intrude too much upon you with these things.*"[23]

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[19] Letter F. Stang/J. Van Sickle, 29 Jan. 1930 (RAC).

[20] Stang was surprised as he earlier in 1930 had been contacted by G. Winthrop Young who introduced himself as a representative of Rockefeller Foundation's Division for Humanities, but at the meeting in Oslo Stang got to know that the Division for Humanities never got off the ground and that Young was no longer with the Foundation.

[21] Stang had invited Rector Sem Sæland to dinner with S. M. Gunn to let him in on the discussions with Rockefeller, but Sæland could not attend and Stang forgot to inform him about the proposal by Frisch and Wedervang until the beginning of 1931. Letter R. Frisch /I. Wedervang, 13 Feb. 1931.

[22] Internal memo by J. Van Sickle, 9 July 1930 (RAC). The reference to the "Copenhagen Institute" was Department of economics and history (Afdeling for økonomi og historie), Copenhagen University which had been established by means from the Laura Spelman Rockefeller Memorial in the mid-1920s.

[23] F. Stang/S. M. Gunn 12.7.30 (RAC). Nothing further happened to the latter two proposals.

4. Frisch in the United States 1930-31

Frisch left for the United States in January 1930 for one year at Yale University. The relationship to Irving Fisher, who had arranged for Frisch's invitation, was important for Frisch's development in more than one way. Frisch had sent Fisher his *Sur un problème* essay in 1926 and it did an immediate and deep impression on Fisher. He had just submitted his contribution "A Statistical Method for Measuring 'Marginal Utility' and Testing the Justice of a Progressive Income Tax" to a festschrift for John Bates Clark, believing that he was the first ever who had developed a method for actually measuring marginal utility. Frisch's essay beat him in time and offered a more promising method. Fisher distributed a reprint of his contribution to a large number of people, enclosing a note referring to Frisch's work: "Dr. Frisch not only devised a method but applied it to obtain definite statistical estimates with which my own tentative and unpublished figures are, at least, consistent. To Dr. Frisch, therefore, belongs the honor of being, so far as I know, the first to publish anything on this difficult subject." Frisch had admired Fishers doctoral thesis of 1891 since he bought a copy of the 1917 French translation during his stay in Paris and Fisher was number one on the list of people he wanted to see when he came to the U.S. in 1927.

An outcome of the first meeting between Fisher and Frisch in 1927 was that they had very similar interests in promoting an organization and journal for scientific economics, or as it would be called when it came to its realization during Frisch's next visit - *econometrics*. When the two men met shortly before Frisch returned to Europe in 1928 Fisher had suggested that Frisch should come to Yale University for another visit to work with Fisher on measuring marginal utility.

After having dealt with the most pressing problems of the family business Frisch came back to this suggestion in a letter to Fisher in April 1929. The outcome was that Frisch was invited by Yale University as Visiting Professor of Economics throughout 1930.[24] In a separate agreement with Fisher he would

[24] Frisch was appointed *Visiting Professor of Economics* at Yale University for the second term of 1929/30 and the first term of 1930/31 by Yale Corporation's Prudential Committee on 12 Oct. 1929 on a motion by Professor Edgar S. Furniss, Chairman of the Department of Economics, Sociology and Government at a salary of $3500 per year. He would additionally

work for him in the office facilities at Fisher's home in 460 Prospect Street, New Haven. Frisch extended his stay until the summer of 1931 and spent part of the spring at the University of Minnesota, Minneapolis, which he had visited also in the summer 1930, both times at the invitation of Alvin Hansen.

Ragnar and Marie Frisch disembarked in New York at the end of January 1930, continued after some days by train to New Haven, Connecticut, arriving a few days before the spring term started on 6 Feb. The Frisch couple stayed with the Fishers, before they moved to a rented house in 100 Howe Street.

As Visiting Professor Frisch had teaching duties. In the spring he gave a course in economic theory and another on time series analysis. Frisch's first lecture was on 13 February 1930 titled "What is meant by Economic Theory?" The content was not so much economic theory, but more a theory of science discussion of the relationship between empirical observations and generalizations and theoretical model constructions.[25]

Fisher's main research interest in inviting Frisch was the measurement of marginal utility. They planned a book together on the topic. According to Frisch it came to nothing because they were not able to lay their hands on reliable data for geographical price comparisons. Fisher also had an ambition of including the history of marginal utility theory and they approached scholars in several countries for information. In the end the book that eventually came out of this work was authored by Frisch alone as *New Methods of Measuring Marginal Utility*.[26]

Other major research tasks Frisch devoted himself to during his visit was a new attack on decomposition of time series which resulted in the paper presented at the Cleveland meeting in December (see below), and his mathematization of production theory. Both projects were intended to result in monographs to be published in the U.S.A.

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receive $3500 directly from Fisher. Fisher paid in fact Frisch's remuneration in its entirety. The official salary was an "anonymous" gift from Fisher to the university, something he had often done. Fisher was, at the time a wealthy man. It should be noted, however, that Fisher made his commitment in 1929 before the crash which ultimately would wipe him out, but stood by his commitment throughout Frisch's visit in 1930.

[25] Frisch's lecture has never been published. The ms. is filed in the Frisch archive, dated April 1930.

[26] Eventually published as Frisch (1932a). The relationship with Fisher in the project is set out on the opening pages.

In the beginning of July 1930 Frisch spent one week in Minneapolis and gave a series of four lectures at University of Minnesota.[27] As an outcome of that visit he was invited back in the spring of 1931. After the visit to Minneapolis Frisch was able to satisfy he usual summer need to recuperate in mountain air, the Frisch couple spent the rest of the summer in Moraine Lake Camp in Alberta, Canada.

In the autumn of 1930 Frisch gave a course for advanced students at Yale titled ”A Dynamic Approach to Economic Theory”. It comprised both theory, econometric methods and time series analysis. The students shared the burden of writing lecture notes. Frisch also gave them numerical problems to solve in time series analysis.[28]

It so happened that Frisch’s two visits to the U.S. coincided with the two visiting stays that Schumpeter had at Harvard in the interwar period, before he finally made the move from Bonn in 1932. Frisch had been in touch with Schumpeter before his first trip to the United States and had also visited him in Bonn. But it was during their stays in America that they came to know each other very well. Schumpeter had, like Fisher, been highly impressed with Frisch’s marginal utility studies, but also with Frisch’s econometric methods, time series decomposition, and macrodynamics, some of it perhaps on the far side of Schumpeter’s mathematical capability.

Fisher, Schumpeter and Frisch were very different persons, but with a great mutual admiration for each other. They also shared a great interest in promoting an association and journal for scientific economics, an effort that

[27] The lecture series was given 7-10 July 1930 and the titles were: (1) General Considerations on Static and Dynamic Economics; (2) Dynamic Formulation of Some Parts of Economic Theory; (3) The Significance of Economic Theory in Modern Life; and (4) Statistical Verification of the Laws of Dynamic Economic Theory. The third lecture was given in a large auditorium and was announced in the ”Calendar for the week” in University of Minnesota’s Official Daily Bulletin, albeit with Frisch described as belonging to the University of Copenhagen!

[28] Frisch’s lecture plan and the lecture notes are filed in the Frisch Archive, together with some of the term papers. The time series studied in this course by Frisch’s methods comprised 1) General Prices from the year 1790; 2) The Axe-Houghton index of stock prices; 3) The Dow-Jones index of stock prices; 4) The Frickey index of railroad stock prices; 5) Bank clearings in cities outside New York; 6) Copper prices and consumption; 7) The U.S. Bureau of Labor Statistics’ price index; 8) Automobile production; 9) Freight car loadings; 10) Pig iron production; 11) Residuals of the longitude of the planet Uranus; 12) Smoothing of the probability of death; 13) Rainfall at Boston, Massachusetts; and 14) Wheat prices in Europe from the year 1500!

reached its goal when the Econometric Society was founded in December 1930 and the journal Econometrica appeared in 1933. Frisch had discussed this issue with Fisher and Schumpeter on many occasions and also with many others. During 1930 the time was ripe for action. Fisher, Charles Roos and Frisch sent out a circular letter in June 1930 to a number of people to get responses to the idea, on the basis of that an invitation was sent a few weeks before the annual meeting in American Association for the Advancement of Science (AAAS) with all its affiliated associations in Cleveland in December 1930.

Frisch had been invited by the American Mathematical Society to present the paper "A Method of Decomposing an Empirical Series into its Cyclical and Progressive Components" at the Cleveland meeting in a joint session with the American Statistical Association on the afternoon of 29 December. The Norwegian born mathematician Oystein Ore, who also was at Yale, chaired the session which also included contributions by G. C. Evans, Rice Institute, Houston, and Harold Hotelling, Stanford University.[29]

In the evening of the same day the foundation of the Econometric Society took place. Schumpeter chaired the meeting. Frisch brought with him not only Ore, but also Wedervang who had come to the United States earlier the same autumn (see below). Fisher was notably absent, but was nevertheless elected President.[30]

During the three years (1931-33) Fisher served as President of the Econometric Society he, Schumpeter and Frisch seemed to have constituted a triumvirate who ruled the organization. The foundation of Econometric Society may not seem as important in itself, but it had two major consequences through the intermediary of Alfred Cowles, who in 1931 offered to carry the financial risk of a journal for the association and also establish the Cowles Commission for Research in Economics as a foundation to support the aims of the Econometric Society. On both accounts he delivered promptly and generously.

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[29] Frisch (1931b). Evans' paper was "Simple types of economic crises and cycles" and Hotelling's "Recent improvements in statistical inference".

[30] Those present at the foundation of the Econometric Society were: Harold Hotelling, Frederick C. Mills, William F. Ogburn, J. Harvey Rogers, Charles F. Roos, Malcolm C. Rorty, Henry Schultz, Carl Snyder, W. A. Shewhart, Norbert Wiener, Edwin B. Wilson, Ragnar Frisch, Oystein Ore, Ingvar Wedervang, Karl Menger and Joseph A. Schumpeter. See Bjerkholt (1998).

Frisch was also present at Malcolm C. Rorty's Presidential Address to American Statistical Association 1 January 1931 which gave a critical review of the use of correlation and Fourier analysis, which Frisch appreciated. Frisch was surprised to learn from Schumpeter that neither Rorty nor Mitchell (and perhaps few others) knew about Frisch's criticism of "correlation methods" in the *Correlation and Scatter* essay which after all had been published in a little known journal. Frisch immediately informed them![31]

Wedervang had before witnessing the foundation of the Econometric Society in fact spent several months in the USA studying the organization of the study of economics at leading universities, especially management economics. Wedervang had worked on a plan for a new comprehensive study of economics in Oslo, and Stang had encouraged him to apply for Rockefeller support for a visit to USA. Stang asked Frisch for a recommendation letter and Frisch thus had written on the day of his departure, addressed to Stang who would forward it to Paris, what amounted to an application on Wedervang's behalf.

In the letter Frisch suggested that Wedervang ought to go to the USA at the end of April and stay the rest of the year, arguing that: "… *it is obvious that it would be of extreme importance to the future teaching and research work in economics at this University that Professor Wedervang is given the opportunity of making a closer study of the modern American development in the field of applied economics and particularly in business research*".[32]

Already 19 March 1930 Wedervang wrote to Frisch that there would be no visit to USA for him. Fredrik Stang had been told by J. Van Sickle, Fellowship Co-ordinator at Rockefeller Foundation's Paris office, that the application most likely would be refused. The prior warning of the refusal was a bad blow to Wedervang and he vented his emotional reaction to Frisch.[33] Less than three

[31] How could Frisch expect them to know? His *Correlation and scatter* essay (Frisch, 1929b) was published in *Nordisk Statistisk Tidskrift* which was a Scandinavian language journal with occasional articles in English and German, but from 1929 it had a parallel edition in English (*Nordic Statistical Journal*). Letters R. Frisch/W. Mitchell, 3 Jan. 1931 and R. Frisch/M. C. Rorty, 3 Jan. 1931.

[32] R. Frisch/F. Stang, 17 Jan. 1931. As Wedervang would retain his salary from the University he would only give up his outside income which, however, was necessary to "maintain the social standard of a professor". Frisch suggested that in addition to the travel and subsistence costs he would need $125 per month to be sent to Mrs. Wedervang who with the couple's three children would remain in Oslo.

[33] The flavour of Wedervang's disappointment and hopes cannot easily be rendered in English:

weeks later Frisch sent a telegram to Wedervang that he had found $500 to finance Wedervang's trip. Where did the money come from? Wedervang presumed that it somehow was donated by Yale, but there could hardly be any other explanation than that it came out of Frisch's own pocket.

Wedervang arrived in New York in the middle of September, while Frisch was still at Moraine Lake Camp i Alberta, Canada. Frisch had, however, sent him detailed advice about whom to see and what to do, suggesting he ought to go to Columbia to see P. Seligman at the Business School, then to the National Bureau of Economic Research to see F. C. Mills and that he after that ought to spend most of his time at Cambridge, Mass. to cover both Massachusetts Institute of Technology and Harvard University.[34]

Early in December 1930 Wedervang went to Rockefeller Foundation's headquarter in New York and met with Edmund E. Day, Director for Social Sciences. Day had been told in February the same year that an application from Oslo was under way, but since then he had heard nothing, neither had he inquired to Paris about it. Day thus informed Wedervang that the Paris office was handling the case and immediately sent off a letter to Paris to ask about the state of the matter. After being presented the idea by Wedervang, Day had *inter alia* expressed scepticism towards too theoretical oriented research. To the Paris office Day reported that Wedervang had asked about Rockefeller Foundation's "*probable attitude toward the proposal for such an Institute*", adding still without having seen the application, "*It seems to me that it might be well to lend some Foundation support in the development of a Norwegian social science research institute, but I have no means of telling how far the present proposal is essentially sound and entitled to encouragement.*"[35]

In December 1930 Frisch got from Oslo the encouraging news that the plan for new study of economics prepared by Wedervang and Jæger had won approval

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"*Å nei, et slikt held vilde nesten vært for stort for mig. Jeg får nokk henge i og greie mig sjøl som hittil. Litt skuffet blev jeg jo i går, fordi det jo er forbannet menneskelig å håpe, men i dag er det helt over! Bare vi kunde få penger til instituttet så; det blir andre boller. Men det faller vel det også. Da blir jeg for alvor bedrøvet. Og det er uendelig meget tyngre nu når jeg er alene og ikke har dig i nærheten. Jeg sa dig at en av veggene vilde bli borte. Det er nokk verre! Jeg føler mig som sittende helt alene i gjennomtrekk.*" (I.Wedervang/R. Frisch, 19 March 1930). The trip was, however, for various reasons postponed until the autumn. Wedervang also obtained through Rector Sem Sæland support from university funds.

[34] Letter R. Frisch/I. Wedervang, 23 June 1930.

by students and teachers alike and had been recommended by the Faculty of Law. It would shortly be submitted by the Board of the University to the Ministry of Education.[36]

At the end of the Cleveland meeting Frisch ran into Edmund Day. Having been briefed by Wedervang he took the occasion to have a conversation with Day, hoping to clear away some of the obstacles Day had raised with Wedervang, but felt unsure whether he had succeeded.

Wedervang returned to Oslo in January 1931. Shortly afterwards Frisch left New Haven and moved to New York, where he stayed some weeks at 542 West 112th Street, before moving on to Minnesota. While in New York he sent off proofs of two articles, *Statistikk og konjunkturteori*, which was his opposition at the doctoral dissertation of Johan Åkerman, and *Einige Punkte einer Preistheorie mit Arbeit und Boden als Produktionsfaktoren*, which was a highly original outgrowth of his work on production theory.[37] The manuscript for *New Methods for Measuring Marginal Utility* was also completed and sent to Schumpeter.[38]

Frisch also had nearly completed two other monographs, "Marginal and Limitational Productivity" and "The Decomposition of Statistical Time Series". Both had apparently been accepted for publication by Yale University Press. Frisch had promised delivery within the end of the year.[39]

On the way to Minnesota Frisch planned to stop in Chicago to visit Henry Schultz. Frisch was interested in his approach to the determination of supply and demand curves.[40] Frisch wanted to get Schultz interested in his "translation method", presented in *New Methods*, that with the statistical laboratory

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[35] Letter E. E. Day/S. M. Gunn, 12 Dec. 1930.
[36] Letter O. Jæger/R. Frisch, 19 Dec. 1930. The plan required one more chair in economics to be put into effect and that obstacle would delay it for three years!
[37] The Åkerman opposition was published in *Statsvetenskaplig Tidskrift* as Frisch (1931a). The *Preistheorie* article was published in *Zeitschrift für Nationalökonomie* as Frisch (1932a), it had been written in English and translated by Gerhard Tintner.
[38] Schumpeter accepted the manuscript immediately for the series *Beiträge zur ökonomischen Theorie*, which he edited with Emil Lederer. It appeared as Frisch (1932b).
[39] Neither of them did appear! The productivity monograph was based on the lecture series on production theory Frisch had given in Oslo, substantially extended and mathematized after lecturing on the topic at Yale.The productivity monograph did not appear in an international language until it was published in French in 1963, followed by an English edition in 1965. The time series monograph was never published, but reworked several times in the 1930s.
[40] Schultz (1928).

facilities that Schultz had access to, had great promise for utilizing family budget data from all over the world to determine marginal utility schedules.

During his visit to Minnesota in the summer 1930 Frisch had been invited to come again in 1931. As he expected stay for one year only he had declined the invitation, but in December 1930 he renewed his contact with the University of Minnesota and expressed his interest in another visit in the spring. He stated that he had a reason for not returning to Oslo early in the spring. The reason was clearly the efforts going on about a personal professorship for him (see section 5 below).

Frisch arrived at the School of Business Administration, University of Minnesota in Minneapolis around 1 April. He gave two courses under the common title of ”Modern Economic Theory from a Quantitative View-Point”, one course was productivity theory and the other statistical verification, involving the students actively in numerical work. The term lasted until 6 June, but Frisch was in a hurry. He left Minnesota at the end of May and boarded a ship home from New York in the beginning of June after a brief meeting with Fisher in New York. It was a final talk about the offer Fisher had succeeded in bringing forth from Yale for a permanent position for Frisch (see section 5 and 7).

After Frisch arrived in Oslo he continued almost immediately to the Meeting of the Nordic Political Association in Stockholm 15-17 June 1931. While Frisch was in USA Jæger had written and begged him to prepare a presentation at the meeting as there otherwise would be no Norwegian contribution. Frisch rose to the challenge and chose in a remarkable paper to present his macroeconomic ideas as fourteen principles[!], including the formulation of a macroeconomic model with 37 equations and 38 endogenous variables. According to his oral presentation Frisch had been at a loss trying to find the missing equation! It seems likely that he had prepared his (incomplete) model and presentation on the ship home.[41]

[41] Frisch (1931c).

5. Painful times at the University

The University of Oslo was on hard times around 1930. There were practically no new positions for several years. As Rector S. Sæland told Frisch in a letter shortly after he had left for the United States: ”*… it has been quite a running theme in recent years that we due to painful times could not expect any new positions at the University, and that the expenditure had to be reduced rather than increase.*”[42] A vulnerable group under such circumstances are young talents for whom there are no openings. The positions in the field might be held by persons of lighter calibre, and the outcome would often be that the talents either left academia or the country. As it happened at European universities in those years the exit option was the United States. Rescue operations could be launched and sometimes succeed in the erection of a new chair.

The highly promising mathematician Øystein Ore who was slightly younger than Frisch who knew him well, was one such talent. After his doctorate in 1924, Ore had a Fellowship at Yale University in 1928/29, but had no offer of a position in Norway on his return. He left Norway with some bitter feelings for a career as Professor of mathematics at Yale University.

The astrophysicist Svein Rosseland on the other hand was a talent for which the University went to a great effort and expense to keep in Norway. Rosseland had become Head of the Observatory of the University in 1928 and visited Harvard University in 1929/30. While at Harvard Rosseland got an offer of a permanent position and played his hand shrewdly to achieve the most at home, aided and abetted by Professor Vilhelm Bjerknes, (1862-1951), the strong man of Norwegian physics. Rosseland was instrumental through his scientific friends in the United States in attracting Rockefeller Foundation support for the Northern Lights Observatory in Tromsø and a new Institute for Theoretical Astrophysics in Oslo, a building entirely paid for by the Foundation. The University’s contribution was to sell some of its valuable property in Oslo to establish a fund to support astrophysics and grant Rosseland a higher salary. But astrophysics was a field with a strong tradition at the university. Furthermore, Rector Sæland was himself a physicist. A request for a similar

[42] Rector S. Sæland to R. Frisch, 4 Feb. 1930.

support for an economist, even of Frisch's qualities, could not count on the same response from the University.[43]

An action to save one talent could interfere with another rescue operation, as it to some extent turned out with regard to Frisch and Rosseland. Other complications might interfere as it happened when the effort to get a professorship for Frisch was entangled with the conflict surrounding Ewald Bosse. Bosse was a Norwegian who had held a position at the University of Kiel before he moved back to Norway in early 1920s and published a huge treatise on "labour theory" ("arbeidslære"). Bosse had good political connections to the Labour Party and to the Smallholders' Association. In 1928 leading parliamentarians of the Labour Party motioned a personal professorship for Bosse to teach "labour theory", sociology and social policy. The motion fell through but was put forward again in 1929.[44]

A personal professorship for Frisch was proposed by the Board of the University (Det akademiske kollegium) in the autumn 1929 for the fiscal budget 1930/31. The initiative came from Jæger and Wedervang. Frisch was naturally fully aware of this when he left for USA in January 1930. The University had also proposed two other personal professorships, one in linguistics and one in theoretical meteorology meant for one of Rosseland's co-workers Halvor Solberg.[45]

Soon after Frisch had left Rector Sæland informed him that there would no professorship for him that year. The Cabinet had said it could be either Solberg

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[43] Neither have they been honoured in the same way by the University. The Institute for Theoretical Astrophysics was renamed Rosseland's Building in his honour, while in the case of the Nobel Laureate Frisch the University went no further than for obscure reasons to honour a B western cinema it acquired as extra auditorium space by naming it "Ragnar Frisch's Auditorium".

[44] The motion met with little enthusiasm from the two professors of economics, Wedervang and Jæger, whose statement was quoted in St.prp. nr 1, 1929 (p.27): "And as the denotation 'labour theory' still has no firmly established meaning as a scientific discipline we believe that the intension of the Storting is better served by establishing a new professor chair in economics with an obligation to teach social policy. … With regard to the personal professorship for Professor Bosse we find that his voluminous book *Arbeidslære, det økonomiske arbeide, en genetisk analyse* does not provide convincing evidence for its author to be of such scientific insight that there is any reason whatsoever for deviating the normal University rule for appointment after competition.", quoted from Bosse (1937, p.15, transl. ob).

[45] It was almost unheard of to propose three personal professorships in a single year, but the cost was partly covered by the University itself through the simultaneous withdrawal of vacant lecturer positions. In Frisch's case the lecturer's position he held was supposed to be withdrawn.

or Frisch, but not both. Rector Sæland told Frisch straight out that the Cabinet had favoured Frisch, but as Rector he had given priority to Solberg. The reason was – Svein Rosseland. Sæland feared he would accept an offer to become the first Wilson professor at Harvard, but the chances for keeping him in Norway would improve if Solberg got the professorate.[46] Clearly, Rector Sæland did not have the same belief in economics as in astrophysics, nor did he fear perhaps that Ragnar Frisch would attract an offer in America.

Wedervang had sensed already when Frisch left that something had gone awry. He confronted Rector Sæland shortly afterwards and got the whole story. Sæland tried to impress him by statements about Rosseland from Niels Bohr and others, but Wedervang was unperturbed. He pointed out to Sæland that by choosing Solberg over Frisch he had compromised the Board's decision, misled the Dean of the Faculty of Law, and acted only in the interest of his own field. Sæland paled when he realized that there was much to what Wedervang said. The real culprit who influenced Sæland was Professor Vilhelm Bjerknes.

Wedervang turned out to be a very shrewd operator. He exploited the situation by offering Sæland cooperation and got his wholehearted support for a professorship for Frisch until the effort succeeded more than one year later. Wedervang insisted that he and Rector together should meet with the chairman A. Vassbotn of the University Committee of the Storting to try to entice his support for professorships both for Solberg and Frisch.[47]

Wedervang probably leaked the information about what had happened discreetly behind Rector Sæland's back and succeeded in gathering further support for Frisch and more pressure on Sæland. The professors of mathematics, belonging to the Faculty of Science, lined up behind Frisch. In the middle of March Wedervang reported to Frisch that Rector's position had

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[46] "*If we could keep Rosseland and get him reasonable working conditions,I think there are possibilities for our university to play a leading role in contemporary theoretical physical research. We have just now many gifted talents in this field.*" (Letter S. Sæland/ R. Frisch, 4 Feb. 1930, transl. ob).

[47] The University Committee here and later refers to one of the standing committees of the Storting. It dealt with the budgets and other matters related to the University and other institutions of higher education. Anders Vassbotn (1868-1944), better known as a poet, was parliamentarian for the Liberals (Venstre) 1913-30. Letter I. Wedervang/ R. Frisch, 8 Feb. 1930.

been weakened and criticized and that the mathematicians were furious. Wederwang chose to contain the conflict within the University and thus succeeded in getting Sæland as a firm ally in the continuation.[48]

Also in 1930 the Labour Party representatives in the University Committee supported a personal professorship for Ewald Bosse after it was proposed by the Smallholders' Association.[49] In early March 1930 Wedervang and Jæger met with the chairman Vassbotn who said he did not dare to propose a vote between Bosse and Frisch. Wedervang agreed this was too risky and thereby gave up to get the professorship in 1930.[50] The proposal for Bosse was withdrawn during the budget session, instead a motion was passed that asked the Government to accommodate a new professorship in "labour theory" in next year's budget, but a chair to be filled by competition, not a personal professorship for Bosse.[51] Wedervang was happy with conclusion and found it overwhelmingly likely that the government would abide by the motion passed.

The next step was to ensure that Bosse was outmanoeuvred from getting the new professorship and that it somehow went to Frisch. Wedervang's first line of attack was to try to achieve that the new professorship was announced without any restriction to "labour theory", in exchange for a commitment to incorporate "labour issues" in the curriculum. In this way Wedervang saw a possibility for getting a professorship for Frisch from 1 July 1931. He also wanted to make sure that Frisch would meet no competition and thus be appointed quickly, by making it a professorship in economics and statistics, ruling out e.g. W. Keilhau from applying. If the Storting, nevertheless, decided that the new professorship would be in "labour theory", Wedervang himself would apply, confident that he would beat Bosse. His own chair would then become vacant for Frisch to fill.[52]

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[48] Letter from I. Wedervang to R. Frisch, 19 March 1930.

[49] Wedervang used his persuasive powers on the chairman on Smallholders' Association and on various parliamentarians to discredit Bosse, but was only partly successful, see Bosse's account which is somewhat biased, but nevertheless factual, Bosse (1937, pp. 30-68).

[50] "*It would not have pleased you to become professor on a political vote. And it would have been a disaster if the scientist had lost to the impostor, because it came to a political vote.*" (Letter I. Wedervang/R. Frisch, 19 March 1930, transl. ob).

[51] The withdrawal was probably due to Bosse's involvement in a financial scandal, revealed in a court case and resulting in very bad publicity. Letter I. Wedervang/R. Frisch, 19 March 1930.

[52] The Bosse case was nevertheless far from finished. A proposal for a personal professorship was put forth in the Storting also in 1931, 1932, 1933 and 1934. The case was finally resolved

The senior professor in economics, O. Jæger, would have to retire in 1933 and thus provide an opening for Frisch, but Wedervang seemed convinced that it would be too risky to let the matter wait until then. Wedervang kept Frisch updated, but sensed perhaps that Frisch had limited enthusiasm for his games of intrigue. But the enormous effort exerted by Wedervang and the support he mobilized from others could no fail in making an impression on Frisch.

Frisch did not respond overly much to the new he got from Oslo. He did not answer Rector Sæland's letter about the himself vs. Solberg until September 1930, by which time he was in the Canadian mountains. Frisch emphasized the great advantages it is for his research purposes to be in the USA, but stated clearly, that he would prefer to remain in Norway and that he wanted Rector Sæland to know that. Frisch had by this time received feelers of offers to extend his stay in the United States and was inclined to accept. He added, revealing the real reason for writing, that he would like to have leave of absence for an additional half or full year and expressed the hope that this request would not impede the efforts to get him a professorship.[53]

Later in the spring of 1930 Wedervang met with A. Lothe of the Labour Party and A. Vassbotn and was advised that for the next year the University ought to propose both a new professorship and a personal professorship for Frisch. Wedervang took the advice and before he left for the United States he took steps to ensure that the Faculty of Law submitted both proposals. He and Jæger also sent a strongly worded recommendation directly to the Government about the professorship for Frisch.[54]

While Wedervang was in America he approached both Schumpeter and Fisher about recommendation letters for Frisch. Schumpeter's great admiration for Frisch shun through in the recommendation letter as well as his deep respect for Frisch's scientific achievements and was stated in no unclear words:

"*Professor Frisch is certainly one of the strongest if not the strongest of*

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when a new chair in "social policy and issues related to the labour as an economic and social factor" was proposed and approved in the 1935-36 budget. Bosse applied, but the evaluation committee of seven person from four Nordic countries (including R. Frisch and G. Myrdal) found neither Bosse nor his only competitor (T. Sinding) qualified.

[53] Letter R. Frisch/S. Sæland 1 Sept. 1930. An extension of Frisch's leave until the end of the spring term 1931 was approved by the Ministry of Church and Education.

[54] Letter O. Jæger/R. Frisch, 19 Dec. 1930.

> *all scientific talents which has ever come to my attention, regardless of the field. This natural talent is united with a thoroughness of the scientific education that is rare in one of his age and which is far broader that his publications indicate.*
>
> *It is no exaggeration to say that with this performance Frisch has secured a position in the history of our science*
>
> *The science of economics may hardly expect more from any other man and certainly cannot owe more to any young scholar than it already owes to Frisch. Moreover, I am of the opinion that both his method of measuring marginal utilities and his method of trend analysis are capable of immediate application to practical problems, for example problems of welfare economics, labour problems, problems of trade and public finance.*"

Wedervang could not suppress an aside, "*… it is perhaps a little <u>too</u> good.*"[55] In Wedervang's absence Jæger maintained the pressure on Sæland by giving him the recommendation letters from Schumpeter and Fisher, insisting that Sæland ought to se Prime Minister J. L. Mowinckel as well as the Minister of Church and Education, while he himself met with the new Minister of Justice Arne Sunde.

But things did not work out as Wedervang and Jæger had hoped. In the budget for 1931-32, presented in January 1931, the government did not propose any professorship, neither in labour theory, economics, nor statistics. The weak second Mowinckel Cabinet had dropped the idea. But Wedervang did not throw in the towel, on the contrary he prepared for the final battle. His cooperative attitude towards Rector Sæland from last year now paid off. Sæland supported wholeheartedly the idea of having a personal professorship for Frisch proposed during the Storting's budgetary session.

Rektor Sæland had tried to arrange a meeting with Prime Minister Mowinckel, but had not succeeded in this by 12 February when Frisch sent Wedervang the following cable:

[55] Letter I. Wedervang/ R. Frisch, 13 Feb. 1931, transl. ob.

> "*SINCE I UNDERSTAND GOVERNMENT SEES FINANCIAL DIFFICULTIES PROFESSORSHIP I MUST SERIOUSLY CONSIDER PROFESSORSHIP HERE STOP I HAVE OFFICIAL INVITATION PERMANENT PROFESSORSHIP YALE VERY FAVORABLE OFFER WITH SPECIAL RESEARCH FACILITIES WHAT ARE CHANCES AT HOME THIS YEAR MAIL ANSWER*
>
> *FRISCH*"

Wedervang took the cable and went straight to the Rector Sæland's office. Wedervang had earlier shown Sæland Schumpeter's recommendation letter (and described his reaction to Frisch as completely enthralled). But on seeing the cable from Frisch Sæland had become so downtrodden that Wedervang felt sorry for him. That Frisch would attract an offer from an American university and might be prone to accept it was not by itself a surprise to either of the two men, but neither of them had thought that Frisch would force any decision until his leave had expired by the summer of 1931. There was no time to lose.

Wedervang pulled the strings he had and choose to play on his political connections. The day before Frisch's cable arrived Wedervang had been to see Minister of Justice Sunde to air the matter. Sunde had explained that the budget preparation was finished already when he was appointed, hence, he had been given no opportunity to exert any influence. Wedervang asked him whether he thought the professorship for Frisch could be reconsidered if Wedervang wrote to the Government again. Sunde answered <u>yes</u> without hesitation. Wedervang interpreted Sunde's reaction as a promise of support. The next day he began drafting a note to the government. But in the end Jæger wrote the letter ("*Concise, pointed and so serious that anyone who reads it immediately understands the importance of this matter.*").[56] Wedervang showed it to Sæland who asked for the letter to be sent via the Board of the University, allowing it to express its full approval before it is sent to the government.

The matter was dealt with in a full Cabinet meeting. Rector met with the Prime Minister prior to the meeting and Wedervang offered to brief the Minister of Justice. Rector had also been invited to speak to the University Committee of the Storting on university matters and thus had a good opportunity to speak in favour of the proposal. Wedervang had not let any chance go by to exploit the

mistake the Rector had done last year. Sæland had intimated to Jæger that he felt he was to blame and that the responsibility weighed very heavily on him. The good hopes that the effort this time would succeed made Wedervang exalted as he conveyed to the Frisch couple: ("*... all our colleagues across all faculties are concerned about the professorship. ... when Ragnar hopefully is awarded this professorship, you will be received here with the most heartfelt happiness from the entire scientific world in Norway. It will be felt as if a national salvation has been achieved.*").[57]

Rector Sæland was prepared to tell the Prime Minister that it was a shame to apply abroad for financial support and get it (referring implicitly to the Rockefeller Foundation support for Rosseland) when so little was done to provide positions for gifted talents. Sæland also wanted to mention the hopes for Rockefeller Foundation support for economic research, but Wedervang advised against it. After his meeting with Day he was less hopeful on that front than before.

Again Wedervang wanted a promise from Frisch that he would in fact accept a professorship if it was offered.[58] Wedervang's enormous effort to get Frisch the professorship was rooted in the strength he felt Frisch would give to economics at the University, he was also deeply grateful to his younger colleague, for helping him come to the USA.

In the Cabinet and both the Prime Minister and the Minister of Justice had spoken in favour of the professorship. But that did not suffice! The government had recently been violently attacked both by the Conservatives (Høire) and by the Farmers Party (Bondepartiet) for not cutting government expenditures even more. The outcome of the Cabinet deliberations was for political convenience not to propose the professorship, but instead just let it be known in the Storting the Prime Minister had a positive attitude towards the professorship for Frisch, but that was, as Frisch would view it, completely noncommittal. Thus the

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[56] Letter I. Wedervang/ R. Frisch, 13 Feb. 1931, transl. ob.
[57] Ibid.
[58] "*We must have certainty that you will accept if the proposal goes through. I hope that I have made this so clear that no misunderstanding about this is possible. For if you were to decline this offer after all that has happened, we, the University, the Cabinet and the Parliament, have been deceived. We wrote in our proposal that you all the time has stated that you will stay in Norway if you are offered a position that will allow you to devote yourself to your scientific*

Government encouraged the Storting to make a decision it would not propose itself!

Wedervang was told exactly how the situation was by the Minister of Justice and was immediately ready for action. As he reported to Frisch: "*We began preparations for individual target shooting.*" Wedervang picked out as his first target the Labour Party's influential Magnus Nilssen who had taken over as chairman of the University Committee. They met with him on Saturday 21 February and agreed to meet again on the following Monday.[59] Wedervang used all his persuasive powers and succeeding in making Nilssen commit himself to propose the professorship himself, although he could not guarantee the support of the Labour Party, where many still had a strong affection for "labour theory". Wedervang took up the challenge and explained why neither he nor Jæger could see any scientific merit in Bosse's "labour theory". Instead he said he would be most happy to support "labour issues" as a topic within economics, if the Storting wanted that. Nilssen was impressed and asked for the Fisher and Schumpeter statements, which Wedervang provided translations of a couple of days later. The "target shooting" had been close to the mark as Nilssen the next day repeated in writing his commitment to do his utmost to get Frisch back to Norway.

After having secured Nilssen's and probably the Labour Party's support, Wedervang and Jæger divided the other parties between themselves. Jæger would tackle Jon Mansåker of the Liberals, whom he had briefed on the Bosse case the previous year, while Wedervang approached Arthur Nordli of the Conservatives who was a business man he felt he could easily deal with. Soon after three parties had promised to support the motion, but the Farmers' Party Wedervang would not stoop down to deal with. Wedervang also mobilized at the University. The six professors of mathematics at the University signed a statement in support of Frisch that Wedervang had drafted.[60] In the middle of March Wedervang could report to Frisch that the professorship had been proposed in the University Committee and was expected to gain a unanimous

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work." (Letter I. Wedervang/R. Frisch 13 Feb. 1931, transl. ob).

[59] Magnus Nilssen (1871-1947), jeweller by training, was an influential politician in the Labour Party throughout a long career, he was member of the Storting 1906-21 and 1928-45.

[60] The mathematics professors were Alf Guldberg, Carl Størmer, Danish born Poul Heegaard,

recommendation. The battle seemed won, although the budget would not be voted upon until after Easter. Again he took the opportunity to put pressure on Frisch: "*Of course I have guaranteed that you will come home if the professorship passes. If not, we have all been fooled.*" [61]

At the end of March 1931 Wedervang cabled that the Committee unanimously had recommended the professorship for Frisch. After the budget was formally approved in May 1931 Frisch was appointed as professor of economics an statistics at the University of Oslo from 1 July 1931.

6. Rockefeller Foundation comes to Oslo

The family name *Rockefeller* today calls forth associations of large scale philantropy for scientific and general welfare purposes. At the beginning of the twentieth century it would more likely have called forth associations of brutal capitalism rewarded by success in the accumulation of enormous fortunes by relentless capitalistic methods combined with control over natural resources, monopolistic practices, and fierce anti-union attitudes.

The Rockefeller family's foundations were established early in the century, at the same time as some of the other large foundations such as the Russel Sage Foundation in 1907 and the Carnegie Corporation i 1911. The Rockefeller fortune, at least a small part of it, came to play a role in promoting empirical research in the social sciences, not only in the USA, but also in Europe in the 1920s and 1930s. At that time there were in most European countries few research institutions within economics and other social sciences with a clear empirical orientation. Not least was this true at the universities.

The channeling of Rockefeller means to economic and other social science empirical research can be traced to the policy adopted for the foundation Laura Spelman Rockefeller Memorial (LSRM) from 1923, on the initiative of Beardsley Ruml, who was the only director for LSRM in the short time the foundation existed.

Birger Meidell, Edgar B. Schieldrop, and Trygve Nagell.

[61] Letter I. Wedervang/ R. Frisch, 13 March 1931.

Laura Spelman Rockefeller Memorial was established in 1918 to the memory of John D. Rockefeller Sr.'s deceased wife.[62] The aim of the foundation was in reverence to the interests of Laura S. Rockefeller to support social and general welfare causes. Beardsley Ruml's great service to the world was that after being appointed director in 1922 he convinced the board of trustees that empirical social science was a worthy cause as it was needed e.g. to make qualified evaluations of the effect of donations for welfare causes. After having given quite large amounts – perhaps more than $5 mill. – over the years 1919-1922 to YMCA, YWCA, the Boy Scouts, the Girl Scouts, the Salvation Army, and baptist churches all over North America, the policy was drastically changed under Ruml's directorship.[63]

LSRM was in 1929 merged with the Rockefeller Foundation as part of a reorganization, after LSRM had donated about $50 mill. of which more than $20 mill. for social science. The policy established by LSRM continued, however, throughout the 1930s on the same guidelines by the consolidated foundation. It was this source that eventually would benefit the University Institute of Economics, or more to the point, allow it to be founded. LSRM did not award means purely on the basis of the scientific merit of applications like any modern research council. The channelling of means can rather be described as fairly concentrated institution building, partly on the basis of national needs. Most of the means were naturally allocated within the United States, but large allocations were made to other countries. The most favoured institution outside the United States was undoubtedly the London School of Economics, but among the recipients were institutions in many countries.

To put the support to the not yet founded institute in Oslo in the right perspective, it is enlightening to look at the guidelines that Beardsley Ruml got adopted for LSRM in 1922. Ruml gave his arguments in a Memorandum that came to have great influence.[64] He argued persuasively for a complete change

[62] LSRM was the fourth of the five Rockefeller foundations established in the period 1901-23. The others were the Rockefeller Institute for Medical Research (later Rockefeller University) in 1901, the General Education Board in 1903, the Rockefeller Foundation the 1913 and the International Education Board in 1923.
[63] Informations are drawn from Bulmer & Bulmer (1981), Craver (1986), Fischer (1983), and from documents in the Rockefeller Archive Center.
[64] General Memorandum by the Director, Laura Spelman Rockefeller Memorial, quoted in the following from Bulmer & Bulmer (1981).

in the foundation's policy: "All who work toward the general end of social welfare are embarrassed by the lack of that knowledge which the social sciences must provide. It is as though engineers were at work without an adequate development in the sciences of physics and chemistry, or as though physicians were practising in the absence of the medical sciences. The direction of work in the social field is largely controlled by tradition, inspiration and expediency, a natural condition in view of our ignorance of individual and social forces."

Ruml was a social scientist by education and experience, with a Ph.D. in psychology from the University of Chicago and with experience from the classification of personnel during World War I. He described the universities as poorly equipped for empirical studies: "… production from the universities is largely deductive and speculative, on the basis of second-hand observations, documentary evidence and anecdotal material. It is a small wonder that the social engineer finds this social science abstract and remote, of little help to him in the solution of his problems."

Ruml continued in his memorandum to formulate principles for the basis on which support would be granted. Foremost was the purpose, the Memorial should through a social science effort work towards solving problems threatening the social order: "It is becoming more and more clearly recognised that unless means are found of meeting the complex social problems that are so rapidly developing, our increasing control of physical forces may prove increasingly destructive of human values."

Secondly, the research work ought to take place at universities: "The stability of the organization, the presence of a wide range of professional opinion, the existence of scholarly and scientific standards of work, recognized and reasonable effective channels of inter-university communication, all make for a favorable environment for investigation." To counteract the poor tradition of the universities in empirical research funds were required for means to establish "far more intimate contact … with concrete social phenomena". Ruml laid down that the Memorial itself should not carry out research, it should work through existing institutions, preferably permanent organizations with continuity, not through *ad hoc* bodies. Another reason for preferring

universities was that the research could better be combined with teaching at different levels. The recruitment into research was by itself a task for the Memorial through a programme of scholarships. The social sciences were lagging far behind science and humanistic disciplines in that regard. Hence, the emphasis on fellowships in the Memorial.

Ruml was also concerned that the results of research efforts in the social sciences were diffused into the public realm: “Experience seems to show clearly that the results of investigations in the social sciences, where they are conducted by obviously impartial scientific agencies, and where these results are generally accepted by scientific men, come to play a definite and wholesome part in the thinking of people generally. It hardly seems too great an assumption to conclude that additions to the body of scientific knowledge in the social field will also have their due influence of public welfare.”

Ruml set out principles and guidelines in considerable detail. As it turned out the principles as quoted above fitted quite well with the arguments used by Wedervang and Frisch in the application.

As a result of Ruml’s policy the *London School of Economics* received the formidable amount of $1,245,000 in 1924-1928. Among the European institutions on the receiving end were also the *Institut universitaire des hautes études internationales*, Geneva of $100,000 in 1926, *Deutsche Hochschule für Politik*, Berlin of $75,000 in 1926-28, *Socialvetenskapliga institutet*, Stockholm of $75,000 in 1928, and *Afdeling for økonomi og historie*, Copenhagen of $18,000 in 1928. Many of the institutions which received support from LSRM continued to be supported by the Rockefeller Foundation after 1928.

But what happened to the application from Oslo? After having been on Stang’s desk until the Rockefeller representatives visited in the middle of July 1930 it was submitted to the Paris office, apparently without being evaluated, nor was it forwarded to New York. Perhaps was the fact that Frisch had left for the United States sufficient reason for the application to be shelved for the time being.

When the request from E. E. Day in New York for more information came in December 1930, the Paris office's Van Sickle had written first to Stang asking for any further information about the plans for the new institute. Stang received the letter on Boxing Day and responded immediately, expressing great surprise that the application had not been dealt with. His understanding from the meeting with the Rockefeller representatives half a year earlier was that the plan would be sent to New York with a recommendation from the Paris office and this had clearly not taken place: "*Should I be mistaken in my believing that you and Mr. Gunn would forward the matter to the Head-Office, please will you be so kind as to let me know as soon as possible, as I will then telegraph to Dr. Wedervang and ask him to introduce the matter to the Rockefeller Foundation in New York himself.*"[65] Wedervang had by then already met with Edmund Day in New York.

Stang was upset but kept his calm: "*… I can hardly believe the Social Division of the Rockefeller Foundation can act in any more useful way than by making it possible to establish the Institute for Economic Sciences at Oslo. We possess now in Dr. Wedervang and Dr. Frisch two scientists unusually endowed for scientific economic researches, both in the prime of life, and both eager to commence this work. Here in Norway it would be of the greatest value if they might get the opportunity to use all their forces in this work.*" He added that although he was not an economist, he found reason to emphasize that "*…economic studies have up to this day in Norway been performed in a rather too much abstract and theoretic line and that we most highly need the solid base of concrete examination and statistical treatment of the material*" which Wedervang and Frisch had planned and which "*would be of great value also for economic researches abroad.*"[66]

After Stang's letter the Paris office responded just after New Year and declared: "*We are quite prepared to study the question of Rockefeller Foundation support for an Institute of Economics at Oslo".*[67] It suggested a meeting about the plan as soon as Frisch and Wedervang were back in Oslo. Nothing more could be done at the moment, the next step would come when

[65] F. Stang/J. Van Sickle 26 Dec. 1930 (RAC).
[66] Ibid.

Frisch returned. Stang informed in May 1931 Van Sickle that Frisch would return in the middle of June and could at the same time proudly announce that the Storting had awarded a personal professorship for Frisch: "*It is very seldom that the Storting takes the step of creating a chair for a particular individual. So strong were the testimonials to Dr. Frisch's outstanding ability that the Storting decided to do this. After this the result is that Mr. Wedervang and Dr. Frisch can work together at our University, as was our hope. … we expect a great deal as a result of this collaboration. They could, however, do infinitely*[!] *more if the Rockefeller Foundation would place an appropriation at our disposal, so that we could establish the Institute of Economic Research … It is with far greater hopes as well as far better grounds that I raise the question, now that it has been decided that Dr. Frisch is to be on the staff of our University and that he will be in a position to join in the leadership of such an institute, if the project is realized*".[68]

For whatever purpose it might serve he enclosed the statements by Irving Fisher and Joseph A. Schumpeter he had received from Wedervang and offered to send Frisch and Wedervang to Paris to discuss the plan. The Rockefeller representatives preferred to come to Oslo to discuss the matter on the spot, but if that for any reason was unfeasible "*the next best thing would be for a visit from Dr. Frisch"*.[69] After this exchange Van Sickle just waited for Frisch to come home.

Shortly afterwards J. Van Sickle and T. B. Appleget came to Oslo and discussed on 23-24 June the plan with Frisch and Wedervang and also met with Stang and Rector Sæland. Rector invited the Deans, Professor Rosseland and the Director of the Bank of Norway, N. Rygg, to a dinner for the Rockefeller representatives expressing hopes that the Foundation would support the proposed institute equally generously as it had done for astrophysics.

On the following Monday 29 June Van Sickle completed his memo to Edmund E. Day i New York about the case which from this time was dealt with as "the Economic Institute of the Royal University, Oslo", and foreshadowed that a

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[67] J. Van Sickle/F. Stang 2 Jan. 1931 (RAC). The letter is misdated 2 Jan. 1930.
[68] F. Stang/J. Van Sickle, 12 May 1931 (RAC).
[69] J. Van Sickle/F. Stang 19 May 1931 (RAC).

formal proposal would follow shortly for a five-year grant to the proposed institute. In the memo to Day Van Sickle also gave his assessment of the two protagonists: "*The leadership inspires confidence; Wedervang is a most attractive and intelligent fellow. His interests are practical, and his contacts with business organisations are close and cordial. There is every reason to believe that these business interests will support the research work of the Institute from the beginning, modestly perhaps at first, but with increasing generosity if the experiment is a success. W. is a very satisfactory counterweight to Frisch, who is pre-eminently a theoretical economist. F. is undoubtedly one of the outstanding younger theoretical economists in Europe. The Norwegian Government recognises his importance and is doing its very best to hold him. This year it has taken the unusual step of creating a special Chair for him, so that from July 1 of this year he becomes a full professor in the university.*"

Van Sickle then quoted Schumpeter's recommendation letter, adding: "… *Oslo possesses a leader upon whom we may well gamble.*"[70]

In the memo Van Sickle also reported that Frisch had attempted to mitigate the misgivings regarding the nature of the research that Day had expressed about a theoretical approach. Van Sickle had in fact heard nothing about this from Day, only from Frisch and Wedervang. Van Sickle seemed to argue more as a supporter of the two protagonists when he assured Day that they are "*emphatic in denying this, and I personally am satisfied that the work will be kept close to the ground and yet not be divorced from theory*".

Rector Sæland assured Van Sickle that the entire university was firmly behind the proposal and that Sæland was unconditionally in favour of it. He went even further by telling Van Sickle and Appleget that for the first time the industrialists and the business community of Norway have realized that the economists had a contribution to make, the new institute would "… *bridge the gap between the academic students of economic life and the active participants in economic life*". He had received indications that support from business interest would be forthcoming if the institute was established. Wedervang and

[70] Memo from J. Van Sickle to E. E. Day, 29 June 1931 (RAC). It is quoted also in the following, particularly the budget given below.

Frisch emphasized also that the institute would be important for the education of economists as good students would be hired as research assistants.

In the original application Wedervang and Frisch had suggested an amount of $15,000 per year as would be required to run the institute. Van Sickle pushed for a specification of this amount and quoted to Day the following tentative annual budget:

5 permanent assistants,	
young full time men with economic	
university degree at $1000	*$ 5,000*
Special expenses for active studies	
travelling expenses and salary to graduate	
students in economics, history & technology	*$ 3,000*
Salary of students co-operating	
at the Oslo office	*$ 1,000*
Honorarium to research workers (professors and	
instructors) in charge of special	
parts of the study	*$ 2,000*
Salary to the two directors of research	*$ 2,500*
Printing of statistical schedules, drafting papers etc.,	
Purchase of books and other literature	*$ 1,000*
General office expenses	*$ 1,000*
	_____
	$ 15,500

Van Sickle found the budget acceptable but had reservations about the salary to its directors. Stang explained the need for this as "*… salaries are so extremely low in Norway even compared with those in the other Scandinavian countries that one is forced to take on outside work to make ends meet. Consequently, if the two directors are to devote their full time to research and to the direction of the work of the institute, their salaries must be supplemented.*" Van Sickle foreshadowed to Day that he would propose the approval of this budget by an unconditional grant of $5,000 per year for a five year period and an additional amount of $5,000 per year if a matching amount was forthcoming from sources outside the university. According to Van Sickle it was Rector Sæland who had suggested this arrangement. He and Stang had stated that they counted on support from a Norwegian foundation. It can hardly be doubted that it was *Norsk Varekrig* they had in mind, for which Rector Sæland was the Secretary of the Board.

Van Sickle thus had made up his mind to back this proposal within the Foundations and probably given this impression at the meeting. Wedervang and Frisch were, however, far from sure that the proposal would pass with Day. They had no idea what Van Sickle actually had written in his report to Day. From Day's position Van Sickle ought to have discussed the matter with Selskar Gunn, the Head of the Paris office, before he submitted anything. Gunn was away in USA at the time. Day was convinced by Van Sickle's report and responded quickly, he wrote back to Paris on 17 July 1931: "*My initial reaction to the proposal for an economic institute at the Royal University of Oslo are entirely favorable. Frisch and Wedervang constitute a nucleus around which it should be possible to develop a research staff of unusual strength. The schedule of support you suggest is reasonable as far as I can see and I have no objection to a proposal running along these lines.*"[71]

It was with excited hopefulness and also with some impatience that Stang in August wrote to Van Sickle about the prospects of support for the institute from business interests, adding to the promising perspectives for additional means for domestics sources he had given in June: "*It proves to be so in a much higher degree than I had imagined.*" The news was that Wedervang had been an invited speaker at the congresses of the National Union of Merchants in Ålesund and the National Association of Retailers in Larvik and used to opportunity to sound out the prospects: "*He took the opportunity to accentuate the necessity of a co-operation between the commercial classes of the country and the University professors of economics, slightly indicating also the plans of a special Institute for Economic Research, in connection with the University. He succeeded in largely interesting both assemblies in the matter, and his plan found a universal sympathy.*" Why Stang thought the opinions of merchants and retailers would matter is most unclear. He also went to an effort to translate what had appeared in the newspapers *Tidens Tegn* and *Dagbladet* supporting the proposal. Stang added: "*I must add here that, as is the situation in Norway now, I have no hope that the Economic Institute can be founded upon resources exclusively from Norway. But I am now much more sure than when we spoke*

[71] E. E. Day/J. Van Sickle 17 July 1931 (RAC).

together, that if the Rockefeller Foundation would approve the plans and grant an appropriation, it would be possible to raise supplementary grants here."[72]

Van Sickle wrote to the proposers in Oslo in the middle of August requesting a more detailed specified research programme. Frisch and Wedervang, realizing that there now was reason to have high hopes accommodated Van Sickle's request by a three page Memorandum of 15 September 1931, attempting to clarify the overall goals of the Institute:

> *In the first place we want to point out that the scope of the Institute, as we have conceived it, is a broad one. The Institute is intended to be useful in three directions: 1^0) As a tool of advancing scientific economic research in Norway,*
> *2^0) As a means of making the teaching of economics at the University more effective. We intend to employ students as part time workers in the Institute, giving them as far as possible small independent jobs.*
> *3^0) As a means of organising a cooperation between Norwegian industry and commerce and the economic research work at the University.*[73]

Frisch was still quite concerned about Day's criticism about a too theoretically oriented plan and aimed at putting this point at rest. Rather than softening his position he defended it staunchly. He reminded Day in the Memorandum, as he had told Day when they met on 1 January 1931 in Cleveland, that the project was intended to have a concrete character, based on thorough factual studies:

> "*However, we feel very strongly that factual studies alone can never lead to a real understanding of economic phenomena. In our opinion accumulated observations get their full scientific usefulness only when they are interpreted in terms of a broad synthetic theory. Therefore, theoretical investigations cannot be eliminated from research work of the kind we are aiming at. … We are further of the opinion that the fundamental economic phenomena cannot be understood unless they are studied in their mutual relationship. Rather than to concentrate the work on a very intensive study of some few isolated phenomena we*

[72] F. Stang/J. Van Sickle 19 Aug. 1931 (RAC).

> *therefore want to work towards a comparative and synthetic study of a somewhat larger group of phenomena.*"

The Memorandum of 15 September also specified six topics for the research agenda of new institute, in more precise terms than in the original application under six headings: (1) Productivity Studies, (2) Studies of Distribution Costs, (3) Studies of Demand and Supply Functions, (4) Stock Studies, (5) Loans and Deposits Studies, and (6) Historical Price and Wage Studies.

The passage about productivity studies was clearly influenced by Frisch's sojourn in USA as the estimation of production functions for agriculture had been included.[74] The Memo used a sawing mill to exemplify the complexities of production function studies and reflected ideas Frisch had worked on in USA:

> "*Our contact with this type of problems will probably result in an attempt to generalize this part of economic theory by developing a theory of indirect marginal productivities, and in connection with this a theory of partial elasticities, that is to say a theory exhibiting the mechanism by which price changes in the factors of production react on the supply price of the product. This is one example of what may result from the synthesis of factual studies which we are aiming at.*"

The importance of distribution costs was Wedervang's pet idea and became something he worked on without much success. The topic of demand and supply functions was very briefly dealt with references to a new statistical technique Frisch had developed and would like to see it tested on actual data, and to the forthcoming marginal utility book. The study of stock variations also seemed to be Wedervang's idea and the brief passage about it just mentioned co-operation with the Norwegian Chamber of Commerce in digging up data about stock variations.

The topic of loans and deposits studies was Frisch's and foreshadowed the interest he had taken in credit mechanisms in a depression economy and also was the background for a political initiative he took later in the year. The final

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[73] Memorandum to Dr. Van Sickle from I. Wedervang & R. Frisch, 15 Sept. 1931 (RAC).
[74] References were given to works by John D. Black at Harvard and Mordecai Ezekiel, U.S. Department of Agriculture.

topic was historical price and wage studies, but on this it was just referred to the original application.

Frisch & Wedervang's Memorandum of 15 September was one week later passed on by Van Sickle together with his recommendation. The next step was a staff conference in New York 27 November 1931 chaired by E. E. Day with T. B. Appleget, Norma S. Thompson and two other staff members present. The official decision by the Board of the Rockefeller Foundation was taken on 16 December 1931, with only very minor changes from Van Sickle's recommendation. The decision taken was:

> "*that the sum of Fifty thousand dollars ($50,000), or as much thereof as may be necessary, be, and it is hereby, appropriated to the ROYAL UNIVERSITY OF OSLO toward the research program of the ECONOMIC INSTITUTE during the five-year period beginning January 1, 1932, payments to be made as follows:*
>
> | | |
> |---|---|
> | *$5,000* | *each year unconditionally.* |
> | *$5,000* | *each year on the basis of $1 for every $1 obtained during such year in cash from other contribution sources for the same purpose.*" |

The decision was cabled to Van Sickle who relayed it to Stang on 21 December 1931. A welcome Christmas gift! The official letter signed by the Secretary of the Rockefeller Foundation Norma S. Thompson reached Oslo early in January 1932.

7. At the crossroad

Frisch had a difficult decision to make in 1931. During 1930 he had made a strong impression at Yale. Towards the end of the year Yale had suggested a permanent professorship and Frisch had expressed interest. Dean Edgar Furniss took the matter up with Yale's President Angell who was prepared to present a proposal to Yale University's Corporation in the middle of January 1931. On request Frisch prepared a list 22 publications, 6 mimeographed works, mostly

lecture notes, and 7 works in preparation.[75] The formal offer came in a letter from Dean Furniss 9 Feb. 1931, Frisch was offered permanent appointment as Professor of Economics at the Graduate School with a salary of $7000 a year. The offer also included research assistance for empirical studies. Frisch who was kept well informed about the efforts done in Oslo, answered that he needed time for a decision while Yale apparently tried to push him for a commitment without great delay.

Frisch was in a dilemma again. The period at Yale had been very fruitful indeed and he had enjoyed every bit of it. On the other hand it would not have been easy to disappoint the expectations and hopes at home. He kept in mind what Rector Sæland had written to him one year earlier: "*I have a feeling that for our science this is the fatal hour. If America attracts all our best brains it will rather quickly go downhill with this country.*[76]

Frisch received Wedervang's reports from Oslo calmly and with some scepticism. Even the news that the University Committee in March had proposed the professorship did not convince him that he shortly would have a chair in Oslo. He left Wedervang in no doubt about this scientific priorities: "*If it was just a question of where the I would have the best conditions for scientific work, I would stay here.*" But there were other considerations. Frisch's wife, Marie, may have been less inclined to settle in America. The efforts by Frisch's colleagues and friends at the University naturally made a deep impression, as, indeed, Wedervang hoped they would.

But Frisch could in March still not count on a positive decision in Oslo. If the efforts were crowned by success would it be soon enough? He let Wedervang know the constraint he was under his side of the Atlantic: "*For administrative reasons I must give an answer before 10 April if I want to accept the offer from Yale from 1 July this year. And within that time there will hardly be an official*

[75] Furniss/Frisch 2 Jan. 1931. The 7 works in preparation were: (1). ms. in English for Frisch (1932a), already submitted to *Zeitschrift für Nationalökonomie*; (2) ms. 40 pp. on the measurement of marginal utility, which together with (5) became *New Methods* (Frisch, 1932b); (3) ms. 150 pp. for a monograph on productivity theory; (4) ms. 100 pp. for a monograph on decomposition of empirical time series; (5) ms. 100 pp. for a monograph on "Utility as Quantity"; (6) "The Statistical Determination of Econometric Functions", which was published partly in the *Pitfalls* essay and partly in the *Confluence* volume; (7) "A Dynamic Approach to Economic Theory", a further development of Frisch (1929a) meant for publication by Frankfurter Gesellschaft für Konjunkturforschung.

decision in Oslo. That the University Committee has proposed a professorship for me is no decision. From what I can understand the Government is still against the idea. And nobody can say which side will carry the majority. I have more than enough experience of how little one ought to rely on presumptions. Not least does it make it uncertain for me that the Government is against my professorships while it includes others in the budget. That shows that the Government's position is not due to financial considerations alone. Because of the uncertainty I will presumably be compelled to accept temporarily Yale's offer."

This was a hard blow to Wedervang, but Frisch left the door ajar:

"*I have made the condition visàvis Yale that if I accept now, and if I should find after a short period of working at Yale that I rather would prefer to go home, then I will feel morally free to withdraw (legally I am of course always free to do this). You understand from this that the effort done to get me a professorship will not be in vain even if I now temporarily accept the offer from Yale.*"

On the other hand if the matter was postponed again until next year, it would be too late:

"*It is this year an invitation from Oslo will mean anything. If the Storting decides to postpone the matter such that it will not be decided until April or May next year, I would be in a difficult situation. The condition I have made made visàvis Yale I cannot repeat for another year. If I am really wanted back, then the only satisfactory arrangement is that the professorship is granted this year with appointment from 1 January or 1 July 1932. The date of appointment can be discussed later as long as the appropriation passes now.*"

At the same time he informed Dean Furniss about what was going on in Oslo. The choice between Yale and Oslo was not an easy one and Frisch certainly felt that it was more than just a personal decision. If it only had been up to him it would have been easy: "*If the question only appeared to me as one of securing the best opportunity for carrying on my scientific work, the decision would be an easy one: Even if I receive an invitation to become full Professor*

[76] Letter S. Sæland/R. Frisch, 4 Feb.1930, transl.ob.

of Economics at Oslo, which, as I have told you, I probably will within short, Yale will undoubtedly be a much better place for me." [77]

Frisch thus expressed clearly that he would prefer a position in Norway if it came in 1931. He tried to keep his options open, not yet knowing if anything would come out of the Rockefeller Foundation proposal.

Frisch would whatever came, go home for the summer. Shortly before he left he suggested to Yale a temporary appointment of 12 months from July 1931, holding the option of a permanent position open. He told Wedervang just as if this would be his last chance for a stay in the United States devoted entirely to research: "*I will not refrain from stating that even for a shorter period I would with undivided joy go back to Yale after the summer. The work here at Yale has been utmost interesting and inspiring.*"[78] Three days later he has got the cable about his appointment in Oslo and suggested to Yale a temporary appointment of only one more term at Yale.

But there would be no further stays of a term's length or more in the United States for Frisch, although he visited many times for shorter periods. At home waited his new chair and the negotiations with Rockefeller Foundation. Yale pushed in the autumn again for Frisch to commit himself to come at a later date, but Frisch stalled, postponed the final decision until the Rockefeller proposal had been settled and that was it.

8. The aftermath

Schumpeter held the view that any scholar's real original achievements would almost always be found rooted in the third decade of his life, "the sacred decade of fertility". Schumpeter applied it to his teacher, E. Böhm-Bawerk, but above all to himself.[79] A study of Frisch's lifetime work would suggest that the "sacred decade" rather was the fourth. It was then he peaked in ideas and publications. Was Schumpeter wrong or Frisch a late bloomer? A burst of innovative contributions came from Frisch in the early years of the Institute.

[77] Letter Frisch/Furniss, 25 March 1931.
[78] Transl. ob.
[79] Allen (1991), ch. 4.

Although some of his works can be traced to an origin before 1925, it was in his forth decade that he developed most of the ideas that streamed from his pen in the early 1930s. Several of his contributions from these years appear in historical source books and anthologies of various sub-disciplines of economics.

Prominent among these is the *Propagation and Impulse* essay which figures in the histories of business cycle theory, macroeconomic modelling, dynamics in economics, and econometrics and is sometimes mentioned also as a contribution to the development of national accounting.[80] *New Methods of Measuring Marginal Utility*, published in 1932, was a major contribution to marginal utility/demand theory, and although his approach became somewhat overshadowed by the new demand theory after the rediscovery of Slutsky's 1915 article in the mid-1930s.[81]

Another remarkable contribution from this period is the *Monopole-Polypole* essay in the Westergaard festschrift in 1933, here Frisch pioneered an approach which in retrospect belongs to game theory.[82] But above all it is his contributions to econometric methods that stand out in history. After the *Correlation and Scatter* essay in 1929 came the *Pitfalls* essay in 1933 and the *Confluence Analysis* in 1934 with the *Autonomy* paper, as an afterthought in 1938. His work with F. Waugh is also from this period.[83]

A work that meant particularly much to Frisch was his *Circulation Planning* essay from 1934.[84] Frisch referred to it often in later years and regarded it as an early coping with ideas closely related to input-output analysis, linear

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[80] Frisch (1933c). To economic dynamics belong also Frisch (1929a), Frisch & Holme (1935) and Frisch (1936b).

[81] Frisch (1932), also Abram Burk's review (*Quarterly Journal of Economics* **52**, 310-334) revealed a flaw in Frisch's reasoning that he never really countered. An outgrowth of Frisch's marginal utility theory was his classic contribution to the theory of price indexes, Frisch (1936a), and – years later – his most frequently cited article, the *Complete Scheme* essay (Frisch, 1959), which originated from lecture notes in Norwegian written during the war.

[82] Frisch (1933b). See e.g. the discussion in Dimand & Dimand (1996), 30-33.

[83] Frisch (1929b), (1933a), (1934b), (1934c), (1938), Frisch & Waugh (1933). The *Pitfalls* essay which was a criticism of Leontief who staunchly defended his view and brought forth a sharp reply from Frisch in Frisch (1934b), see Hendry & Morgan (1995), chapter 22. In Hendry & Morgan's source book of econometric contributions from 1862 to 1952 five out of 45 contributions are by Frisch.

[84] Frisch (1934a), it was the longest article that has ever appeared in *Econometrica*, apart from Haavelmo's annexed *Probability Approach* in 1944. The length caused some criticism, see Bjerkholt (1998, p.51).

programming, preference function. In addition it provided a theoretic explanation of the "incapsulation tendencies" causing depression. Leif Johansen justly referred to it as one of Frisch's "much-neglected articles".[85]

But Frischs most important project in this period never got published. His work an analysis of time series, which may, more appropriately be called his macrodynamic approach, became his most important project in the early years of the Institute and a very computing-intensive one, with Trygve Haavelmo in charge of computations. Frisch planned to published the theoretical part first as a rather long article in *Econometrica*, then reworked it for the Cowles Commission Monograph series, but it never appeared. He describes his project in this area in the report to Rockefeller Foundation in 1936 as consisting of five parts. The key part, called "Why an economic structure acts as linear cumulator", had so far produced only "a small study" which was the *Propagation and Impulse* essay.[86]

While the macrodynamic/time series projects were in the nature of numerical experiments there were also genuine empirical projects. Among these were projects that Frisch did with Fredrick Waugh (of the U.S. Department of Agriculture) on marginal utility estimations using American data and further work in the same direction in co-operation with Maurice Belz (of the University of Melbourne). Both Waugh and Belz stayed more than half a year in Oslo to work with Frisch in 1932/33 and 1933/34, respectively. Main results from both co-operations were included in the *Confluence Analysis* book. Later followed Frisch's chocolate paper, which may have a claim on being the first paper utilizing and engineering approach in production studies, and econometric and innovative studies on factors determining the quality of bread, and on the demand for beer.[87] These were studies contracted with a major chocolate producer (*Freia*), a major bakery (*Kristiania Brødfabrik*) and the Brewery Association (Bryggeriforeningen), respectively.

Frisch's enormous outpouring of energy and ideas in this period also comprises his efforts to give the Econometric Society and Econometrica a good start. The

[85] Johansen (1973).
[86] Frisch (1936c). The *Propagation and Impulse* essay might never have been published unless for the relentless efforts of the editor of the Cassel festschrift, Karin Kock.
[87] The chocolate paper is Frisch (1935). The bread quality study was not published until after the war and the beer demand study, in which Haavelmo assisted, was never published.

Econometric Society's European Meetings, which may be considered as the first international conferences in economics, started with the first meeting in Lausanne in 1931 with Frisch as the key organizer. Econometrica started in 1933 with Frisch as a highly ambitious editor of what may be considered as the first really international journal, with Frisch as editor.[88]

In Wedervang's part of the Institute he organized a large scale collection of price and wage series from a vast number of sources. Wedervang used a major part of the Rockefeller support for assistants in his project. Nothing from the project was ever published, although the data collected amounted to a huge archive. Wedervang also conducted (with G. Coward) a series of studies on turnover and costs in different branches of dubious or no value.

From 1936-37 the Institute received government support to undertake a large scale "structural economic survey" of Norway.

In the early years of the Institute Frisch also carried a heavy teaching burden and he played an active role in political debate.[89]

The proposal for a new study of economics did not pass unhindered. The proposal submitted by the University to the Ministry of Church and Education in December 1930 was shelved for three years before it was adopted in 1934 and put into effect from 1935.

At the end of the 1930s there were some efforts through the intermediary of Rockefeller Foundation towards broadening the Institute to encompass other social sciences, but it came to nothing, perhaps due to the war. The postwar relationship between the Institute and empirical social science research institutions which emerged after the war never became very close.

Acknowledgement

This essay draws heavily on correspondence and documents from the Frisch Correspondence Files at the National Library of Norway, the Frisch Archive at

[88] Frisch contributed three out of 19 contributions at the first meeting in addition to giving the Opening as well as the Closing address. See Bjerkholt (1998) for Frisch's contributions to the early years of Econometric Society and Econometrica. An extensive report of the first European Meeting in Econometric Society appeared in Econometrica **1** (1933).
[89] See Andvig & Thonstad (1998) and Andvig (1986).

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References

Andvig, J. Chr., 1986: *Ragnar Frisch and the Great Depression*, Oslo: Norwegian Institute of International Affairs.

Andvig, J. Chr. and T. Thonstad, 1998: "Ragnar Frisch at the University of Oslo" in Strøm (1998).

Allen, R. L., 1991: *Opening Doors. The Life and Work of Joseph Schumpeter*, Vol.1, New Brunswick, N.J.: Transaction Publishers.

Bergh, T. and T. J. Hanisch, 1984: *Vitenskap og politikk. Linjer i norsk sosialøkonomi gjennom 150 år*, Oslo.

Bjerkholt, O., 1998: "Ragnar Frisch and the foundation of Econometric Society and Econometrica" in Strøm (1998).

Bosse, E., 1937: *Tilstanden ved Universitetet*, Fabritius & Sønner, Oslo.

Bulmer, M. and J. Bulmer, 1981: Philantropy and Social Sciences in the 1920s: Beardsley Ruml and the Laura Spelman Rockefeller Memorial, 1922-29, *Minerva* **19**, 347-407.

Coward, D., 1961: Ingvar Wedervang og hans innsats, *Statsøkonomisk Tidsskrift* **75**, 184-197.

Craver, E., 1986: Patronage and the Direction of Research in Economics: The Rockefeller Foundation in Europe, 1924-1938, *Minerva* **24**, 205-222.

Dimand, M. A. and R. W. Dimand, 1996: *A History of Game Theory*, Vol.I, London: Routledge.

Fischer, D., 1983: The Role of Philanthropic Foundations in the Reproduction and Production of Hegemony: Rockefeller Foundations and the Social Sciences, *Sociology* **17**, 206-233.

Frisch, R., 1926a: Sur un problème d'économie pure, *Norsk Matematisk Forenings Skrifter*, Series 1, No. 16, 1-40.

Frisch, R., 1926b: Kvantitativ formulering av den teoretiske økonomikks lover, *Statsøkonomisk Tidsskrift* **40**, 299-334.

Frisch, R., 1926c: Sur les semi-invariants et moments employés dans l'étude des distributions statistiques, *Skrifter utgitt av Det Norske Videnskaps-Akademi i Oslo*, II. Historisk-Filosofisk Klasse. No. 3.

Frisch, R., 1927: *The Analysis of Time Series*, Mimeographed, New York.

Frisch, R., 1928: Changing Harmonics and Other General Types of Components in Empirical Series, *Skandinavisk Aktuarietidskrift* **11,** 220-236.

Frisch, R., 1929a: Statikk og dynamikk i den økonomiske teori, *Nationaløkonomisk Tidsskrift* **67,** 321-379.

Frisch, R., 1929b: Correlation and Scatter in Statistical Variables, *Nordisk Statistisk Tidskrift* **8**, 36-102.

Frisch, R. 1931a: Johan Åkerman: Om det ekonomiska livets rytmik, *Statsvetenskaplig Tidskrift* **34**, 281-300.

Frisch, R., 1931b: A Method of Decomposing an Empirical Series into its Cyclical and Progressive Components, *Journal of the American Statistical Association* **26** (Proceedings), 73-78.

Frisch, R., 1931c: "Konjunkturbevegelsen som statistisk og som teoretisk problem" iN *Förhandlingar vid Nordiska Nationalekonomiska Mötet i Stockholm 15-17. juni 1931*, Stockholm: Ivar Hæggströms Boktryckeri och Bokförlags A.B, 127-147.

Frisch, R., 1932a: Einige Punkte einer Preistheorie mit Boden und Arbeit als Produktionsfaktoren, *Zeitschrift für Nationalökonomie* **3**, 62-104.

Frisch, R., 1932b: *New Methods of Measuring Marginal Utility*, Tübingen: Verlag von J. C. B. Mohr <Paul Siebeck>.

Frisch, R., 1933a: *Pitfalls in the Statistical Construction of Demand and Supply Curves*, Veröffentlichungen der Frankfurter Gesellschaft für Konjunkturforschung, Neue Folge Heft 5, Leipzig: Hans Buske Verlag.

Frisch, R., 1933b: Monopole-Polypole-La notion de force dans l'économie, *Nationaløkonomisk Tidsskrift* **71** (Supplement), 241-259.

Frisch, R., 1933c: "Propagation Problems and Impulse Problems in Dynamic Economics" in *Economic Essays in Honour of Gustav Cassel*, London: Allen & Unwin, 171-205.

Frisch, R., 1934a: Circulation Planning: Proposal for a National Organization of a Commodity and Service Exchange, *Econometrica* **2**, 258-336 & 422-435.

Frisch, R., 1934b: More Pitfalls in Demand and Supply Curve Analysis, *The Quarterly Journal of Economics* **48**, 749-755.

Frisch, R., 1934c: *Statistical Confluence Analysis by Means of Complete Regression Systems*, Publication No. 5. University Institute of Economics, Oslo.

Frisch, R., 1935: The Principle of Substitution. An Example of its Application in the Chocolate Industry, *Nordisk Tidsskrift for Teknisk Økonomi* **1**, 12-27.

Frisch, R., 1936a: Annual Survey of General Economic Theory: The Problem of Index Numbers, *Econometrica* **4**, 1-38.

Frisch, R., 1936b: On the Notion of Equilibrium and Disequilibrium, *The Review of Economic Studies* **3**, 100-105.

Frisch, R. (1936c): Report of the work done under the direction of Professor Ragnar Frisch at the University of Economics, Oslo, January 1932-June 1936, Mimeographed.

Frisch, R., 1938: Statistical versus theoretical relations in economic macrodynamics, Memorandum prepared the Business Cycle Conference at Cambridge, England, July 1938, 1938, to discuss Professor J. Tinbergen’s publications for the League of Nations.

Frisch, R., 1959: A Complete Scheme for Computing All Direct and Cross Demand Elasticities in a Model With Many Sectors, *Econometrica* **27**, 177-196.

Frisch, R., 1992: Statics and Dynamics in Economic Theory, *Structural Change and Economic Dynamics*, **3**, 391-401.

Frisch, R. and H. Holme, 1935: The Characteristic Solutions of a Mixed Difference and Differential Equation Occurring in Economic Dynamics, *Econometrica* **3**, 225-239.

Frisch, R. and F. V. Waugh, 1933: Partial Time Regressions as Compared with Individual Trends, *Econometrica* **1**, 387-401.

Hendry, D. F. and M. S. Morgan (eds.), 1995: *The Foundations of Econometric Analysis*, Cambridge UK: Cambridge University Press.

Johansen, L., 1974: Establishing Preference Functions for Macroeconomic Decision Models, *European Economic Review* **5**, 41-66.

Mitchell, W., 1927: *Business Cycles: The Problem and its Setting,* New York: National Bureau of Economic Research.

Nordvik, H., 1989: Professor Dr. Ingvar Wedervang: An Historical Perspective, Paper presented at Nordic Conference on Wage and Price History.

Schultz, H., 1928: *Statistical Laws of Demand and Supply*, Chicago: University of Chicago Press.

Strøm, S. (ed.), 1998: *Econometrics and Economic Theory in the 20th Century. The Ragnar Frisch Centennial Symposium,* Cambridge, UK: Cambridge University Press.

Wedervang, I., 1924: *Om seksualproporsjonen ved fødselen. Dens typer og disses variasjoner med særlig henblikk på fosterdødeligheten,* Oslo: Steenske Forlag.

Wedervang, I., 1926: Nasjonalinntekten i Norge, *Statsøkonomisk Tidsskrift* **40**, 149-201 & 237-298.

Wedervang, I., 1929: Av inntektsstatistikkens metodeområde, *Nordisk Statistisk Tidskrift* **2**, no. 3, 241-268.