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THE OSLO REFI INTERFLOW TABLE

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1. Introduction

The question of how to arrange economic interflow tables in rows and columns or in a system of accounts, is apparently only a formal and nearly trivial one, but in reality it is extremely important. The way in which it is done, will profoundly influence the types of questions that the system can answer and the nature of the *models* and the structural *equations* that can be built on it. This applies already at the stage where one aims particularly at laying the foundation for a discussion of *real* flows, and it applies in an even higher degree when an attempt is made to build a *refi* table, that is a table exhibiting how real flows and financial flows gear into each other to form a complete and integrated system.

The frame for the Oslo *refi* interflow table here presented, is based on a long series of experiments going on in the Institute of Economics at the University of Oslo over a number of years. The work has been made possible through generous grants from The Rockefeller Foundation, New York, and Norges Almenvitenskapelige Forskningsråd, Oslo. This financial support is gratefully acknowledged. Work on the compilation of actual data for the table and on the elaboration of an analytical model with structural relations and programming techniques, is proceeding and will be reported on in due time.

A number of associates at the Institute have made signal contributions to the work, in particular those mentioned as co-authors of the present memorandum.

In the period up to the fall of 1959 — when the principles of the *refi* table were summarized in a memorandum of 17 November 1959 « A generalized form of the *refi* interflow table » by Ragnar Frisch — the main contributors to the work were the research associates Hans Heli (the role of ownership sectors), Tore Johansen (symbolism), Hans Jacob Kreyberg (general aspects), Jan Serck-Hanssen (competitive imports and the relation between domestic market prices and *cif* and *fob* prices) and Tore Thonstad (accounting principles and the typographical shape of the table). In this connection special mention must be made of a memorandum (in Norwegian) of 24 November 1958 by Tore Thonstad in co-operation with Tore Johansen (with which was appended a draft table of 22 October 1958).

⁽¹⁾ In co-operation with Hans Heli, Tore Johansen, H. J. A. Kreyberg, Per Schreiner, Jan Serck-Hanssen, Tore Thonstad.

The November 1959 memorandum gave a general form of the table and a very general formulation of the principles. The subsequent work has been concentrated on how to simplify (and in some cases expand) the break-downs and make practical applications of the general principles. For this part of the work Tore Johansen is mainly responsible, in co-operation with Hans Heli and Per Schreiner.

At all stages the work has been discussed with staff members of the Institute. Many contributions on special points have been made during these discussions, in particular by Gunnar Bramness, Kare Edvardsen, Arne Dag Johansen and Sven Vigger. In drafting the present memorandum Tore Johansen co-operated.

Work is now being done in a co-operative effort of several Norwegian Government Departments (Ministry of Finance, Ministry of Industry, Ministry of Commerce), the Norwegian Central Bank of Issue, the Central Bureau of Statistics and the Institute of Economics at the University of Oslo with a view to building up a better analytical foundation for the national budget — including investment plans — and, in general, for objective discussions on economic policy. In this work the refi interflow table plays a great role. The frame of the refi interflow table has been discussed with research staff members of these institutions, but the form of the table as now presented is in all essentials the result of the Institute effort.

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The main problems in the refi-table are to take account of the following complications :

1) The distinction between establishments (plants) and enterprises (firms) in the production. This leads to the concept of *ownership sectors* as distinct from production sectors. The investment and operation decisions rest to a large extent with the ownership sectors.

2) The explicit introduction of *financial objects* (money, credit documents etc.) and the trading in such objects. These operations must be analytically co-ordinated with the operations in real objects so as to arrive at a coherent common system.

3) The explicit introduction of *financial sectors*, i. e. sectors whose main purpose is to produce and exchange financial objects.

4) A more detailed consideration of the various kinds of *transfers* (taxes, social security contributions and benefits, interests, dividends etc.).

All these desiderata must be weighed against each other so as to arrive at a presentation that is reasonably simple and can be represented in a central table of *two dimensions* (with whatever special appended tables that may be needed).

The brief discussion of principles which follows refers to the form of the table as now presented. For a discussion of the more general principles reference is made to the 17 November 1959 memorandum.

A list of Institute memoranda that are of interest in the present connection, is given as an appendix to the present memorandum.

2. *Balancing principles*

In the study of decision models of some size it is next to indispensable to base work on an interflow matrix where the main variables of the complete model can be listed in a systematic way and where the main definitional relations (ecocirc relations) that connect these variables are brought out in a fool-proof way. The table should be built in such a way that it is possible simply to read these definitional relations from the rows and columns of the interflow table. To achieve this, certain standard *balancing principles* are introduced in the interflow matrix. For instance, if a given sector or other entity is represented both by a row and a column, the sum in the row should be equal to that in the corresponding column. And if there is a row which has no corresponding column, the sum in this row should be equal to zero. Similarly, if there is a column that has no corresponding row.

Such balancing principles could, of course, be introduced in the form of separate written accounts, but it is much clearer and safer to have each figure or symbol enter only once and have all the data appear in one single table as is done in the interflow matrix.

This organization of the main data is also extremely important from the point of view of assuring the *consistency* of the figures and making a technical check of the process by which the numerical data are entered.

3. *The sectors*

The table contains four main types of sectors : production sectors, consumer groups, ownership sectors and financial sectors.

(I) *The production sectors* are aggregates of the technical units (establishments) classified according to the type of products. Our grouping of 44 sectors represents an aggregation of the 129 sectors contained in the last input-output studies in the Norwegian Central Bureau of Statistics cf. [22].

(II) *The consumer groups* are in the main an aggregation of the groups used in the Oslo Median Model, cf. [16]. In the June 1960 table there are two consumer groups: wage households and ownership households.

(III) *The ownership sectors* are groups of enterprises which may consist of establishments belonging to different production sectors. The enterprise may be considered as an administrative and economic unit (while the establishment is the technical unit). The enterprise is a *decisionmaking* unit and therefore of particular importance in a closer study of the determining factors in the national interflows.

(IV) *The financial sectors* consist of banks and other credit institutions, Government sectors (except enterprises) and the rest of the world.

In a broader sense all the sectors of the type (II)-(IV) can be looked upon as decisionmakers, in distinction to the sectors that are production sectors in the restricted sense.

4. *Main features of the table*

There is one row for each production sector, each consumer group, each ownership sector and each financial sector.

On the rows for production sectors are recorded cross deliveries (on a

account) to production sectors as well as the final deliveries: consumption, real domestic investment, gross exports and competitive imports (recorded negatively and not including complementary, i. e. non competitive imports). The grand total on each of these rows gives the total output (the total production) of the sector in question.

The rows for consumer groups, ownership sectors and financial sectors — the decisionmaking sectors — function as balancing *accounts* for these sectors. Here is recorded a description of how income is distributed from production sectors to the decisionmaking sectors, how these sectors receive and pay different categorized *transfers* and how they use their disposable income (i. e. income after all taxes and other transfers) for consumption and for real and financial investment.

Sources of funds (income received from production sectors, transfers received, decrease in assets and increase in liabilities) are on the rows of the decisionmaking sectors indicated by *positive* figures. Uses of funds (transfers paid, balancing items for investment in domestic fixed real capital and in domestic inventories, increase in assets and decrease in liabilities) are indicated by *negative* figures. Each row sum will therefore equal zero.

5. Further explanations on rows, columns and cells

We introduce the symbol Y_{kh} to denote the item in row k , column h . The further description of the table will consist of explaining the meaning of all the various Y_{kh} .

The table is divided in several parts by horizontal and vertical lines. A zero is written in the parts where all the figures are equal to zero by definition. No further comments will be made regarding those parts.

In the sequel the main emphasis is laid on the row-description.

The rows 001-044 (delivering production sectors). As an example take row 001, agriculture. The items from $Y_{001,501}$ to $Y_{001,544}$ are cross deliveries from agriculture to inputs in production sectors.

$Y_{001,601}$ is the delivery from agriculture to private consumption (without distinction between wage households and ownership households, the present status of the data does not permit this break-down).

$Y_{001,611}$ and $Y_{001,612}$ are deliveries — if any — from agriculture to Government consumption, broken down in consumption by Central Government and consumption by Local Government.

$Y_{001,701}$ to $Y_{001,723}$ and $Y_{001,731}$ - $Y_{001,732}$ are deliveries from agriculture to investment in different investment directions. The investment directions are represented by columns. Amongst these the columns 701 to 723 are in the main aggregated in the same nomenclature as that used for the 44 production sectors. Each production sector delivers in principle goods and services to the investment directions, as exemplified by $Y_{001,701}$ to $Y_{001,723}$ etc.⁽¹⁾.

$Y_{001,741}$ is the net increase in inventories of agricultural products.

$Y_{001,751}$ gives the gross export of agricultural products.

⁽¹⁾ The most important sectors (rows) that deliver investment goods are rows 024 and 025: Machinery, rows 026 and 027: transport equipment, row 029: house-building activity, and row 030: construction activity.

The deliveries on row 001 mentioned so far include all agricultural products actually received by the sectors of destination, and which are of such a sort that can in principle be produced domestically (i. e. not belonging to the non-compet kind) regardless of whether these goods have actually been produced domestically or are imported competitively.

$Y_{001,752}$ is competitive imports of agricultural products recorded negatively

All the deliveries are valued at prices received by the producers, so-called sector prices (for imported goods value on the border including import duties subsidies), whereas trade and transport margins for all the goods bought by a sector are routed in a lump sum, as a service from the row 032: Wholesale and retail trade to the sector in question.

The sum of all the magnitudes on row 001 gives the actual production — total output — in agriculture.

The row 051 (non-competitive imports). On this row we get non-competitive imports reckoned at cif prices. The difference between ab sector prices and cif prices (i. e. import duties less subsidies) are recorded on the row 044: the accounting sector for foreign trade.

$Y_{051,501}$ to $Y_{051,544}$ are non-competitive imports on current account to production sectors.

$Y_{051,601}$ is non-competitive imports to private consumption.

$Y_{051,611}$ - $Y_{051,612}$ are non-competitive imports to Government consumption.

$Y_{051,701}$ to $Y_{051,723}$ and $Y_{051,731}$ - $Y_{051,732}$ are non-competitive imports to different investment directions.

The sum of all the magnitudes mentioned so far on row 051 gives the value of non-competitive imports reckoned at cif prices. This sum is recorded negatively on row 051 in column 751: the column for export. The grand total on row 051 will then be zero.

The row 061 (Government sales of goods and services⁽¹⁾). On this row are recorded Government sales of goods and services to the different sectors and purposes indicated in the heading of the table. All figures on this row are recorded positively except in the column 807: Accounting sector for balancing the table. In this column 807, is recorded negatively the sum of the positive figures so that the grand total on row 061 is zero.

The rows 101-103 (transfers).

$Y_{101,501}$ to $Y_{101,544}$ are indirect taxes paid by the different production sectors. Import duties (such as customs etc.) may either be recorded by entering their value in column 544: the accounting sector for foreign trade, or by recording only import duties on non-competitive imports in the column 544, and entering the duties on competitive imports in the column 752. All these figures on row 101 are recorded

⁽¹⁾ This is as a rule only small amounts connected with the general activity of Government. and services from Government controlled production enterprises are included under the deliveries to the production sectors.

⁽²⁾ And in conformity with this to record all the import duties — on competitive as well as on non-competitive imports — on the row 044.

positively. The sum of them are entered negatively on row 101 in the column 807. The grand total on row 101 then becomes zero.

As for row 102 : subsidies, the total of all subsidies is entered positively in column 807. The distribution of the subsidies to the production sectors (items $Y_{102,501}$ to $Y_{102,544}$) is recorded negatively. All import subsidies may either be incorporated in $Y_{102,544}$ or we may record the subsidies on competitive imports separately in column 752 : competitive imports. The grand total on row 102 is zero.

The rows 151 and 152 (consumer groups) are balancing accounts for the consumer groups. As an example we consider row 151 : wage households.

$Y_{151,501}$ to $Y_{151,544}$ are income payments from each of the production sectors to wage households (recorded positively).

$Y_{151,601}$ is the total expenditure of wage households on consumption (recorded negatively).

$Y_{151,701}$ to $Y_{151,723}$ are in principle the real investments made by wage households in different investment directions (recorded negatively). In practice all these magnitudes may be put equal to zero, except $Y_{151,718}$ which is the investment in dwellings (recorded negatively).

$Y_{151,801}$ is net interest received by wage households (recorded positively).

$Y_{151,802}$ is net dividends received by wage households (recorded positively).

$Y_{151,803}$ and $Y_{151,804}$ are direct taxes paid by wage households (recorded negatively).

$Y_{151,805}$ is social security contributions to wage households (recorded positively).

$Y_{151,806}$ is net gifts and similar unilateral transfers received by wage households (recorded positively if actually received and negatively if given away).

$Y_{151,851}$ is net sale of existing (as distinct from new) real capital goods (recorded positively).

$Y_{151,901}$ to $Y_{151,911}$ and $Y_{151,921}$ to $Y_{151,929}$ are the financial investments of wage households, recorded negatively, i. e. an increase in assets or a decrease in liabilities is indicated by a negative figure.

The sum on row 151 is equal to zero.

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Note that all sources of funds are recorded positively and all uses of funds negatively on the row of the decisionmaking sector in question (consumer group, ownership sector or financial sector).

The rows 201 to 209 and 251 to 261 show the balancing accounts of the ownership sectors and the financial sectors. The Y_{kh} on these rows are analogous to those on the rows for consumer groups. No detailed description of these rows will be given, but some remarks will be made on the most important items on row 251 : The Treasury (Central Government, either budget figures or records of actual receipts and expenditures, as the purpose of the interflow table may be formulated).

$Y_{251,611}$ is the total Central Government consumption on current account (recorded negatively).

$Y_{251,731}$ is the total of gross fixed asset formation in Central Government (recorded negatively).

The individual items of direct Central Government taxes may be distributed over the cells of row 251 in one of the following two ways. 1) All direct Central Government taxes are taken as a lump sum (recorded positively) in the cell $Y_{251,801}$: column 803 : Direct Central Government taxes, the distribution of these taxes all the decisionmaking (and taxpaying) sectors is recorded negatively. A consequence of this procedure is that the surplus of production sectors *before* direct taxes be distributed to an ownership or a financial sector. This procedure is logical but has the disadvantage that the direct taxes on the great mass of single-establishment enterprises does not appear subdivided by *production sectors*, which is essential from the viewpoint of national policy making. 2) This subdivision would appear by recording (positively) the direct taxes (possibly only those for the single-establishment enterprises) on row 251 in the columns 501 to 544, cf. [33]. (A similar remark applies both to direct and indirect taxes on investment directions. When a zero has been entered for some of these items in the present table, it is only because of the status of the data. The remark may also be applied to taxes on exports. Cf. [3])

$Y_{251,807}$ is an item which includes indirect taxes less subsidies (recorded negatively). (Cf. the remark above and also the column description in the sequel.)

Finally we will give a brief description of the table by columns.

The vertical part 501 to 544 : Receiving production sectors, current account shows the cross deliveries and non-competitive imports to each production sector, further indirect taxes paid (recorded positively) and subsidies received (recorded negatively) by each production sector as well as the payment of income from each production sector to consumer groups, ownership sectors and financial sectors. If the second alternative of recording direct taxes is adopted, certain items of this sort will appear (positively) in the column of each production sector (on row 251). All income is distributed, i. e. the column sum for any production sector will give the total income in the sector (equal to the grand total row sum for the same sector).

In column 601 : Private consumption, the upper part exhibits the composition of private consumption by delivering production sectors and non-competitive imports (recorded positively). Lower down in this column is recorded (negatively) the consumption of each of the two consumer groups, so that the grand total in column 601 equals zero.

The same applies to the columns for Central and Local Government consumption.

The upper parts of *the columns 701 to 723 and 731-732* : Domestic gross investment in fixed real capital show in positive figures the composition (by delivering production sectors and non-competitive imports) of the gross investment in investment direction. In the lower parts of these columns is recorded negatively how much of the gross investment in each investment direction that has been accounted as the property of the decisionmaking sectors. Here the ownership sectors contain the most important items.

Each of these column sums equals zero.

The same applies to the column for net increase in inventories.

In the upper part of *the columns 751 and 752* : Rest of the world receiving, is recorded gross exports from and competitive imports to each production sector. Further down in these columns various special items are recorded.

We will go through these columns in detail.

$Y_{001,751}$ to $Y_{044,751}$ show gross exports from the various production sectors.

$Y_{061,751}$ is Government sales of goods and services to the Rest of the world (this figure will as a rule be insignificant).

The sum of the items mentioned so far in column 751 is total gross exports, valued at fob prices.

$Y_{051,751}$ is the total of non-competitive imports at cif prices, recorded negatively.

$Y_{001,752}$ to $Y_{044,752}$ are imports (recorded negatively) of the kinds of goods and services which can in principle be produced by the domestic production sectors.

$Y_{061,752}$ is imports (recorded negatively, as a rule an insignificant item) of the kinds of goods and services which Government usually furnishes (apart from goods delivered by 039 and the Government enterprises included under the production sectors).

The sum of all these items in column 752 is equal to minus the total of all competitive imports valued at ab sector prices.

$Y_{101,752}$ is indirect taxes (recorded positively) on competitive imports. An alternative way of recording is mentioned under the description of row 101 (with the ensuing consequences for the balancing of the Rest of the world).

$Y_{102,752}$ is subsidies (recorded negatively) on competitive imports. Same remark on an alternative recording as under $Y_{101,752}$.

The sum of all the items mentioned so far in column 752 is minus the total of competitive imports at cif prices.

The sum of all the items mentioned so far in both columns 751 and 752 taken together equals the net export surplus to be debited to the Rest of the world. This is recorded negatively (i. e. an actual surplus appears as a negative figure) on row 261 : Rest of the world. The sum of the column sums 751 and 752 equals zero.

In each of the categorized transfer columns the total sum is zero. As an example consider *column 803* : Direct taxes to Central Government.

$Y_{251,803}$ is the sum of all these taxes (recorded positively). The other items in column 803 show taxes (recorded negatively) paid by decisionmaking sectors, i. e. consumer groups, ownership sectors and financial sectors.

In *column 807* : Accounting sector for balancing the table, the item on row 061 records (negatively) the total of Government sales of goods and services on current account. On row 101 is recorded (negatively) the total indirect taxes. On row 102 is recorded (positively) the total of subsidies.

The total of all these items in column 807 is transferred within the same column (but with opposite sign) to the various financial sectors which receive the indirect taxes or pay the subsidies etc. In this connection the cell in row 251 : The Treasury will contain the dominating item.

Columns 901 to 911 and 921 to 929 : Financial investment (recorded negatively) show changes in holdings of different types of financial objects. The sectors holding

these objects are the decisionmaking sectors, i. e. consumer groups, ownership sectors and financial sectors (including Rest of the world). A negative figure indicates positive financial investment, i. e. an actual increase in assets or an actual decrease in liabilities will be recorded by a negative figure.

As a main rule in these columns we use *net* recording in the sense that we distinguish between assets and liabilities. Wherever this rule is followed, the column sum is zero.

Exceptions are made for the objects bearer bonds and loans. Bearer bonds are broken down in «issued by the holder» (i. e. bearer bonds as liabilities) and «issued by others than the holder» (i. e. bearer bonds as assets). The same applies to two columns for loans, loans raised (i. e. loans as liabilities) and loans advanced (loans as assets).

In these columns that are broken down in liabilities and assets, it is the sum of the two column sums that is zero.

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In these brief notes it has not been possible to cover all details. In particular it has not been possible to expand on the methods of recording which we would consider as desirable if it were not for the unsatisfactory status of the data. A more complete discussion of possible ways of recording and balancing refer to [33].

The table itself as one sheet «Refi Interflow Table», 27 June 1960, in big format is included with the present paper.

27 June 1960.

APPENDIX

LIST OF MEMORANDA

- | | | |
|------------------|---|---|
| [1] 27- 8-53... | From national accounts to macro-economic decision models. | By Ragnar FRISCH. |
| [2] 14-10-53... | Samgripingsanalysen. En orientering om arbeidet med samgripingsanalysen ved Universitetets Sosialøkonomiske Institutt. | Av Hans HELI. |
| [3] 3- 8-54... | Om estimering av kryssløpskoeffisienter. | Av H. J. A. KREYBERG. |
| [4] 16- 8-54... | Investeringsvarekryssløpet 1948.... | Av H. J. A. KREYBERG. |
| [5] 5- 9-54... | Prinsipielt om formen på hovedmatriksen for makroøkonomisk programmering. | Av Ragnar FRISCH. |
| [6] 27-11-54... | Unilaterale finansoverføringer fra offentlige sektorer til private konsumenter. | Av Tore Kindt. |
| [7] 11-12-54... | Bruttoinvesteringer, produksjon og selssetting etter størrelsen av foretak i industrien. | Av H. J. A. KREYBERG |
| [8] 18- 2-55... | Husholdsdisponible produksjonsinntekter i jordbruk, skogbruk og fiske. | Av Tore KINDT. |
| [9] 25- 2-55... | Norske husholds bruk av egne befordringsmidler. | Av Hans HELI. |
| [10] 9- 3-55... | Beregning av kryssløpskoeffisienter i sektorer med flervareproduksjon. | Av H. J. A. KREYBERG. |
| [11] 11- 3-55... | Litt om inndeling av forbrukere i etterspørregrupper. | Av Jan SERCK-HANSEN. |
| [12] 2-12-55... | Det statistiske grunnlag for kryssløpsanalyse med sammenknytting av produksjonssektorer og forbrukergrupper i Norge. | Av Hans HELI. |
| [13] 10-12-55... | Beregning av norske husholds inntekter. | Av Jan SERCK-HANSEN. |
| [14] 2- 1-56... | Submodell, medianmodell og refi-modell. | Av Ragnar FRISCH. |
| [15] 4- 1-56... | Beregning av norske husholds konsum. | Av Tor RODSETH. |
| [16] 10-10-56... | Main features of the Oslo Median Model. | By Ragnar FRISCH. |
| [17] 21-10-56... | Supplementary remarks on the Oslo Median Model. | By Ragnar FRISCH. |
| [18] 9-11-56... | Introduction to the Oslo Median Model. | By Ragnar FRISCH. |
| [19] 4- 6-57... | Oslo Decision Models. A summary of work done on the submodel, the median model and models of similar types, as well as a draft of the refi model. | By Ragnar FRISCH. |
| [20] 16-11-57... | Hovedmatriksen for refimodellen. (Arbeidsnotat). | Av Ragnar FRISCH. |
| [21] 9- 6-58... | Connections with the refi model... | By Ragnar FRISCH. |
| [22] 14- 8-58... | Structure of the Norwegian input-output work on 1954 data. | By Ragnar FRISCH. |
| [23] 24-11-58... | Arbeidsnotat om oppstilling av utkast til datumtabell for refimodellen. | Av Tore THONSTAD i samarbeid med Tore JOHANSEN (should be considered in connection with the table of 22-10-58, Utkast til Refi-kryssløpsdatumtabell). |
| [24] 15- 3-59.. | Elsås-modellen og dens utbygging for programmeringsformål. | Av Ragnar FRISCH. |
| [25] 20- 4-59... | Aggregat-refi-modeller. | Av Ragnar FRISCH.
Assistert av Eva-Karin KARLSEN, Per SCHREINER, Arne Dag JOHANSEN. |
| [26] 20- 5-59... | Arbeidsrapport om et forsøk på å bruke kryssløpsanalyse ved nasjonalbudsjettering. | Av Tore THONSTAD. |
| [27] 25- 5-59... | Definisjoner og kryssløpsdata 1958 for Aggregat Refi modeller. | Av Arne Dag JOHANSEN. |
| [28] 7- 6-59... | A macroeconomic interflow table with specification of competitive imports. | By Ragnar FRISCH. |

- [29] 23- 6-59... Arbeidsnotat om symbolikken, definisjonslikninger og det derved framkomne antall frihetsgrader i den store refiopstilling. Av Tore JOHANSEN.
- [30] 29- 6-59... Aggregat-refi-modeller. Del II..... Av Ragnar FRISCH.
- [31] 1- 9-59... Definisjoner og kryssløpsdata 1958 for aggregat refi modeller. Forkortet utgave. Av Arne Dag JOHANSEN.
- [32] 30-10-59... Føring av hovedbok for tallstørrelser. Av Ragnar FRISCH.
- [33] 17-11-59... A generalized form of the refi interflow table. By Ragnar FRISCH.
- [34] 11-12-59... Utkast til organisert samarbeid om et forbedret analytisk grunnlag for norsk nasjonalbudsjettering. Av Ragnar FRISCH og Hans HELI.
- [35] 30- 1-60... Konferanse om samarbeidet om et forbedret analytisk grunnlag for nasjonalbudsjettering, fredag 29 januar 1960. Referert av Tore JOHANSEN.
- [36] 19- 2-60... Aggregat-refi-modeller. Del III.... Av Per [SCHREINER, i samarbeid med Ragnar FRISCH og assistert av Eva-Karin KARLSEN.
- [37] 27- 2-60... Konferanse om nasjonalbudsjetteringsmodellen (mellomrefimodellen), tirsdag 23 februar 1960. Referert av Tore JOHANSEN.
- [38] 16- 3-60... Konferanse om nasjonalbudsjetteringsmodellen (mellomrefimodellen), onsdag 16 mars 1960. Referert av Per SCHREINER.
- [39] 6- 5-60... Notat om bruk av modell ved utarbeidelse av langtidsprogram. Av Leif JOHANSEN.

	Other industries		Government		NET IN- CREASE in inven- tories. By sector of origin	REST of the world receiving		TRANSFERS									NET SALE of existing real capital	FINANCIAL INVESTMENT (RECORDED NEGATIVELY) (i. e. increase in assets or decrease in liabilities is indicated by a negative figure)														GRAND TOTAL			
			Central Government	Local Government		Exports	Competitive imports (recorded negatively)	Categories										Financial objects with domestic debtors							Financial objects with rest of the world as debtor										
723	731	732	741	751	752	801	802	803	804	805	806	807	851	901	902	903	904	905	906	907	908	909	910	911	921	922	923	924	925	926	927	928	929		
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reserve fund deposits in state banks, IBRD shares and deposits with IMF. — (3) In the actual work on the Refi model we don't use the subgroups specified under Other industries in the table.