APPENDIX I: PART E
WEALTH SURVEYS IN JAPAN
By YATAKA SHIMIZU
Statistical Office of the United Nations
WEALTH SURVEYS IN JAPAN

I. INTRODUCTION

A. BRIEF DESCRIPTION OF JAPANESE NATIONAL WEALTH ESTIMATES PRECEDING THE 1955 NATIONAL WEALTH SURVEY

In Japan, national wealth estimates have been made by certain Japanese scholars and foreign economists since 1841.1 Most of these were very rough estimates based upon scattered data.

The first systematic study was the 1905 national wealth survey which was conducted by the Bank of Japan. Since then, a series of national wealth surveys has been conducted by the Bank of Japan (1910 and 1917), the Census Bureau (1913 and 1919), and by the Statistics Bureau of the Prime Minister's Office (1924, 1930, and 1935).

The main purposes2 of these national wealth surveys were—

1. To make possible international comparison of national resources.
2. To measure national economic growth by indicating the difference between a country's accumulated assets at different periods in time.
3. To measure the capital coefficient, by showing the relation between national wealth and national income.
4. To show the structure and distribution pattern of national resources.

Thus, the coverage of assets in the national wealth estimates was very wide. Assets included in these estimates were land, natural resources of virgin forests, subsoil resources, producers' goods, household goods, gold, antiques, books kept in libraries, paintings and other collections held by museums, and net foreign assets and liabilities. It should be noted that national wealth estimates prior to 1930 had been based only on existing data, but from 1930 the estimates were made on the basis of existing data supplemented by inquiries or field surveys.

One other point which had to be remembered is that, in the case of the 1930 and 1935 national wealth surveys, a national income survey was also conducted at the same time3 by using the production approach. In these surveys, the concept of national wealth was not clearly defined, the coverage of wealth was the same as in previous years, and the techniques and data utilized for the national income estimates were rather primitive.4 But a highly useful effort was

---

4 Net income was estimated with the following industrial breakdown: Agriculture, fishing, mining, manufacturing, commerce, transportation, public and private and domestic services, and net foreign investment and net foreign transactions. That is, all intermediary expenses were subtracted from the total production values of each industry.
made to clarify the relationship between national wealth and national income.

Because of World War II, a national wealth survey was not conducted again until 1955. The only estimate which gives national wealth figures for 1945 is "A Survey on Losses and Damages During the War" carried out by the Economic Stabilization Board (now Economic Planning Agency) in 1947.

B. OUTLINE OF 1955 NATIONAL WEALTH SURVEY

The 1955 national wealth survey was carried out by the Economic Planning Agency in accordance with a resolution of the Cabinet Council on June 7, 1955. The preparation of this survey was begun in 1953 and the results were published in 1957.

The Economic Council Board (now Economic Planning Agency) established a National Wealth Survey Preparation Unit in 1953. This unit started at once the collection of necessary data, the analysis of existing data, and the study of methodology for carrying out the survey.

An advisory group of the national wealth survey was also established by the same board in the same year and the group discussed the problems presented by the Preparation Unit. In accordance with the establishment of the National Wealth Surveying Committee by the resolution mentioned above, the advisory group was amalgamated with the new committee.

The 1955 national wealth survey consisted of 4 designated surveys based on the statistics law and 10 test and rechecking surveys based upon the statistics report control law. The area covered was the whole Japanese territory as of December 31, 1955.

In the case of roads, bridges, canals, and harbor establishments, for which a field survey would have been very difficult, estimates were made insofar as the existing data would permit.

Field surveys were made on an ownership rather than on a user basis. The cities, towns, and villages covered by the survey were 2,654 in total, and the number of supervisors and enumerators were 800 and 7,952, respectively.

Tabulation was made by the Statistics Bureau, Office of the Prime Minister; the total manpower used for tabulation was almost 140,000 men. The total expense for this survey was 134.4 million yen.

C. OUTLINE OF 1960 NATIONAL WEALTH SURVEY

The main purposes of the 1960 survey were "estimating the value of national wealth at the end of 1960, to make clear the structural change of wealth and the level of investment and, at the same time, to trace the yearly investment amount since 1955." 6

Thus, with the exception of the household sector, the concept, definition, coverage of assets, and the sectors covered were the same as those employed in the 1955 survey. In the case of the household

---

6 This survey was carried out with the cooperation of various Government agencies on the basis of administrative data collected during the war.

sector, only the value of buildings was to be estimated on the basis of existing data. The Economic Planning Agency again was the responsible agency. The results were expected to be published during 1963. Another full survey was planned for 1965.

II. 1955 NATIONAL WEALTH SURVEY

A. PREPARATION OF SURVEY

1. Establishment of National Wealth Survey Committee

The National Wealth Survey Committee comprised 24 members under the chairmanship of Ichior Nakayama, professor of Hitotsubashi University. The members included government officers, professors, and civilians who had deep knowledge and experience on economic social accounts, accountancy, and management of assets. Nine meetings were held in all, with discussions concerning concept, definition, inclusion of assets, method of valuation, sampling systems, etc. The various opinions prevailing among the members of the committee might be summarized as follows:

(a) The main focus of the 1955 national wealth survey should be placed on obtaining data which would suffice to make clear the relation between national income and national wealth and to provide a foundation for the establishment of economic policies or plans. Thus, very wide but rather vague objectives adopted in the former national wealth surveys would be amended.

(b) The assets included would be confined to those assets which had been produced through economic activities and had been stocked by the residents of Japan. The assets included in national wealth would be selected on the basis of the definitions employed in "A System of National Accounts and Supporting Tables." 7

(c) Valuation of assets should be made through an objective method rather than a subjective method of employing the reported value of respondents. 8 Adjusted replacement cost prices are preferable to original cost prices.

(d) The results should be published in such a way as to make clear the distribution of assets by economic sectors. The economic sectors would be at least as many as those recommended by the United Nations in the publication mentioned above.

(e) Industrial classification should be in as much detail as the cost allocated for the survey would permit.

(f) In the present situation, to carry out surveys on an owners' basis rather than on a users' basis is necessary.

(g) The "Returns to the Tax Administration Agency," 9 prepared by corporations on the basis of the assets revaluation law or the assets substantiality law would be utilized to avoid unnecessary burden of respondents.


8 As in the national wealth survey of 1953; in the former surveys, the values of assets reported by respondents were summed up.

9 In the returns, kinds or use of assets, time of acquisition, value of assets at the time of acquisition, lifetime, etc., are shown for each asset.
Uniformity in the classification of assets as well as in the valuation of assets would be maintained throughout the entire survey.

Consumers' durable goods held by households would also be surveyed for the special purpose of checking rehabilitation of the household sector. In the statistical tables, consumers' durable goods would be shown separately, in consideration of the relation between national wealth and national income.

2. Concept of national wealth

The concept of national wealth employed in this survey is a national aggregate of stocks of reproducible tangible fixed assets, inventory, and the net balance of assets and liabilities owned by the residents in the Japanese territory at December 31, 1955.

(a) Assets covered in the survey.—Based upon the recommendation given by the National Wealth Surveying Committee, the national wealth was defined to include all goods produced and stocked for use in future productive process. Assets included were machinery, equipment, plants, buildings, construction and works, and producers' stock or raw materials, semifinished and finished goods, and the net of international assets and liabilities.

Because of the confused situation of international assets and liabilities at the surveying date, only the assets and liabilities which had been confirmed by the Japanese Government were included.

Certain intangible assets such as patents, concessions, and goodwill were omitted both because of the difficulty of valuation and because there was no clear-cut relationship between such values and their contribution to future production of the nation as a whole.

Some other assets excluded because of the difficulty of valuation were natural resources, land, books, and art objects except those held as stocks.

Nondurable goods held as other than business inventories were also excluded under an assumption that these goods had already been consumed.

(b) Meaning of Japanese territory.—Japanese territory includes all territories over which the Japanese Government held sovereignty at the end of 1955. These were Honshu, Shikoku, Kyushu, and Hokkaido and the thousands of small islands scattered around these four major islands.

(c) Definition of residents.—Residents include not only individual citizens of Japan, but also all institutions such as central government, government enterprises, local authorities, public corporations, nonprofit institutions, unincorporated enterprises, partnerships, and households. The concept of normal resident adopted by the International Monetary Fund was utilized in its entirety.

3. Degree of detail as to type and characteristics of capital goods

(a) Two problems concerning the character of capital goods.—The concept and definition of national wealth and of capital goods included were mentioned in the former chapter. The types of assets were also specified in the same place. Capital goods included in the survey were, as a rule, all durable goods with an expected life time of more
than 1 year. This rule has been kept as much as possible through all surveys carried out for the estimation of national wealth.

But, it should be confessed that the treatment of capital goods—especially small items such as hand tools, tires, office desk equipment, etc.—was widely different as between private and public corporations or even as between big private corporations and small private corporations or unincorporated enterprises.

In most cases, especially in big corporations, small goods which cost less than 50,000 yen were charged to current expense, irrespective of their lifetime. In some factories, hand tools, etc., lent out from the custodian room were considered as "consumed" in the account books, and only the names of borrowers were registered. Even in these cases, an effort to list these tools in questionnaires was made through the efforts of enumerators and the rechecking survey held after the main national wealth surveys.

Similar problems had arisen regarding the treatment of repair and maintenance. Excluding very big repairs, most repairs were also treated usually as current expenses in most enterprises. In principle, expenditure on repairs and maintenances which prolong the lifetime of the capital goods was considered just the same as original investment on the repaired assets themselves. Every respondent was asked to fill in the questionnaire the same way as in the case of fixed capital goods. That is, the type and kind of assets for which repair was made, the date of investment, amount invested, etc. (see form of questionnaire used) were entered in the questionnaire case by case.

According to the date of acquisition, the type and kind of assets for which repairs were made, the use of the assets, the remaining lifetime, and a price index were determined to compute adjusted replacement cost prices. The replacement cost prices thus obtained were added to the adjusted replacement cost prices of the original (i.e., before repair) assets.

The omission of these investments was also checked in the rechecking survey. But the fruits obtained from the rechecking survey were much less than the fruits obtained from the rechecking of small equipment. The main reason for this was the difficulty of catching (by inspection) the place repaired, the degree of repairs and the time of repairs, and the difficulty of finding records about these investments.

(b) Degree of detail as to type of capital goods.—Two publications were prepared with the collaboration of the Bureau of Statistics for use in tabulation and as a guide for supervisors. These were "Classification Rules for Assets" and "Life Time Table for Tangible Fixed Assets by Type of Assets and by Industrial Use."

(1) Classification Rules for Assets: The publication utilized for the compilation of this book is the "Life Time Table of Fixed Assets" prepared by the Ministry of Finance Ordinance. In the case of electricity and local railways and tramways, the classification of assets differs from that in other industries; the classification rules for these industries was set forth in "Account Rule for Electricity" and "Account
Rule for Local Railways and Tramways.

All assets were classified as follows:

A. Buildings

A01 Dwellings
- A011 Ferro-concrete
- A012 Steel-frame
- A013 Brick
- A014 Stone
- A015 Brick
- A016 Wood

A02 Nonresidential buildings
- A021 Ferro-concrete
- A022 Steel-frame
- A023 Brick
- A024 Stone
- A025 Brick
- A026 Wood

A03 Building equipment

B. Construction

B10 Construction for traffic facilities
- B100 Railroad and tramways
- B101 Road paved
- B102 Made of ferro-concrete
- B103 Made of concrete
- B104 Made of brick
- B105 Made of stone
- B106 Made of clay
- B107 Made of metals
- B108 Made of other materials than specified
- B109 Made of wood

B11 Construction for water facilities
- B111 Made of ferro-concrete
- B112 Made of concrete
- B113 Made of brick
- B114 Made of stone
- B115 Made of clay
- B116 Made of metals
- B117 Made of other materials than specified

B19 Other construction
- B191 Made of ferro-concrete
- B192 Made of concrete
- B193 Made of brick
- B194 Made of stone
- B195 Made of clay
- B196 Made of metals
- B197 Made of other materials than specified
- B198 Made of wood

C. Machinery and equipment

C20 Power-generating machinery
C21 Boiler
C22 Machine tools
C23 Movable equipment (crane, etc.)
C29 Others

D. Ships

D30 Made of steel
D31 Made of wood
D39 Made of other materials

E. Transportation equipment

E40 Railway vehicles
E41 Aircraft
E42 Motor cars
E43 Other
F. Tools and implements
G. Land (Land itself was not surveyed)
   G50 Residential lots
   G51 Agricultural land
   G52 Forest and woods
   G59 Other lands
H. Suspense account for construction
I. Animals and plants
   1a Animals
   1b Plants
J. Household furniture
   J60 Furnitures and fixtures
   J61 Clothes
   J69 Others
X. Other goods not elsewhere classified
Y. Inventory
   Y90 Raw materials
   Y91 Semimanufactured goods
   Y92 Manufactured goods
   Y93 Other

The code number fixed to the name of each asset is the same number which had been utilized for the tabulation. The definition and the name of assets included in each group mentioned above are given in detail. The main objective of this book, was to make it easy to specify where an asset had to be classified. Supervisors of the national wealth survey and heads of tabulation units in the Statistical Bureau were fully trained to solve problems which might occur in the course of execution of surveys and of tabulation.

The sectors consisted of the following groups:

- **Public**
  - Central government
  - Nonenterprise
  - Enterprise
  - Public assets
  - Public corporations

- **Private**
  - Communities
  - Corporations
  - Profit
  - Nonprofit
  - Noncorporate businesses
  - Local government
  - Nonenterprise
  - Enterprise
  - Profit
  - Nonprofit
  - Households

(2) Lifetime Table for Tangible Fixed Assets, by Type of Assets and by Industrial Use: Industrial classification employed in this book was based upon the standard industrial classification for Japan. The lifetime used was physical lifetime rather than the combined lifetime of assets weighted by both physical and invested value of each asset composing a set. Further comments about the lifetime will be made in the next chapter.

Almost 12,000 items were listed in this book. The names of assets were classified and arranged in the order of buildings, construction, machinery and equipment, ships, transportation equipment, and tools and implements.

Buildings, construction, and transportation equipment were classified on the basis of structure of asset and of use. As the lifetime of machinery and equipment differs by industry, machinery and equipment were listed in the Japanese alphabetical order within each major group of manufacturing industry.

This book was utilized mainly for editing and tabulating.
4. Method of valuation

Not only is national wealth composed of assets of various kinds, but the quantities and time of procurement are different even for assets of the same kind. Their prices are accordingly different. In other words, national wealth is a heterogeneous collection of assets purchased at various times and prices. Thus, a simple addition of the prices of various assets would be meaningless. To obtain a duly evaluated figure for national wealth, a uniform and common standard is necessary.

Although there are various methods of evaluating assets, the present survey adopted adjusted replacement cost as the most suitable standard for its purpose.

Assets were evaluated at an adjusted cost of replacement price at the end of 1955. This price is the difference between the outlay necessary for replacement of the assets by a similar asset through manufacture or purchase and a figure representing the value of that part of the asset which was consumed. To calculate adjusted cost of replacement prices, investigations for individual assets were made.

(a) Valuation method for tangible fixed assets.—In general, replacement cost prices for tangible assets were estimated by the following method:

(1) Commodity price ratio: The commodity price ratio used in the calculation of replacement cost prices was especially prepared by the Economic Planning Agency for use in its 1955 national wealth survey. This ratio was calculated according to the classification, structure, or use of the assets, and expenses; the ratio of 1955 prices to prices in each year during the period from 1871 to 1955.

(2) Depreciation: To determine the amount to be deducted from assets prices due to use of the assets surveyed, the following methods were used:

i. Estimation of depreciation by the fixed-ratio method.

For ordinary assets, depreciation was estimated on the basis of durability. The durability figure used was based on the durability of individual assets as prescribed in a Ministry of Finance ordinance. The remaining life of the asset in years was converted to value terms by subtracting the amount of depreciation as determined by the fixed-ratio method. In the case of assets whose life had already expired, deduction for depreciation was not ended at 10 percent of the assets' original cost. To facilitate its calculations, the Economic Planning Agency prepared its own balance ratio table for durability from 2 to 100 years.

ii. Estimation of depreciation by the proportion-of-production method.

For assets used in mining such as mineshafts, the amount of past depreciation allowed (based on the original cost, and using the proportion-of-production method) was subtracted from the original cost of the assets. The result was then multiplied by the price ratio prepared by the agency.

---

This section on valuation and the following section B on the actual conduct of the survey were taken from Economic Bulletin No. 1, February 1959, Economic Research Institute, Economic Planning Agency, Government of Japan. Mr. Shihizu wrote a much more extensive account of these matters, which was of great help as a background for ch. 3, but could not be reproduced here due to space limitations. (J.W.K.)
iii. Determination of the depreciation ratio for replaceable assets.

For such assets as rail and electricity transmission facilities, and roads, which are more properly handled as replaceable assets, the balance ratio was valued at one-half the total value, irrespective of durability.

(3) Depreciation due to obsolescence or damage: For assets which were becoming obsolete due to advances in production technique and assets damaged by natural disasters, estimation of replacement price by the methods explained above is inadequate. In such cases, the nature of the obsolescence or damage was investigated and the amount of depreciation to be deducted for those reasons was determined for consideration in estimating replacement price.

(b) Method of valuing inventory assets.—In general, inventory assets were valued at standard or replacement cost prices as a result of inventories taken at the time of the survey. However, in the event that inventory was not taken at the time of the survey, as was the case for large enterprises, the results of the most recent inventory on the company's ledger were used. Because most inventory assets, unlike tangible assets, were produced near the time of the survey, the rotation rate is apparently high and prices in 1955 were fairly steady. Book inventory prices were regarded as the equivalent of replacement cost prices at the time of the survey.

B. EXPLANATORY NOTES ON THE CONDUCT OF THE SURVEY

1. Government and government-affiliated organizations' property survey

The survey of the Government and its affiliated organizations was conducted by the Ministry of Finance or the organization concerned.

Coverage.—All the property of the Government and the property possessed by the Government monopoly, the Telegraph Corp., and the Japan Railway Corp.

Other.—The figures submitted were adjusted for appreciation by the Economic Planning Agency.

2. Local governments and public organizations' property survey (designated No. 89)

(a) Purpose.—The purpose of this survey was to clarify the actual status of domestic corporal properties possessed by general and special local public entities, including prefectures, municipalities, villages, and public organization, and to obtain basic data for the national wealth survey for 1955.

(b) Scope.—Investigation was made of land improvement districts and their federations, land improvement associations, flood control associations and their federations, general health insurance associations and federations within the area of cities, towns, and villages which were selected from prefectures on a nationwide sample basis.

(c) Data used.—Aggregate, details of fixed property, and inventory assets (or property) forms were used for the investigations.
3. Corporate assets survey (designated No. 81)

(a) Purpose.—The purpose of this survey was to investigate the fixed assets and inventories of corporations to determine their condition and to obtain basic data for estimation of the national wealth survey for 1955.

(b) Scope.—Approximately 6,300 establishments selected from among corporations throughout the nation on a sample basis were investigated.

(c) Data used.—Three types of forms, including establishment, fixed assets, and inventory forms, were employed in the survey. All forms were completed by personnel of the corporations sampled.

(d) Survey date.—For both fixed assets and inventories, the survey date used was December 31, 1955.

(e) System of investigation.—Investigation was made, as a rule, through statistics sections of villages, towns, cities, and prefectures.

4. Sole proprietorship and partnership assets survey (designated No. 85)

(a) Purpose.—The purpose of this survey was to investigate the fixed assets and inventories possessed by sole proprietors and nonlegal persons’ corporations (hereinafter referred to as “sole proprietors”) to determine their conditions and to obtain basic data for estimation of the national wealth survey for 1955.

(b) Scope.—The survey covered approximately 17,000 proprietors selected throughout the nation on a sample basis.

(c) Data used.—Three kinds of forms, including establishment, fixed assets, and inventory forms, were employed for the survey. Investigation was made by the enumerator (in the case of establishment forms) and by the self-enumerator (in the case of fixed assets and inventory forms).

(d) Survey date.—In the case of fixed assets, December 31, 1955, was used as the date of survey; for inventories, dates during the period from May 15 to June 10, 1955, were used.

(e) System of investigation.—Generally, investigation was made through statistics sections of villages, towns, cities, and prefectures.

5. Household property survey (designated No. 86)

The survey of household property was made by the Bureau of Statistics, Prime Minister’s Office.

(a) Scope.—Investigation was made of approximately 7,300 households selected throughout the country on a sample basis. The districts employed for selection of these sample households were nearly the same as those used for the October 1955 “Labour Force Survey” made by Bureau of Statistics, Prime Minister’s Office. Consequently, 978 districts in 528 cities, towns, and villages were selected, from which a list of households was prepared as of April 10, 1956, on the basis of an on-the-spot check.

The households to be surveyed were selected on the basis of systematic sampling. Special consideration was given to the method of sampling and designation of household members to be investigated in the case of quasi-households (single person) in making the above selection. Households within the premises of the national self-defense forces and reformatories were excluded from the list.
(b) Household property.—Household property surveyed included 83 items selected among articles used for the purpose of household economy. The total value of household property was obtained by multiplying the adjusted (by the ratio of items included in the survey to total household items) average asset value per household as determined by the survey, by the total number of households. The ratio used to adjust the average assets value per household was calculated on the basis of the results of a supplementary survey.

III. SOME FINDINGS FROM THE 1955 AND 1960 NATIONAL WEALTH SURVEYS

A. MAIN FEATURES OF THE SURVEYS

The main features of the 1955 national wealth survey are summarized as follows:

1. The survey was carried out separating the national economy into general government sector, corporation sector, unincorporated business sector, and household sector.
2. The surveys were carried out on an ownership basis rather than on a user basis.
3. Adjusted replacement value of fixed assets was obtained by utilizing price indexes, and depreciation rates corresponding to the remaining lifetime of assets.
4. The concept and definition of assets were kept close to those employed in the national income accounts.

As mentioned in the former part of this paper, the 1960 national wealth survey was regarded as a survey intermediate to the 1955 and 1965 national wealth surveys. The main features mentioned above were duly followed by the 1960 national wealth survey.

The major differences between the two surveys were:

1. The adjusted replacement value of fixed assets for newly procured or removed assets since January 1, 1956, only were surveyed in the corporation sector, the local government, and the public body sector.
2. Household durable goods were not surveyed in the 1960 survey, and an estimate made only for buildings for residential use on the basis of existing data.

B. MAJOR PROBLEMS IN THE SURVEYS

Major problems involved in these surveys are summarized as follows:

1. The borderline between government enterprise function and administrative function was not clear. For instance, should hospitals other than hospitals for contagious diseases, university hospitals, etc., be treated as enterprises?
2. The borderline between semipublic community and private community was not clear. For instance, public halls, furniture, and fixtures for tutelary god’s ceremony owned by the former “Chyo Nai Kai” (community organized by the residents of towns and villages)—should this category not be surveyed in the household sector but be surveyed as a semipublic community survey?
3. The coverage of nonprofit corporations was not perfect. In the 1955 survey, nonprofit corporations located within the nominated primary sampling unit were all nominated as the sample items because of the difficulty of determining the universe of nonprofit corporations.

4. The borderline between households and minor unincorporated businesses was not specified clearly. In spite of the effort of the enumerators and the clear-cut definition, separation of these two sectors at this borderline was very difficult.

5. Should the national wealth survey be carried out only on the ownership basis?

6. It is desirable to study further the method of separating assets for business use from assets for household use in such unincorporated businesses as are operated along with household activity within the same house. This type of business is quite common in Japan.

7. Specific problems in the 1960 national wealth survey:

   (a) The records about additions and retirements of assets in the general government sector (both central and local government) are not so complete; it has been assumed that there is a considerable volume of assets excluded from the survey.

   (b) In the case of the corporation sector, to make the survey an easy one, the aggregate book value by commodity group and by year of acquisition at the latest ledger account closing date to the survey date was asked. Thus, it has been considered that a considerable volume of assets unlisted in the ledger of assets were excluded from the survey and there was no means to make the asset classification of ledger strictly consistent with the national wealth asset classification.

   (c) In the case of the unincorporated business sector, the values of rental residential buildings were excluded. But this was caught in the household survey and transferred to unincorporated business in the real estate industry.