# An International Sectoral Data Base for Fourteen OECD Countries (Second Edition)

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OECD

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# AN INTERNATIONAL SECTORAL DATA BASE FOR FOURTEEN OECD COUNTRIES

## (Second Edition)

by
F.J.M. Meyer zu Schlochtern
and
J.L. Meyer zu Schlochtern

**OECD**

**OCDE**

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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# AN INTERNATIONAL SECTORAL DATA BASE FOR FOURTEEN OECD COUNTRIES
## (Second Edition)

Part I of this paper describes the international sectoral data base, the ISDB, which has been created at the OECD as part of the continuing study of industrial structure and economic performance in OECD Member countries. This data base relates primarily to sectoral output and primary factor inputs used in 14 OECD Member countries. Part II of the paper presents a number of summary statistics derived from the data base for the period 1970 to 1989 related to economic structure and sectoral growth.

The second edition of this paper has maintained the structure of the original paper. Changes are mainly in the detailed sources by country and the statistics derived from the data base.

ISDB is available on diskettes. An order form is attached at the end of this paper.

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La première partie de la présente étude décrit la base de données sectorielles internationales, ISDB, créée à l'OCDE dans le cadre des recherches poursuivies sur la structure industrielle et les performances économiques dans les pays Membres. Cette base de données se réfère principalement à la production et à l'utilisation des facteurs de production par branche dans 14 pays Membres. La deuxième partie de cette étude présente pour la période 1970 à 1989 une analyse d'un certain nombre de statistiques dérivées portant sur la structure économique et la croissance sectorielle.

La deuxième édition de cette étude a conservé sa structure initiale. Les changements importants concernent principalement le détail des sources par pays et les statistiques dérivées.

ISDB est disponible sur diquettes. Un bon de commande se trouve à la fin de cette étude.

# Contents

# AN INTERNATIONAL SECTORAL DATA BASE FOR FOURTEEN OECD COUNTRIES

## (Second Edition)

**F.J.M. Meyer zu Schlochtern**
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## Introduction

This paper describes an international sectoral data base, the ISDB, which has been created at the OECD as part of the continuing study of industrial structure and economic performance in OECD Member countries. This data base uniquely combines a range of data series related primarily to sectoral output and primary factor inputs used in 14 OECD Member countries. It draws upon the wealth of industrial and national accounts statistics published by national and international statistical agencies and provides an important basis for a study of structural performance and international comparisons in this area.

Part I of the paper concerns the sources and methods used in constructing the data base. Special emphasis is put on the development of adequate correspondences between differing national and international classification systems for the data concerned, which are essential to the production of comparable international statistics. Also discussed are some of the basic principles used in developing comparable measures of capital stock, total factor productivity and relative performance indicators, at a sectoral level.

Part II of the paper presents of a number of summary statistics derived from the data base for the period 1970 to 1989 related to economic structure and sectoral growth. The final section draws some overall conclusions and considers the scope for further developments.

# I. Coverage and measurement issues

## A. Coverage of the data base

To meet the basic requirements of consistent international analyses of output and resource use by sector, the ISDB distinguishes between the following aggregates:

-- Categories of output and expenditures:
-- Gross domestic product, at current and constant prices;
-- Total employment and number of employees;
-- Gross fixed capital formation, at current and constant prices;
-- Gross capital stock, at constant prices;
-- Gross capital stock for machinery and equipment, at constant prices;
-- Foreign trade, at current prices in U.S. dollars.

Factor payments at current prices in local currency:

-- Compensation of employees;
-- Gross operating surplus;
-- Net indirect taxes;

The ISDB allows to compute relevant output and factor price/cost deflators. Factor payments are used to aggregate factors of production for the calculation of various measures of total factor productivity.

Data are in time-series form with annual frequency. The volume data are in 1985 constant prices and are represented in local currency or are converted to U.S. dollars using 1985 purchasing power parities.

The number of sectors considered was selected on the basis of the availability of consistent data for output and factor use across as many countries and time periods as possible. A major part of the data set covers the period from 1960 to 1990, but a comprehensive consistent sample comprising 14 countries is only available from 1970 to 1989. Extending the period in either direction reduces the number of countries in the sample.

For the chosen sample, time-series data are available for the following countries:

| Major seven | | Other countries | |
|---|---|---|---|
| USA | United States | AUS | Australia |
| CAN | Canada | NLD | Netherlands |
| JPN | Japan | BEL | Belgium |
| GER | Germany | DNK | Denmark |
| FRA | France | NOR | Norway |
| ITA | Italy | SWE | Sweden |
| GBR | United Kingdom | FIN | Finland |

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For most of the countries, data are available for the following broad sectors:

Sector code and description

```
-- AGR    Agriculture
-- MID    Mining and quarrying
-- MAN    Manufacturing
    -- FOD    Food, beverages and tobacco
    -- TEX    Textiles
    -- WOD    Wood and wood products
    -- PAP    Paper, printing and publishing
    -- CHE    Chemicals
    -- NMM    Non-metallic mineral products
    -- BMI    Basic metal products
    -- MEQ    Machinery and equipment
        -- BMA    Metal products except machinery and transport
        -- MAI    Agricultural and industrial machinery
        -- MIO    Office and data processing machines, precision and
                  optical instruments
        -- MEL    Electrical goods
        -- MTR    Transport equipment
    -- MOT    Other manufactured products
-- EGW    Electricity, gas and water
-- CST    Construction
-- RET    Wholesale, retail trade, restaurants, hotels
    -- RWH    Wholesale, retail trade
    -- HOT    Restaurants, hotels
-- TRS    Transport, storage and communications
    -- COM    Communications
-- FNI    Finance, insurance and real estate
    -- FNS    Finance and insurance
    -- RES    Real estate
-- SOC    Community, social, personal services

-- TIN    Total industries
-- PGS    Producers of government services
-- OPR    Other producers
-- TET    Total
```

Because of lack of country coverage, the following subsectors are excluded from the analysis: MID, RWH, HOT, COM, OPR, BMA, MAI, MEL and MTR. For the same reason, the capital stocks for machinery and equipment are not exploited. The Netherlands are left out since no data are available for gross fixed capital formation and for the breakdown of manufacturing.

The sector classification used broadly corresponds to that of the International Standard Industrial Classification system (ISIC). However, a number of the national and international data sources used in the construction of the data base are not exactly available in this classification; Annex A gives the details of the system correspondence matrices used in going from national and international source classifications to the ISIC and SNA systems. These are of particular relevance to the data for the United States, Canada, Japan, and data from the EUROSTAT national accounts.

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Annex A also provides a more detailed account of the country and industry classifications and the variables available in the data base, along with a detailed account of sources and methods and data availability by country, sector and variable. The following sections discuss some of the more important measurement issues involved in the construction and analytical use of the data system.

## B. The measurement of capital stocks

In the present study, gross capital stock data are used as measures of capital input in the production process, representing the total volume of the existing physical capital assets available in the respective countries and sectors. Gross capital stocks are not, however, generally available at the detailed sector level for many of the countries.

When official fixed capital stock data are available and when these data are consistent with the gross fixed capital formation in the data base, they are stored in ISDB. But where official data are missing, estimates have been made using a perpetual inventory method similar to that used by national administrations. The following paragraphs describe the basic procedures involved.

The perpetual inventory method simulates the process of capital accumulation, using data for past capital formation expenditures adjusted for scrapping, according to the following relationship:

$$GCS = \Sigma\ INV_j\ *\ g_j \qquad\qquad\qquad [1]$$

where: GCS = gross capital stock in constant prices
INV = gross fixed capital formation in constant prices
g = the survival coefficient
j = vintage of investment.

The survival coefficient, g, represents the amount of capital formation of a given vintage still installed at a given point in time. The capital stock estimate is thus related to capital which is believed to be available, but not necessarily utilised. The survival coefficient lies between 1 and 0 and is commonly assumed to be a decreasing function of time. The exact values are usually defined in terms of certain "survival" or "mortality" functions, which, in practice, vary widely between different national statistical offices (2).

In the calculations reported here, a delayed linear retirement pattern is assumed, with scrapping beginning five years after the capital asset has been installed. Such a mortality function is flexible, easy to use and consistent with the assumption of an acceleration in the rate of scrapping as capital assets approach the end of their service lives. It also comes close to the class of survival functions used by a majority of national statistical offices.

The impact of a delay in scrapping on the estimated levels of the capital stock depends on the rate of growth of capital investment. If investment is not growing, the estimated level of the capital stock is not affected by the delay. If the level of investment is rising over time, the

estimated level of the capital stock will be higher, the longer the initial delay period. Conversely, its level will be smaller when investment is falling. A number of alternative specifications have also been considered, but the gross capital stock estimates proved to be relatively insensitive to the choice of mortality functions, except in the case of extreme assumptions, such as "simultaneous exits" or "sudden deaths", as reported by Blades (1983).

To stay as close as possible to the official fixed capital stock data ISDB utilises service life statistics for capital assets as published by national sources (see those cited by Blades, 1983 and Pascoud, 1983). The service life statistics are expressed in the form of the average service life, the ASL, of the asset. They are employed to calculate the values of the survival coefficient - g - in formula [1].

The stochastic process that determines the survival of a given investment can be formulated in several ways. For instance the density function shows the amount of investment of a certain age scrapped during the year. Here this function is a straight line, since a linear retirement pattern is assumed where the same amount - a - is scrapped each year. This straight line is shown in Graph A. Other specifications are possible, sometimes a bell shaped scrapping profile is assumed. Thus at the start only a small amount of the original investment is scrapped. Afterwards the scrapping accelerates till it has reached a maximum value. A decline will follow till scrapping becomes practically equal to zero.

An equivalent way of specifying the stochastic process is the distribution function (D). This gives the cumulative share of the investment scrapped. At the start it is zero and at the end one. The mirror image of this function is the survival function (Y) which gives the share of the original investment still in the capital stock and is equal to the coefficient g in equation [1]. It is thus the reverse of the distribution function: namely equal to one in the beginning and zero at the end. Thus the part scrapped of the original investment at age x is:

$$D = ax \qquad\qquad [2]$$

and the part still left in the capital stock or the survival function:

$$Y = 1-ax \qquad\qquad [3]$$

If the last depreciation has taken place in period n then:

$$D = an = 1.0 \qquad\qquad [4]$$

$$Y = 1 - an = 0 \qquad\qquad [5]$$

thus

$$a=1/n \qquad\qquad [6]$$

The average service life (ASL) is equal to the sum of the parts of the initial investment scrapped multiplied by the relevant class average of their age (x+1/2) over the period 0 to n.

$$ASL = \Sigma \ a(x+1/2) = a \ \Sigma \ (x) + an1/2 \qquad [7]$$

$\Sigma$ (x) is an example of an arithmetic progression and remembering that a = 1/n:

$$. \ ASL = (1/n)[n(n-1)/2]+(1/n)n/2 = n/2 \qquad [8]$$

Thus n can be calculated when ASL is known:

$$n = 2ASL \qquad [9]$$

and g in formula [1] becomes

$$g = \{1-a(x+1/2)\} = \{1 - [1/(2ASL)](x+1/2)\} \qquad [10]$$

The delayed scrapping can now be introduced starting in period S. Thus n = m + S. This leads to the following function for GCS used in the ISDB for the capital stock calculation:

$$GCS = \Sigma(INV_{t-i}) \ \{for \ i = 0 \ to \ S-1\} + \Sigma[\{1-a(m+1/2)\}INV_{t-m-s}] \qquad [11]$$

The above relationships are represented in Graph A.

The line ax shows the distribution function, line 1 - ax the survivor function and P5 to P6 the density function (for investment older than S). The capital stock is represented by the surface P1, P2, P3, P4 and P1. This surface has the same size as the area representing the capital stock obtained with the same average service life but assuming a sudden death at the age ASL. This underlines the point made earlier that the assumption about the shape of the survival curve does not have a big impact on the size of the capital stock if investment stays rather constant over time.

For comparative purposes, the capital stock data thus obtained are expressed in constant U.S. dollars (3). The average service life assumptions used are reported, in Table A.6 in Annex A.

The scrapping rate assumptions used by different national authorities tend to differ widely, for reasons which reflect the methods of estimation used rather than fundamental differences in the nature of the capital goods or their utilisation. For example, the assumed average service life of buildings is 42 years in Finland, compared with 70 years in Sweden. To analyse in greater detail the importance of such differences for the estimation of total factor productivity growth (considered in later sections), some preliminary tests were carried out: factor productivity estimates were first calculated, by sector, using capital stock estimates based on the cross-country mean average service life for each sector; these were then compared with alternative estimates based on country-specific scrapping rate assumptions. The resulting differences in estimates were found to be quite significant for the levels of capital stock estimates but relatively minor for factor productivity growth. In general, it was found that use of sectoral mean ASLs tended to give capital/output ratios which were more similar between countries, as might be expected.

# Graph A. Graphical representation of the functions of a delayed retirement pattern
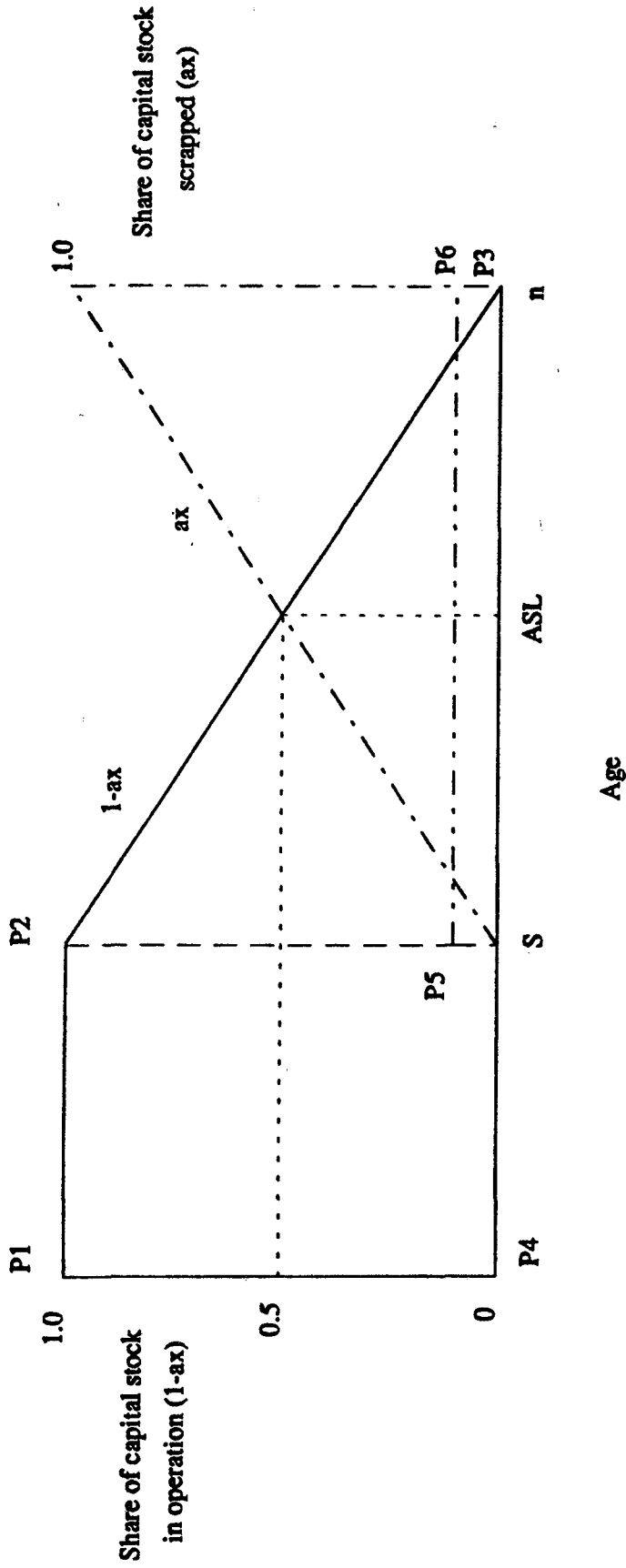
A major difficulty in estimating capital stocks, whether at an aggregate or sectoral level, is the lack of sufficiently long capital expenditure time series and adequate historical benchmarks. In the present study, specific procedures were adopted using a combination of the available time-series information and "reasonable" assumptions concerning the capital-output ratio, the scrapping rate and the intersectoral distribution of capital. Essentially, these procedures involved the estimation of capital stock benchmarks and corresponding investment time series at both an aggregate and sectoral level for the period 1960 to 1980. These in turn have been aligned with the available investment data for the period 1967 to 1973. The resulting historical time series estimates for investment by sector were then combined with actual data for the period 1970 to 1989 and passed through the capital stock estimation procedure described by equation [11] above (4).

As a test of the adequacy of this approximation method, the capital stock estimates thus obtained have been compared with a range of available official estimates. Graphs B and C overleaf illustrate the relationship between annual average growth rates of available official capital stock series and the corresponding estimates, for the period 1970 to 1988. These cover the full range of countries for which capital stocks are available by sector at two general levels of sectoral aggregation -- that of the individual sectors and also sub-aggregates, with sectors grouped according to degree of international exposure, as outlined in Table A.7 of Annex A.

On the whole, the fit between the estimated and actual growth rates is good, particularly for the sub-aggregate groupings. At the individual sector level, there is a zero mean difference between the growth rates of the calculated and published capital stocks, with a standard error of 1 per cent. For the grouped data there is also a zero mean difference and a standard error of 0.3 per cent. In general, this suggests that there are no systematic errors in the calculations.


## C. Total factor productivity

The concept of total factor productivity, TFP, has been the focus of interest in a number of recent studies, notably at the level of aggregate manufacturing industry and the business sector (5). The ISDB permits the extension of a similar approach to a number of individual sectors of the economy. Essentially, total factor productivity growth is calculated as the difference between output growth and the weighted growth of factor inputs, in this case capital and labour inputs. A common assumption is to use the respective factor shares in total costs as individual factor weights, following a Cobb-Douglas-type production function framework.

The lack of data relating to hours worked, both for labour and capital, represents an important limitation to the existing TFP measures, particularly at a sectoral level. Hours-worked data are not always ideal, since they often relate to hours paid for rather than hours actually worked. The latter might be lower during periods of labour hoarding than in periods of labour scarcity, even with identical numbers of hours worked recorded. For capital, too, working hours may differ from those reported for labour, for example as the

result of multiple shift work which in many countries has tended to increase the length of the "work week" of fixed capital over the period (6). In any event, the relevant data are not available at the sector level used in this study for many countries. However, bias due to the failure to allow for cyclical variation in hours worked and capacity utilisation is likely to be greatest for short-run comparisons and less important for medium- and longer-term analyses.

Although it is fairly common practise to use calculated factor shares to aggregate labour and capital as a composite measure of inputs into the production process (see, for example, EC, 1985), preliminary inspection of the data sources suggests that the automatic use of the available data for different variables and different sectors may be hazardous. Indeed, in a number of cases important differences in factor shares, both between sectors and countries, seem more likely to reflect differences in the coverage of individual categories of data than actual differences in factor shares.

To assess the extent of this kind of problem, factor shares have been calculated by country and sector on the following basis:

$$SW = COMP \cdot (ET/EE) \; / \; (VA^*) \qquad\qquad [12]$$

where:

    SW = share of labour in value added
    ET = total employment
    EE = total employees
  COMP = compensation of employees
   VA* = value added, at current prices.

In these calculations, total compensation is re-scaled by the ratio of total employment to total employees in order to include also the self-employed in the weighting scheme. In effect, the self-employed are assumed to be paid the same average rate of compensation as employees and the same marginal rate of productivity is assumed for dependent and independent workers (7).

Analysis of these data across countries shows some important outliers, with the most notable differences occurring in the calculated labour shares for agriculture, mining, social services, basic metals and residual manufacturing. Nonetheless, there is a striking central tendency, with the majority of sectors in the majority of countries showing labour shares very close to 75 per cent. The main systematic sectoral differences across countries are for government services with a labour share of 94 per cent and for electricity, gas and water, and real estate, both with labour shares slightly below one-third.

Given these results, a standardised weighting method was adopted across countries. In effect, the calculations were simplified by setting the weight attached to labour inputs to 75 per cent for all sectors and countries, with the exception of personal and government services, where a labour weight of 94 per cent was used, and electricity, gas and water and real estate, where a labour weight of 33 per cent was used.

Given these weights, total factor productivity indices were calculated using the formula:

$$TFP = [VA / (ET^{(w)} \cdot GCS^{(1-w)})] / TFP_0 \qquad [13]$$

where:

    TFP = total factor productivity index
    GCS = capital stock
     VA = value added
      w = standardised labour share weights
    $TFP_0$ = total factor productivity, base year value.


## D.  Relative sector performance

Comparisons of the observed rates of sectoral growth do not necessarily provide a particularly good basis for the assessment of relative sectoral performance within or between countries. For example, the output and productivity growth rates for many sectors of the Japanese economy may have been absolutely greater than those for the United Kingdom, yet for some of these sectors, U.K. growth performance may have been relatively better than that for Japan, given overall macroeconomic and external developments. The question is therefore one of relative sectoral performance and the standards against which this might be measured in an international context.

One possible approach is to consider the difference between the observed rates of growth for a particular sector in a particular country, and those which might have been expected, given the average growth rate of the same sector for all countries and the growth performance of all sectors of that economy (i.e. the total economy) in relation to that of all countries. The rationale for such a measure is broadly analogous to that for measures of Revealed Comparative Advantage (RCA), used commonly in the trade performance literature (8).

The sectoral performance indicator can be defined thus:

$$p(i,j) = g(i,j) - G(i,j) \qquad [14]$$

where:

        p(i,j) = the performance indicator for sector i, in country j
        g(i,j) = the actual growth of sector i, in country j
        G(i,j) = the expected growth of sector i, in country j.

Defining the "expected" growth rate, G(i,j), for the individual sector as being the growth rate of that sector averaged over all countries, adjusted for the difference between the overall growth of the total economy and the average growth of all countries, gives the following expression:

$$G(i,j) = g(i,.) + g(.,j) - g(.,.)$$ [15]

where:

$g(.,j)$ = the average growth of country $j$, across all sectors
$g(i,.)$ = the average growth of sector $i$, across all countries
$g(.,.)$ = the average growth of all countries, across all sectors.

With such a definition the expected growth, $G(i,j)$, represents the growth which might be observed in a hypothetically "neutral" world. For example, if the total Japanese economy grew by 1 per cent per annum faster than the cross-country average, and the retail sector, averaged over all countries, grew by 4 per cent per annum, then the "expected" growth rate for the Japanese retail sector would be 5 per cent per annum. Substituting equation [15] into equation [14] gives a performance indicator of the form:

$$p(i,j) = g(i,j) - [g(i,.) + g(.,j) - g(.,.)]$$

$$= g(i,j) - g(i,.) - g(.,j) + g(.,.)$$ [16]

Equation [16] can be rearranged as follows:

$$p(i,j) = [g(i,j) - g(.,.)] - [g(i,.) - g(.,.)]$$

$$- [g(.,j) - g(.,.)]$$ [17]

In effect, the performance indicator can be viewed as having three components, namely the deviations in growth for, respectively, individual sector $i$ in country $j$, $g(i,j)$, sector $i$ averaged across countries, $g(i,.)$, and country $j$ averaged across sectors, $g(.,j)$, from total growth, $g(.,.)$. It therefore takes a positive sign, when a given sector in a given country grows faster in relation to that country's overall performance than does the same sector, averaged in relation to the corresponding cross-country and cross-sector averages. Conversely, a negative value indicates that the relative growth of the sector is below that of the relative growth of the total economy.

In practice, the calculation of a consistent set of hypothetical growth rates by sector presents a number of problems, insofar as the country and sector average growth rates are also required to equal those experienced. The application of equation [15] alone does not guarantee that the projections of sector and country totals will coincide with actual out-turns. An extension of the RAS matrix estimation method was therefore applied, to provide a consistent estimation technique, with equation [15] providing only an approximation to the final indicator values. A detailed discussion of the estimation method used is given in Annex B.

## II. Recent trends in sectoral developments

Detailed tables summarising various sectoral shares and main trends in sectoral growth, by country, are reported in Annex C, based on the data set available in the ISDB for the period 1970 to 1989. These include a range of value added, factor input and total factor productivity growth measures and corresponding relative sector performance indicators described in the previous section.

A sectoral approach allows a more detailed evaluation of economic trends and a better insight into the changing structural characteristics of the economies in question. However, there is also the danger that the mass of data may, at least in the first instance, be more confusing than clarifying. To assist in the basic presentation, summary details have been collated using a broad sector grouping. These also provide some interesting observations concerning the relationship between competition and sectoral performance. Specific details on the grouping of individual sectors are again given in Table A.7 of Annex A.

Sectors have been grouped judgmentally according to general openness to foreign competition. The most open sectors -- essentially manufacturing and agriculture -- are subdivided into two further sub-groups: Supply, containing those sectors heavily influenced by supply conditions, namely agriculture and basic metals, and Open -- composed of the remaining sectors of manufacturing industry. The sheltered sectors are divided generally into government, community and social services, Gov. + Soc.; other services, Sheltered, and, given the quite different capital intensity for the real estate sector, a further group, Sheltered less residential (SHEL-RES), which excludes the real estate sector.

## A. Economic structure

Tables C.1 to C.6 report individual sector shares for the period 1970 to 1989, in terms of value-added, employment and capital stock, expressed in relation to individual country (Tables C.1, C.3, C.5) and aggregate sector totals (Tables C.2, C.4, C.6).

The first and, perhaps, most important feature is that the sectoral composition of the individual countries, at the chosen levels of aggregation, are rather similar insofar as there is relatively little variance across countries in the shares of value-added, employment and capital stock. Estimated standard deviations across countries for the broad sectoral shares are typically in the range of 2-1/2 to 6-1/2 per cent, with little systematic variation across output and factor input classifications. There are, however, some important exceptions. With respect to output, Germany has a relatively large open sector, accounting for 32 per cent of total value-added, compared with 22 per cent for the thirteen countries taken together. Notably also, the

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share of machinery and equipment manufacturing in Germany's total output, at 16 per cent is well above the average 10 per cent (see Annex C, Table C.1). Compared to the other large European countries and Japan, France appears to have, on these definitions, a relatively small open sector, accounting for 23 per cent of value-added, more in line with the smaller European countries.

The average share for the total sheltered sector across countries is 50 per cent, with the highest shares being those for the United States, Australia, Denmark, Norway and Canada. For some countries this appears to reflect the imputation of relatively large service flows for owner-occupied housing in the real estate sector. Excluding real estate, the highest shares for the sheltered sector are those for the United States and Norway. The relatively high weight, shown for community and social services in the case of Italy, the United Kingdom and Belgium, reflects a coverage problem. For these countries, the available statistics do not permit a proper separation of financial institutions and real estate from this sector. Assuming that the latter categories represent an average 10 per cent of the total (i.e., in line with that for other countries) the adjusted shares come close to those of other countries.

## B.   Sectoral growth between 1970 and 1989

Tables C.7 to C.10 summarise the average growth rates of output, employment, capital stock and total factor productivity over the period 1970 to 1989 for different country and sector groupings.

At first sight, these developments again suggest common patterns for a number of countries and variables presented. This impression is supported by a comparison of the variance of the growth rates in specific sectors. In particular, the variance in each specific sector is generally lower than that for all sectors taken together, implying that countries tend to show much the same growth tendencies. A number of trends in sectoral decline therefore appear to be common across countries. Similarly, high growth rates are often scored by countries in sectors where overall growth is high. Such a similarity would also be consistent with demand patterns being relatively similar for the countries included in this study.

Output growth comparisons for individual sectors do however show some interesting contrasts, notably between the experiences of the sheltered and open sectors. For the period in question, the variances in sectoral growth rates across countries show a markedly higher average variance for the open sectors, of about 3 per cent per annum, compared with the government and sheltered sectors, with an average of about 1.5 per cent per annum.

The cross-country variances for individual sectors are as follows:

| Sector | Variance (per cent p.a.) | |
|--------|--------------------------|---|
| PGS | 1.3 | Government, social and |
| SOC | 1.0 | sheltered sectors |
| RET | 1.6 | |
| EGW | 1.3 | mean variance  = 1.4 |
| CST | 2.0 | std. deviation = 1.2 |
| TRS | 0.9 | |
| RES | 1.4 | |
| FNS | 1.6 | |
| | | |
| AGR | 0.8 | |
| BMI | 3.4 | |
| | | |
| FOD | 1.2 | |
| PAP | 1.6 | Open sectors |
| CHE | 2.6 | |
| MNM | 2.5 | mean variance  = 2.8 |
| TEX | 4.5 | std. deviation = 1.7 |
| MEQ | 4.7 | |
| MOT | 3.4 | |
| WOD | 1.6 | |

Tables C.7 to C.10 also suggest that sectors experiencing relatively high output growth rates do not generally correspond to high rates of growth of all three growth components: employment, capital stock and productivity. Indeed, growth in employment has mainly been concentrated in the sheltered sectors, with total factor productivity showing the opposite development, growing most rapidly in the open sectors. With the notable exception of Japan, growth in the capital stock has not differed much between countries and sectors. In the case of Japan, the capital stock has grown significantly faster than for any other country. Japan has also experienced an above-average TFP growth in the open sectors, whilst for other sectors TFP growth rates have been similar to or lower than those of the other countries.

Generally speaking, developments in output and TFP growth rates for the open sectors have been very similar, Such a finding is similar to that found by Verdoorn (1949) for manufacturing industry in fourteen countries, albeit with output and labour productivity data covering the period before the Second World War. Verdoorn's original regression result was:

PROD = 0.57 * Y + 0.24

where:

PROD = Labour productivity growth in manufacturing

Y    = Growth in manufacturing output

A regression on a cross-country basis using data for the open sector over the period 1970 to 1985 gives a similar result:

$$TFP = 0.54 * VA + 0.72 \qquad (R^2 = 0.618)$$

$$(4.22) \qquad (2.00)$$

(t-ratios are given in brackets).

## C. Relative growth performance

As discussed in Section I.D, actual sectoral growth rates do not necessarily provide a good indication of relative sector performance on an international basis. For this reason performance indicators have been calculated for value-added, total factor productivity and factor use on the basis of the estimation procedure outlined in Section I.D. These are reported by sectors, for the period 1970 to 1989, in tables C.11 to C.13 and are also summarised on the more aggregate basis for the period 1970 to 1989 in Table C.14.

Perhaps the most striking feature of the performance indicators shown in Table C.14 is the relationship between output and factor productivity performance indicators in the relatively open sectors.

Indeed, the correlations between value-added and the respective TFP, labour and capital stock indicators for the "open" and "supply" sectors are as follows:

<u>Correlation Coefficients $(R^2)$</u> period: 1970 to 1985

| Value-added indicator for: | TFP indicator | Employment indicator | Capital stock indicator |
|---|---|---|---|
| Open sector | 0.82** | 0.27 | 0.00 |
| Supply sector | 0.83** | 0.03 | 0.10 |

(** indicates statistical significance at the 99 per cent level)

The relationship between relative output and total factor productivity performance over the period for these sectors is therefore significantly positive. On the other hand, corresponding correlations between output performance and relative factor input growth, both for labour and capital, while positive, are not statistically significant.

The important inference which emerges is that relative sector output performance over the period appears to have been largely associated with "residual" total factor productivity developments rather than the relative growth of factor use, confirming the earlier results of Denison (1967) and others (9). Thus a relatively good performance in the open sectors has not been associated with the application of more production factors but with underlying increases in productivity.

For the supply sector, it is also interesting to note that, with the exception of Finland, both value-added and factor productivity growth has been consistently high for the group of European economies. For Japan, the United States and Canada, the supply sectors show signs of relative decline, in spite of significant absolute rates of growth and a dominant share of the production of the country group as a whole. In the open sectors, the most outstanding growth performance, both in terms of output and factor productivity, has clearly been that of Japan.

In the sheltered sectors, the actual growth of value-added is generally close to the calculated "expected" growth, with the variance of the performance indicators being fairly close to zero. At an aggregate level this is not too surprising since, as Table C.1 indicates, the sheltered sectors account for a relatively large share of the "total" economy (10). At the individual sector level, though, factor productivity and value-added performance indicators also tend to show a smaller variance across countries for these sectors. One possible explanation is that, being subject to less foreign competition, output for these sectors tends to follow demand relatively closely and, given rather similar levels of per capita income, demand growth patterns may also be rather similar across countries.

For the sheltered sectors, total factor productivity developments are also close to their "expected" values, resulting in the lowest overall variances between actual and calculated growth rates of TFP. This may also reflect the fact that TFP growth rates for this sector are themselves generally lower than in the open and supply sectors. An important feature of the government and service sectors is, of course, the difficulty in measuring output. To the extent that labour service inputs are often used as indicators of output, a strong correlation between employment and output might not be too surprising.

The correlations between value-added, factor productivity and factor input indicators for the government and sheltered sectors are as follows:

### Correlation Coefficients ($R^2$) period 1970 to 1985

| Value-added growth indicator for: | TFP growth indicator | Employment growth indicator | Capital stock growth indicator |
|---|---|---|---|
| Government and services sector | 0.18 | 0.50** | 0.00 |
| Sheltered sector | 0.31* | 0.45* | 0.11 |

( * indicates significance at the 95 per cent level
 ** indicates significance at the 99 per cent level)

In contrast to the open and supply sectors, these results suggest a significant positive association between value-added and employment growth indicators for both sectors, and TFP for the sheltered sector only. Given the above qualifications, the result for the government and services sector is not particularly surprising.

# III. Conclusions and suggestions for further development

## A. Concluding remarks

In describing the construction of the ISDB, Part I of this paper covers a range of measurement issues. Many other important problems arise in drawing together such a large body of data and the interested reader is advised to consult Appendix A, and its numerous footnotes, for a more detailed account of some of the many pitfalls involved. In a number of important areas, particularly for the services sector, coverage problems abound in the source national statistics, which cannot be easily resolved by the individual researcher or statistician. Nonetheless, the construction of the ISDB represents an important step forward, and the preliminary analysis of the data in its present form, described in Part II, has already revealed a number of interesting and important points.

The general picture which emerges is that over the period from 1970 to 1989, the broad structural characteristics of the countries in the sample, measured in terms of sectoral output and factor shares, have remained rather similar. Also, sectoral growth experiences have not been too different, although there are two notable exceptions. First, the cross-country variance of output growth seems to have been higher for those sectors most open to foreign competition. Second, Japan has experienced exceptionally high growth in the capital stock, on an economy-wide basis.

With respect to relative sector performance, an important finding is that for those sectors most open to foreign competition relatively high rates of output growth, on a sectoral basis, tend also to be associated with relative high rates of total factor productivity growth, rather than high rates of growth in labour and capital inputs.

## B. Suggestions for further development

Although the ISDB provides an important starting point for the study of sectoral behaviour on an international basis, it is nonetheless incomplete in a number of important respects. It has evolved, so far, along moderately restrictive lines -- concerned largely with the production accounts and factor costs. This largely reflects the nature of its uses to date, the fairly major complications involved in augmenting the content of the data set on a consistent basis and the underlying resource constraints.

For industrial policy purposes, the inclusion of more industrial structure-related information, for example with respect to firm size and concentration, both of ownership and the work force, would be important. Adequate sectoral data in these areas are more likely to be available on a cross-section rather than a time-series basis. From an industrial development standpoint, compatible data on R&D and other innovation-relevant expenditures would be a useful addition. In this area two major problems arise, both in terms of measurement and the sectoral attribution of expenditures, as between the initiating activity and the relevant production activity (11).

Finally, it is noted that the analyses described in this paper represent a fairly restricted subset of the potential uses of the existing data set, both in terms of topic and the period of analysis. This is clearly an area where there is no shortage of entries for a future research agenda.

## Notes

1. For an explanation of the analysis of failure time data see: KIEFER, N.M. (1988), "Economic Duration Data and Hazard Functions", Journal of Economic Literature, Vol. XXVI (June), pp. 646-679.

2. For survey of these methods, see Ward (1976).

3. Conversions to U.S. dollars are made using the purchasing power parity exchange rates given by Ward (1985).

4. In calculating consistent capital expenditure series, the following steps were taken:

   a) Benchmark indices for the capital stock at an aggregate level were calculated for the period 1860 to 1930 with available output growth rates for this period and unchanged capital-output ratios and then extrapolated from 1930 to 1980, using annual output series.

   b) Given the resulting capital stock series, corresponding investment time series estimates were then calculated and re-scaled, on a sectoral basis, using the average recorded levels for 1967 to 1973.

   c) The resulting reference series were then merged with actual data, starting from the earliest period for which sectoral data were available.

   d) The capital stocks were then recalculated, using equations [1] and [11] on the basis of the merged investment time series for the period 1860 to 1989.

5. See OECD (1985), EEC (1985), UN (1986), and Englander (1988).

6.    See Foss (1985).

7.    In a number of cases, notably in sectors where unpaid family workers are included in the category of independent workers or self-employed, such an adjustment can introduce a distortion such that the calculated labour weight exceeds 100 per cent. In such cases, the labour weights were set to the sample mean values.

8.    Similar measures of comparative performance have been proposed in a number of areas, most notably for the assessment of comparative trade advantage, see, for example, Balassa (1967) and Bowen (1983).

9.    See, for example, the review by Maddison (1987).

10.   Indeed, relative sector performance indicators of this type tend towards zero as the level of aggregation tends to that of the total economy.

11.   An interesting review of catch-up and convergence theories is given by Baumol (1986).

12.   For example, most of the R&D expenditures in the mechanical and electrical engineering sector are directed to improving the factor productivity of other sectors. A general discussion of the measurement problems associated with R&D data is given by Englander et al. (1988).

# References

Allsop, C.J. (1985), "Economic growth", in Morris Dered (ed.), The Economic System in the United Kingdom, Oxford University Press.

Bacharach, M. (1970), Biproportional Matrices and Input-Output Change, Cambridge University Press, Cambridge.

Baumol, W.J. (1986), "productivity Growth, Convergence and Welfare," American Economic Review, Vol. 76, No. 5, December, pp. 1072-1085.

Balassa, B. (1967), "Trade Liberalisation Among Industrial Countries", New York.

Blades, D. (1983), "Service Lives of Fixed Assets", OECD Economics Department Working Paper No. 4, March.

Bowen, H.P. (1983), "On the Theoretical Interpretation of Indices of Trade Intensity and Revealed Comparative Advantage", Weltwirtschaftliches Archiv, No. 119, Vol. 3, August, pp. 402-414.

Denison, E.F. (1967), "Why Growth Rates Differ," Brookings Institute, Washington, D.C.

EEC (1985), "The Determinants of Supply in Industry in the EEC" in European Economy, No. 25, Brussels, pp. 90-93.

Englander, A.S. (1988), "Tests of Total Factor Productivity Measurement", OECD Economics Department Working Paper No. 54.

Englander, A.S., R. Evenson and M. Hanazaki (1988), "R&D, Innovation and the Total Factor Productivity Slowdown", OECD Economic Studies No. 11, Autumn.

Englander, A,S. and A. Mittelstadt (1988), "Total Factor Productivity: Macroeconomic and Structural Aspects of the Slowdown", OECD Economic Studies No. 10, Spring, pp. 7-56.

Foss, M.F. (1985), "Changing Utilisation of Fixed Capital and Long-term Growth" in U.S. Department of Labor, Monthly Labor Review (May), Washington, pp. 3-8.

Lunch, R.G. (1984), "An Assessment of the RAS method for Updating Input-Output Tables", in Proceedings of the Seventh International Conferences on Input-Output Techniques, United Nations, New York, pp. 281-296.

Maddison, A. (1982), Phases of Capitalist Development, Oxford University Press, Oxford.

Maddison, A. (1987), "Growth and Slowdown in Advanced Capitalist Economies," Journal of Economic Literature, Vol. 25, June, pp. 281-296.

Mitchell, B.R. (1975), European Historical Statistics, 1750-1970, Hazell, Watson and Vinley, Great Britain.

OECD (1985), Economic Outlook 39, Paris, p. 10.

OECD (1987), Structural Adjustment and Economic Performance, Paris, pp. 13-49.

Paccoud, T. (1983), Le Stock de capital fixe industriel dans les pays de la Communauté Européenne : vers une comparabilité accrue, Etudes de Comptabilité, no. 2, Eurostat, Luxembourg.

Stone, R. (1963), "Input-Output Relationships, 1954-1966", Vol. 3, in A Program for Growth, Department of Applied Economics, Cambridge University, Chapman and Hall, London.

United Nations (1973), Input-Output Tables and Analysis, Studies in Methods, United Nations Publications, New York.

United Nations (1986), "Alternative Measures of Productivity Growth in the Manufacturing Sector of the Market Economies" in Economic Survey of Europe in 1985-1986, Geneva.

U.S. Department of Commerce (1966), Long Term Economic Growth, 1860-1965, Washington.

Verdoorn, P.J. (1949), Fattori che regolano lo sviluppo della produttività del laboro" in L'Industria.

Ward, M. (1976), The Measurement of Capital, OECD, Paris.

Ward, M. (1985), Purchasing Power Parities and Real Expenditures in the OECD, OECD, Paris.

## International sectoral data base

## Sources and methods

**Contents**

**General notes**

The following countries are included in the ISDB:

Australia (AUS), Belgium (BEL), Canada (CAN), Denmark (DNK), Germany (GER), Finland (FIN), France (FRA), Italy (ITA), Japan (JPN), Norway (NOR), the Netherlands (NLD), Sweden (SWE), the United Kingdom (GBR) and the United States (USA).

The general sectoral breakdown used is taken from the international Standard Industrial Classification (ISIC) currently used in the OECD National accounts (ANA) publication. The latter represents the primary source of information for most countries, along with the OECD Labour Force Statistics (LFS) publication. For EEC countries, data are also drawn from Eurostat (Data bank CRONOS, Série 2 C, "National Accounts ESA, Detailed tables by branch").

The Eurostat data are classified according to the NACE/CLIO classification which differs from the ISIC. In developing sector groupings, the matching of ISIC sectors against NACE sectors involves a considerable degree of aggregation and approximation (see Table A.1).

Output, investment and capital stock have been expressed in constant dollar terms by means of purchasing power parity exchange rates, available in the OECD National Accounts publication ("Main Aggregates", volume 1, part seven).

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TABLE A-1

RELATION BETWEEN ISIC, CRONOS AND NACE BRANCHES CODES

| Description of sector ISIC | ISDB ISIC | CRONOS CODE | NACE R6 R25 | Description of sector NACE |
|---|---|---|---|---|
| Agriculture, hunting, forestry and fishing | AGR | 01 | 01 | Agricultural, forestry and fishery products |
| Mining and quarrying | MID | | | |
| Electricity, gas and water | EGW | 02 | 06 | Fuel and power products |
| Manufacturing | MAN | 03 | 30 | Manufactured products |
| Food, beverage and tobacco | FOD | 13 | 36 | Food, beverage and tobacco |
| Textile, wearing apparel and leather industries | TEX | 14 | 42 | Textiles and clothing, leather |
| Wood and wood products, including furniture | WOD | - | - | - |
| Paper, printing and publishing | PAP | 15 | 47 | Paper and printing products |
| Chemicals, petroleum, rubber, plastic | CHE | 7+16 | 17+49 | Chemicals products |
| Non-metallic mineral products | MNM | 06 | 15 | Non-metallic and mineral products |
| Basic metal products | BMI | 05+08 | 13+19 | Ferrous and non ferrous ores and metals |
| Fabricated metal products, machinery and equipment | MEQ | 08+09+10+11+12 | 19+21+23+25+28 | Metal products, except machinery and transport equipment |
| | BMA | 08 | 19 | Agricultural and industrial machinery |
| | MAI | 09 | 21 | Office and data-processing machines, precision and optical instruments |
| | MIO | 10 | 23 | Electrical goods |
| | MEL | 11 | 25 | Transport equipment |
| | MTR | 12 | 28 | Other manufacturing products |
| Other manufacturing products | MOT | 17 | 48 | |
| Construction | CST | 19 | 53 | Building and construction |
| | | | | Market services |
| Wholesale, retail trade, rest. and hotels | RET | 22+23 | 56+59 | Recovery and repair services, wholesale and retail trade |
| Wholesale and retail trade | RWH | 22 | 56 | |
| Restaurants and hotels | HOT | 23 | 59 | Lodging and catering services |
| Transports, storage and communication | TRS | 24+25+26+27 | 61+63+65+67 | |
| | | 24 | 61 | Inland transport services |
| | | 25 | 63 | Maritime and air transport services |
| | | 26 | 65 | Auxiliary transport services |
| Communication | COM | 27 | 67 | Communication services |
| Finance, insurance, real estate | FNI | - | · | |
| Finance, insurance | FNS | 28 | 69A | Services of credit and insurance institutions |
| Real estate | RES | - | - | |
| Community, social and personal services | SOC | 29 | 74 | Other market services |
| Total industries | TIN | | 86 | Non market services |
| Producers of government services | PGS | 35 | - | General government services |
| Other producers | OPR | 36 | - | Other non-market services |
| Total | TET | 37 | · | Total |

TABLE A-2

UNITED STATES CLASSIFICATIONS

| Sector description | ISDB ISIC | Capital stock | Fixed Capital Formation |
|---|---|---|---|
| Agriculture,hunting,forestry and fishing | AGR | 390 | 366 |
| Mining and quarrying | MID | 393 | 372 |
| Electricity, gas and water | EGW | 408 | 402 |
| Manufacturing | MAN | | |
| Food, beverage and tobacco | FOD | 261 | 108 |
| | | 264 | 117 |
| Textile, wearing apparel and leather industries | TEX | 267 | 120 |
| | | 270 | 126 |
| | | 288 | 162 |
| Wood and wood products,including furniture | WOD | 228 | 042 |
| | | 231 | 048 |
| Paper, printing and publishing | PAP | 273 | 132 |
| | | 276 | 138 |
| Chemicals, petroleum, rubber, plastic | CHE | 279 | 144 |
| | | 282 | 150 |
| | | 285 | 156 |
| Non-metallic mineral products | MNM | 234 | 054 |
| Basic metal products | BMI | 237 | 060 |
| Fabricated metal products, machinery and equipment | MEQ | | |
| Metal products, except machinery and transport equipment | BMA | 240 | 066 |
| Agricultural and industrial machinery | MAI | 243 | 072 |
| Office and data-processing machines, precision and optical inst | MIO | 255 | 096 |
| Electrical goods | MEL | 246 | 078 |
| Transports equipment | MTR | 249+252 | 084+090 |
| Other manufacturing industries | MOT | 258 | 102 |
| Construction | CST | 225 | 036 |
| Wholesale, retail trade, restaurants and hotels | RET | | |
| Wholesale and retail trade | RWH | 327+330 | 240+246 |
| Restaurants and hotels | HOT | 357 | 300 |
| Transports, storage and communication | TRS | 402+405 | 390+396 |
| Communication | COM | 405 | 396 |
| Finance, insurance,real estate and business services | FNI | 411 | 408 |
| Finance, insurance | FNS | | |
| Real estate | RES | 344 | 040+288 |
| Community, social and personal services | SOC | 414-357 | 414-300 |
| Total industries | TIN | | |
| Producers of government services | PGS | 633 | 04+39 |
| Other producers | OPR | 642 | 10-12+54 |
| Total | TET | | |

Source : United States Department of Commerce

## TABLE A-3

## CANADA CLASSIFICATIONS

| Sector description | ISDB ISIC | End Year Capital stock | Fixed Capital Formation |
|---|---|---|---|
| Agriculture,hunting,forestry and fishing | AGR | 2609 | 2584 |
|  |  | 2644 | 2624 |
|  |  | 2681 | 2656 |
| Mining and quarrying | MID | 2716 | 2696 |
| Electricity, gas and water | EGW | 3193 | 3168 |
|  |  | 3233 | 3208 |
| Manufacturing | MAN |  |  |
| Food, beverage and tobacco | FOD | 1793 | 1768 |
|  |  | 1833 | 1808 |
| Textile, wearing apparel and leather industries | TEX | 1913 | 1888 |
|  |  | 1953 | 1928 |
|  |  | 1988 | 1968 |
|  |  | 2020 | 2000 |
| Wood and wood products,including furniture | WOD | 2057 | 2032 |
|  |  | 2092 | 2072 |
| Paper, printing and publishing | PAP | 2129 | 2104 |
|  |  | 2169 | 2144 |
| Chemicals, petroleum, rubber, plastic | CHE | 1873 | 1848 |
|  |  | 2449 | 2424 |
|  |  | 2489 | 2464 |
| Non-metallic mineral products | MNM | 2409 | 2384 |
| Basic metal products | BMI | 2209 | 2184 |
| Fabricated metal products, machinery and equipment | MEQ |  |  |
| Metal products, except machinery and transport equipment | BMA | 2249 | 2224 |
| Agricultural and industrial machinery | MAI | 2289 | 2264 |
| Office and data-processing machines, precision and optical inst. | MIO | - | - |
| Electrical goods | MEL | 2369 | 2344 |
| Transports equipment | MTR | 2329 | 2304 |
| Other manufacturing industries | MOT | 2529 | 2504 |
| Construction | CST | 2748 | 2728 |
| Wholesale, retail trade, restaurants and hotels | RET |  |  |
| Wholesale and retail trade | RWH | 3273 | 3248 |
| Restaurants and hotels | HOT | 3447 | 3432 |
| Transports, storage and communication | TRS | 2785 | 2760 |
|  |  | 2825 | 2800 |
|  |  | 2865 | 2840 |
|  |  | 2905 | 2880 |
|  |  | 2950 | 2920 |
|  |  | 2988 | 2968 |
|  |  | 3052 | 3032 |
|  |  | 3020 | 3000 |
|  |  | 3113 | 3088 |
|  |  | 3153 | 3128 |
| Finance, insurance,real estate and business services | FNI | 3303 | 3288 |
| Finance, insurance | FNS |  |  |
| Real estate | RES |  |  |
| Community, social and personal services | SOC | 3327 | 3312 |
|  |  | 3351 | 3336 |
|  |  | 3375 | 3360 |
|  |  | 3399 | 3384 |
|  |  | 3423 | 3408 |
| Total industries | TIN |  |  |
| Producers of government services | PGS | 3492 | 3472 |
| Other producers | OPR | 3524 | 3504 |
|  |  | 3556 | 3536 |
| Total | TET |  |  |

Source : CANSIM

## TABLE A-4

## JAPAN CLASSIFICATIONS

| Sector description | ISDB ISIC | Row number in EPA publication |
|---|---|---|
| Agriculture,hunting,forestry and fishing | AGR | 2 |
| Mining and quarrying | MID | 3 |
| Electricity, gas and water | EGW | 27 |
| Manufacturing | MAN | 5 |
| Food, beverage and tobacco | FOD | 6 |
| Textile, wearing apparel and leather industries | TEX | |
| Wood and wood products,including furniture | WOD | - |
| Paper, printing and publishing | PAP | 8+9 |
| Chemicals, petroleum, rubber, plastic | CHE | 10+11 |
| Non-metallic mineral products | MNM | 12 |
| Basic metal products | BMI | 13+14 |
| Fabricated metal products, machinery and equipment | MEQ | 15+16+17+18+19 |
| Metal products, except machinery and transport equipment | BMA | 15 |
| Agricultural and industrial machinery | MAI | 16 |
| Office and data-processing machines, precision and optical inst. | MIO | 19 |
| Electrical goods | MEL | 17 |
| Transports equipment | MTR | 18 |
| Other manufacturing industries | MOT | 20 |
| Construction | CST | 4 |
| Wholesale, retail trade, restaurants and hotels | RET | 21+32 |
| Wholesale and retail trade | RWH (1) | 21 |
| Restaurants and hotels | HOT | 32 |
| Transports, storage and communication | TRS | 26 |
| Communication | COM | - |
| Finance, insurance,real estate and business services | FNI | 24+25 |
| Finance, insurance | FNS | 24 |
| Real estate | RES | 25 |
| Community, social and personal services | SOC | 30 |
| Total industries | TIN | 1 |
| Producers of government services | PGS | |
| Other producers | OPR | |
| Total | TET | not available |

Source : Economic Planning Agency.
    "gross capital stock of private enterprise"
(1) RWH includes restaurants (normally classified under HOT)

Table A.5. **Detailed sources by country**


The following tables A.5 (a) to A.5 (n) report, for each individual country, the specific sources used in the preparation of sectoral data for the following variables.


Employees
Total employment
Gross investment
Gross domestic product
Compensation of employees
Gross operating surplus
Net indirect taxes
Gross capital stock


Individual country notes are attached, concerning specific data availability, sources, reporting conventions and methods of construction. The generalised source abbreviations are as follows:


ANA :  OECD Annual accounts statistics
CRO :  Eurostat Data Bank CRONOS
LFS :  OECD Labour force Statistics
 *  :  Data not available


For imports and exports, the series of manufactured industries for all countries are taken from the OECD COMTAP data bank;  see OECD, Department of Economics Working Paper No. 60, "Compatible Trade and Production Data Base: 1970-1985". For EEC countries, agriculture (AGR) and fuel and power products (stored under MID) series are taken from the CRONOS data bank. The remaining series are not available.

TABLE A-5 (a)
AUSTRALIA

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect Taxes | Capital stock |
|------|-----------|------------------|------------------|------------------------|---------------------------|-------------------|----------------|---------------|
| AGR | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| MID | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| MAN | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| FOD | ANA/LFS (1) | ANA | • | • | • | • | • | • |
| TEX | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| WOD | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| PAP | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| CHE | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| MNM | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| BMI | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| MEQ | ANA/LFS (1) | ANA | • | • | • | • | • | • |
| BMA | • | • | • | • | • | • | • | • |
| MAI | • | • | • | • | • | • | • | • |
| MIO | • | • | • | • | • | • | • | • |
| MEL | • | • | • | • | • | • | • | • |
| MTR | • | • | • | • | • | • | • | • |
| MOT | ANA/LFS (1) | ANA (2) | • | • | • | • | • | • |
| EGW | ANA/LFS | ANA | (6) | ANA (10) | ANA (10) | ANA | ANA | (6) (9) |
| CST | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| RET | ANA/LFS | ANA | • | ANA | ANA | ANA | ANA | • |
| RWH | ANA (2) | ANA | (6) | • | • | • | • | (6) |
| HOT | ANA (2) | ANA (7) | • | • | • | • | • | • |
| TRS | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) (9) |
| COM | ANA (3) | ANA | • | • | • | • | • | • |
| FNI | ANA/LFS | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| FNS | ANA (3) | ANA (3) | (6) | • | • | • | • | (6) |
| RES | ANA (3) | ANA (3) | (6) | • | • | • | • | (6) |
| SOC | ANA/LFS | ANA | (6) (4) | ANA (4) | ANA (4) | ANA (4) | ANA (4) | (6) (4) |
| TIN | SUM | ANA | (6) | ANA | ANA | ANA | ANA | (6) |
| PGS (5) | ANA (4) | ANA (5) | (6) (5) | ANA (5) | ANA (5) | ANA (5) | ANA (5) | (6) |
| OPR | • | • | • | • | • | • | • | • |
| TET | ANA/SUM | ANA | (6) | ANA | ANA | ANA | ANA | (6) |

(1) 1970 : secretariat estimates
(2) 1970-1982 : secretariat estimates
(3) Series start in 1983
(4) HOT is included in SOC
(5) Includes only public administration and defence
(6) Australian National Accounts Statistics
(7) HOT equals 14 per cent of RWH for period 1970 to 1982
(8) regressions between total employement and employees over the period 83-90 used to estimate total employement 1970-1982
(9) includes public and private enterprises
(10) EGW includes severage (normally classified under SOC)

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TABLE A-5(b)
BELGIUM

| Code | Employees (1) | Total (1) employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect Taxes (13) | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA/CRO | ANA/CRO | ANA | ANA/CRO | CRO | * | ANA | (9) |
| MID | *(2) | *(2) | ANA | ANA (11) | * | * | ANA (11) | (9) |
| MAN | ANA/CRO | ANA/CRO | ANA | ANA/CRO | CRO | * | ANA | (9) |
| FOD | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (9) |
| TEX | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (10) |
| WOD | *(7) | *(7) | *(7) | ANA/CRO | *(7) | * | ANA | * |
| PAP | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (10) |
| CHE | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (10) |
| MNM | ANA/CRO(2) | ANA/CRO(2) | CRO | ANA/CRO | CRO | * | ANA | (10) |
| BMI | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (10) |
| MEQ | ANA/CRO | ANA/CRO | CRO | ANA/CRO | CRO | * | ANA | (10) |
| BMA | CRO | CRO | CRO | CRO | CRO | * | * | (10) |
| MAI | CRO | CRO | CRO | CRO | CRO | * | * | (10) |
| MIO | CRO | CRO | CRO | CRO | CRO | * | * | (10) |
| MEL | CRO | CRO | CRO | CRO | CRO | * | * | (10) |
| MTR | CRO | CRO | CRO | CRO | CRO | * | ANA | (10) |
| MOT | ANA/CRO(7) | ANA/CRO(7) | CRO(7) | ANA/CRO | CRO(7) | * | ANA | (10) |
| EGW | ANA/CRO(8) | ANA/CRO(8) | ANA | ANA/CRO | CRO | * | ANA | (9) |
| CST | ANA/CRO | ANA/CRO | ANA | ANA/CRO | CRO | * | ANA | (9) |
| RET | ANA/CRO(3) | ANA/CRO(3) | ANA | ANA/CRO | CRO (12) | * | ANA | (9) |
| RWH | ANA/CRO | ANA/CRO | CRO | ANA/CRO | * | * | ANA | (10) |
| HOT | ANA/CRO | ANA/CRO | CRO | CRO | * | * | ANA | (10) |
| TRS | ANA/CRO | ANA/CRO | ANA | ANA/CRO | * | * | ANA | (9) |
| COM | CRO | CRO | ANA | CRO | CRO | * | ANA | (10) |
| FNI | * | * | ANA | ANA/CRO | * | * | ANA | (10) |
| FNS | ANA | ANA | * | * | * | * | * | * |
| RES | *(4) | *(4) | ANA | * | CRO | * | * | (9) |
| SOC | ANA (5)(6) | ANA (5)(6) | ANA | ANA/CRO | CRO (5) | * | ANA | (10) |
| TIN | ANA | ANA | ANA | ANA/SUM | SUM | * | ANA | (10) |
| PGS | ANA | ANA | ANA | ANA/CRO | CRO | * | ANA | (10) |
| OPR | ANA (6) | ANA (6) | * | ANA/CRO | CRO | * | ANA | * |
| TET | ANA | ANA | ANA | ANA/CRO | CRO | * | ANA | (10) |

(1) Nace classification as used in CRONOS (see Table A-1)
(2) MNM includes 'other mining' (normally classified under MID)
(3) RET includes Recovery and Repair
(4) SOC includes RES
(5) SOC includes Producers of private non-profit services to household
(6) OPR includes only domestic services
(7) MOT includes WOD
(8) EGW includes energy product (normally classified under CHE)

(9) source : Planning Bureau
(10) Calculated using the perpetual inventory model (see OECD department of Economics and Statistics, Working Paper No 57, "An international Data Base for Thirteen OECD Countries")
(11) MID includes only Coal Mining
(12) RET includes transport and storage (normally in TRS)
(13) Series start in 1975

TABLE A-5(c)
CANADA

| Code | Employees | Total employment | Gross investment | Gross domestic product (8) | Compensation of employees (8) | Operating surplus (8) | Indirect taxes (8) | Capital stock (8) |
|---|---|---|---|---|---|---|---|---|
| AGR | LFS | ANA/LFS | (4) | ANA | ANA | ANA | ANA | (4) |
| MID | LFS (1) | ANA/LFS | (4) | ANA | ANA | ANA | ANA | (4) |
| MAN | LFS | ANA/LFS | (4) | ANA | ANA | ANA | ANA | (4) |
| FOD | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| TEX | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| WOD | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| PAP | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| CHE | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| MNM | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| BMI | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| MEQ | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| BMA | * | * | * | * | * | * | * | * |
| MAI | * | * | (4) | | | | | (4) |
| MIO | * | * | (4) | | | | | (4) |
| MEL | * | * | | | | | | (4) |
| MTR | * | * | (4) | * | * | * | * | * |
| MOT | LFS | ANA (2) | (4) | ANA | ANA | ANA | ANA | (4) |
| EGW | LFS (1) (7) | LFS/ANA | (4) | ANA | ANA | ANA | ANA | (4) |
| CST | LFS | LFS/ANA | (4) | ANA (13) | ANA | ANA | ANA | (4) |
| RET | LFS | LFS/ANA | (4) | ANA | ANA | ANA | ANA | (4) |
| RWH | * | ANA (11) | * | ANA | ANA | ANA | ANA | (4) |
| HOT | * | ANA (11) | * | ANA | ANA | ANA | ANA | * |
| TRS | LFS | LFS/ANA | (4) | ANA | ANA | ANA | ANA | (4) |
| COM | ANA (3) | ANA (11) | * | ANA | ANA | ANA | ANA | * |
| FNI | LFS | LFS/ANA | (4) | ANA | ANA | ANA | ANA | (4) |
| FNS | * | ANA (11) | (4) | ANA | ANA | ANA | ANA | (4) |
| RES | * | ANA (11) | (5) | ANA | ANA | ANA | ANA | (6) |
| SOC | LFS (10) (7) | LFS/ANA | (4) | ANA | ANA | ANA | ANA | (4) |
| TIN | SUM | SUM | (4) | ANA | ANA | ANA | ANA | (4) |
| PGS | (12) | (12) | (4) | ANA | ANA (9) | ANA (9) | ANA | (4) |
| OPR | * | * | * | ANA | ANA | ANA | ANA | * |
| TET | ANA/LFS | ANA/LFS | (4) | ANA | ANA | ANA | ANA | (4) |

(1) Before 1975, total employment has been put equal to total employees
(2) Regressions between employees and total employment over the period 80-90 used to estimated total employment
(3) Series start in 1983
(4) Source : CANSIM tape (see Table A-3)
(5) Residential buildings (ANA table 1, line 7)
(6) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics
Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")
(7) EGW includes sanitary services (normally classified under SOC)

(8) Series end in 1989
(9) PGS includes water work and supply
(10) SOC=SOC(LFS)-PGS(ADB)
(11) Series start in 1980

(12) General government, ADB : analytic data bank
(13) CST is defined on the activity basis

TABLE A-5(d)
DENMARK

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|------|-----------|------------------|------------------|------------------------|---------------------------|-------------------|----------------|---------------|
| AGR | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| MID | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| MAN | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| FOD | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| TEX | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| WOD | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| PAP | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| CHE | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| MNM | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| BMI | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| MEQ | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) * |
| BMA | CRO | CRO | * | CRO | CRO | * | * | * |
| MAI | CRO | CRO | * | CRO | CRO | * | * | * |
| MIO | CRO | CRO | * | CRO | CRO | * | * | * |
| MEL | CRO | CRO | * | CRO | CRO | * | * | * |
| MTR | CRO | CRO | * | CRO | CRO | * | * | * |
| MOT | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| EGW | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| CST | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) * |
| RET | ANA | ANA | * | ANA | ANA | ANA | * | (1) * |
| RWH | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| HOT | ANA | ANA | * | ANA | ANA | ANA | * | (1) |
| TRS | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| COM | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| FNI | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| FNS | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| RES | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| SOC | ANA | ANA | ANA (2) | ANA | ANA | ANA | * | (1) |
| TIN | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |
| OPR | ANA | ANA | * | ANA | ANA | ANA | * | * |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | * | (1) |

(1) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")
(2) Series end in 1988

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TABLE A-5(e)
FINLAND

| Code | Employees | Total employment | Gross investment | Gross domestic product (8) | Compensation of employees | Operating surplus (7) | Indirect taxes (5) | Capital stock (9) |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| MID | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| MAN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| FOD | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| TEX | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| WOD | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| PAP | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| CHE | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| MNM | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| BMI | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| MEQ | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| BMA | • | • | • | • | • | • | • | • |
| MAI | • | • | • | • | • | • | • | • |
| MIO | • | • | • | • | • | • | • | • |
| MEL | • | • | • | • | • | • | • | • |
| MTR | • | • | • | • | • | • | • | • |
| MOT | ANA | ANA | ANA | ANA | ANA | ANA | ANA | • |
| EGW | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| CST | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| RET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| RWH | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| HOT | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | • |
| TRS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| COM | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | (6) |
| FNI | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| FNS | ANA | ANA | ANA (2) | ANA (2) | ANA | ANA | ANA | (6) |
| RES | ANA | ANA | ANA (1) | ANA | ANA | ANA | ANA | (4) |
| SOC | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TIN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |
| OPR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (4) |

(1) Before 1976, residential buildings (ANA table 1, line 7)
(2) Before 1976, FNS = FNI - RES
(3) Series start in 1976
(6) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")
(7) Series start in 1976
(9) After 1987, calculated using the perpetual inventory model

(4) Source : Central Statistical Office of Finland
(5) Series start in 1979
(8) at basic values

TABLE A-5(f)
FRANCE

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO | ANA | ANA (13) | (12) |
| MID | ANA/LFS | ANA/LFS | ANA (8,9,10) | ANA/CRO | ANA/CRO | ANA | ANA (13) | (14) |
| MAN | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO | ANA | ANA (13) | (12) |
| FOD | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| TEX | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| WOD | ANA/CRO | ANA/CRO | ANA (7) | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| PAP | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| CHE | ANA/CRO | ANA/CRO | ANA (9) | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| MNM | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| BMI | ANA/CRO | ANA/CRO | ANA (10) | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| MEQ | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | (14) |
| BMA | CRO | CRO | CRO | CRO | CRO | * | * | (14) |
| MAI | CRO | CRO | CRO | CRO | CRO | * | * | (14) |
| MIO | CRO | CRO | CRO | CRO | CRO | * | * | (14) |
| MEL | CRO | CRO | CRO | CRO | CRO | * | * | (14) |
| MTR | CRO | CRO | CRO | CRO | CRO | * | ANA (13) | (14) |
| MOT | ANA/CRO | ANA/CRO | * (7) | ANA/CRO | ANA/CRO | ANA (13) | ANA (13) | * |
| EGW | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO | ANA | ANA (13) | (14) |
| CST | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (12) |
| RET | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| RWH | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| HOT | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| TRS | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO | ANA | ANA (13) | (12) |
| COM | ANA/CRO | ANA/CRO | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| FNI | LFS | LFS | ANA | ANA (4) | ANA/SUM (4) | ANA | ANA (13) | (14) |
| FNS | * | * | ANA (11) | * | CRO (4) | * | * | (12) |
| RES | * | * | ANA (11) | * | * | * | * | (12) |
| SOC | (1) | (1) | ANA (11) | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (12) |
| TIN | ANA/LFS | ANA/LFS | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| PGS | ANA/ADB (2) | ANA/ADB (2) | ANA | ANA/CRO | ANA/CRO (6) | ANA | ANA (13) | (14) |
| OPR (5) | * | * | ANA | * | * | * | * | (14) |
| TET | ANA/LFS | ANA/LFS | ANA | SUM | ANA | ANA | ANA | (14) |

(1) SOC = FNI(ANA) - FNI(LFS)
(2) Before 1977, total employement has bee put equal to total employees. ADB : Analytical Data Bank (OECD)
(3) Series end in 1987
(4) Before 1977, secretariat estimates
(5) PGS includes other producers (OPR)
(6) Series end in 1988

(7) WOD includes MOT
(8) MID includes only coal mining
(9) CHE includes crude petroleum and natural gaz
(10) BMI includes metal ore mining
(11) RES includes educational and research services
(14) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")

(12) Source : I.N.S.E.E.
(13) Series available from 1977 to 1988

## TABLE A-5(g)
## GERMANY

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| MID (1) | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| MAN (1)(2)(3) | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| FOD | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| TEX | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| WOD | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| PAP (3) | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| CHE | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| MNM (1) | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| BMI | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| MEQ (2) | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| BMA | CRO | CRO | CRO | CRO | * | * | * | * |
| MAI | CRO | CRO | CRO | CRO | * | * | * | * |
| MIO | CRO | CRO | CRO | CRO | * | * | * | * |
| MEL | CRO | CRO | CRO | CRO | * | * | * | * |
| MTR | CRO | CRO | CRO | CRO | * | * | * | * |
| MOT | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| EGW | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| CST (2) | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| RET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (5) |
| RWH | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| HOT | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TRS | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (5) |
| COM | ANA | ANA | ANA (7) | ANA | ANA | ANA | ANA | (6) |
| FNI (4) | * | * | * | ANA | * | * | * | (5) |
| FNS | ANA | ANA | * | ANA | ANA | ANA | ANA | (5) |
| RES (4) | * | * | ANA | ANA | * | * | * | (5) |
| SOC (3)(4) | ANA | ANA | ANA (7) | ANA | ANA (8) | ANA (8) | ANA (8) | (5) |
| TIN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| OPR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |

(1) MNM includes quarrying (in ISIC classified under MIN)
(2) MEQ includes structural steel erection (in ISIC under CST)
(3) SOC includes publishing (in ISIC under PAP)
(4) SOC includes business services and real estate except dwellings (in ISIC under FNI)
(5) Source : Statistisches Bundesamt
(6) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics
Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")
(7) 1990 series come from CRONOS
(8) SOC includes Dwellings (normally in RES)

TABLE A-5(h)
ITALY

| Code | Employees (1) | Total employment (1) | Gross investment | Gross domestic product (1) | Compensation employees (1) | Operating surplus (1) | Indirect taxes (1) | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| MID (2)(4) | * | * | * | * | * | * | * | * |
| MAN (2) | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| FOD | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| TEX | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| WOD | ANA | ANA | * (5) | ANA | ANA | ANA (9) | ANA (9) | * |
| PAP | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| CHE | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| MNM | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| BMI | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| MEQ | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | * |
| BMA | CRO | CRO | CRO | CRO (12) | CRO | * | * | * |
| MAI | CRO | CRO | CRO | CRO (12) | CRO | * | * | * |
| MIO | CRO | CRO | CRO | CRO (12) | CRO | * | * | * |
| MEL | CRO | CRO | CRO | CRO (12) | CRO | * | * | * |
| MTR | CRO | CRO | CRO | CRO (12) | CRO | * | * | * |
| MOT | ANA | ANA | CRO (5) | ANA | ANA | ANA (9) | ANA (9) | (7) |
| EGW (4) | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| CST | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| RET (3) | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| RWH | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| HOT | ANA | ANA | CRO | ANA | ANA | ANA (9) | ANA (9) | (7) |
| TRS | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| COM | ANA | ANA | * | ANA | ANA | ANA (9) | ANA (9) | * |
| FNI | * | * | SUM | * | * | ANA (8) | ANA (8) | (7) |
| FNS | (11) | (11) | CRO | (11) | (11) | * | * | * |
| RES | * | * | ANA (6) | * | * | * | * | (7) |
| SOC (10) | CRO | CRO | CRO | CRO | CRO | ANA | ANA | (7) |
| TIN | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| PGS | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |
| OPR | * | * | CRO | * | ANA | ANA | ANA | (7) |
| TET | ANA | ANA | CRO | ANA | ANA | ANA | ANA | (7) |

(1) NACE classification as used in CRONOS (see Table A-1)
(2) MAN includes most parts of MID
(3) RET includes recovery and repair services (normally classified under SOC)
(4) EGW includes natural gas and oil refineries
(5) MOT includes WOD
(6) Residential buildings (ANA-4, line 12)
(7) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")

(8) FNI includes SOC
(9) series end in 1989

(10) SOC includes RES
(11) FNS= FNS(ANA)-SOC(CRO)
(12) Volume series start in 1980

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TABLE A-5(i)
JAPAN

| Code | Employees | Total employment | Gross investment (10) | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| MID | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| MAN | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| FOD (1) | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| TEX (2) | ANA/LFS | ANA | (7) * | ANA | ANA | ANA | ANA | (7) * |
| WOD | LFS | * | * | * | * | * | * | * |
| PAP (3) | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| CHE (4) | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| MNM | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| BMI | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| MEQ | ANA/LFS | ANA | (7) | ANA | ANA | ANA | ANA | (7) * |
| BMA | * | * | (7) | * | * | * | * | * |
| MAI | * | * | (7) | * | * | * | * | * |
| MIO | * | * | (7) | * | * | * | * | * |
| MEL | * | * | (7) | * | * | * | * | * |
| MTR | * | * | (7) | * | * | * | * | (7a) |
| MOT | ANA/LFS (6) | ANA | (7a) | ANA | ANA | ANA | ANA | (7) |
| EGW | ANA/LFS | ANA/LFS | SUM | ANA | ANA | ANA | ANA | (7) |
| CST | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| RET (5) | * | * | SUM | * | * | * | * | (7a) |
| RWH | ANA/LFS | ANA/LFS | (7b) | ANA | ANA | ANA | ANA | (7) |
| HOT (5) | * | * | (7b) | * | * | * | * | (7) |
| TRS | ANA/LFS | ANA/LFS | (7a) | ANA | ANA | ANA | ANA | (7) |
| COM | * | * | (7) | * | * | * | * | (7a) |
| FNI | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| FNS | * | * | (8) | * | * | * | * | (7) |
| RES | * | * | (9) | * | * | * | * | (7) |
| SOC (3)(5) | ANA/LFS | ANA/LFS | (7) | ANA | ANA | ANA | ANA | (7) |
| TIN | ANA | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| PGS | ANA | ANA | (9) | ANA | ANA | ANA | ANA | (7) |
| OPR | ANA | ANA | (7) | ANA | ANA | ANA | ANA | (7) |
| TET | ANA/LFS | ANA/LFS | SUM | ANA | ANA | ANA | ANA | (7) |

(1) FOD excluding tobacco
(2) TEX textiles only
(3) PAP excluding printing and publishing
(4) CHE excluding rubber and plastic products
(5) SOC includes hotels and restaurants HOT
(6) MOT=MOT(ANA)-WOD(LFS)
(7) Source : Economic Planning Agency, Private gross capital stock by industry (see Table A-4)
    Excludes investment by public enterprises which form about 15% of private non-residential investment.
(a) The level of capital stock and investment for TRS and EGW, which were privatized in 1983, has approximately doubled.
(b) HOT includes only hotels. Before 1976, HOT is estimated.
(8) Residential building (ANA-1, total, line 7)
(9) Residential building (ANA-1, General Gouvernement, line 12)
(10) Gross investment not available at current prices

TABLE A-5(i)
NETHERLANDS

| Code | Employees | Total employment | Gross investment (1) -value- | Gross investment (1) -volume- | Gross domestic product -value- | Gross domestic product -volume- | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|---|---|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | ANA | ANA | ANA | CRO | ANA | ANA | ANA | (8) |
| MID | ANA | ANA | ANA (2) | ANA | ANA | * | ANA | ANA | ANA | (8) |
| MAN | ANA | ANA | ANA (2) (5) | CRO (5) | ANA | CRO | ANA | ANA | ANA | (8) |
| FOD | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO | ANA (10) | ANA (11) | ANA (11) | * |
| TEX | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO | ANA (10) | ANA (11) | ANA (11) | * |
| WOD | ANA | ANA | ANA/CRO (2) | * | ANA (10) | * | ANA (10) | ANA (11) | ANA (11) | * |
| PAP | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO | ANA (10) | ANA (11) | ANA (11) | * |
| CHE | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO (6) | ANA (10) | ANA (11) | ANA (11) | * |
| MNM | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO (6) | ANA (10) | ANA (11) | ANA (11) | * |
| BMI | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO | ANA (10) | ANA (11) | ANA (11) | * |
| MEQ | ANA | ANA | ANA/CRO (2) | * | ANA (10) | CRO (6) | ANA (10) | ANA (11) | ANA (11) | * |
| RMA | CRO | CRO | ANA/CRO (2) | * | CRO | CRO (6) | CRO | * | * | * |
| MAI | CRO | CRO | ANA/CRO (2) | * | CRO | CRO (6) | CRO | * | * | * |
| MIO | * | * | ANA/CRO (2) | * | CRO | CRO (6) | CRO | * | * | * |
| MEL | CRO | CRO | ANA/CRO (2) | * | CRO | CRO (6) | CRO | * | * | * |
| MTR | CRO | CRO | ANA/CRO (2) | * | CRO | CRO (6) | CRO | * | * | * |
| MOT | ANA | ANA | ANA | * | ANA (10) | * | ANA (10) | ANA (11) | ANA (11) | * |
| EGW | ANA | ANA | ANA | CRO | ANA | CRO | ANA | ANA | ANA | (8) |
| CST | ANA | ANA | ANA | CRO | ANA | CRO | ANA | ANA | ANA | (8) |
| RET | ANA | ANA | * | * | ANA | * | ANA | ANA | ANA | * |
| RWH | ANA | ANA | ANA | ANA | ANA (10) | CRO (7) | ANA (10) | ANA (11) | ANA (11) | (8) |
| HOT | ANA | ANA | * (3) | * (3) | ANA (11) | * | ANA (11) | ANA (11) | ANA (11) | * |
| TRS | ANA | ANA | ANA | ANA | ANA | * | ANA | ANA | ANA | (8) |
| COM | ANA | ANA | ANA (2) | * | ANA (10) | * | ANA (10) | ANA (11) | ANA (11) | * |
| FNI | ANA | ANA | ANA (4) | ANA | ANA | * | ANA | ANA | ANA | (8) |
| FNS | ANA | ANA | ANA | * | ANA (11) | * | ANA (11) | ANA (11) | ANA (11) | * |
| RES | ANA | ANA | ANA (4) | * | ANA (11) | * | ANA (11) | ANA (11) | ANA (11) | * |
| SOC | ANA (9) | ANA (9) | ANA (3)(4) | ANA (3)(4) | ANA (9) | * | ANA | ANA | ANA | (8) |
| TIN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (8) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (8) |
| OFR | ANA | ANA | * | * | ANA | ANA | ANA | ANA | ANA | * |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (8) |

(1) Estimated on user basis rather than on owner basis
(2) Series end in 1989
(3) SOC includes HOT
(4) Business services are included in SOC
(5) MAN includes Repair Services
(6) Series start in 1980
(7) Series end in 1985
(8) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")

(9) SOC includes Repair services
(10) CRONOS series for 1989 and 1990
(11) Series end in 1988

TABLE A-5(k)
NORWAY

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|------|-----------|------------------|------------------|------------------------|---------------------------|-------------------|----------------|---------------|
| AGR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| MID | ANA | ANA | ANA (1) | ANA | ANA | ANA | ANA | (6) |
| MAN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| FOD | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TEX | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| WOD | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| PAP | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| CHE | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| MNM | * | * | ANA | ANA | ANA | ANA | ANA | (6) |
| BMI | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| MEQ | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| BMA | * | * | * | * | * | * | * | * |
| MAI | * | * | * | * | * | * | * | * |
| MIO | * | * | * | * | * | * | * | * |
| MEL | * | * | * | * | * | * | * | * |
| MTR | * | * | * | * | * | * | * | * |
| MOT | * | * | * | * | * | * | * | * |
| EGW | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| CST | ANA | ANA | ANA (2) | ANA | ANA | ANA | ANA | (6) |
| RET | ANA | ANA | ANA (5) | ANA | ANA | ANA | ANA | (6) |
| RWH | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| HOT | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| TRS | ANA | ANA | ANA (3) | ANA | ANA | ANA | ANA | (6) |
| COM | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| FNI | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| FNS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| RES | ANA | ANA | ANA (4)(5) | ANA | ANA | ANA | ANA | (6) |
| SOC | ANA | ANA | ANA (4) | ANA | ANA | ANA | ANA | (6) |
| TTN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |
| OPR | * | * | * | * | * | * | * | * |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (6) |

(1) MID includes crude petroleum and natural gas production
(2) CST includes oil and gas exploration and drilling
(3) TRS includes pipeline transport for oil and gas
(4) Business services are included in SOC
(5) RET includes producers capital goods (normally in RES)
(6) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")

TABLE A-5(1)
SWEDEN

| Code | Employees | Total employment | Gross investment | Gross domestic product | Compensation of employees | Operating surplus | Indirect taxes | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| MID | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| MAN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| FOD | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| TEX | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| WOD | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| PAP | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| CHE | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| MNM | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| BMI | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| MEQ | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| BMA | • | • | • | • | • | • | • | • |
| MAI | • | • | • | • | • | • | • | • |
| MIO | • | • | • | • | • | • | • | • |
| MEL | • | • | • | • | • | • | • | • |
| MTR | • | • | • | • | • | • | • | • |
| MOT | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| EGW | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| CST | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| RET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| RWH | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| HOT | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| TRS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| COM | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| FNI | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| FNS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| RES | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| SOC | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| TIN | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| PGS | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| OPR | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |
| TET | ANA | ANA | ANA | ANA | ANA | ANA | ANA | (1) |

(1) Source : Statistika Meddelandem until 1983. After 1983, calculated using the perpetual inventory model
(see OECD Department of Economics and Statistics Working Paper No. 57,
"An International Sectoral Data Base for Thirteen OECD Countries")

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TABLE A-5(m)
UNITED KINGDOM

| Code | Employees | Total employment | Gross investment | Gross domestic product (10) | Compensation of employees (12) | Operating surplus | Indirect taxes | Capital stock |
|------|-----------|------------------|------------------|------------------------------|-------------------------------|-------------------|----------------|---------------|
| AGR | ANA/LFS | ANA/LFS | ANA | CRO | ANA | ANA | * | (4) |
| MID | ANA/LFS | ANA/LFS | ANA (15) | * | ANA (11) | ANA | * | (8) |
| MAN | ANA/LFS | ANA/LFS | ANA | CRO | ANA (11) | ANA | * | (4) |
| FOD | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| TEX | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| WOD | LFS | (2) | ANA (15) | * (3) | * (3) | * | * | (8) |
| PAP | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| CHE | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| MNM | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| BMI | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| MEQ | LFS | (2) | ANA (15) | CRO | CRO | * | * | (8) |
| BMA | CRO | CRO | CRO | CRO | CRO | * | * | * |
| MAI | CRO | CRO | CRO | CRO | CRO | * | * | * |
| MIO | CRO | CRO | CRO | CRO | CRO | * | * | * |
| MEL | CRO | CRO | CRO | CRO | CRO | * | * | * |
| MTR | CRO | CRO | CRO | CRO | CRO | * | * | * |
| MOT | ANA/LFS | (2) | ANA (15) | CRO (3) | CRO (3) | ANA | * | (8) |
| EGW | ANA/LFS | ANA/LFS | ANA | CRO | ANA | ANA | * | (4) |
| CST | ANA/LFS | ANA/LFS | ANA (14) | CRO | ANA | ANA | * | (4) |
| RET | ANA/LFS | ANA/LFS | ANA (14) | CRO (9) | ANA | ANA | * | (8) |
| RWH | * | * | ANA (14) | CRO (6) | CRO | * | * | (8) |
| HOT | * | * | ANA (14) | CRO (6) | CRO | * | * | (8) |
| TRS | ANA/LFS | ANA/LFS | ANA (15) | CRO | ANA | ANA | * | (8) |
| COM | * | * | ANA (14) | CRO | CRO | * | * | (8) |
| FNI | ANA/LFS | ANA/LFS | ANA | * | ANA | ANA | * | (8) |
| FNS | * | * | ANA (14) | CRO | * | * | * | (8) |
| RES | * | * | ANA (14) | * | * | * | * | (8) |
| SOC | ANA/LFS (1) | ANA/LFS (1) | ANA/LFS (15) | CRO | ANA | ANA | * | (8) |
| TIN | ANA/SUM | ANA/SUM | ANA | SUM | ANA | ANA | * | (8) |
| PGS | ANA | ANA | ANA | CRO | ANA | ANA | * | (4) |
| OPR | * (1) | * (1) | * | CRO | ANA | ANA | * | * |
| TET | ANA/LFS | ANA/LFS | ANA | CRO | ANA | ANA | * | (4) |

(1) OPR is included in SOC
(2) Percentage of employees in total employment of manufacturing industries have been used to estimate total employment
(3) MOT includes WOD
(4) Central Statistical Office
(6) Volume series start in 1973
(8) Calculated using the perpetual inventory model (see OECD Department of Economics and Statistics Working Paper No. 57, "An International Sectoral Data Base for Thirteen OECD Countries")
(9) RET includes repair services
(10) Before 1983, for gdp at constant prices : Secretariat estimates
(11) CRONOS for 1988 and 1989
(12) CRONOS for 1990
(13) Series end in 1988
(14) CRONOS for 1989
(15) Series end in 1989

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TABLE A-5(n)
UNITED STATES

| Code | Employees (4) | Total employment (4) | Gross investment | Gross domestic product (7) | Compensation of employees (5) | Operating surplus (6) | Indirect taxes (6) | Capital stock |
|---|---|---|---|---|---|---|---|---|
| AGR | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| MID | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| MAN | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| FOD | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| TEX | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| WOD | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| PAP | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| CHE | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| MNM | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| BMI | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| MEQ | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| BMA | (3) | (3) | (3) | (3) | (3) | * | * | (3) |
| MAI | (3) | (3) | (3) | (3) | (3) | • | • | (3) |
| MIO | (3) | (3) | (3) | (3) | (3) | • | • | (3) |
| MEL | (3) | (3) | (3) | (3) | (3) | • | • | (3) |
| MTR | (3) | (3) | (3) | (3) | (3) | * | * | (3) |
| MOT | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| EGW (1) | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| CST | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| RET (2) | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| RWH (2) | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| HOT (2) | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| TRS | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| COM | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| FNI | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| FNS | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| RES | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| SOC (1) | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| TIN | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| PGS | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |
| OPR | * | * | * | * | * | * | * | * |
| TET | ANA | ANA | (3) | ANA | ANA | ANA | ANA | (3) |

(1) Sanitary and similar services are included in EGW (normally in SOC)
(2) Restaurants are included in RWH (normally in HOT)
(3) Source : US department of Commerce (see Table A.2 for investment and capital stock)
(4) For 1990, series come from LFS
(5) 1988 and 1989 series estimated using US department of commerce
(6) ANA series end in 1987
(7) After 1987, secretariat estimates

Table A.6 (a)

Average service life of fixed capital formation

Major seven

| | USA | | | JAPAN | | | GERMANY | | | FRANCE | | | CANADA | | | UNITED KINGDOM | | | ITALY | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT |
| AGR | 17 | 38 | 23 | 6 | 44.4 | 18 | 15 | 69 | 31 | 10 | 40 | 19 | 10 | 28 | 15 | 13 | 40 | 21 | 18 | 44 | 26 |
| MID | 13 | 27 | 17 | 8 | 35.2 | 16 | 15 | 41 | 23 | 18 | 35 | 23 | 20 | 27 | 22 | 16 | 20 | 17 | 17 | 35 | 23 |
| MAN | 17 | 29 | 21 | 11 | 43.3 | 21 | 15 | 41 | 23 | 18 | 36 | 23 | 22 | 44 | 29 | 26 | 60 | 36 | 17 | 38 | 23 |
| FOD | 20 | 29 | 22.7 | 11 | 44.5 | 21.1 | 15 | 40 | 22.5 | 17 | 35 | 22.4 | 28 | 44.5 | 33 | 26 | 75 | 40.7 | 18 | 40 | 24.6 |
| TEX | 16 | 29 | 19.9 | 10 | 44.5 | 20.4 | 15 | 40 | 22.5 | 21 | 35 | 25.2 | 21 | 44.5 | 28.1 | 26 | 75 | 40.7 | 18 | 40 | 24.6 |
| WOD | 13 | 29 | 17.8 | 10 | 44.1 | 20.2 | 12 | 40 | 20.4 | 21 | 35 | 25.2 | 26 | 44.1 | 31.4 | 23 | 75 | 38.6 | 18 | 37 | 23.7 |
| PAP | 16 | 29 | 19.9 | 12 | 45.4 | 22 | 16 | 40 | 23.2 | 21 | 40 | 26.7 | 26 | 45.4 | 31.8 | 32 | 75 | 44.9 | 16 | 40 | 23.2 |
| CHE | 17 | 29 | 20.6 | 9 | 43.7 | 19.4 | 17 | 40 | 23.9 | 17 | 35 | 22.4 | 19 | 43.7 | 26.4 | 25 | 75 | 40 | 16 | 35 | 21.7 |
| MNM | 19 | 29 | 22 | 9 | 43.7 | 19.4 | 14 | 40 | 21.8 | 17 | 35 | 22.4 | 26 | 43.7 | 31.3 | 24 | 75 | 39.3 | 16 | 35 | 21.7 |
| BMI | 27 | 29 | 27.6 | 13 | 43.7 | 22.2 | 17 | 40 | 23.9 | 21 | 35 | 25.2 | 22 | 43.7 | 28.5 | 26 | 75 | 40.7 | 15 | 35 | 21 |
| MEQ | 19 | 29 | 22 | 11 | 44.5 | 21.1 | 14 | 40 | 21.8 | 17 | 35 | 22.4 | 24 | 44.5 | 30.2 | 26 | 75 | 40.7 | 17 | 40 | 23.9 |
| MOT | 15 | 29 | 19.2 | 11 | 44.7 | 21.1 | 16 | 40 | 23.2 | 21 | 40 | 26.7 | 13 | 44.7 | 22.5 | 24 | 75 | 39.3 | 18 | 36 | 23.4 |
| EGW | 20 | 28 | 22 | 15 | 47.7 | 25 | 17 | 62 | 31 | 17 | 38 | 23 | 35 | 55 | 41 | 27 | 53 | 35 | 18 | 35 | 23 |
| CST | 12 | 29 | 17 | 5 | 42.5 | 16 | 10 | 47 | 21 | 13 | 30 | 18 | 10 | 25 | 15 | 26 | 80 | 42 | 18 | 40 | 25 |
| RET | 11 | 35 | 18 | 10 | 48.7 | 22 | 12 | 66 | 28 | 21 | 30 | 24 | 20 | 50 | 29 | 30 | 80 | 45 | 16.5 | 48.7 | 26 |
| RWH | 11 | 35 | 18 | 10 | 48.7 | 22 | 12 | 66 | 28 | 21 | 30 | 24 | 20 | 50 | 29 | 30 | 80 | 45 | 16.5 | 48.7 | 26 |
| HOT | 11 | 48 | 22 | 17.3 | 56.3 | 29 | 13 | 65 | 29 | 17 | 30 | 21 | 20 | 50 | 29 | 17.3 | 75 | 35 | 17.3 | 56.3 | 29 |
| TRS | 18 | 31 | 22 | 16.9 | 45.1 | 25 | 13 | 42 | 22 | 13 | 40 | 21 | 15 | 50 | 26 | 20 | 55 | 31 | 16.9 | 45.1 | 25 |
| COM | 18 | 31 | 22 | 16.9 | 45.1 | 25 | 13 | 42 | 22 | 13 | 40 | 21 | 15 | 50 | 26 | 20 | 55 | 31 | 19.9 | 45.1 | 25 |
| FNI | 12 | 36 | 19 | 14.9 | 49.8 | 25 | 13 | 68 | 29 | 17 | 30 | 21 | 15 | 50 | 26 | 21 | 80 | 39 | 14.9 | 49.8 | 25 |
| FNS | 12 | 36 | 19 | 14.9 | 49.8 | 25 | 13 | 68 | 29 | 17 | 30 | 21 | 15 | 50 | 26 | 21 | 80 | 39 | 14.9 | 49.8 | 25 |
| RES | 72 | 72 | 72 | 47 | 47 | 47 | 61.7 | 64.2 | 62 | 61.7 | 64.2 | 62 | 61.7 | 61.2 | 62 | 100 | 100 | 100 | 61.7 | 64.2 | 62 |
| SOC | 11 | 48 | 22 | 17.3 | 56.3 | 29 | 13 | 65 | 29 | 17 | 30 | 21 | 20 | 50 | 29 | 17.3 | 75 | 35 | 17.3 | 75 | 35 |
| TIN | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 19 | 21 | 29.4 |
| PGS | 15 | * | 35 | 35 | * | 35 | 15 | 77 | 35 | 17 | 30 | 35 | 20 | * | 35 | 20 | 75 | 35 | 35 | * | 35 |
| TET | 17 | 40 | 24 | 17 | 50 | 27 | 17 | 50 | 27 | 17 | 35 | 22 | 20 | 45 | 28 | 30 | 75 | 44 | 17 | 45 | 25 |

ME : machinery and equipment
BC : building and construction
TOT : total

source : Blades (1983)

## Table A.6 (b)
### Average service life of fixed capital formation
### Other countries

| | NORWAY | | | SWEDEN | | | FINLAND | | | AUSTRALIA | | | BELGIUM | | | AVERAGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT | ME | BC | TOT |
| AGR | 15 | 44.4 | 24 | 17 | 60 | 30 | 13.6 | 50 | 25 | 13 | 43 | 22 | 13.6 | 30 | 19 | 13.6 | 44.4 | 23 |
| MID | 16 | 35.2 | 22 | 30 | 70 | 42 | 20 | 27 | 22 | 16 | 61 | 21 | 17.5 | 30 | 21 | 17.5 | 35.2 | 23 |
| MAN | 25 | 46.6 | 30 | 23 | 70 | 37 | 17 | 42 | 25 | 19 | 69 | 25 | 19.4 | 31 | 23 | 19.4 | 43.3 | 27 |
| FOD | 25 | 44.5 | 30.9 | 20 | 70 | 35 | 20 | 42 | 26.6 | 19 | 44.5 | 26.7 | 15 | 44.5 | 23.9 | 19.9 | 44.5 | 27 |
| TEX | 25 | 44.5 | 30.9 | 20 | 70 | 35 | 19 | 42 | 25.9 | 19 | 44.5 | 26.7 | 15 | 44.5 | 23.9 | 19.1 | 44.5 | 27 |
| WOD | 25 | 44.1 | 30.7 | 15 | 70 | 31.5 | 18 | 42 | 25.2 | 19 | 44.1 | 26.5 | 15 | 44.1 | 23.7 | 18.2 | 44.1 | 26 |
| PAP | 25 | 45.47 | 31.1 | 30 | 70 | 42 | 17 | 42 | 24.5 | 19 | 45.4 | 27 | 15 | 45.4 | 24.1 | 20.7 | 45.4 | 28 |
| CHE | 25 | 43.7 | 30.6 | 20 | 70 | 35 | 18 | 42 | 25.2 | 19 | 43.7 | 26.4 | 15 | 43.7 | 23.6 | 18.4 | 43.7 | 26 |
| MNM | 25 | 43.7 | 30.6 | 33 | 70 | 44.1 | 15 | 42 | 23.1 | 19 | 43.7 | 26.4 | 15 | 43.7 | 23.6 | 19.4 | 43.7 | 27 |
| BMI | 25 | 43.7 | 30.6 | 35 | 70 | 45.5 | 15 | 42 | 23.1 | 19 | 43.7 | 26.4 | 20 | 43.7 | 27.1 | 21.4 | 43.7 | 28 |
| MEQ | 25 | 44.5 | 30.9 | 22 | 70 | 36.4 | 15 | 42 | 23.1 | 19 | 44.5 | 26.7 | 15 | 44.5 | 23.9 | 19 | 44.5 | 27 |
| MOT | 25 | 44.7 | 30.9 | 20 | 70 | 35 | 20 | 42 | 26.6 | 19 | 44.7 | 21.1 | 15 | 44.7 | 23.9 | 18.6 | 44.7 | 26 |
| EQW | 25 | 47.7 | 32 | 35 | 75 | 47 | 25 | 40 | 30 | 24 | 48 | 31 | 23.8 | 40 | 29 | 23.8 | 47.7 | 31 |
| CST | 12 | 42.5 | 21 | 10 | 75 | 30 | 10 | 35 | 18 | 13 | 45 | 23 | 12.6 | 30 | 18 | 12.6 | 42.5 | 22 |
| RET | 15 | 48.7 | 25 | 15 | 75 | 33 | 15 | 40 | 23 | 16 | 51 | 27 | 16.3 | 30 | 21 | 16.5 | 48.7 | 26 |
| RWH | 15 | 48.7 | 25 | 15 | 75 | 33 | 15 | 40 | 23 | 16 | 51 | 27 | 16.5 | 30 | 21 | 16.5 | 48.7 | 26 |
| HOT | 20 | 56.3 | 31 | 20 | 75 | 37 | 17.3 | 55 | 29 | 15 | 51 | 26 | 17.3 | 60 | 30 | 17.3 | 56.3 | 29 |
| TRS | 17 | 45.1 | 25 | 17 | 70 | 33 | 17 | 45.1 | 25 | 20 | 50 | 29 | 17 | 30 | 21 | 17 | 45.1 | 25 |
| COM | 17 | 45.1 | 25 | 17 | 70 | 33 | 17 | 45.1 | 25 | 20 | 50 | 29 | 17 | 30 | 21 | 17 | 45.1 | 25 |
| FNI | 15 | 49.8 | 25 | 20 | 75 | 37 | 10 | 40 | 19 | 13 | 58 | 26 | 14.9 | 49.8 | 25 | 14.9 | 49.8 | 25 |
| FNS | 15 | 49.8 | 25 | 20 | 75 | 37 | 10 | 40 | 19 | 13 | 58 | 26 | 14.9 | 49.8 | 25 | 14.9 | 49.8 | 25 |
| RES | 61.7 | 64.2 | 62 | 75 | 75 | 75 | 61.7 | 64.2 | 62 | 61.7 | 64.2 | 62 | 61.7 | 49.8 | 62 | 61.7 | 64.2 | 62 |
| SOC | 20 | 56.3 | 31 | 20 | 75 | 37 | 17.3 | 55 | 29 | 15 | 51 | 26 | 17.3 | 60 | 30 | 17.3 | 56.3 | 29 |
| TTN | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 | 21 | 49 | 29.4 |
| PGS | 20 | * | 35 | 20 | * | 35 | 35 | * | 35 | 15 | 54 | 35 | 35 | 80 | 35 | 35 | * | 35 |
| TET | 18.9 | 48.3 | 28 | 20 | 65 | 34 | 17 | 45 | 25 | 15 | 40 | 23 | 18.9 | 48.3 | 28 | 18.9 | 48.3 | 28 |

ME : machinery and equipment
BC : building and construction
TOT : total

source : Blades (1983)

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# Table A.7

## International exposure groups

| Sectoral codes | Description | International exposure group |
|---|---|---|
| SOC | Community, social and personal services | GOV+SOC |
| PGS | Producers of government services | GOV+SOC |
| | | |
| EGW | Electricity, gas and water | Sheltered |
| CST | Construction | Sheltered |
| RET | Wholesale, retail trade, restaurants and hotels | Sheltered |
| TRS | Transport, storage and communication | Sheltered |
| FNS | Finance and Insurance | Sheltered |
| RES | Real estate | Sheltered |
| | | |
| AGR | Agriculture | Supply |
| BMI | Basic metal products | Supply |
| | | |
| FOD | Food, beverages and tobacco | Open |
| TEX | Textiles | Open |
| WOD | Wood and products | Open |
| PAP | Paper, printing and publishing | Open |
| CHE | Chemicals | Open |
| MNM | Non-metallic mineral products | Open |
| MEQ | Machinery and equipment | Open |
| MOT | Other manufactured products | Open |

## The calculation of sector performance indicators

As outlined in the main body of the paper, measures of "expected" sectoral growth have been calculated for all countries and sectors, based on the relative growth in the total economy and the relative growth of individual sectors, across all countries. Such calculation, however, involves specific issues of consistency, which have been dealt with using an extended version of the RAS estimation method (1). This Annex provides a brief technical summary of the procedures followed.

The "expected" growth rate, $G(i,j)$ is defined as being the growth rate of sector i averaged over all countries, adjusted for the difference between the overall growth of the total economy j and the average growth of all countries; in algebraic terms:

$$G(i,j) = g(i,.) + g(.,j) - g(.,.) \tag{1}$$

where:

$g(.,j)$ = the average growth of country j, across all sectors

$g(i,.)$ = the average growth of sector i, across all countries

$g(.,.)$ = the average growth of all countries, across all sectors

The above formula does not, however, guarantee a consistent set of growth "expectations", in the sense that applying the full set of individual expected rates to the matrix of individual level indicators (value added, factor productivity, factor inputs, etc.) for the starting period will not give a final set of "expected" levels which sum exactly to the actual levels of sector and total economy aggregates in the terminal year. The reasons for discrepancies lie in the importance of cross-product effects and also the fact that linear computation methods do not respect non-linear restrictions. However, this class of adding-up problem is identical to that commonly encountered in input-output analysis, for example where a base-year matrix is to be updated or projected using information about column and row sums of a more recent year. The basic estimation method has therefore been refined to give system consistency, using the input-output-based RAS estimation method described below.

## The estimation method

Starting with the basic matrix of level variables for the initial year, 1970, organised in terms of rows (sectors) and columns (countries), the principal steps in the estimation procedure are as follows:

(a) First, the percentage rates of the growth for each row (sector) total between 1970 and 1989 are applied to all values in each row.

When the cells of this matrix are added up by column (i.e., across sectors for each given country), the column totals will not equal the actual country totals for 1989.

b) The ratio of actual to calculated column (country) totals are then applied to the cells belonging to each specific column (country).

When the cells of this transformed matrix are added up across rows (i.e., across countries for each given sector), the row sums will not equal the actual sector totals for 1989.

c) The ratio of actual to calculated row (sector) totals are next applied to the cells belonging to each specific row (sector).

Steps (b) and (c) are then repeated until convergence has been reached (2).

The hypothetical growth rates, $G(i,j)$, are finally obtained by dividing the resulting 1989 level estimates, for each specific sector and country, by the corresponding level in the 1970 and converting to an annualised rate. The performance indicators are then calculated as the difference between actual and "expected" growth rates.

The following example gives an idea of the quantitative differences between the hypothetical growth rates obtained with the RAS method and those given by the simple application of equation [1].

Over the period 1970 to 1989, the actual rate of output growth for the food sector across countries was 1.67 per cent per annum, the average growth rate of the Japanese economy was 4.58 per cent; whilst for all countries taken together was 3.12 per cent. Using equation (1) the calculated value for the food industry in Japan would be 3.13 per cent (i.e. 1.67 + 4.58 - 3.12); which compares with a RAS-based estimate of 3.21 per cent. Given an actual growth rate for value added in that sector of 2.19 per cent, the performance indicator is -1.02 (i.e. 2.19 - 3.21), suggesting a relatively weak performance.

## Notes

1. This method was first used in Stone (1963).

2. Bacharach (1970) shows the RAS method gives a unique solution to this sort of problem.

**SECTORAL TRENDS IN DETAIL**

## Contents

The following tables report on a detailed country and ISDB sectoral basis, the individual sector shares, trend growth and related performance indicators for output, factor inputs and total factor productivity over the period 1970 to 1989. The individual tables are as follows:

In these, all country and sector classifications are as defined in Annex A. TFP and growth performance indicators were calculated on the basis of the various definitions set out in the main body of the paper (Part I) and also Annex B.

## Table C.1

### VALUE ADDED
### Sectors expressed in percentage of the country totals
### Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 5,87 | 5,23 | 4,29 | 3,51 | 18,18 | 4,64 | 12,91 | 15,64 | 11,53 | 5,47 | 14,66 | 9,03 | 13,78 | 11,50 | 4,42 | 10,40 |
| PGS | 16,44 | 19,10 | 15,07 | 21,31 | 12,56 | 17,52 | 11,49 | 12,15 | 13,33 | 18,58 | 4,28 | 13,56 | 8,17 | 13,50 | 18,78 | 12,81 |
| EGW | 4,93 | 1,04 | 2,48 | 2,20 | 2,41 | 1,99 | 2,58 | 5,51 | 6,98 | 3,14 | 3,32 | 3,07 | 3,11 | 4,11 | 2,39 | 3,40 |
| CST | 6,99 | 8,64 | 9,01 | 7,44 | 7,67 | 6,83 | 6,59 | 8,42 | 7,29 | 6,83 | 8,31 | 5,99 | 10,23 | 7,25 | 7,98 | 7,18 |
| RET | 13,87 | 15,26 | 12,25 | 12,92 | 18,38 | 15,66 | 10,93 | 18,82 | 14,27 | 14,84 | 19,11 | 17,10 | 11,55 | 14,84 | 13,47 | 15,42 |
| TRS | 11,11 | 10,45 | 8,20 | 5,92 | 8,86 | 6,22 | 5,87 | 5,17 | 6,38 | 7,12 | 6,69 | 6,39 | 7,22 | 6,04 | 8,21 | 6,45 |
| FNS | 4,94 | 3,60 | 3,99 | 4,28 | 5,42 | .. | 5,50 | 5,21 | 11,96 | 2,37 | .. | 5,06 | .. | 5,67 | 4,16 | 4,26 |
| RES | 9,89 | 12,87 | 11,07 | 13,39 | .. | 18,30 | 6,83 | .. | .. | 16,06 | 19,09 | 17,23 | 14,09 | 6,08 | 12,30 | 13,00 |
| AGR | 4,56 | 5,20 | 9,70 | 4,08 | 2,39 | 4,29 | 1,98 | 5,20 | 1,25 | 4,14 | 4,10 | 2,18 | 4,18 | 3,06 | 5,53 | 2,94 |
| BMI | 2,12 | 0,25 | 0,82 | 1,24 | 2,27 | 1,59 | 2,96 | 1,28 | 1,24 | 1,86 | 2,27 | 1,36 | 2,54 | 1,84 | 1,06 | 1,73 |
| FOD | 3,94 | 4,02 | 3,06 | 2,74 | 3,94 | 3,29 | 3,81 | 2,52 | 4,69 | 3,38 | 2,27 | 2,15 | 3,57 | 3,62 | 3,28 | 2,91 |
| TEX | 0,84 | 0,99 | 1,67 | 1,11 | 2,50 | 2,13 | 2,00 | 4,10 | 1,72 | 1,27 | 2,27 | 1,11 | 0,93 | 2,45 | 1,16 | 1,55 |
| WOD | 1,47 | 1,00 | 1,90 | 1,89 | 0,89 | 0,72 | 1,18 | 1,30 | .. | 1,34 | 2,27 | 0,93 | .. | 0,81 | 1,63 | 0,81 |
| PAP | 3,17 | 2,15 | 5,31 | 3,63 | 1,65 | 1,81 | 1,65 | 1,43 | 2,70 | 3,21 | 2,27 | 2,11 | 0,77 | 1,89 | 3,57 | 1,92 |
| CHE | 2,10 | 1,93 | 2,72 | 2,32 | 4,52 | 4,31 | 6,06 | 2,93 | 3,02 | 2,32 | 2,27 | 3,15 | 2,72 | 4,19 | 2,28 | 3,36 |
| MNM | 0,88 | 1,22 | 1,09 | 0,96 | 1,55 | 1,03 | 1,48 | 1,69 | 1,30 | 0,78 | 2,27 | 0,69 | 1,29 | 1,39 | 1,04 | 1,05 |
| MEQ | 6,65 | 6,57 | 7,15 | 10,84 | 6,42 | 9,25 | 15,86 | 8,36 | 11,17 | 6,74 | 2,27 | 8,55 | 11,14 | 11,23 | 8,48 | 9,70 |
| MOT | 0,21 | 0,48 | 0,22 | 0,21 | 0,37 | 0,43 | 0,32 | 0,27 | 1,15 | 0,58 | 2,27 | 0,34 | 4,72 | 0,53 | 0,27 | 1,11 |
| | | | | | | | | | | | | | | | | |
| GOV+SOC | 22,31 | 24,34 | 19,35 | 24,83 | 30,75 | 22,15 | 24,40 | 27,79 | 24,87 | 24,05 | 18,94 | 22,59 | 21,95 | 24,99 | 23,20 | 23,22 |
| SHELTERED | 51,74 | 51,86 | 46,99 | 46,15 | 42,74 | 48,99 | 38,31 | 43,13 | 46,89 | 50,34 | 56,52 | 54,85 | 46,19 | 43,99 | 48,51 | 49,70 |
| SUPPLY | 6,68 | 5,44 | 10,52 | 5,32 | 4,66 | 5,88 | 4,94 | 6,48 | 2,48 | 6,00 | 6,37 | 3,54 | 6,71 | 4,90 | 6,58 | 4,67 |
| OPEN | 19,27 | 18,36 | 23,13 | 23,71 | 21,85 | 22,97 | 32,35 | 22,60 | 25,76 | 19,61 | 18,17 | 19,03 | 25,14 | 26,12 | 21,71 | 22,41 |
| | | | | | | | | | | | | | | | | |
| SHEL-RES | 41,84 | 38,99 | 35,92 | 32,75 | 42,74 | 30,69 | 31,48 | 43,13 | 46,89 | 34,29 | 37,44 | 37,62 | 32,10 | 37,91 | 36,21 | 36,70 |

Table C.2

**VALUE ADDED**

Sectors expressed in percentage of the sector totals

Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 0,23 | 0,33 | 0,23 | 0,39 | 2,17 | 3,30 | 10,89 | 10,88 | 8,59 | 1,70 | 3,03 | 38,17 | 20,09 | 35,83 | 1,18 | 100 |
| PGS | 0,53 | 0,96 | 0,68 | 1,89 | 1,24 | 10,31 | 8,08 | 6,92 | 8,06 | 4,68 | 0,72 | 46,30 | 9,64 | 34,60 | 4,06 | 100 |
| EGW | 0,58 | 0,19 | 0,41 | 0,71 | 0,88 | 4,30 | 6,73 | 11,99 | 15,57 | 2,99 | 2,09 | 39,69 | 13,86 | 39,48 | 1,89 | 100 |
| CST | 0,40 | 0,75 | 0,72 | 1,18 | 1,33 | 7,11 | 8,20 | 8,39 | 7,91 | 3,24 | 2,56 | 36,28 | 21,92 | 32,94 | 3,06 | 100 |
| RET | 0,37 | 0,63 | 0,45 | 0,95 | 1,50 | 7,63 | 6,39 | 8,87 | 7,18 | 3,12 | 2,68 | 48,69 | 11,54 | 31,58 | 2,39 | 100 |
| TRS | 0,69 | 1,04 | 0,72 | 1,02 | 1,72 | 7,17 | 8,10 | 5,80 | 7,61 | 3,59 | 2,23 | 43,55 | 16,78 | 30,39 | 3,47 | 100 |
| FNS | 0,48 | 0,54 | 0,53 | 1,13 | 1,56 | | 11,38 | 8,94 | 21,31 | 1,80 | | 52,32 | | 43,20 | 2,68 | 100 |
| RES | 0,31 | 0,63 | 0,48 | 1,19 | | 10,50 | 4,71 | | | 3,99 | 3,18 | 58,50 | 16,53 | 15,21 | 2,60 | 100 |
| AGR | 0,63 | 1,15 | 1,80 | 1,57 | 1,02 | 11,01 | 6,10 | 12,78 | 3,33 | 4,51 | 3,06 | 32,75 | 20,28 | 34,24 | 5,16 | 100 |
| BMI | 0,51 | 0,09 | 0,30 | 0,83 | 1,71 | 7,05 | 15,43 | 5,34 | 5,54 | 3,51 | 2,92 | 33,31 | 23,47 | 35,07 | 1,73 | 100 |
| FOD | 0,54 | 0,89 | 0,59 | 1,06 | 1,70 | 8,53 | 11,63 | 6,43 | 12,47 | 3,67 | 1,69 | 32,54 | 18,27 | 40,75 | 3,08 | 100 |
| TEX | 0,20 | 0,40 | 0,58 | 0,78 | 1,99 | 9,97 | 11,27 | 20,04 | 8,53 | 2,73 | 3,23 | 31,96 | 8,32 | 51,79 | 1,97 | 100 |
| WOD | 0,73 | 0,78 | 1,31 | 2,63 | 1,37 | 6,64 | 13,01 | 11,63 | | 5,42 | 6,01 | 50,47 | | 32,65 | 5,45 | 100 |
| PAP | 0,67 | 0,71 | 1,57 | 2,14 | 1,08 | 7,07 | 7,69 | 5,47 | 10,93 | 5,38 | 2,55 | 48,50 | 6,24 | 32,24 | 5,10 | 100 |
| CHE | 0,25 | 0,36 | 0,46 | 0,78 | 1,63 | 9,63 | 16,28 | 6,28 | 6,94 | 2,24 | 1,47 | 41,25 | 12,43 | 40,77 | 1,85 | 100 |
| MNM | 0,33 | 0,73 | 0,60 | 1,03 | 1,85 | 7,34 | 12,56 | 11,89 | 9,58 | 2,37 | 4,66 | 28,69 | 18,37 | 43,22 | 2,69 | 100 |
| MEQ | 0,29 | 0,44 | 0,41 | 1,28 | 0,83 | 7,28 | 14,96 | 6,21 | 9,38 | 2,26 | 0,52 | 38,55 | 17,59 | 38,65 | 2,42 | 100 |
| MOT | 0,08 | 0,27 | 0,11 | 0,21 | 0,42 | 2,86 | 2,59 | 1,75 | 8,10 | 1,67 | 4,40 | 13,41 | 64,11 | 15,72 | 0,68 | 100 |
| ALL | 0,40 | 0,63 | 0,56 | 1,13 | 1,25 | 7,49 | 8,95 | 7,27 | 7,74 | 3,24 | 2,16 | 43,93 | 15,25 | 32,69 | 2,73 | 100 |
| GOV+SOC | 0,39 | 0,66 | 0,47 | 1,20 | 1,65 | 7,15 | 9,37 | 8,70 | 8,28 | 3,34 | 1,76 | 42,72 | 14,31 | 35,15 | 2,73 | 100 |
| SHELTERED | 0,42 | 0,67 | 0,53 | 1,05 | 1,08 | 7,37 | 6,90 | 6,33 | 7,26 | 3,29 | 2,45 | 48,48 | 14,17 | 28,94 | 2,67 | 100 |
| SUPPLY | 0,59 | 0,77 | 1,25 | 1,30 | 1,27 | 9,55 | 9,53 | 10,05 | 4,15 | 4,14 | 3,01 | 33,04 | 21,36 | 34,56 | 3,90 | 100 |
| OPEN | 0,35 | 0,52 | 0,58 | 1,20 | 1,22 | 7,69 | 13,01 | 7,31 | 9,00 | 2,83 | 1,75 | 37,28 | 17,28 | 38,22 | 2,65 | 100 |
| SHEL-RES | 0,46 | 0,68 | 0,55 | 1,00 | 1,46 | 6,26 | 7,67 | 8,54 | 9,82 | 3,04 | 2,20 | 45,03 | 13,28 | 33,76 | 2,70 | 100 |

## Table C.3

## EMPLOYEMENT

Sectors expressed in percentage of the country totals

Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 8,29 | 5,63 | 4,49 | 6,01 | 14,07 | 5,54 | 9,48 | 9,37 | 8,39 | 7,37 | 18,22 | 14,08 | 16,94 | 8,49 | 6,01 | 12,21 |
| PGS | 21,88 | 23,89 | 17,66 | 26,44 | 17,60 | 22,22 | 13,95 | 14,10 | 19,41 | 19,65 | 4,19 | 16,04 | 6,07 | 17,34 | 23,27 | 14,44 |
| EGW | 0,97 | 0,63 | 1,11 | 0,74 | 1,63 | 0,69 | 1,01 | 0,90 | 1,37 | 1,04 | 1,70 | 0,86 | 0,55 | 1,03 | 0,83 | 0,88 |
| CST | 7,99 | 8,36 | 9,50 | 8,05 | 7,68 | 8,53 | 8,02 | 8,73 | 6,89 | 6,01 | 8,28 | 5,64 | 8,85 | 7,98 | 8,41 | 7,35 |
| RET | 16,42 | 14,86 | 15,74 | 14,69 | 19,54 | 17,01 | 16,36 | 19,68 | 18,39 | 22,25 | 24,21 | 22,22 | 17,40 | 17,88 | 15,25 | 19,45 |
| TRS | 9,52 | 7,18 | 7,16 | 6,47 | 6,41 | 5,50 | 5,71 | 5,96 | 6,34 | 7,14 | 7,48 | 4,67 | 5,69 | 5,91 | 7,30 | 5,56 |
| FNS | 2,45 | 3,30 | 2,55 | 1,85 | 3,38 | .. | 2,78 | 1,38 | .. | .. | .. | 4,41 | .. | 1,17 | 2,42 | 2,00 |
| RES | 3,23 | 4,59 | 2,99 | 4,72 | .. | 7,34 | .. | .. | 8,38 | 9,41 | 9,50 | 7,35 | 3,94 | 3,78 | 4,08 | 5,41 |
| AGR | 9,75 | 8,70 | 15,92 | 6,12 | 3,86 | 9,85 | 6,37 | 14,74 | 2,72 | 5,94 | 6,93 | 3,41 | 14,93 | 7,90 | 9,35 | 7,91 |
| BMI | 1,40 | 0,32 | 0,74 | 1,44 | 2,07 | 1,42 | 3,12 | 0,94 | 1,69 | 1,32 | 1,33 | 1,16 | 1,13 | 1,87 | 1,03 | 1,41 |
| FOD | 3,13 | 4,19 | 2,79 | 2,27 | 3,31 | 2,75 | 3,47 | 1,94 | 2,79 | 2,73 | 2,88 | 1,93 | 2,51 | 2,80 | 2,96 | 2,45 |
| TEX | 1,47 | 2,30 | 2,83 | 1,72 | 4,36 | 3,21 | 3,51 | 6,05 | 3,57 | 2,29 | 2,11 | 2,55 | 2,56 | 4,04 | 2,04 | 3,05 |
| WOD | 1,77 | 1,71 | 2,63 | 1,94 | .. | 1,06 | 1,68 | 2,09 | 1,03 | 2,02 | 1,66 | 1,36 | .. | 1,40 | 2,00 | 1,14 |
| PAP | 2,98 | 2,31 | 3,79 | 3,22 | 1,70 | 1,62 | 1,84 | 1,20 | 2,32 | 2,96 | 1,86 | 2,17 | 0,63 | 1,77 | 3,09 | 1,76 |
| CHE | 2,48 | 1,85 | 1,67 | 1,71 | 2,53 | 2,48 | 4,06 | 2,32 | 2,82 | 2,01 | 1,66 | 2,11 | 0,98 | 2,96 | 1,87 | 2,14 |
| MNM | .. | 1,15 | 0,99 | 0,92 | 1,70 | 0,86 | 1,48 | 1,84 | 1,08 | 0,61 | 0,87 | 0,69 | 1,12 | 1,33 | 0,83 | 1,02 |
| MEQ | 6,28 | 8,52 | 7,19 | 10,92 | 8,33 | 9,38 | 16,79 | 8,40 | 12,45 | 6,45 | 6,75 | 8,86 | 11,15 | 11,90 | 8,80 | 10,27 |
| MOT | .. | 0,51 | 0,25 | 0,77 | 1,84 | 0,53 | 0,35 | 0,36 | 0,37 | 0,80 | 0,39 | 0,48 | 5,55 | 0,45 | 0,47 | 1,55 |
| GOV+SOC | 30,17 | 29,52 | 22,15 | 32,45 | 31,66 | 27,76 | 23,44 | 23,47 | 27,79 | 27,02 | 22,40 | 30,12 | 23,01 | 25,83 | 29,29 | 26,64 |
| SHELTERED | 40,58 | 38,93 | 39,05 | 36,51 | 38,64 | 39,07 | 33,88 | 36,64 | 41,36 | 45,85 | 51,16 | 45,15 | 36,43 | 37,74 | 38,28 | 40,65 |
| SUPPLY | 11,15 | 9,02 | 16,65 | 7,56 | 5,93 | 11,27 | 9,50 | 15,68 | 4,41 | 7,25 | 8,26 | 4,58 | 16,06 | 9,77 | 10,38 | 9,32 |
| OPEN | 18,10 | 22,54 | 22,15 | 23,48 | 23,77 | 21,90 | 33,18 | 24,20 | 26,43 | 19,87 | 18,18 | 20,15 | 24,50 | 26,66 | 22,04 | 23,39 |
| SHEL-RES | 37,35 | 34,33 | 36,06 | 31,79 | 38,64 | 31,73 | 33,88 | 36,64 | 32,98 | 36,45 | 41,66 | 37,80 | 32,49 | 33,96 | 34,20 | 35,24 |

Table C.4

**EMPLOYEMENT**

Sectors expressed in percentage of the sector totals

Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 0,47 | 0,43 | 0,30 | 0,79 | 1,48 | 3,55 | 7,14 | 5,61 | 6,05 | 2,21 | 3,47 | 39,37 | 29,14 | 23,83 | 1,99 | 100 |
| PGS | 1,00 | 1,42 | 0,93 | 2,74 | 1,59 | 11,86 | 9,02 | 7,41 | 12,29 | 4,97 | 0,67 | 37,21 | 8,90 | 42,17 | 6,09 | 100 |
| EGW | 0,74 | 0,63 | 0,98 | 1,27 | 2,50 | 6,05 | 10,82 | 7,79 | 14,28 | 4,30 | 4,40 | 32,90 | 13,32 | 41,46 | 3,62 | 100 |
| CST | 0,72 | 0,99 | 1,01 | 1,66 | 1,39 | 9,10 | 10,41 | 9,08 | 8,55 | 3,01 | 2,60 | 26,03 | 25,45 | 38,53 | 4,38 | 100 |
| RET | 0,56 | 0,68 | 0,64 | 1,15 | 1,34 | 6,84 | 8,03 | 7,70 | 8,61 | 4,17 | 2,88 | 38,46 | 18,92 | 32,52 | 3,04 | 100 |
| TRS | 1,14 | 1,13 | 1,00 | 1,76 | 1,52 | 7,67 | 9,71 | 8,17 | 10,44 | 4,66 | 3,10 | 28,10 | 21,59 | 37,51 | 5,03 | 100 |
| FNS | 0,81 | 1,41 | 0,98 | 1,42 | 2,21 | | 13,29 | 5,20 | | | | 74,69 | | 20,70 | 4,62 | 100 |
| RES | 0,38 | 0,75 | 0,42 | 1,36 | | 10,78 | | | 13,79 | 6,58 | 4,21 | 45,51 | 16,21 | 24,58 | 2,92 | 100 |
| AGR | 0,82 | 0,96 | 1,55 | 1,15 | 0,65 | 9,63 | 7,54 | 14,33 | 3,27 | 2,83 | 2,15 | 15,42 | 39,68 | 35,44 | 4,48 | 100 |
| BMI | 0,67 | 0,20 | 0,44 | 1,55 | 1,94 | 8,00 | 21,53 | 5,21 | 10,42 | 3,58 | 2,22 | 26,46 | 17,79 | 47,10 | 2,85 | 100 |
| FOD | 0,85 | 1,49 | 0,90 | 1,40 | 1,79 | 8,84 | 13,49 | 6,08 | 10,35 | 3,97 | 2,73 | 26,10 | 22,01 | 40,55 | 4,64 | 100 |
| TEX | 0,29 | 0,64 | 0,71 | 0,79 | 1,85 | 8,10 | 10,68 | 16,02 | 10,48 | 2,84 | 1,64 | 28,10 | 17,87 | 47,13 | 2,42 | 100 |
| WOD | 1,02 | 1,30 | 1,80 | 2,56 | | 7,26 | 13,99 | 13,94 | 8,30 | 6,37 | 3,36 | 40,11 | | 43,48 | 6,68 | 100 |
| PAP | 1,12 | 1,15 | 1,69 | 2,77 | 1,28 | 7,18 | 9,95 | 5,23 | 12,04 | 6,07 | 2,44 | 41,56 | 7,53 | 35,69 | 6,72 | 100 |
| CHE | 0,76 | 0,76 | 0,61 | 1,22 | 1,56 | 9,04 | 17,99 | 8,31 | 12,01 | 3,41 | 1,78 | 32,91 | 9,64 | 48,91 | 3,35 | 100 |
| MNM | | 0,98 | 0,78 | 1,33 | 2,17 | 6,57 | 13,85 | 14,06 | 9,65 | 2,10 | 1,97 | 22,96 | 23,57 | 46,31 | 3,09 | 100 |
| MEQ | 0,40 | 0,73 | 0,55 | 1,62 | 1,07 | 7,13 | 15,54 | 6,27 | 11,00 | 2,26 | 1,49 | 28,80 | 23,13 | 41,02 | 3,30 | 100 |
| MOT | | 0,29 | 0,13 | 0,76 | 1,58 | 2,67 | 2,14 | 1,78 | 2,15 | 1,85 | 0,59 | 10,26 | 75,80 | 10,33 | 1,17 | 100 |
| ALL | 0,67 | 0,87 | 0,78 | 1,51 | 1,32 | 7,80 | 9,50 | 7,65 | 9,14 | 3,65 | 2,32 | 33,66 | 21,13 | 35,41 | 3,84 | 100 |
| GOV+SOC | 0,75 | 0,95 | 0,63 | 1,83 | 1,54 | 8,07 | 8,16 | 6,61 | 9,51 | 3,70 | 1,95 | 38,21 | 18,08 | 33,89 | 4,16 | 100 |
| SHELTERED | 0,67 | 0,85 | 0,75 | 1,37 | 1,28 | 7,52 | 8,01 | 6,92 | 9,26 | 4,11 | 2,92 | 37,39 | 18,95 | 32,99 | 3,64 | 100 |
| SUPPLY | 0,80 | 0,84 | 1,38 | 1,21 | 0,85 | 9,40 | 9,69 | 12,94 | 4,34 | 2,94 | 2,16 | 17,09 | 36,35 | 37,22 | 4,24 | 100 |
| OPEN | 0,51 | 0,84 | 0,74 | 1,53 | 1,34 | 7,31 | 13,51 | 7,95 | 10,25 | 3,06 | 1,78 | 28,83 | 22,34 | 40,36 | 3,62 | 100 |
| SHEL-RES | 0,71 | 0,86 | 0,80 | 1,37 | 1,46 | 7,05 | 9,16 | 7,95 | 8,56 | 3,77 | 2,73 | 36,11 | 19,46 | 34,18 | 3,74 | 100 |

Table C.5

**CAPITAL STOCK**

Sectors expressed in percentage of the country totals

Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | DEU | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 0,75 | 0,44 | 2,10 | 1,55 | 27,12 | 1,33 | 6,26 | 5,45 | 9,14 | 6,94 | 3,35 | 3,00 | 3,24 | 6,32 | 1,27 | 4,30 |
| PGS | 10,92 | 18,93 | 16,62 | 15,11 | 13,93 | 11,53 | 14,68 | 7,23 | 5,25 | 12,17 | 18,90 | 20,25 | 20,54 | 10,33 | 15,44 | 16,36 |
| EGW | 6,77 | 3,91 | 5,63 | 8,74 | 4,09 | 3,08 | 4,16 | 7,16 | 9,16 | 10,10 | 11,03 | 5,59 | 4,40 | 5,55 | 6,64 | 5,78 |
| CST | 1,25 | 1,97 | 1,21 | 1,52 | 0,96 | 1,88 | 1,04 | 2,03 | 1,05 | 0,85 | 1,28 | 0,70 | 1,46 | 1,47 | 1,50 | 1,12 |
| RET | 2,65 | 3,44 | 6,35 | 4,97 | 5,41 | 5,38 | 4,45 | 5,41 | 6,77 | 2,96 | 5,25 | 4,77 | 4,83 | 5,37 | 4,44 | 4,91 |
| TRS | 41,15 | 9,67 | 7,27 | 8,11 | 6,85 | 6,52 | 6,16 | 2,40 | 8,01 | 11,60 | 8,83 | 7,24 | 6,00 | 5,73 | 14,88 | 7,07 |
| FNS | 0,89 | 1,23 | 5,33 | 0,70 | 1,41 | 0,89 | 1,60 | 1,24 | 6,67 | 3,34 | 4,83 | 2,62 | 1,18 | 2,25 | 1,84 | 2,34 |
| RES | 22,03 | 46,41 | 32,81 | 37,94 | 26,32 | 53,91 | 41,30 | 43,03 | 33,22 | 32,69 | 31,51 | 43,25 | 33,36 | 42,71 | 35,58 | 40,94 |
| AGR | 4,88 | 4,46 | 9,09 | 3,26 | 1,41 | 2,34 | 4,27 | 4,97 | 2,02 | 5,57 | 4,63 | 2,52 | 6,60 | 3,38 | 5,02 | 3,54 |
| BMI | 1,33 | 0,21 | 1,51 | 2,17 | 2,21 | 1,62 | 1,95 | 2,79 | 2,41 | 2,02 | 1,15 | 1,22 | 3,03 | 2,17 | 1,43 | 1,77 |
| FOD | 1,63 | 2,26 | 1,51 | 1,59 | 1,61 | 1,69 | 1,95 | 2,35 | 2,61 | 1,58 | 1,15 | 1,01 | 1,40 | 2,09 | 1,73 | 1,49 |
| TEX | 0,25 | 0,54 | 1,51 | 0,45 | 1,11 | 0,77 | 0,95 | 2,40 | 1,11 | 0,62 | 1,15 | 0,42 | 1,06 | 1,29 | 0,65 | 0,82 |
| WOD | 0,45 | 0,56 | 1,51 | 1,26 | | 0,52 | 0,47 | | 0,46 | 0,73 | 1,15 | 0,31 | | 0,35 | 1,00 | 0,35 |
| PAP | 1,15 | 1,02 | 1,51 | 4,01 | 0,77 | 0,72 | 0,85 | 1,28 | 1,23 | 2,78 | 1,15 | 1,00 | 1,26 | 0,99 | 2,26 | 1,15 |
| CHE | 1,78 | 1,54 | 1,51 | 2,02 | 2,62 | 2,83 | 3,32 | 3,72 | 0,74 | 2,73 | 1,15 | 2,15 | 3,02 | 2,79 | 1,76 | 2,44 |
| MNM | 0,48 | 0,89 | 1,51 | 0,67 | 1,13 | 0,92 | 0,97 | 1,76 | 1,17 | 0,63 | 1,15 | 0,40 | 1,03 | 1,19 | 0,86 | 0,79 |
| MEQ | 1,60 | 2,45 | 1,51 | 5,88 | 2,29 | 4,07 | 5,56 | 6,03 | 8,79 | 2,55 | 1,15 | 3,46 | 6,06 | 5,75 | 3,35 | 4,48 |
| MOT | 0,04 | 0,08 | 1,51 | 0,06 | 0,77 | | 0,08 | 0,75 | 0,17 | 0,14 | 1,15 | 0,10 | 1,50 | 0,27 | 0,36 | 0,35 |
| | | | | | | | | | | | | | | | | |
| GOV+SOC | 11,67 | 19,37 | 18,72 | 16,66 | 41,05 | 12,85 | 20,94 | 12,68 | 14,39 | 19,11 | 22,26 | 23,25 | 23,79 | 16,65 | 16,71 | 20,66 |
| SHELTERED | 74,74 | 66,62 | 58,60 | 61,97 | 45,03 | 71,67 | 58,71 | 61,27 | 64,89 | 61,54 | 62,72 | 64,17 | 51,24 | 63,09 | 64,87 | 62,17 |
| SUPPLY | 6,21 | 4,67 | 10,60 | 5,43 | 3,62 | 3,97 | 6,22 | 7,76 | 4,43 | 7,59 | 5,78 | 3,74 | 9,63 | 5,55 | 6,46 | 5,31 |
| OPEN | 7,38 | 9,33 | 12,08 | 15,94 | 10,30 | 11,51 | 14,14 | 18,29 | 16,29 | 11,76 | 9,24 | 8,84 | 15,34 | 14,71 | 11,96 | 11,86 |
| | | | | | | | | | | | | | | | | |
| SHEL-RES | 52,71 | 20,22 | 25,79 | 24,04 | 18,71 | 17,75 | 17,41 | 18,24 | 31,67 | 28,85 | 31,21 | 20,92 | 17,88 | 20,38 | 29,29 | 21,23 |

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Table C.6

## CAPITAL STOCK
### Sectors expressed in percentage of the sector totals
### Average 1970-1989

| | NOR | DNK | FIN | SWE | BEL | FRA | DEU | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 0,14 | 0,10 | 0,44 | 0,59 | 10,65 | 2,69 | 13,55 | 11,05 | 14,30 | 5,86 | 1,73 | 30,21 | 8,68 | 52,25 | 1,27 | 100 |
| PGS | 0,57 | 1,09 | 0,91 | 1,48 | 1,35 | 6,27 | 8,79 | 3,65 | 2,05 | 2,70 | 2,54 | 54,36 | 14,25 | 22,10 | 4,05 | 100 |
| EGW | 1,00 | 0,63 | 0,87 | 2,41 | 1,12 | 4,74 | 7,04 | 10,53 | 10,27 | 6,44 | 4,19 | 42,34 | 8,42 | 33,70 | 4,91 | 100 |
| CST | 0,94 | 1,66 | 0,95 | 2,15 | 1,36 | 14,88 | 9,10 | 14,69 | 6,04 | 2,77 | 2,54 | 27,65 | 15,26 | 46,08 | 5,70 | 100 |
| RET | 0,46 | 0,67 | 1,17 | 1,62 | 1,74 | 9,82 | 9,04 | 9,17 | 8,85 | 2,20 | 2,38 | 42,08 | 10,79 | 38,63 | 3,92 | 100 |
| TRS | 4,98 | 1,28 | 0,92 | 1,83 | 1,55 | 8,28 | 8,59 | 2,81 | 7,28 | 5,92 | 2,78 | 44,80 | 8,99 | 28,50 | 9,01 | 100 |
| FNS | 0,29 | 0,55 | 2,18 | 0,55 | 1,07 | 3,32 | 7,22 | -5,06 | 17,48 | 5,09 | 4,38 | 47,21 | 5,60 | 34,15 | 3,57 | 100 |
| RES | 0,46 | 1,07 | 0,72 | 1,48 | 1,02 | 11,72 | 9,88 | 8,72 | 5,22 | 2,92 | 1,70 | 46,31 | 8,80 | 36,55 | 3,72 | 100 |
| AGR | 1,19 | 1,18 | 2,26 | 1,47 | 0,63 | 5,88 | 11,69 | 11,57 | 3,67 | 5,61 | 2,85 | 31,16 | 20,84 | 33,45 | 6,09 | 100 |
| BMI | 0,66 | 0,11 | 0,79 | 1,96 | 1,99 | 8,20 | 10,74 | 13,08 | 8,71 | 4,20 | 1,46 | 30,14 | 17,97 | 42,72 | 3,52 | 100 |
| FOD | 0,94 | 1,42 | 0,91 | 1,70 | 1,72 | 10,14 | 12,73 | 13,25 | 11,29 | 3,85 | 1,70 | 29,73 | 10,60 | 49,13 | 4,98 | 100 |
| TEX | 0,27 | 0,62 | 1,70 | 0,89 | 2,16 | 8,47 | 11,10 | 24,43 | 8,75 | 2,68 | 3,15 | 22,44 | 13,34 | 54,91 | 3,47 | 100 |
| WOD | 1,10 | 1,49 | 3,85 | 5,73 | .. | 13,12 | 12,92 | .. | 8,51 | 7,65 | 7,22 | 38,42 | .. | 34,54 | 12,17 | 100 |
| PAP | 0,86 | 0,83 | 1,17 | 5,58 | 1,06 | 5,54 | 7,27 | 9,59 | 6,88 | 8,75 | 2,21 | 38,17 | 12,10 | 30,33 | 8,44 | 100 |
| CHE | 0,63 | 0,59 | 0,55 | 1,32 | 1,71 | 10,30 | 13,28 | 12,89 | 1,96 | 4,15 | 1,04 | 38,62 | 12,97 | 40,14 | 3,09 | 100 |
| MNM | 0,53 | 1,06 | 1,73 | 1,35 | 2,25 | 10,31 | 11,89 | 18,56 | 9,51 | 2,87 | 3,22 | 22,06 | 14,65 | 52,53 | 4,67 | 100 |
| MEQ | 0,30 | 0,51 | 0,30 | 2,11 | 0,81 | 8,11 | 12,17 | 11,49 | 12,84 | 2,08 | 0,57 | 33,69 | 15,02 | 45,42 | 3,22 | 100 |
| MOT | 0,09 | 0,21 | 3,93 | 0,31 | 3,66 | .. | 2,34 | 18,55 | 3,31 | 1,53 | 7,50 | 12,31 | 46,26 | 27,87 | 4,54 | 100 |
| ALL | 0,86 | 0,94 | 0,89 | 1,60 | 1,59 | 8,90 | 9,79 | 8,34 | 6,43 | 3,65 | 2,21 | 43,85 | 10,97 | 35,05 | 4,29 | 100 |
| GOV+SOC | 0,48 | 0,89 | 0,81 | 1,30 | 3,18 | 5,52 | 9,90 | 5,09 | 4,47 | 3,38 | 2,37 | 49,55 | 13,07 | 28,15 | 3,48 | 100 |
| SHELTERED | 1,03 | 1,01 | 0,84 | 1,59 | 1,15 | 10,26 | 9,25 | 8,20 | 6,71 | 3,61 | 2,23 | 45,23 | 8,91 | 35,55 | 4,47 | 100 |
| SUPPLY | 1,01 | 0,83 | 1,76 | 1,63 | 1,08 | 6,63 | 11,33 | 12,16 | 5,35 | 5,12 | 2,38 | 30,74 | 19,97 | 36,56 | 5,23 | 100 |
| OPEN | 0,53 | 0,74 | 0,91 | 2,14 | 1,38 | 8,63 | 11,67 | 13,04 | 8,85 | 3,61 | 1,71 | 32,62 | 14,17 | 43,57 | 4,32 | 100 |
| SHEL-RES | 2,16 | 0,90 | 1,08 | 1,81 | 1,39 | 7,42 | 8,03 | 7,19 | 9,59 | 4,95 | 3,24 | 43,13 | 9,11 | 33,62 | 5,95 | 100 |

Table C.7

## VALUE ADDED

Average annual growth rate for the period 1970 to 1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 2,64 | 1,51 | 2,83 | 2,18 | 4,17 | 5,16 | 4,86 | 4,27 | 2,98 | 4,86 | 4,30 | 3,82 | 4,30 | 4,21 | 2,22 | 4,07 |
| PGS | 4,60 | 3,50 | 4,10 | 2,57 | 2,88 | 2,48 | 2,25 | 2,09 | 1,14 | 2,10 | 2,18 | 1,30 | 2,89 | 2,05 | 3,30 | 1,83 |
| EGW | 4,02 | 4,70 | 4,80 | 5,57 | 4,00 | 6,33 | 4,18 | 1,29 | 4,22 | 4,66 | 4,82 | 3,75 | 4,36 | 3,54 | 4,83 | 3,82 |
| CST | 2,40 | -1,30 | 2,22 | 1,40 | 0,50 | 0,86 | 0,24 | -0,05 | 0,66 | 3,77 | 2,56 | 0,29 | 2,78 | 0,41 | 1,06 | 1,06 |
| RET | 2,36 | 2,20 | 3,85 | 2,19 | 1,19 | 2,48 | 1,91 | 3,25 | 2,16 | 3,95 | 2,39 | 3,55 | 6,09 | 2,45 | 2,53 | 3,44 |
| TRS | 3,95 | 1,84 | 3,89 | 3,98 | 2,38 | 4,90 | 3,48 | 4,51 | 3,01 | 5,04 | 4,69 | 3,15 | 3,14 | 3,83 | 3,31 | 3,46 |
| FNS | 1,70 | 2,76 | 5,36 | 3,09 | 5,83 | .. | 4,61 | 2,93 | 4,21 | 3,51 | .. | 3,51 | .. | 4,11 | 3,22 | 3,76 |
| RES | 4,49 | 3,78 | 6,01 | 2,53 | .. | 4,58 | 3,67 | .. | .. | 5,78 | 4,12 | 3,92 | 6,40 | 4,30 | 3,70 | 4,46 |
| AGR | 1,51 | 3,42 | 0,27 | 0,78 | 1,68 | 1,72 | 1,63 | 0,78 | 2,37 | 1,33 | 2,44 | 1,53 | 0,39 | 1,41 | 1,26 | 1,26 |
| BMI | 1,82 | 2,15 | 5,93 | 1,35 | 2,56 | 1,54 | 0,41 | -0,02 | -0,51 | 1,43 | 2,07 | -1,31 | 3,53 | 0,53 | 2,26 | 0,71 |
| FOD | 0,01 | 3,22 | 2,50 | 0,42 | 1,71 | 2,18 | 0,17 | 3,43 | 0,99 | 0,97 | 2,07 | 1,78 | 2,19 | 1,41 | 1,55 | 1,67 |
| TEX | -3,99 | 0,17 | -0,32 | -3,16 | -0,07 | -1,08 | -1,53 | 3,12 | -0,81 | 2,56 | 2,07 | 1,82 | -0,71 | 0,51 | -1,67 | 0,89 |
| WOD | 0,46 | 1,16 | 2,39 | 0,89 | 3,32 | 2,52 | -0,19 | 2,49 | .. | 3,94 | 2,07 | 2,71 | .. | 1,47 | 1,23 | 2,25 |
| PAP | 0,81 | 0,27 | 3,47 | 1,71 | 2,67 | 1,75 | 0,85 | 3,14 | 1,35 | 2,06 | 2,07 | 2,36 | 4,94 | 1,67 | 1,93 | 2,25 |
| CHE | 3,33 | 4,62 | 4,07 | 2,80 | 7,80 | 2,81 | 2,11 | 4,83 | 2,96 | 4,30 | 2,07 | 3,55 | 6,04 | 3,05 | 3,54 | 3,64 |
| MNM | -0,64 | -1,48 | 3,62 | -0,44 | 1,72 | 1,69 | 0,70 | 3,93 | 0,75 | 1,94 | 2,07 | 1,78 | 2,40 | 1,80 | 0,17 | 1,88 |
| MEQ | 0,88 | 2,43 | 5,64 | 2,54 | 3,41 | 2,60 | 2,33 | 4,85 | 0,65 | 4,49 | 2,07 | 4,61 | 8,60 | 2,42 | 2,86 | 4,36 |
| MOT | -2,89 | 2,67 | 3,23 | 3,48 | -0,01 | 0,70 | -0,03 | 2,89 | 0,49 | 1,90 | 2,07 | 2,36 | 3,39 | 0,70 | 2,42 | 2,74 |
| ALL | 2,79 | 2,37 | 3,66 | 2,29 | 2,81 | 2,96 | 2,46 | 2,94 | 2,10 | 3,70 | 3,17 | 2,99 | 4,58 | 2,61 | 2,66 | 3,12 |
| GOV+SOC | 4,07 | 3,07 | 3,82 | 2,52 | 3,64 | 3,03 | 3,61 | 3,31 | 1,99 | 2,73 | 3,82 | 2,31 | 3,78 | 3,03 | 3,10 | 2,83 |
| SHELTERED | 3,20 | 2,03 | 4,22 | 2,63 | 2,05 | 3,48 | 2,71 | 2,47 | 2,86 | 4,68 | 3,41 | 3,27 | 4,86 | 2,87 | 2,89 | 3,42 |
| SUPPLY | 1,61 | 3,36 | 0,72 | 0,91 | 2,11 | 1,67 | 0,91 | 0,62 | 0,95 | 1,36 | 2,31 | 0,48 | 1,62 | 1,08 | 1,42 | 1,06 |
| OPEN | 0,64 | 2,14 | 3,72 | 1,70 | 3,29 | 2,10 | 1,54 | 4,03 | 0,96 | 3,13 | 2,07 | 3,46 | 5,57 | 2,05 | 2,09 | 3,20 |
| SHEL-RES | 2,90 | 1,46 | 3,68 | 2,66 | 2,05 | 2,84 | 2,50 | 2,47 | 2,86 | 4,17 | 3,05 | 2,98 | 4,20 | 2,64 | 2,61 | 3,05 |

Table C.8

**EMPLOYEMENT**

Average annual growth rate for the period 1970 to 1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 1,98 | 0,41 | 1,06 | 0,35 | 3,26 | 2,47 | 3,60 | 5,08 | 4,24 | 4,40 | 4,32 | 3,18 | 3,44 | 3,92 | 0,86 | 3,45 |
| PGS | 3,81 | 3,81 | 3,66 | 3,05 | 1,71 | 1,73 | 1,92 | 2,27 | 0,81 | 2,76 | 2,83 | 1,10 | 1,18 | 1,59 | 3,44 | 1,55 |
| EGW | 1,82 | 1,05 | 1,87 | 0,97 | -3,41 | 1,41 | 0,83 | 0,47 | -1,60 | 1,59 | 0,30 | 1,63 | 1,39 | -0,23 | 1,40 | 0,75 |
| CST | 0,85 | -1,21 | -0,01 | -1,25 | -1,42 | -1,30 | -1,23 | -1,24 | 0,43 | 2,62 | 1,44 | 2,30 | 1,53 | -0,88 | -0,60 | 0,73 |
| RET | 1,73 | -0,67 | 0,53 | 0,56 | 0,40 | 0,76 | 0,57 | 1,94 | 1,41 | 3,00 | 2,27 | 2,67 | 1,51 | 1,15 | 0,50 | 1,89 |
| TRS | 0,32 | 0,90 | 0,85 | 0,92 | -0,02 | 0,92 | 0,53 | 1,96 | -0,40 | 1,62 | 1,35 | 1,13 | 1,00 | 0,64 | 0,77 | 0,93 |
| FNS | 3,69 | 3,70 | 3,16 | 2,03 | 2,50 | | 1,88 | 3,52 | | | | 3,25 | | 2,36 | 3,07 | 3,06 |
| RES | 6,49 | 4,12 | 4,76 | 3,70 | | 3,56 | | | 4,97 | 4,51 | 4,57 | 6,12 | 3,12 | 4,35 | 4,32 | 4,97 |
| AGR | -2,38 | -2,92 | -3,75 | -3,38 | -3,26 | -3,62 | -4,07 | -2,63 | -1,69 | -0,62 | -0,10 | -0,13 | -2,90 | -3,13 | -3,23 | -2,46 |
| BMI | -1,79 | -1,57 | 0,80 | -2,40 | -3,21 | -2,18 | -1,81 | -1,58 | -5,01 | 0,32 | -0,71 | -2,54 | -0,33 | -2,60 | -1,72 | -2,02 |
| FOD | -0,40 | -0,86 | -0,47 | -0,99 | -1,44 | -0,19 | -1,00 | -0,42 | -1,71 | -0,43 | 0,43 | -0,49 | 0,72 | -0,94 | -0,74 | -0,39 |
| TEX | -6,24 | -3,68 | -3,75 | -5,95 | -4,49 | -3,66 | -4,24 | -0,73 | -3,78 | -0,29 | -0,83 | -1,51 | -2,31 | -2,86 | -4,71 | -2,32 |
| WOD | -1,26 | -0,85 | -1,31 | -1,18 | | -1,05 | -0,93 | -1,09 | 0,10 | 0,27 | 0,86 | 0,70 | | -0,81 | -1,16 | -0,10 |
| PAP | -0,69 | -0,45 | 0,36 | -0,09 | -2,15 | -0,20 | -1,00 | 0,36 | -1,05 | 0,91 | 0,85 | 1,33 | -0,04 | -0,70 | -0,14 | 0,36 |
| CHE | -0,94 | 0,85 | 0,65 | 0,71 | 0,27 | -0,11 | 0,23 | 0,28 | -1,20 | 1,22 | 0,65 | 0,71 | -1,04 | -0,18 | 0,35 | 0,11 |
| MNM | | -2,01 | -0,12 | -2,75 | -3,92 | -2,40 | -1,94 | -0,43 | -2,16 | -1,61 | -0,33 | -0,30 | -0,80 | -1,68 | -1,85 | -1,14 |
| MEQ | -0,84 | 0,42 | 0,88 | 0,39 | -1,58 | -0,84 | 0,03 | 0,08 | -2,34 | 0,31 | -0,33 | 0,42 | 0,82 | -0,79 | 0,33 | 0,00 |
| MOT | | 0,13 | -0,69 | 2,66 | -2,18 | -0,28 | -1,80 | -0,06 | -3,09 | 0,35 | 2,54 | 0,04 | 0,45 | -1,42 | 1,65 | 0,24 |
| ALL | 1,20 | 0,71 | 0,41 | 0,74 | 0,04 | 0,22 | 0,13 | 0,74 | 0,44 | 2,26 | 2,10 | 2,00 | 0,86 | 0,36 | 0,75 | 1,14 |
| GOV+SOC | 3,29 | 3,13 | 3,10 | 2,53 | 2,38 | 1,87 | 2,58 | 3,34 | 1,80 | 3,20 | 4,03 | 2,07 | 2,83 | 2,33 | 2,89 | 2,41 |
| SHELTERED | 1,68 | 0,44 | 0,96 | 0,70 | -0,01 | 0,84 | 0,25 | 1,20 | 1,53 | 3,00 | 2,35 | 3,03 | 1,60 | 0,93 | 0,87 | 1,96 |
| SUPPLY | -2,30 | -2,87 | -3,53 | -3,19 | -3,24 | -3,44 | -3,30 | -2,57 | -2,89 | -0,44 | -0,20 | -0,72 | -2,71 | -3,03 | -3,07 | -2,39 |
| OPEN | -1,17 | -0,50 | -0,29 | -0,38 | -2,12 | -1,08 | -0,70 | -0,27 | -2,12 | 0,26 | 0,12 | 0,21 | 0,24 | -1,09 | -0,50 | -0,34 |
| SHEL-RES | 1,31 | -0,03 | 0,67 | 0,27 | -0,01 | 0,24 | 0,25 | 1,20 | 0,73 | 2,63 | 1,86 | 2,47 | 1,42 | 0,58 | 0,48 | 1,53 |

## Table C.9

## CAPITAL STOCK

### Average annual growth rates for the period 1970 to 1989

| | NOR | DEN | FIN | SWE | BEL | FRA | DEU | ITA | GBR | CAN | AUS | USA | JAP | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 8,42 | 3,24 | 4,79 | 3,46 | 2,08 | 6,26 | 8,30 | 2,52 | 2,79 | 7,19 | 5,24 | 5,59 | 13,89 | 4,20 | 4,44 | 5,53 |
| PGS | 4,68 | 1,53 | 3,82 | 2,03 | 2,69 | 3,69 | 2,84 | 2,90 | 4,34 | 4,14 | 3,11 | 2,09 | 8,17 | 3,22 | 2,67 | 3,25 |
| EGW | 3,44 | 2,94 | 3,95 | 2,52 | 4,04 | 4,81 | 4,53 | 0,06 | 0,90 | 5,42 | 2,87 | 3,25 | 7,37 | 2,06 | 3,01 | 3,28 |
| CST | 12,41 | 1,89 | 2,39 | 2,99 | 2,14 | 2,67 | 0,50 | 4,31 | 1,87 | 5,00 | 5,57 | 0,75 | 9,21 | 2,65 | 3,80 | 3,23 |
| RET | 5,31 | 3,07 | 3,06 | 3,62 | 4,42 | 3,89 | 3,05 | 3,42 | 4,12 | 3,68 | 4,16 | 5,13 | 8,73 | 3,66 | 3,56 | 4,81 |
| TRS | 0,56 | 2,54 | 3,52 | 3,11 | 3,83 | 3,88 | 3,69 | 3,49 | 1,25 | 3,10 | 3,78 | 1,73 | 5,40 | 3,10 | 1,67 | 2,57 |
| FNS | 10,31 | 3,63 | 5,60 | 3,44 | 3,93 | 7,90 | 5,11 | 3,01 | 8,09 | 9,80 | 9,29 | 8,23 | 6,27 | 6,59 | 5,36 | 7,58 |
| RES | 4,69 | 2,08 | 4,63 | 2,80 | 3,34 | 2,91 | 3,24 | 2,40 | 2,69 | 4,74 | 4,22 | 3,05 | 6,66 | 2,86 | 3,17 | 3,36 |
| AGR | 3,45 | 3,22 | 1,73 | 2,95 | 0,92 | 1,94 | 0,61 | 3,39 | 1,14 | 2,40 | 1,84 | 1,19 | 7,08 | 1,87 | 2,65 | 2,76 |
| BMI | 2,73 | 3,32 | 3,78 | 1,32 | 1,05 | 1,71 | 1,23 | -1,03 | 0,48 | 3,14 | 2,64 | 1,20 | 4,41 | 0,48 | 2,18 | 1,59 |
| FOD | 3,52 | 2,67 | 3,78 | 2,35 | 3,30 | 3,30 | 1,63 | -0,15 | 2,12 | 3,62 | 2,64 | 2,66 | 7,13 | 1,67 | 2,92 | 2,66 |
| TEX | 1,64 | 1,28 | 3,78 | 1,39 | 1,58 | 1,93 | -0,21 | 0,73 | 1,12 | 1,38 | 2,64 | 1,51 | 3,89 | 0,82 | 2,54 | 1,51 |
| WOD | 6,69 | 2,22 | 3,78 | 1,89 | | 3,06 | 1,54 | | 1,68 | 4,86 | 2,64 | 2,80 | | 2,15 | 2,94 | 2,73 |
| PAP | 3,82 | 2,69 | 3,78 | 2,64 | 4,00 | 3,97 | 2,92 | -0,12 | 3,19 | 3,90 | 2,64 | 3,57 | 7,62 | 2,27 | 2,92 | 3,59 |
| CHE | 3,76 | 2,57 | 3,78 | 2,59 | 3,02 | 2,28 | 2,41 | -0,17 | 2,00 | 5,28 | 2,64 | 3,38 | 5,40 | 1,57 | 3,04 | 2,96 |
| MNM | 2,75 | 2,06 | 3,78 | 1,93 | 1,20 | 1,85 | 1,53 | 0,18 | 1,88 | 2,77 | 2,64 | 1,39 | 6,56 | 1,17 | 2,73 | 2,12 |
| MEQ | 5,13 | 3,85 | 3,78 | 2,81 | 4,05 | 3,50 | 3,90 | 1,48 | 2,02 | 5,36 | 2,64 | 4,39 | 8,48 | 2,70 | 3,28 | 4,16 |
| MOT | 5,09 | 6,68 | 3,78 | 2,24 | 1,92 | | 2,96 | 2,00 | 1,65 | 4,33 | 2,64 | 2,87 | 7,17 | 2,03 | 3,83 | 4,65 |
| ALL | 2,91 | 2,23 | 3,92 | 2,67 | 2,89 | 3,21 | 3,31 | 2,03 | 2,73 | 4,63 | 3,81 | 3,02 | 7,29 | 2,86 | 2,88 | 3,48 |
| GOV+SOC | 4,90 | 1,57 | 3,93 | 2,17 | 2,29 | 3,95 | 4,35 | 2,74 | 3,35 | 5,22 | 3,42 | 2,53 | 8,86 | 3,59 | 2,80 | 3,72 |
| SHELTERED | 2,47 | 2,27 | 4,29 | 2,88 | 3,60 | 3,20 | 3,37 | 2,33 | 2,90 | 4,74 | 4,29 | 3,23 | 6,83 | 3,00 | 2,91 | 3,52 |
| SUPPLY | 3,29 | 3,23 | 2,03 | 2,29 | 1,00 | 1,84 | 0,81 | 1,80 | 0,78 | 2,60 | 2,00 | 1,20 | 6,25 | 1,33 | 2,54 | 2,37 |
| OPEN | 4,04 | 2,83 | 3,78 | 2,54 | 2,92 | 2,94 | 2,66 | 0,62 | 2,04 | 4,37 | 2,64 | 3,50 | 7,10 | 2,00 | 3,03 | 3,32 |
| SHEL-RES | 1,55 | 2,71 | 3,87 | 3,00 | 3,97 | 4,10 | 3,66 | 2,17 | 3,11 | 4,75 | 4,36 | 3,62 | 7,15 | 3,30 | 2,59 | 3,84 |

Table C.10

## TOTAL FACTOR PRODUCTIVITY

Average annual growth rate for the period 1970 to 1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | -0,89 | 0,19 | 0,83 | 1,05 | 1,17 | 1,70 | 0,10 | -0,21 | -0,86 | -0,22 | -0,24 | 0,04 | -1,57 | 0,20 | 0,41 | 0,09 |
| PGS | 0,29 | -0,91 | 0,38 | 2,18 | -1,93 | 0,98 | -2,25 | -4,33 | -3,94 | 1,07 | -0,19 | 1,14 | 2,28 | -2,69 | 0,82 | 0,04 |
| EGW | 1,08 | 2,64 | 1,50 | 3,49 | 2,45 | 2,55 | 0,86 | 1,00 | 4,14 | 0,50 | 2,75 | 1,01 | -0,95 | 2,18 | 2,32 | 1,33 |
| CST | -1,19 | -0,68 | 1,62 | 1,61 | 1,04 | 1,19 | 1,05 | -0,40 | -0,12 | 0,54 | 0,10 | -1,59 | -0,59 | 0,37 | 0,62 | -0,30 |
| RET | -0,24 | 2,00 | 2,67 | 0,86 | -0,20 | 0,93 | 0,72 | 0,84 | 0,08 | 0,75 | -0,34 | 0,26 | 2,73 | 0,63 | 1,25 | 0,80 |
| TRS | 3,56 | 0,18 | 2,34 | 2,48 | 1,43 | 3,19 | 2,14 | 2,03 | 3,00 | 2,99 | 2,68 | 1,85 | 1,04 | 2,51 | 2,21 | 2,08 |
| FNS | -3,43 | -1,69 | 1,54 | 0,70 | 2,89 | .. | 1,89 | -0,83 | .. | .. | .. | -0,92 | .. | 0,62 | -0,54 | -0,42 |
| RES | -0,75 | 0,90 | 1,28 | -0,55 | .. | 1,42 | .. | .. | .. | 1,07 | -0,21 | -0,12 | 0,88 | 0,92 | 0,11 | 0,55 |
| AGR | 2,48 | 4,61 | 2,74 | 2,66 | 4,01 | 4,07 | 4,69 | 1,79 | 3,39 | 1,19 | 2,05 | 1,33 | 0,89 | 3,27 | 2,98 | 2,43 |
| BMI | 2,52 | 2,77 | 4,32 | 2,87 | 4,83 | 2,80 | 1,49 | 1,61 | 3,28 | 0,41 | 1,95 | 0,32 | 2,67 | 2,43 | 3,05 | 1,86 |
| FOD | -0,55 | 3,29 | 1,91 | 0,59 | 1,99 | 1,50 | 0,52 | 3,99 | 1,78 | 0,40 | 1,09 | 1,49 | -0,09 | 1,71 | 1,35 | 1,30 |
| TEX | 0,36 | 2,81 | 1,63 | 1,05 | 3,02 | 1,25 | 1,78 | 3,60 | 1,81 | 2,44 | 2,04 | 2,60 | 0,08 | 2,48 | 1,29 | 2,28 |
| WOD | -0,21 | 1,40 | 2,45 | 1,31 | .. | 2,56 | 0,13 | .. | .. | 2,50 | 0,76 | 1,47 | .. | 1,48 | 1,40 | 1,62 |
| PAP | 0,40 | 0,12 | 2,24 | 1,11 | 3,34 | 0,91 | 0,89 | 2,91 | 1,36 | 0,40 | 0,77 | 0,47 | 3,07 | 1,60 | 1,32 | 1,07 |
| CHE | 3,12 | 3,42 | 2,61 | 1,60 | 6,79 | 2,32 | 1,33 | 4,73 | 3,38 | 2,04 | 0,92 | 2,15 | 5,48 | 2,76 | 2,48 | 2,79 |
| MNM | .. | -0,82 | 2,76 | 1,17 | 4,51 | 3,09 | 1,80 | 4,29 | 1,94 | 2,48 | 1,66 | 1,66 | 1,40 | 2,76 | 0,81 | 2,19 |
| MEQ | 0,26 | 1,01 | 3,98 | 1,53 | 3,62 | 2,36 | 1,33 | 4,40 | 1,94 | 2,90 | 1,66 | 3,17 | 5,76 | 2,29 | 1,75 | 3,29 |
| MOT | .. | 0,29 | 2,81 | 0,90 | 1,17 | .. | 0,61 | .. | 2,47 | 0,57 | -0,48 | 1,61 | 1,27 | -0,21 | -0,04 | 1,05 |
| GOV+SOC | 0,37 | 0,36 | 0,49 | 0,08 | 1,25 | 0,63 | 0,57 | 0,06 | -0,19 | -0,94 | -0,06 | 0,12 | -0,50 | 0,36 | 0,23 | 0,09 |
| SHELTERED | 1,30 | 1,02 | 2,39 | 1,37 | 1,16 | 2,03 | 1,67 | 0,85 | 0,97 | 1,20 | 0,56 | 0,19 | 1,92 | 1,36 | 1,45 | 1,03 |
| SUPPLY | 2,56 | 4,53 | 2,96 | 2,80 | 4,41 | 3,89 | 3,27 | 2,03 | 2,99 | 1,05 | 1,96 | 0,72 | 2,17 | 3,02 | 3,06 | 2,28 |
| OPEN | 0,53 | 1,79 | 2,99 | 1,35 | 4,21 | 2,20 | 1,41 | 4,07 | 2,08 | 1,83 | 1,32 | 2,41 | 3,60 | 2,33 | 1,69 | 2,60 |
| SHEL-RES | 1,51 | 0,69 | 2,19 | 1,70 | 1,07 | 1,63 | 1,39 | 0,89 | 1,52 | 0,99 | 0,55 | 0,22 | 1,34 | 1,33 | 1,55 | 0,91 |

Table C.11

## VALUE ADDED
Difference between actual and calculated growth rates
Average annual growth rate for the period 1970 to 1989

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | -1,07 | -1,84 | -2,02 | -1,02 | 0,39 | 1,28 | 1,63 | 0,32 | 0,07 | 0,16 | 0,33 | 0,11 | -1,27 |
| PGS | 2,94 | 2,19 | 1,32 | 1,40 | 1,16 | 0,65 | 1,06 | 0,18 | 0,25 | -0,54 | 0,26 | -0,37 | -0,60 |
| EGW | 0,43 | 1,46 | 0,07 | 2,47 | 0,35 | 2,56 | 1,06 | -2,55 | 1,41 | 0,07 | 0,96 | 0,15 | -1,10 |
| CST | 1,69 | -1,66 | 0,40 | 1,18 | -0,27 | -0,02 | -0,01 | -1,00 | 0,73 | 2,10 | 1,59 | -0,42 | 0,27 |
| RET | -0,90 | -0,71 | -0,54 | -0,58 | -2,14 | -0,96 | -0,88 | -0,26 | -0,31 | -0,31 | -1,14 | 0,28 | 0,97 |
| TRS | 0,83 | -0,93 | -0,37 | 1,35 | -0,81 | 1,61 | 0,83 | 1,14 | 0,68 | 0,92 | 1,29 | 0,02 | -1,83 |
| FNS | -2,21 | -0,80 | 0,30 | -0,32 | 1,85 | ·· | 1,18 | -1,23 | 1,09 | -1,40 | ·· | -0,41 | ·· |
| RES | 0,37 | 0,01 | 0,74 | -1,09 | | 0,29 | 0,02 | | | 0,65 | -0,27 | -0,21 | 0,41 |
| AGR | 0,77 | 3,01 | -1,59 | 0,51 | 0,88 | 0,80 | 1,35 | -0,21 | 2,39 | -0,39 | 1,44 | 0,78 | -2,17 |
| BMI | 1,44 | 2,10 | 4,44 | 1,44 | 2,11 | 0,99 | 0,48 | -0,65 | -0,13 | 0,08 | 1,42 | -1,70 | 1,33 |
| FOD | -1,37 | 2,18 | -0,01 | -0,48 | 0,26 | 0,62 | -0,76 | 1,80 | 0,38 | -1,39 | 0,42 | 0,39 | -1,02 |
| TEX | -4,71 | -0,20 | -2,15 | -3,40 | -0,86 | -1,97 | -1,79 | 2,16 | -0,76 | 0,87 | 1,09 | 1,09 | -3,25 |
| WOD | -1,75 | -0,71 | -0,95 | -0,84 | 1,04 | 0,13 | -1,94 | 0,03 | | 0,74 | -0,41 | 0,49 | |
| PAP | -1,36 | -1,56 | 0,17 | 0,03 | 0,43 | -0,60 | -0,85 | 0,72 | -0,04 | -1,10 | -0,37 | 0,18 | 0,94 |
| CHE | -0,17 | 1,46 | -0,57 | -0,21 | 4,23 | -0,87 | -0,92 | 1,07 | 0,24 | -0,20 | -1,70 | 0,03 | 0,68 |
| MNM | -2,21 | -2,70 | 0,93 | -1,53 | 0,09 | -0,05 | -0,41 | 2,11 | -0,05 | -0,61 | 0,23 | 0,20 | -0,99 |
| MEQ | -3,35 | -1,45 | 0,26 | -1,19 | -0,89 | -1,81 | -1,42 | 0,36 | -2,79 | -0,75 | -2,43 | 0,37 | 2,50 |
| MOT | -4,49 | 1,41 | 0,51 | 2,36 | -1,69 | -1,08 | -1,18 | 1,03 | -0,34 | -0,68 | 0,20 | 0,75 | -0,04 |

Table C.12

## EMPLOYEMENT

Diffence between actual and calculated growth rates

Average annual growth rate for the period 1970 to 1989

|     | NOR   | DNK   | FIN   | SWE   | BEL   | FRA   | GER   | ITA   | GBR   | CAN   | AUS   | USA   | JPN   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SOC | -1,59 | -2,60 | -2,10 | -2,63 | 0,92  | -0,11 | 0,84  | 1,47  | 1,63  | 0,15  | 0,39  | -0,62 | 0,13  |
| PGS | 2,03  | 2,58  | 2,28  | 1,86  | 1,14  | 0,93  | 0,94  | 0,46  | -0,01 | 0,31  | 0,70  | -0,90 | -0,35 |
| EGW | 0,81  | 0,58  | 1,26  | 0,54  | -3,21 | 1,37  | 0,61  | -0,57 | -1,66 | -0,09 | -1,06 | 0,40  | 0,63  |
| CST | -0,17 | -1,68 | -0,63 | -1,68 | -1,23 | -1,35 | -1,46 | -2,28 | 0,35  | 0,94  | 0,07  | 1,07  | 0,76  |
| RET | -0,35 | -2,19 | -1,14 | -0,92 | -0,45 | -0,33 | -0,69 | -0,16 | 0,30  | 0,27  | -0,15 | 0,38  | -0,30 |
| TRS | -0,85 | 0,28  | 0,09  | 0,34  | 0,02  | 0,73  | 0,16  | 0,77  | -0,61 | -0,20 | -0,16 | -0,26 | 0,09  |
| FNS | 0,64  | 1,22  | 0,53  | -0,42 | 0,69  | ..    | -0,36 | 0,44  | ..    | ..    | ..    | -0,02 | ..    |
| RES | 1,37  | -0,42 | 0,07  | -0,81 | ..    | -0,54 | ..    | ..    | 0,84  | -1,30 | -0,91 | 0,78  | -1,73 |
| AGR | -0,18 | -0,20 | -1,16 | -0,61 | 0,10  | -0,48 | -1,10 | -0,46 | 1,42  | 0,94  | 1,76  | 1,86  | -0,46 |
| BMI | -0,10 | 0,65  | 2,89  | -0,14 | -0,34 | 0,46  | 0,65  | 0,08  | -2,40 | 1,37  | 0,64  | -1,06 | 1,61  |
| FOD | -0,29 | -0,21 | 0,04  | -0,30 | -0,13 | 0,88  | -0,10 | -0,34 | -0,67 | -0,97 | 0,19  | -0,59 | 1,08  |
| TEX | -4,20 | -1,10 | -1,31 | -3,34 | -1,27 | -0,68 | -1,43 | 1,29  | -0,81 | 1,11  | 0,88  | 0,33  | -0,02 |
| WOD | -1,30 | -0,35 | -0,95 | -0,64 | ..    | -0,13 | -0,18 | -1,16 | 0,99  | -0,42 | 0,47  | 0,45  | ..    |
| PAP | -1,26 | -0,47 | 0,19  | -0,07 | -1,52 | 0,20  | -0,78 | -0,23 | -0,67 | -0,31 | -0,06 | 0,54  | -0,36 |
| CHE | -1,35 | 0,99  | 0,65  | 0,89  | 1,06  | 0,45  | 0,61  | -0,15 | -0,66 | 0,16  | -0,10 | 0,09  | -1,19 |
| MNM | ..    | -0,64 | 1,11  | -1,34 | -1,90 | -0,61 | -0,32 | 0,38  | -0,40 | -1,42 | 0,16  | 0,32  | 0,29  |
| MEQ | -1,14 | 0,66  | 0,98  | 0,67  | -0,69 | -0,18 | 0,52  | -0,25 | -1,70 | -0,65 | -0,98 | -0,10 | 0,78  |
| MOT | ..    | 0,19  | -0,77 | 2,76  | -1,47 | 0,20  | -1,50 | -0,57 | -2,63 | -0,79 | 1,70  | -0,67 | 0,22  |

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Table C.13

**CAPITAL STOCK**

Difference between actual and calculated growth rates

Average annual growth rates for the period 1970 to 1989 (*)

| | NOR | DNK | FIN | SWE | BEL | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOC | 2,45 | -1,88 | -1,55 | -1,78 | -2,52 | 0,46 | 2,48 | -2,18 | -2,03 | 0,03 | -1,06 | 0,05 | 3,86 |
| PGS | 1,57 | -0,49 | 0,34 | -0,37 | 0,90 | 0,75 | -0,13 | 1,17 | 2,35 | -0,14 | -0,33 | -0,60 | 1,10 |
| EGW | 0,02 | 0,61 | 0,16 | -0,19 | 1,95 | 1,56 | 1,26 | -1,99 | -1,40 | 0,84 | -0,88 | 0,25 | -0,02 |
| CST | 9,20 | -0,24 | -1,19 | 0,48 | 0,26 | -0,38 | -2,57 | 2,48 | -0,23 | 0,62 | 2,03 | -2,05 | 2,03 |
| RET | 0,48 | -0,65 | -2,14 | -0,49 | 0,95 | -0,76 | -1,63 | -0,09 | 0,43 | -2,32 | -1,00 | 0,73 | -0,12 |
| TRS | -1,92 | 1,14 | 0,67 | 1,33 | 2,67 | 1,56 | 1,35 | 2,41 | -0,13 | -0,53 | 0,97 | -0,34 | -1,01 |
| FNS | 2,67 | -2,87 | -2,43 | -3,46 | -2,33 | 0,44 | -2,38 | -3,44 | 1,62 | 0,95 | 1,31 | 1,03 | -5,49 |
| RES | 1,29 | -0,23 | 0,86 | 0,11 | 1,27 | -0,33 | -0,01 | 0,37 | 0,41 | 0,17 | 0,50 | 0,06 | -0,71 |
| AGR | 1,11 | 1,97 | -0,96 | 1,31 | -0,10 | -0,23 | -1,58 | 2,47 | -0,09 | -1,08 | -0,82 | -0,73 | 0,83 |
| BMI | 1,44 | 3,10 | 2,13 | 0,72 | 1,06 | 0,58 | 0,08 | -0,86 | 0,29 | 0,71 | 1,03 | 0,32 | -0,76 |
| FOD | 0,74 | 0,97 | 0,63 | 0,28 | 1,84 | 0,69 | -1,00 | -1,53 | 0,45 | -0,31 | -0,46 | 0,30 | 0,42 |
| TEX | 0,18 | 0,89 | 1,96 | 0,62 | 1,43 | 0,64 | -1,53 | 0,73 | 0,76 | -1,22 | 0,86 | 0,46 | -1,46 |
| WOD | 3,72 | 0,34 | 0,44 | -0,37 | .. | 0,26 | -1,28 | .. | -0,17 | 0,73 | -0,65 | 0,25 | .. |
| PAP | 0,32 | 0,29 | -0,09 | -0,15 | 1,84 | 0,64 | -0,43 | -2,25 | 0,81 | -0,76 | -1,18 | 0,49 | 0,16 |
| CHE | 0,96 | 0,85 | 0,61 | 0,49 | 1,53 | -0,36 | -0,25 | -1,58 | 0,31 | 1,32 | -0,49 | 0,99 | -1,34 |
| MNM | 0,62 | 1,02 | 1,29 | 0,50 | 0,38 | -0,11 | -0,45 | -0,52 | 0,86 | -0,50 | 0,19 | -0,32 | 0,52 |
| MEQ | 0,99 | 0,82 | -0,73 | -0,61 | 1,25 | -0,47 | -0,09 | -1,31 | -0,99 | 0,06 | -1,83 | 0,67 | 0,35 |
| MOT | 1,89 | 4,56 | 0,21 | -0,25 | 0,04 | .. | -0,10 | 0,18 | -0,43 | -0,03 | -0,89 | 0,08 | 0,02 |

(*) 1970-1988 for DNK and ITA

# DIFFERENCE BETWEEN ACTUAL AND CALCULATED GROWTH RATES

Average annual growth rates for the period 1970 to 1985
Sectors ranked by openness to foreign competition

|  | NOR | BEL | DNK | FIN | SWE | FRA | GER | ITA | GBR | CAN | AUS | USA | JPN | EU5 | NORDIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VALUE ADDED (VOLUME)** | | | | | | | | | | | | | | | |
| GOV+SOC | 1.79 | 0.54 | 1.46 | 0.58 | 1.38 | 0.26 | 1.35 | 0.27 | 0.97 | -0.26 | 0.47 | -0.24 | -1.03 | 0.71 | 1.35 |
| SHELTERED | 0.01 | -0.60 | -1.00 | -0.18 | -0.15 | -0.15 | 0.20 | -0.23 | 0.43 | 0.35 | -0.01 | 0.05 | -0.22 | 0.04 | -0.30 |
| SUPPLY | 0.76 | 1.47 | 2.83 | -0.87 | 0.48 | 0.72 | 0.36 | 0.40 | 0.11 | -0.25 | 1.13 | -0.12 | -0.82 | 0.49 | 0.48 |
| OPEN | -2.23 | 0.59 | -0.10 | 0.34 | -1.19 | -0.17 | -1.19 | -0.14 | -1.41 | -0.52 | -0.99 | 0.14 | 1.37 | -0.76 | -0.83 |
| SHEL-RES | -0.05 | -0.58 | -1.42 | -0.28 | 0.17 | -0.28 | 0.21 | -0.23 | -0.10 | 0.42 | 0.12 | 0.16 | -0.31 | -0.12 | -0.26 |
| **TOTAL FACTOR PRODUCTIVITY** | | | | | | | | | | | | | | | |
| GOV+SOC | 0.89 | -0.68 | -0.50 | -0.59 | -0.44 | -0.14 | 0.42 | -0.54 | 0.15 | -0.12 | -0.17 | 0.34 | -0.82 | -0.05 | -0.26 |
| SHELTERED | 0.27 | -0.49 | -0.12 | 0.38 | 0.64 | -0.02 | 0.79 | 0.22 | 0.24 | 0.57 | 0.04 | -0.12 | -0.42 | 0.26 | 0.38 |
| SUPPLY | 0.97 | 1.47 | 2.56 | -0.30 | 0.31 | 0.88 | 0.35 | 0.56 | 0.25 | -0.83 | 0.29 | -0.55 | -0.37 | 0.59 | 0.62 |
| OPEN | -1.68 | 0.93 | -0.22 | -0.07 | -0.87 | -0.31 | -0.87 | 0.01 | -0.43 | -0.67 | -0.09 | 0.07 | 1.19 | -0.43 | -0.71 |
| SHEL-RES | 0.39 | 0.93 | -0.36 | 0.56 | 0.93 | 0.02 | 0.79 | 0.22 | -0.05 | 0.93 | 0.35 | -0.20 | -0.42 | 0.25 | 0.52 |
| **EMPLOYMENT** | | | | | | | | | | | | | | | |
| GOV+SOC | 0.90 | 1.43 | 2.10 | 1.29 | 1.47 | 0.67 | 0.99 | 0.89 | 0.93 | -0.02 | 0.78 | -0.82 | 0.14 | 0.88 | 1.50 |
| SHELTERED | -0.27 | -0.54 | -1.85 | -0.87 | -1.11 | -0.53 | -0.65 | -0.49 | 0.04 | -0.40 | -0.42 | 0.53 | -0.20 | -0.39 | -1.08 |
| SUPPLY | -0.39 | -0.05 | 0.19 | -0.49 | -0.17 | -0.21 | 0.33 | -0.46 | -0.03 | 1.13 | 1.75 | 0.90 | -0.53 | -0.13 | -0.26 |
| OPEN | -0.64 | -0.85 | 0.21 | 0.67 | -0.45 | 0.12 | -0.10 | 0.05 | -1.26 | 0.85 | -0.86 | 0.03 | 0.47 | -0.33 | -0.09 |
| SHEL-RES | -0.38 | -0.59 | -2.12 | -0.96 | -1.07 | -0.51 | -0.54 | -0.49 | 0.06 | -0.06 | -0.30 | 0.43 | -0.02 | -0.38 | -1.15 |
| **CAPITAL STOCK** | | | | | | | | | | | | | | | |
| GOV+SOC | 0.73 | -0.32 | -0.12 | 0.21 | -0.17 | -0.11 | 0.76 | -0.02 | -1.19 | -0.68 | -0.16 | -0.31 | 1.30 | 0.04 | 0.07 |
| SHELTERED | -0.32 | 0.16 | -0.19 | 0.20 | -0.03 | 0.15 | -0.15 | 0.04 | 0.32 | 0.36 | 0.43 | 0.06 | -0.56 | 0.07 | -0.07 |
| SUPPLY | 0.56 | -0.24 | 1.41 | -1.25 | 1.08 | -0.47 | -0.80 | 0.39 | 0.44 | 0.17 | -1.74 | 0.22 | 0.05 | -0.16 | 0.24 |
| OPEN | 0.32 | -0.08 | 0.53 | -0.15 | -0.03 | -0.19 | -0.56 | -0.39 | 0.11 | -0.21 | -1.30 | 0.68 | -0.36 | -0.27 | 0.09 |
| SHEL-RES | -0.98 | -0.07 | -0.04 | -0.57 | -0.06 | -0.02 | -0.28 | 0.37 | 0.08 | 0.01 | 0.11 | 0.11 | -0.34 | 0 | -0.41 |

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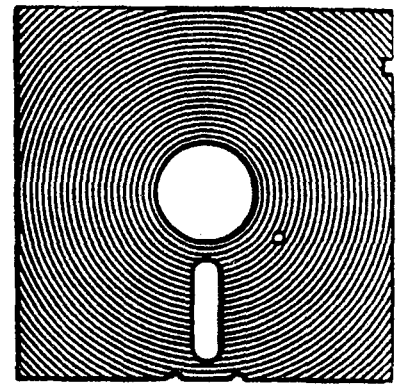
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