HUMAN CAPITAL AND THE NATIONAL ACCOUNTS

by

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HUMAN CAPITAL AND THE NATIONAL ACCOUNTS

WHY THE NATIONAL ACCOUNTS?

WHERE DOES HUMAN CAPITAL FIT IN?
Production, Income and Expenditure, Capital and Wealth Accounts.

WHAT ABOUT THE DETAILS?
The National Accounts Produce Detail for Foreign and Domestic Portions of the Economy, Individual Industries, and Regions of the Country.
New Architecture for an Expanded and Integrated Set of National Accounts for the United States

<table>
<thead>
<tr>
<th>1. PRODUCTION</th>
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<tbody>
<tr>
<td>Gross Domestic Product Equals</td>
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<tr>
<td>Gross Domestic Factor Outlay</td>
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<thead>
<tr>
<th>2. DOMESTIC RECEIPTS AND EXPENDITURES</th>
</tr>
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<tbody>
<tr>
<td>Domestic Receipts Equal</td>
</tr>
<tr>
<td>Domestic Expenditure</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>3. FOREIGN TRANSACTION CURRENT ACCOUNT</th>
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<tbody>
<tr>
<td>Receipts from Rest of World Equal</td>
</tr>
<tr>
<td>Payments to Rest of World and</td>
</tr>
<tr>
<td>Balance on Current Account</td>
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<th>4. DOMESTIC CAPITAL ACCOUNT</th>
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<tbody>
<tr>
<td>Gross Domestic Capital Formation Equals</td>
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<tr>
<td>Gross Domestic Savings</td>
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<th>5. FOREIGN TRANSACTION CAPITAL ACCOUNT</th>
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<tr>
<td>Balance on Current Account Equals</td>
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<tr>
<td>Payments to Rest of the World and</td>
</tr>
<tr>
<td>Net Lending or Borrowing</td>
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<tr>
<th>6. DOMESTIC BALANCE SHEET</th>
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<tbody>
<tr>
<td>Domestic Wealth Equals</td>
</tr>
<tr>
<td>Domestic Tangible Assets and</td>
</tr>
<tr>
<td>U.S. Net International Position</td>
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<th>7. U.S. INTERNATIONAL POSITION</th>
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<tr>
<td>U.S.-Owned Assets Abroad Equal</td>
</tr>
<tr>
<td>Foreign-Owned Assets in U.S. and</td>
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<tr>
<td>U.S. Net International Position</td>
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THE CONCEPT OF HUMAN CAPITAL

Investment in Physical Capital vs. Investment in Human Beings

Human Wealth vs. Nonhuman Wealth

Market and Nonmarket Labor Incomes

Lifetime Labor Incomes and Asset Values
IS HUMAN CAPITAL IMPORTANT?

Nonmarket Compensation Includes Leisure Time, Household Production, Investment in Education and Investment in Child-Rearing

Nonmarket Labor Compensation is Four Times the Value of Market Compensation

The Value of Human Investment Is Four Times the Value of Nonhuman Investment

Human Wealth is Ten Times the Value of Nonhuman Wealth

Source: Jorgenson and Fraumeni (1989, 1992)
RELATIONSHIPS TO THE LITERATURE


MEASURING HUMAN CAPITAL

The Starting Point: Population

Market Labor Data Base: Employment, Hours, and Market Compensation

Nonmarket Labor Data Base: Population, Hours, and Imputed Compensation

Time Use Surveys

Separation into Quantity (Hours) and Price (Wages Plus Fringe Payments) Components
Productivity

Volume 3

Information Technology and the American Growth Resurgence

Dale W. Jorgenson, Mun S. Ho, and Kevin J. Stiroh
LIFETIME LABOR INCOMES

Three Stages of Life:

Working and out of School

Working and in School

Not Working and in School
LIFETIME LABOR INCOMES FOR WORKERS NOT IN SCHOOL

Expected Incomes in the Future

Growth of Real Incomes

Survival Probabilities

Discount Rates
LIFETIME LABOR INCOMES FOR WORKERS IN SCHOOL

Investment in Education:
Increment in Lifetime Income for an Additional Year of Education

Example: An Individual with Sixteen Years of Education

Total Labor Compensation:
Time Spent in Formal School Plus Labor Compensation for Market and Nonmarket Labor Time
LIFETIME LABOR INCOMES FOR STUDENTS IN SCHOOL

Value of Labor Compensation: Increment in Lifetime Incomes

Individuals Not Enrolled in School Have Lifetime Incomes But No Labor Compensation

Human Wealth Is the Value of Lifetime Incomes for the Population

This Can Be Separated Into Quantity (Number of Individuals) and Price (Lifetime Income) Components
INVESTMENT IN HUMAN CAPITAL

Lifetime Incomes for All Individuals Born in That Year Plus:

Lifetime Incomes for All Immigrants Plus:

Labor Compensation for Formal Schooling (Investment in Education)

Each of These Can Be Separated Into Quantity (Number of Individuals) and Price Components
HUMAN CAPITAL AND NONMARKET ACCOUNTING

Why Nonmarket?


The Value of Additions to the Population: Newborns and Immigrants.

The Value of Investment in Formal Schooling
HUMAN CAPITAL AND THE NATIONAL ACCOUNTS: SUMMARY

INDICATORS OF WELFARE AND GROWTH:
Net National Expenditure (Welfare) and Gross Domestic Product (Growth) Include Human Capital.

MEASURING CAPITAL:

NONMARKET ACCOUNTS:

STRUCTURE OF THE ACCOUNTS:
Human Capital Appears in All Parts of the National Accounts; the Structure Remains the Same.