

## Integrated GDP-Productivity Accounts

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## **Integrated GDP-Productivity Accounts \***

*By Michael J. Harper, Brent R. Moulton, Steven Rosenthal, and David B. Wasshausen*

Two of the most important statistical tools for analysis of macroeconomics and growth are the national accounts (encompassing gross domestic product, or GDP) and the multifactor productivity (MFP) statistics, which measure output per unit of combined inputs. Although they share a common accounting framework, in the United States these statistics are compiled by separate agencies—the national accounts by the Bureau of Economic Analysis (BEA) and the productivity statistics by the Bureau of Labor Statistics (BLS). Dale W. Jorgenson and J. Steven Landefeld (2006) identified the expansion and improved integration of the nation’s national accounts and productivity statistics as a high priority of their “new architecture” for the U.S. national accounts. Barbara M. Fraumeni, et al. (2006) developed the first steps toward integrating the national accounts with the productivity statistics by describing the conceptual framework, developing illustrative accounts, and describing differences in source data and methods that require resolution. Our paper builds on that work; we develop a prototype integrated production account for the nonfarm business sector. We also discuss the issues that arise in extending the integrated production account to the total U.S. economy, including non-market government and non-profit sectors, and provide illustrative accounts for these sectors.

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Integration of the national accounts with the MFP statistics will provide data users with a rich set of potential applications. For example, Stephen D. Oliner and Daniel E. Sichel (2000) and Dale W. Jorgenson (2001) used analysis of industry-level MFP to assess the effects of computers and other information and communication technology on economic growth. William Gullickson and Michael J. Harper (2002) found that construction, finance and insurance, and business services are characterized by negative MFP trends, which seem implausible and suggest that measurement of volume of output for these industries is problematic. Finally, if MFP techniques are to be applied to the non-market production of the government and nonprofit sectors, one must confront old problems in national accounting: the inadequacy of measures of output volume for these sectors and the lack of a measure of the rate of return for capital.

The national accounts of most countries, including the United States, are based on the guidelines of the *System of National Accounts 1993* (SNA93; see Commission of the European Communities, et al., 1993). SNA93 recommends estimating quantity and price changes using chain indices. Although the SNA93 includes measures of jobs, hours worked, and full-time equivalent employment, it treats capital primarily as a component of wealth and does not recommend the compilation of volume and price indices for capital inputs. A system that includes capital services requires that capital assets must be aggregated appropriately across heterogeneous types of capital. Laurits R. Christensen and Dale W. Jorgenson (1973) propose a set of accounts that incorporate indices of input volume by sector, and Dale W. Jorgenson, Frank Gollop, and Barbara M. Fraumeni (1987) extend the accounting system to measures of output by industry. Measures of MFP are included in this system, whereas they are not available as part of the SNA93.

In anticipation of an update of the System of National Accounts, Brent R. Moulton (2004) recommended modifying the system to recognize and include volume measures of capital services. That proposal reached fruition when the 2007 meeting of the U.N. Statistical Commission approved a recommendation to add a chapter to the updated SNA, “explaining the role and appearance of capital services in the system and stressing the desirability of calculating capital services, capital stock and consumption of fixed capital in an integrated and consistent manner” (Intersecretariat Working Group on National Accounts, 2007).

Section I presents the prototype integrated production account for the private business sector and a reconciliation of the BEA and BLS estimates. Section II discusses the potential expansion of the production account to cover the total economy, including the coverage of non-market production by government and nonprofit institutions.

### **I. Private Business Sector**

Presently, BLS publishes three sets of productivity measures for the major sectors and subsectors of the U.S. economy, each using a distinct methodology: (1) Labor productivity for the major sectors of business, nonfarm business, and nonfinancial corporations and for the subsectors of total, durable, and nondurable manufacturing; (2) MFP for private business and private nonfarm business; and (3) MFP for total manufacturing and 18 3-digit NAICS manufacturing industry groups and 86 4-digit NAICS manufacturing industries, the air transportation industry, the railroad transportation industry, and the utility and gas industry. It is for the second set of estimates that we present prototype integrated estimates.

The private business sector produces about three-fourths of U.S. GDP; it excludes the following components of GDP: value added of government, nonprofit institutions serving households, owner-occupied housing, and compensation paid by households to domestic

workers. Table 1 presents real value added, labor inputs, and capital services of private businesses and the aggregate of these combined inputs, while Table 2 presents the percent changes in these variables as well as multifactor productivity, which represents the change in output that cannot be accounted for by the change in combined inputs of labor and capital. These estimates are fully consistent with the BLS MFP estimates.

TABLE 1—Production Account for Real Private Business Value Added

[Billions of (chained) 2000 dollars]

	2003	2004	2005	2006
Value added	7,926.4	8,264.2	8,571.7	8,846.0
Combined inputs	6,910.2	7,030.1	7,174.8	7,364.8
Labor input	4,662.8	4,732.1	4,818.7	4,945.2
Capital services	2,256.1	2,307.3	2,365.9	2,429.6

TABLE 2—Production Accounts for Real Private Business Value Added

[Percent change from the preceding year]

	2003	2004	2005	2006
Value added	3.1	4.3	3.7	3.2
Combined inputs	0.5	1.7	2.1	2.6
Labor input	-0.3	1.5	1.8	2.6
Capital services	2.3	2.3	2.5	2.7
MFP	2.6	2.5	1.6	0.5

A further step toward integrating BLS business sector MFP estimates with BEA GDP estimates is to better understand how the BLS output and input measures relate to corresponding GDP measures. Building on a reconciliation presented by Fraumeni, et al. (2006), we have developed a more detailed reconciliation table that is discussed in an appendix available from the authors. This reconciliation table will enable BEA and BLS to identify and correct any differences in treatment and to determine whether or not these differences are valid.

## **II. Toward Covering the Total Economy**

The BLS has limited the scope of its productivity measures to the business sector, thereby excluding government, private households, and nonprofit institutions, because direct measures of the outputs of these sectors are unavailable. This restriction is due in part to the fact that these outputs are usually not sold in markets. The GDP includes the output of these important sectors. BEA has adopted a strategy of estimating many of these outputs with input measures, which involves implicit assumptions about productivity.

While comparisons of such outputs to inputs might not be regarded as “productivity measures,” this need not prevent us from building production accounts that exhibit all of the outputs and inputs by sector for the total economy. Indeed, given that there is a strategy of using inputs to measure some outputs, it is particularly important to measure these inputs completely and systematically. The production account framework, which is based on microeconomic theory, is a model of how labor, capital, and intermediate inputs flow between sectors and help account for the production of output in each sector. A key issue is that the production of government and nonprofit outputs requires capital inputs as well as labor inputs, just as it does in the business sector. The possibility of including a more complete measure of government capital services in the formulation of GDP was discussed by Moulton (2004).

We next look at some alternative approaches to measuring capital services for governments (for three sectors, Federal, State and Local, and Government Enterprises) and for nonprofit institutions. Rental prices,  $c_{i,a}$ , are formulated for each sector,  $i$ , and asset type,  $a$ , using price indexes for new investment goods,  $p_{i,a}$ , and depreciation rates,  $\delta_a$ , from BEA's capital stock database and from various assumed rates of return,  $r_i$ :

$$(1) \quad c_{i,a} = p_{i,a} r_i + \delta_a p_{i,a} - E\Delta(p_{i,a}) .$$

Expected revaluation,  $E\Delta(p_{i,a})$ , is estimated using a three-year moving average of price change. This is the standard BLS treatment following research by Michael J. Harper, Ernst R. Berndt, and David O. Wood (1989). Next, the nominal value of capital services for the sector,  $\Psi_i$ , is computed as the cross product across asset types of capital stocks,  $K_{i,a}$ , and rental prices,  $c_{i,a}$ :

$$(2) \quad \Psi_i = \sum_a c_{i,a} K_{i,a} .$$

The capital stocks are drawn from the BEA capital stock database and are based on BEA investment data and BEA's geometric depreciation assumptions. Then real inputs of capital services,  $K_i$ , are computed as superlative (Tornqvist, T) indexes of the asset type capital stocks, with share weights determined by the levels of the stocks and their rental prices:

$$(3) \quad K_i = T_a(K_{i,a}, c_{i,a}) .$$

Associated with this is an implicit rental price for the sector,

$$(4) \quad c_i = \Psi_i / K_i .$$

We next generated results for equations (1) through (4) using eight alternative types of rate of return. The rates used were: internal rates of return (IRR) selected from the BLS measures for private business sector; an assumed 3.5 percent real rate; the federal funds rate; the 10 year Treasury bill rate; the 20 year Treasury bill rate; the Moody AAA bond rate; the G-fund rate; and Treasury Inflation Protected Securities 10-year note (TIPS). Using each of these rates, expected

revaluation was subtracted as prescribed in equation (1), except for the 3.5 percent real rate of return and the TIPS—these two rates were presumed to allow for expected revaluation.

Table 3 illustrates rental price time series for one selected asset from the federal government sector. (The 20 year Treasury bill, Moody AAA bond, and G-fund rates are not shown; these rates exhibit time series similar to the 10 year Treasury bill rate.) The time series in Table 3 exhibit some of the volatile and negative rental prices we commonly find among the government and nonprofit asset types and industries for which we did calculations. The internal rate of return, the 3.5 percent real rate of return, and the TIPS rate lead to the least volatility and were the only rates that led to rental prices that were uniformly positive. Business sector internal rates tend to do better than the five market interest rates because the internal rates are generally higher (subtraction of expected revaluation opens the door to low or negative rental prices).<sup>1</sup>

TABLE 3—Rental Price Levels of “Highways and Roads” in Federal Government by Rate of Return Assumption

Year	IRR	REAL3.5	FFUND	TB10	TIPS
2003	0.0862	0.0591	0.0183	0.0483	0.0441
2004	0.0957	0.0593	0.0146	0.0452	0.0419
2005	0.0851	0.0636	-0.0009	0.0108	0.0453
2006	0.0261	0.0738	-0.0631	-0.0651	0.0593

<sup>1</sup> It might be tempting to use a market rate of return and to ignore revaluation, as this would lead to stable estimates of nominal capital services ( $\Psi_i$ ). However, this would lead to estimates of capital services that are unjustifiably high—the implicit rental costs to governments and nonprofits are lowered by future asset revaluation, just as are those of businesses.



Excessive volatility in the rental prices adversely affects the sector estimates after aggregation across asset types. Table 4 illustrates growth in government capital services and its price, after equations (3) and (4) are calculated for all three government sectors and 22 asset types. The capital service growth rates are in a similar ballpark regardless of rate of return, but the five market interest rates (two of which appear in Table 4) lead to implausible growth rates for the all-asset aggregate of capital service prices. If these rental prices were inserted into equation (2), they would yield equally erratic estimates of the levels of nominal capital services.

TABLE 4—Growth Rates for all Assets Combined, Government, 1997-2006

[Annualized percentage change]

	IRR	REAL3.5	FFUND	TB10	TIPS
Real capital services	2.1	2.1	3.0	2.5	2.2
Price of capital services	3.0	4.5	-16.4	-19.1	2.7

We now examine an expanded production account for the total economy. For this exercise, which is quite preliminary, we selected the IRR rate of return assumption. The TIPS rate also may be well suited for this exercise. Internal rates of return (IRRs) are used to calculate the rental prices for capital services of non-profit investments. Industry-specific internal rates of return (as calculated by BLS for private businesses engaged in similar activities) are used in generating rental prices for non-profit institutions. For government (Federal, State, and Local), the rate of return is based on a weighted average across industries of the internal rates of returns of the private businesses. In the prototype account, for government sectors and for nonprofit institutions, we altered the total economy output measure so as to base it on our more complete

estimate of capital services inputs. Starting with GDP, we replaced capital consumption allowances for these sectors with our new measures of nominal capital services,  $\Psi$ . Table 5 illustrates the effects of adjusting nominal GDP.

TABLE 5—Derivation of Production Account Output  
[Billions of current dollars]

Year	GDP	Non-profit Capital	Government	Production Account Output
		Services (less depreciation)	Capital Services (less depreciation)	
2002	10,469.6	96.6	250.5	10,816.7
2003	10,960.8	111.5	348.6	11,420.8
2004	11,685.9	121.2	321.1	12,128.2
2005	12,433.9	116.0	414.2	12,964.1
2006	13,194.7	114.8	398.9	13,708.4

In order to complete our account, we also introduce labor inputs for government and nonprofits and capital services for owner occupied dwellings.<sup>2</sup> Table 6 compares outputs and inputs from this experimental total economy production account to the BLS published measures of outputs and inputs for the private business sector. The expanded measure of input grows at

<sup>2</sup> The imputation for the output of owner occupied housing that is included in GDP is not included in the BLS private business sector inputs. In this production account exercise, we do not alter BEA's estimate of GDP for these dwellings.

about the same rate while the expanded measure of output grows more slowly. The slower “productivity” reflects the use of inputs to measure output for government and nonprofits.

TABLE 6—Comparison of Real Output per Unit of Combined Inputs, Real Output, and Combined Inputs: Total Economy vs. Private Business

[Annualized percentage change]

		1987-06	1990-95	1995-00	2000-06
Real Output per	<i>Total Economy</i>	0.7	0.2	0.7	1.1
Unit of Combined	<i>Private Business</i>	1.0	0.5	1.3	1.5
Inputs					
Real Output	<i>Total Economy</i>	3.0	2.4	3.8	2.6
	<i>Private Business</i>	3.4	2.9	4.8	2.7
Combined Inputs	<i>Total Economy</i>	2.3	2.2	3.1	1.4
	<i>Private Business</i>	2.3	2.4	3.4	1.2

As seen, the lower productivity of the total economy is a direct result of the input-based methods used to compile real GDP for the government and nonprofit sectors. Several countries have recently adopted direct volume measures of some types of government output that could allow productivity to be measured for these activities. BEA and BLS intend to examine these approaches for measuring non-market output and determine if they would be applicable to the United States.

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## Appendix: NIPA – MFP Reconciliation

Appendix Table A.1, Relation of NIPA GDP to BLS Private Sector Current Dollar Output, presents BEA and BLS estimates beginning with 1998.<sup>1</sup> Although BLS presents their major sector MFP estimates for private business and private nonfarm business only, it is important to note that these estimates are derived at the industry level and then aggregated to the major sector level. These nominal MFP estimates are primarily derived using BEA's Annual Industry Accounts (AIA) gross value added (and components thereof) by industry estimates so that there is essentially a 2-step reconciliation process: First reconcile NIPA estimates to the AIAs, second reconcile AIAs to MFP. Fortunately there are few differences between BEA's NIPA and AIA estimates, particularly with respect to components of labor and capital income, making it possible to circumvent this first step with regard to producing a meaningful NIPA-MFP reconciliation table.

The first part of the table shows the derivation of BLS private business sector output from NIPA gross domestic product (GDP). Starting with GDP on line 1, we remove GDP associated with households, nonprofit institutions serving households (NPISH), and general government, resulting in business sector gross value added (GVA). These estimates are all published in NIPA Table 1.3.5. Next, we subtract GVA for government enterprises, resulting in private business sector GVA (line 10). GVA for government enterprises is taken from the AIAs, as it is not published as part of the NIPAs. BLS Private business sector GVA (line 12) is equal to NIPA private business sector GVA (line 10) less statistical differences primarily due to timing of data. Next, BLS private business sector output can be broken down into four components:

1. BLS labor compensation;
2. BLS capital income;

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<sup>1</sup> Estimates presented are as of May 2008.

3. BLS adjustment to property income for finance and insurance industries;
4. BLS taxes on production and imports (TOPI), less portion assigned to capital income, less subsidies.

BLS labor compensation (line 13) consists of BLS employee compensation (line 14) plus a BLS adjustment that reassigns a portion of NIPA proprietors' income to labor income (line 19). The idea is that a portion of proprietors' income represents wages of the proprietor and as such should be classified as labor compensation for MFP purposes. The remaining portion of proprietors' income is treated as capital income. BLS and NIPA employee compensation differ by the amount shown on line 16, labeled "other." This line is further broken down into two components: "Household compensation" (line 17) and "Portion of NIPA NPISH compensation assigned to capital income." BLS employee compensation for private business equals all private industry compensation less compensation for NPISH. Compensation for households should also be removed, but presently is not. BLS plans to address this in their next release. In addition, the BLS estimate for NPISH compensation is less than the corresponding NIPA estimate and therefore BLS private business compensation is higher.

BLS capital income (line 20) consists primarily of NIPA gross operating surplus (lines 21-26) plus a portion of TOPI assigned to capital income (line 28). The NIPA statistical discrepancy (line 27), which vacillates between positive and negative, is also assigned to capital income. All but one of the NIPA line items is published or can be derived from published data: Business current transfer payments for private business sector. This item is calculated as total NIPA business current transfer payments (published) less business current transfer payments for households (unpublished). The portion of TOPI assigned to capital income consists of business property taxes and business motor vehicle licensing fees. Remaining TOPI are considered to be

neither labor nor capital income and are accounted for separately in the reconciliation table (line 36). Several items are subtracted and offset entries included above under labor compensation: “BLS adjustment for proprietors’ income” (line 29), “Household compensation” (line 30), and “Portion of NIPA NPISH compensation assigned to capital income” (line 31). An adjustment is also made to account for differences in property income for finance and insurance (line 32). BLS imposes an external rate of return on finance and insurance industries without forcing to NIPA income. BLS inadvertently subtracts TOPI less subsidies for households and institutions (line 33). TOPI less subsidies for households and institutions should not be subtracted from the items listed above and BLS plans to address this in their next release. Finally, “other” (line 34) is a residual and reflects several things. First, small differences in any year can be attributed to rounding as BLS builds their estimates up from industry detail whereas the NIPA may or may not. Second, for years 1998 to 2000 GVA for NPISH reported in NIPA Table 1.3.5 incorrectly excludes residential consumption of fixed capital (CFC) for NPISH. As a result, the BLS estimate for private business sector capital income includes residential CFC for NPISH.<sup>2</sup> Lastly, for 2005 and 2006, estimates primarily reflect statistical discrepancy shown in line 11.

It is necessary to add back in the adjustment to property income for finance and insurance (line 35) in order to come back to private business sector GVA. It is also necessary to add the remaining portion of TOPI less subsidies that was not assigned to capital income. Note, TOPI less subsidies (line 37) includes households and institutions and is taken directly from the AIAs. Including TOPI less subsidies for households and institutions is necessary here in order to offset the inadvertent subtraction of it in line 33. When TOPI less subsidies for households and

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<sup>2</sup> BLS controls their estimate of GVA for households and institutions to what is published in NIPA Table 1.3.5. This control total is assigned to either labor or capital and then used to remove households and institutions from private industry labor and capital income estimates. BEA plans to address this in its upcoming comprehensive revision.



institutions is no longer subtracted in the derivation of capital income, it will not be included under the part of TOPI less subsidies that was not assigned to capital income.

Table A.1--Relation of NIPA GDP to BLS Private Sector Current Dollar Output  
[Billions of Dollars]

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Gross Domestic Product	1	8,747.0	9,268.4	9,817.0	10,128.0	10,469.6	10,960.8	11,685.9	12,433.9	13,194.7
Less: Households and institutions gross value added	2	949.7	1,012.3	1,080.7	1,160.4	1,227.3	1,269.2	1,350.0	1,404.7	1,500.3
Housholds	3	538	576.4	615.6	662	687.7	699.9	744.9	773.3	834.2
Nonprofit institutions serving households	4	411.7	435.9	465.1	498.4	539.6	569.3	605.1	631.4	666.1
General government gross value added	5	970.3	1,012.7	1,069.6	1,126.4	1,201.8	1,280.1	1,348.4	1,425.9	1,501.5
Equals: Business sector gross value added	6	6,827.0	7,243.4	7,666.7	7,841.2	8,040.5	8,411.5	8,987.5	9,603.3	10,192.9
Less: Government enterprises	7	124.2	128.5	133.1	131.9	136.6	138.3	143.2	142.8	147.8
Federal	8	59.9	61.0	63.4	60.0	64.5	64.7	66.8	63.7	67.8
State and local	9	64.4	67.6	69.7	71.9	72.2	73.7	76.4	79.1	80.0
Equals: Private business sector gross value added	10	6,702.8	7,114.9	7,533.6	7,709.3	7,903.9	8,273.2	8,844.3	9,460.5	10,045.1
Less: Statistical discrepancy /1/	11	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.8	-10.7
Equals: BLS Private business sector current dollar output	12	6,702.8	7,114.9	7,533.6	7,709.3	7,903.9	8,273.2	8,844.3	9,456.7	10,055.7
BLS Labor compensation	13	4,165.6	4,463.4	4,809.4	4,911.6	4,970.4	5,154.3	5,440.4	5,762.5	6,120.0
BLS employee compensation	14	3,788.5	4,070.5	4,414.7	4,500.4	4,547.3	4,688.6	4,924.6	5,211.9	5,538.8
NIPA employee compensation	15	3733.4	4012.8	4355	4438.9	4482.1	4615.3	4846.6	5132.6	5456.4
Other	16	55.1	57.7	59.7	61.5	65.2	73.3	78.0	79.2	82.4
<i>Of which:</i>										
Household compensation /2/	17	14.0	12.7	13.6	12.8	12.6	13.9	14.9	14.9	15.6
Portion of NIPA NPISH compensation assigned to capital income	18	41.1	45.0	46.1	48.7	52.6	59.4	63.1	64.3	66.8
/3/										
BLS adjustment for proprietors' income /4/	19	377.1	392.9	394.7	411.2	423.0	465.7	515.7	550.6	581.1
BLS Capital income	20	1,909.8	2,008.0	2,050.3	2,113.5	2,180.3	2,328.9	2,567.9	2,809.0	2,964.6
NIPA Corporate profits with IVA and CCAdj	21	698.7	729.8	672.2	597.6	730.5	827.7	1,037.8	1,154.6	1,296.4
NIPA Proprietors' income with IVA and CCAdj	22	627.8	678.3	728.4	771.9	768.4	811.3	911.6	969.9	1,006.7
NIPA Net interest and miscellaneous payments	23	296.0	292.3	350.7	353.2	294.1	276.9	229.2	279.5	310.0
NIPA Rental income of persons	24	58.1	58.7	59.6	65.7	57.3	52.0	49.2	42.7	48.2
NIPA Business current transfer payments	25	63.2	66.1	86.6	95.4	82.4	79.6	82.3	77.5	80.1
NIPA CFC	26	718.3	769.8	836.1	903.7	893.6	916.6	970.2	1,060.4	1,081.4
NIPA Statistical discrepancy	27	-14.6	-35.7	-127.2	-89.6	-21.0	48.8	19.1	5.4	-18.1
Portion of TOPI assigned to capital income /5/	28	104.9	110.2	115.5	121.3	130.3	138.1	146.7	155.2	164.7

Table A.1 (continued)--Relation of NIPA GDP to BLS Private Sector Current Dollar Output  
[Billions of Dollars]

		1998	1999	2000	2001	2002	2003	2004	2005	2006	
	Less: BLS adjustment for proprietors' income /4/	29	377.1	392.9	394.7	411.2	423.0	465.7	515.7	550.6	581.1
	Household compensation /2/	30	14.0	12.7	13.6	12.8	12.6	13.9	14.9	14.9	15.6
income /3/	Portion of NIPA nonprofit compensation assigned to capital	31	41.1	45.0	46.1	48.7	52.6	59.4	63.1	64.3	66.8
	BLS adjustment to property income for finance and insurance /6/	32	116.9	112.8	114.4	121.1	146.0	154.8	149.1	162.8	203.3
	TOPI less subsidies for households and institutions /7/	33	95.7	100.6	105.6	111.9	120.8	128.1	135.6	140.0	148.9
	Other /8/	34	-2.2	-2.5	-2.8	0.0	0.2	0.1	-0.2	3.6	-11.0
	BLS Adjustment to property income for finance and insurance /6/	35	116.9	112.8	114.4	121.1	146.0	154.8	149.1	162.8	203.3
	BLS TOPI less portion assigned to capital income, less subsidies	36	510.6	530.8	559.5	563.1	607.2	635.1	687.2	722.7	768.2
institutions)	TOPI less subsidies (includes TOPI less subsidies for HH and	37	615.5	641.0	675.0	684.4	737.5	773.2	833.8	877.9	932.8
	Less: TOPI less subsidies assigned to capital income /5/	38	104.9	110.2	115.5	121.3	130.3	138.1	146.7	155.2	164.7

/1/ For 2005 and 2006, BLS estimates reflect data from the Census Bureau's accelerated November 2007 release of the Annual Survey of Manufactures (ASM) whereas the NIPAs do not.

/2/ BLS employee compensation for private business equals all private industry compensation less compensation for NPISH. Compensation for households should also be removed but presently is not. BLS plans to address this in their next release.

/3/ The BLS estimate for NPISH compensation is less than the corresponding NIPA estimate and therefore BLS private business compensation is higher.

/4/ BLS assigns a portion of NIPA proprietors' income to labor income.

/5/ BLS assigns a portion of NIPA TOPI, e.g., business property taxes and business motor vehicle licensing fees, to capital income.

/6/ BLS imposes an external rate of return on finance and insurance industries without forcing to NIPA income.

/7/ BLS inadvertently subtracts TOPI less subsidies for households and institutions. These should not be subtracted in their computation of private business capital income. BLS plans to address this in their next release.

/8/ For 2005 and 2006, primarily reflects statistical discrepancy shown in line 11. For 1998, 1999, and 2000, primarily reflects residential CFC for NPISH, which is inadvertently included in BLS capital income in these years.

NOTE. Figures reflect published estimates as of May 2008.