

Expanding the Integrated Macroeconomic Accounts' Financial Sector

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IN THIS article, we introduce new, more detailed statistics for the financial business sector in the integrated macroeconomic accounts (IMAs), produced jointly by the Bureau of Economic Analysis (BEA) and the Federal Reserve Board (FRB). The IMAs relate production, income, saving, investment in real and financial assets, and asset revaluations to changes in net worth for major economic sectors, including financial businesses. By providing a comprehensive picture of economic activity within an integrated framework with consistent definitions, classifications, and accounting conventions, the IMAs help economists gain a better understanding of major developments in the U.S. economy and provide an ideal framework for describing trends in the financial sector. These new statistics (published annually for 2001–2014) disaggregate the financial sector into five subsectors: depository institutions, the Federal Reserve banks, pension funds, insurance companies, and other nondepository institutions. Recent trends in income and saving differed substantially across these subsectors, highlighting the need for a more detailed presentation of the financial sector.

This work is part of a larger effort by BEA and the FRB to improve statistics for the financial sector following the financial crisis that began in 2008.¹ In response to the crisis, the G–20 group of nations established the G–20 Data Gaps Initiative (DGI) to improve financial statistics in national accounts. Both the DGI and the *System of National Accounts 2008* (SNA) recommend a disaggregated presentation of the financial sector, with statistics for subsectors that face different markets and risks. Palumbo and Parker (2009), Eichner, Kohn, and Palumbo (2010), and others also recommend the presentation of more detailed statistics on financial subsectors that employ varying degrees of leverage.

A challenge we faced in this work is that BEA's traditional source data for business income—Internal Reve-

nue Service (IRS) tabulations of data from tax returns—are reported on a consolidated basis for companies that include several enterprises from different subsectors; multi-establishment companies are classified on the basis of the principal industry of all establishments. Banks, for example, are often consolidated with bank holding companies (BHCs). We used other, enterprise-level data sources to produce statistics for financial subsectors, consistent with the SNA and the financial accounts.

The Financial Business Sector in the SNA, the NIPAs, and the IMAs

In the SNA, financial services consist of financial intermediation, financial risk management, liquidity transformation, and auxiliary financial activities (paragraph 4.98, 75). The SNA recommends nine financial subsectors (table 4.2, 76), based on a corporation's activities and the liquidity of its liabilities. The FRB's financial accounts of the United States (FAUS) are consistent with the SNA's recommended subsectors and provide financial accounts for an even more detailed set of 22 financial subsectors (table 1).

The NIPAs and gross domestic product (GDP) by industry accounts, produced by BEA, provide a relatively more aggregated presentation of statistics for the financial sector. BEA's presentation is based on the North American Industry Classification System (NAICS 52 and 55). The NIPAs, for example, present estimates of corporate profits before tax for the following three- and four-digit NAICS industries:

- Finance and insurance (NAICS 52)
 - Central bank (521)
 - Credit intermediation and related activities (522)
 - Securities, commodity contracts, other financial investments and related (523)
 - Insurance carriers and related activities (524)
 - Funds, trusts, and other financial vehicles (525)
- Management of Companies and Enterprises (NAICS 55; includes Bank Holding Companies; Nonbank Holding Companies; and Corporate, Subsidiary, and Regional Managing Offices)

1. See Gallin and Smith (2014) for an overview of the FRB's plans to improve the financial accounts.

BEA's business income statistics are widely cited and provide valuable snapshots of the aggregate performance of the financial and nonfinancial sectors and the U.S. economy as a whole. The comprehensive tax return data are ideally suited for this purpose. At the same time, this presentation groups together institutions that face different markets and risks, such as commercial banks and nondepository institutions, in part because multiestablishment companies file tax returns on a consolidated basis.

The financial business sector in the IMAs

The IMAs present separate statistics for six domestic sectors,² including a single account for the entire financial business sector. The definition of financial business (which includes corporations and sole proprietorships and partnerships) reflects definitions used in

2. The six domestic sectors are (1) households and nonprofit institutions serving households, (2) nonfinancial noncorporate business, (3) nonfinancial corporate business, (4) financial business, (5) federal government, and (6) state and local government.

Table 1. Financial Subsectors in the System of National Accounts and in the Financial Accounts of the United States

SNA financial corporations subsectors	FRB financial accounts: Financial business subsectors
Central bank	Monetary authority
Deposit-taking corporations, except central bank	U.S.-chartered depository institutions Foreign banking offices in the United States Banks in U.S.-affiliated areas Credit unions
Money market funds (MMFs)	Money market mutual funds
Non-MMF investment funds	Real estate investment trusts Mutual funds Closed-end funds Exchange-traded funds
Other financial intermediaries, except insurance corporations and pension funds	Government-sponsored enterprises Agency- and GSE-backed mortgage pools Issuers of asset-backed securities Finance companies
Financial auxiliaries	Security brokers and dealers
Captive financial institutions and money lenders	Funding corporations Holding companies
Insurance corporations	Property-casualty insurance companies Life insurance companies
Pension funds	Private pension funds State and local government employee retirement funds Federal government employee retirement funds

FRB Federal Reserve Board
GSE Government-sponsored enterprises

the NIPAs and the FAUS.³ In the IMAs, each sector has a set of current accounts (production and distribution of income accounts) and accumulation accounts (capital, financial, other volume changes, and revaluation accounts) that show the factors leading to changes in net worth for each sector. The NIPAs provide data for current and capital accounts. The FAUS provide data for the IMA financial accounts. Both the NIPAs and the FAUS provide data for the other changes in volume, revaluation, and balance sheet accounts.⁴

In the financial business account (table 2),⁵ the current account summarizes the generation, distribution, and uses of income. Within the current account, the production account (lines 1–8) shows the contribution of financial business to gross value added. For the total economy, gross value added equals gross domestic income. Gross value added is the sum of consumption of fixed capital (CFC) (a measure of economic depreciation), compensation, taxes on production and imports less subsidies, and net operating surplus. Net operating surplus, a profits-like measure of income, equals the sum of net interest (domestic industries), business current transfer payments (net), proprietors' income, and corporate profits (the sum of corporate taxes paid, net dividends paid, and undistributed profits).

The distribution of income account records the sources of income received by financial business (lines 9–26), including income from the rest of the world. In table 2, net national income is the share of national income received by the financial sector and equals the sum of net operating surplus plus net property income received. Property income consists of interest, dividends, and reinvested earnings. Net national income less taxes on income and wealth and less current transfers equals net disposable income, which is equivalent to net saving.

The capital account (lines 27–33) records the net acquisition of nonfinancial assets and capital transfers involving the redistribution of wealth used for the purchase of capital. This account consists of net capital formation (gross investment less CFC) and net capital transfers, which include disaster-related insurance benefits, estate and gift taxes, and financial stabilization payments from the federal government. The sector is a net borrower if net saving is smaller than capital accumulation and a net lender if net saving is greater than capital accumulation.

3. The NIPAs, FAUS, and IMAs place government-sponsored enterprises (GSEs) in the financial sector. The GSEs—financial corporations created by Congress but owned by stockholders—include the Farm Credit System, Federal Home Loan Banks, Fannie Mae, and Freddie Mac.

4. For more information on the IMAs, see Yamashita (2013) and Cagetti and others (2012).

5. Table 2 shows a subset of rows and years of the financial business account. The full account is available on [BEA's Web site](#).

The financial account records each sector's net acquisitions of financial assets and liabilities. A sector's net lending or borrowing equals its net acquisition of financial assets minus its net incurrence of financial liabilities. In principle, the value of net lending or borrowing in the financial account and the capital account

should be equal because net saving not used for capital investment or for capital transfers must be used to acquire financial assets or to retire liabilities. However, the values for the two measures usually differ because of discrepancies in source data, timing differences, difficulties in adjusting the source data to remove holding

Table 2. Financial Business (Table S.6.a)

Line		2001	2006	2007	2008	2009	2010	2014
Current account								
1	Gross value added	847.2	1,127.6	1,068.8	851.9	1,015.4	1,042.8	1,301.6
2	Less: Consumption of fixed capital	115.6	156.8	165.4	173.9	177.4	176.7	192.0
3	Equals: Net value added	731.6	970.9	903.4	678.1	838.0	866.1	1,109.6
4	Compensation of employees (paid).....	445.6	579.8	618.2	612.9	549.0	574.3	681.0
5	Wages and salaries.....	375.1	490.8	527.1	517.9	466.2	486.4	581.4
6	Employers' social contributions.....	70.5	89.0	91.1	95.0	82.8	87.9	99.7
7	Taxes on production and imports less subsidies.....	37.6	52.5	54.7	55.6	64.2	64.8	69.8
8	Operating surplus, net.....	248.4	338.5	230.5	9.5	224.8	227.1	358.8
9	Net national income/Balance of primary incomes, net	164.9	205.2	110.7	-2.1	290.1	376.8	286.6
10	Operating surplus, net.....	248.4	338.5	230.5	9.5	224.8	227.1	358.8
11	Property income (received).....	1,807.0	2,747.1	3,200.8	2,833.1	2,203.8	2,126.7	2,049.6
12	Interest.....	1,667.8	2,444.6	2,831.9	2,444.8	1,877.4	1,749.5	1,505.5
13	Distributed income of corporations (dividends).....	128.0	261.6	323.1	338.8	275.7	308.9	481.3
14	Reinvested earnings on U.S. direct investment abroad.....	11.3	40.9	45.7	49.5	50.7	68.3	62.8
15	Less: Uses of property income (paid).....	1,890.5	2,880.4	3,320.6	2,844.7	2,138.6	1,977.0	2,121.7
16	Interest.....	1,625.2	2,379.0	2,754.2	2,321.6	1,679.7	1,505.2	1,420.8
17	Distributed income of corporations.....	270.8	488.6	556.9	515.8	455.1	460.8	683.5
18	Dividends.....	212.5	438.6	517.0	492.8	380.8	376.0	631.8
19	Withdrawals from income of quasi-corporations ¹	58.3	50.0	39.8	23.0	74.4	84.9	51.7
20	Reinvested earnings on foreign direct investment.....	-5.6	12.8	9.5	7.3	3.7	10.9	17.4
21	Rents on land and natural resources.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Net national income/Balance of primary incomes, net	164.9	205.2	110.7	-2.1	290.1	376.8	286.6
23	Less: Current taxes on income, wealth, etc. (paid).....	92.1	165.7	151.7	81.7	91.6	150.0	197.6
24	Less: Other current transfers (paid).....	30.8	-21.1	7.5	45.6	26.5	18.4	8.5
25	Equals: Disposable income, net	42.1	60.7	-48.5	-129.4	171.9	208.4	80.5
26	Equals: Net saving	42.1	60.7	-48.5	-129.4	171.9	208.4	80.5
Capital account								
27	Net saving less capital transfers	34.3	60.7	-48.5	-68.9	293.9	249.9	70.5
28	Net saving.....	42.1	60.7	-48.5	-129.4	171.9	208.4	80.5
29	Less: Capital transfers paid (net).....	7.7	0.0	0.0	-60.5	-121.9	-41.5	10.0
30	Capital formation, net	38.5	31.9	46.1	22.3	-10.5	-13.9	30.6
31	Gross fixed capital formation (nonresidential).....	154.1	188.7	211.5	196.2	166.9	162.8	222.6
32	Less: Consumption of fixed capital.....	115.6	156.8	165.4	173.9	177.4	176.7	192.0
33	Net lending (+) or borrowing (-), capital account (lines 27-30)	-4.2	28.8	-94.6	-91.2	304.4	263.8	39.9
Financial account (not all rows shown)								
35	Net acquisition of financial assets	3,271.2	4,627.0	5,478.2	3,761.5	-1,246.2	72.6	3,085.7
57	Net incurrence of liabilities	3,277.6	4,383.9	5,352.8	3,861.5	-1,249.2	69.3	3,052.9
77	Net lending (+) or borrowing (-), financial account (lines 35-57).....	-6.5	243.1	125.4	-100.0	3.0	3.2	32.8
Other changes in volume account								
78	Total other volume changes	322.7	-411.2	-77.5	1,211.9	-1,032.3	-803.8	-381.9
79	Disaster losses.....	-3.8	0.0	0.0	-0.6	0.0	0.0	0.0
80	Other volume changes.....	328.7	-625.6	-297.5	1,221.4	-730.9	-543.2	-374.9
81	Less: Statistical discrepancy (lines 33-77) ²	2.3	-214.4	-220.0	8.9	301.4	260.6	7.0
Revaluation account (not all rows shown)								
97	Changes in net worth due to nominal holding gains/losses	-156.4	-8.1	1,331.5	564.1	390.2	51.1	-190.4
Changes in balance sheet account								
98	Change in net worth (lines 30+33+78+97)	200.6	-358.6	1,205.4	1,707.2	-348.3	-502.8	-501.8

NOTES. Financial business includes depository institutions, insurance companies, pension funds, monetary authority, and other financial institutions.

1. Consists of rental income of tenant-occupied housing and proprietors' income. Quasi-corporations are unincorporated enterprises that function as if they were corporations; they primarily cover their operating costs through sales, and they keep a complete set of financial records.

2. The statistical discrepancy is the difference between net lending or net borrowing derived in the capital account and the same concept derived in the financial account. The discrepancy reflects differences in source data, timing of recorded flows, and other statistical differences between the capital and financial accounts.

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gains from financial assets, and other reasons. The difference between net lending and net borrowing derived from the two methods is included as a statistical discrepancy in the “other changes in volume account,” which also records the effects of disaster losses (such as those from hurricanes) and other volume changes on net worth. A key benefit of presenting more detailed financial subsectors is to help identify the sources of this statistical discrepancy.

The revaluation account shows the changes in net worth resulting from holding gains and losses on different types of assets and liabilities, such as real estate and corporate equity. The change in net worth summarizes changes arising from all sources (net saving, net capital accumulation, other changes in volume, and holding gains).

The current and capital accounts show several trends for the financial sector in the years before and after the financial crisis. Gross value added, net operating surplus, net national income, net saving, and net lending or borrowing all fell dramatically in 2007–2008 and then recovered. In the financial account, net acquisition of financial assets and net incurrence of financial liabilities turned sharply negative in 2009 and recovered in the following years. Net worth has declined since 2008. The statistical discrepancy for the two estimates of net lending or borrowing exceeds \$200 billion (in absolute value) for several years. These aggregate trends can be difficult to interpret because they lump together trends of very different subsectors.

Depository institutions

Depository institutions are financial intermediaries that take demand deposits from households and businesses. In the NAICS, depository credit intermediation (5221) includes commercial banks (52211), savings institutions (52212), credit unions (52213), and other depository credit intermediaries (52219). The NIPAs and GDP by industry accounts do not publish separate annual statistics for depository institutions. The NIPAs report corporate profits before tax and other series for credit intermediation and related activities (NAICS 522), which also includes nondepository institutions.

As mentioned previously, BEA's reliance on IRS tabulations of data from consolidated tax returns creates a problem for subsectoring banks.⁶ Measures of bank

profits include the profits of nonbank establishments that are part of companies that are classified as banks. Similarly, measures of bank profits exclude the profits of banks that are part of companies not classified as banks, such as bank holding companies (BHCs).

The FAUS provide separate statistics for all private depository institutions and for U.S. chartered depository institutions, credit unions, foreign banking offices in the United States, and banks in the U.S. affiliated areas. The data are based on regulatory filings by depository institutions—Consolidated Reports of Conditions and Income (FFIEC 031/041, or call reports) for commercial banks and saving institutions; National Credit Union Association (NCUA)'s call reports (NCUA 5300) for credit unions; and Reports of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (FFIEC 002) for foreign banking offices in the United States. An advantage of these data is that the boundary of depository institutions is well defined: the data cover only insured banking operations and not the operations of nondeposit taking entities.

Our proposed method for estimating the current and capital account for depository institutions relies mainly on the same regulatory data used for the FAUS. For statistics for commercial banks and savings institutions, we rely on Statistics of Depository Institutions (SDI) published by the Federal Deposit Insurance Corporation (FDIC). For estimates for credit unions we use data from the Financial Performance Report (FPI) published by NCUA. The SDI and FPR data are compiled from call reports filed with these regulatory agencies.

Our proposed method ensures consistency across the current, capital, and financial accounts, and minimizes classification problems for banks that arise with the company-based data from consolidated tax returns. These classification problems with company-based data may be especially notable in recent years, when large banks (often affiliated with BHCs) acquired smaller, independent banks, which were then submersed into larger BHCs (NAICS 5511). As a result of this industry consolidation, the measured size of the depository credit intermediation sector can shrink spuriously over time in company-based data. For similar reasons, the SDI and FPR data provide more reliable estimates of dividends paid by depository corporations. A significant portion of dividends paid by depository institutions go to parent BHCs, and these dividend payments would be netted out and omitted in consolidated tax-return data.

Yet another benefit of the SDI and FPR data is that they capture all compensation paid by banks, including compensation for bank employees in nonbank establishments such as call centers and data

6. For the year before the these tax-return data become available, the estimates of corporate profits of banks are based on quarterly banking profiles from the FDIC, but these estimates are later replaced by BEA estimates based on tax-return data. In the NIPAs, the quarterly estimates of profits of banks are based on either the quarterly banking profiles or the call reports. Profits of credit unions are based on call report data from the National Credit Union Association. See Bureau of Economic Analysis (2014) for information on estimates of corporate profits. BEA's industry accounts use data from the economic census to estimate gross output and extrapolate intercensal years with data from the call reports.

processing (back office support) centers. One problem with the compensation data in the SDI is that it includes compensation in foreign offices and does not report foreign compensation separately, so we must estimate this expense. (Other foreign expenses are reported and can be subtracted to derive domestic expenses.) We estimate that domestic compensation is 79 percent to 86 percent of worldwide compensation based on an analysis of economic cen-

sus and SDI data.⁷

In the NIPAs and in the proposed IMA for depository institutions (table 3), gross output (not shown in

7. The proposed measures based on SDI and FPR data have a few minor shortcomings. The SDI data reflect the operations of banks that operate in the U.S. territories, while the NIPAs and industry accounts exclude activities in the territories. The NIPAs measure compensation from defined benefit pension plans on the accrual basis, consistent with the SNA, but the SDI and FPR data report compensation from these plans on a cash basis.

Table 3. Private Depository Institutions (Table S.62.a)

Line		2001	2006	2007	2008	2009	2010	2014
Current account								
1	Gross value added.....	212.7	300.0	312.6	304.4	282.1	261.2	300.2
2	Less: Consumption of fixed capital.....	26.0	31.1	31.6	31.9	32.1	31.8	32.8
3	Equals: Net value added.....	186.6	268.9	281.0	272.5	250.0	229.4	267.4
4	Compensation of employees (paid).....	95.6	133.8	139.8	132.9	147.3	151.0	169.6
5	Wages and salaries.....	80.6	113.6	118.7	111.7	125.3	128.3	144.8
6	Employers' social contributions.....	15.0	20.2	21.1	21.2	22.0	22.7	24.8
7	Taxes on production and imports less subsidies.....	5.0	6.6	7.0	8.4	9.4	9.4	11.1
8	Operating surplus, net.....	86.0	128.5	134.1	131.2	93.4	68.9	86.7
9	Net national income/Balance of primary incomes, net.....	60.4	78.6	64.6	132.6	178.7	180.7	120.5
10	Operating surplus, net.....	86.0	128.5	134.1	131.2	93.4	68.9	86.7
11	Property income (received).....	356.2	452.8	487.4	408.2	410.6	412.5	309.6
12	Interest.....	351.0	441.3	474.6	392.9	393.7	388.7	288.4
13	Distributed income of corporations (dividends).....	2.3	2.8	3.1	2.8	1.9	2.1	2.7
14	Reinvested earnings on U.S. direct investment abroad.....	2.8	8.6	9.6	12.5	15.0	21.7	18.4
15	Less: Uses of property income (paid).....	381.8	502.6	556.9	406.8	325.2	300.7	275.7
16	Interest.....	323.1	405.1	447.1	354.3	277.0	243.9	179.3
17	Distributed income of corporations.....	60.2	93.2	107.1	50.9	47.3	54.1	89.8
18	Dividends.....	60.1	93.1	107.0	50.6	47.1	53.9	89.8
19	Withdrawals from income of quasi-corporations ¹	0.1	0.1	0.1	0.2	0.2	0.2	0.1
20	Reinvested earnings on foreign direct investment.....	-1.5	4.3	2.7	1.7	0.9	2.8	6.6
21	Rents on land and natural resources.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Net national income/Balance of primary incomes, net.....	60.4	78.6	64.6	132.6	178.7	180.7	120.5
23	Less: Current taxes on income, wealth, etc. (paid).....	32.6	54.2	41.1	15.8	2.7	18.7	25.6
24	Less: Other current transfers (paid).....	3.0	4.0	4.1	4.2	4.3	4.5	6.8
25	Equals: Disposable income, net.....	24.8	20.4	19.4	112.6	171.7	157.5	88.0
26	Equals: Net saving.....	24.8	20.4	19.4	112.6	171.7	157.5	88.0
Capital account								
27	Net saving less capital transfers.....	24.8	20.4	19.4	155.4	189.8	157.5	88.0
28	Net saving.....	24.8	20.4	19.4	112.6	171.7	157.5	88.0
29	Less: Capital transfers paid (net).....	0.0	0.0	0.0	-42.8	-18.0	0.0	0.0
30	Capital formation, net.....	4.6	5.2	2.5	3.8	-0.1	-4.6	-4.3
31	Gross fixed capital formation (nonresidential).....	30.6	36.3	34.1	35.6	32.0	27.2	28.5
32	Less: Consumption of fixed capital.....	26.0	31.1	31.6	31.9	32.1	31.8	32.8
33	Net lending (+) or borrowing (-), capital account (lines 27-30).....	20.2	15.3	16.9	151.6	189.8	162.2	92.4
Financial account (not all rows shown)								
34	Net lending (+) or borrowing (-) (line 33).....	20.2	15.3	16.9	151.6	189.8	162.2	92.4
35	Net acquisition of financial assets.....	367.5	932.4	1,091.2	1,198.4	-699.2	-193.2	972.1
57	Net incurrence of liabilities.....	422.5	819.4	995.1	1,114.9	-382.4	-168.7	1,089.7
70	Net lending (+) or borrowing (-), financial account (lines 35-57).....	-55.1	113.0	96.0	83.5	-316.8	-24.5	-117.7
Other changes in volume account								
71	Total other volume changes.....	-62.6	7.5	50.3	-67.0	-713.4	-220.0	-209.0
72	Disaster losses.....	-0.3	0.0	0.0	-0.3	0.0	0.0	0.0
73	Other volume changes.....	12.9	-90.2	-28.9	1.4	-206.8	-33.4	1.1
74	Less: Statistical discrepancy (lines 33-70) ²	75.2	-97.7	-79.2	68.1	506.6	186.6	210.0
Revaluation account (not all rows shown)								
87	Changes in net worth due to nominal holding gains/losses.....	-53.4	-143.8	489.5	536.3	61.4	-35.9	-91.3
Changes in balance sheet account								
88	Change in net worth (lines 30+33+71+87).....	-91.2	-115.8	559.2	624.7	-462.2	-98.4	-212.2

1. Consists of rental income of tenant-occupied housing and proprietors' income. Quasi-corporations are unincorporated enterprises that function as if they were corporations; they primarily cover their operating costs through sales, and they keep a complete set of financial records.

2. The statistical discrepancy is the difference between net lending or net borrowing derived in the capital account and the same concept derived in the financial account. The discrepancy reflects differences in source data, timing of recorded flows, and other statistical differences

between the capital and financial accounts.

This sector is equivalent to the private depository institutions sector in the Financial Accounts of the United States. The private depository institutions sector includes U.S.-chartered depository institutions, foreign banking offices in U.S., and credit unions. The current and capital accounts for this sector are based on new prototype estimates from the BEA.

To see the full set of tables (with all rows) of the Integrated Macroeconomic Accounts, go to BEA's Web site at www.bea.gov.

the table) includes fees charged for services and income from financial intermediation services indirectly measured (FISIM).⁸ Gross value added (line 1) equals gross output less noninterest operating expense (based on SDI/FPR data, plus NIPA estimates of FISIM). Net value added (gross value added less CFC from the NIPAs) equals compensation, taxes on production (from the NIPAs) and net operating surplus (derived by subtraction). Note that net operating surplus excludes net interest income: net interest received is part of profits, but the addition of net interest paid removes net interest income. Net income equals net operating surplus plus net interest and dividends received (mainly from SDI/FPR data) plus net other property income received (mainly NIPA data). The NIPAs provide current taxes and transfers, capital transfers, and gross fixed capital formation. Net saving and net lending or borrowing are derived.

Our estimates depict a modest recovery after 2011 and a lower level of gross value added and net operating surplus in the sector in 2014 than in 2007 (chart 1). The trends in gross value added for depository institutions and for financial business as a whole clearly differ, a result that underscores the value of estimating accounts for financial subsectors. Net national income, which includes net interest and dividends receipts, followed a different pattern, rising sharply after 2007, mainly because of trends in net interest receipts, which grew after 2007 because interest paid by banks fell much faster than interest received. Banks tend to receive interest on long-term assets, often at fixed rates (for example, mortgages) and pay interest on short-term liabilities (deposits); as interest rates declined, interest payments adjusted to the new rates faster than interest receipts, and net interest received by banks increased. Dividends paid also fell in 2008, contributing to the increase in net national income. As a result of these trends, net saving and net lending or borrowing rose significantly from 2007 to 2009 and remained well above their 2007 levels through 2014. In sum, the trends in the current and capital accounts added to the net worth of depository institutions during these years.

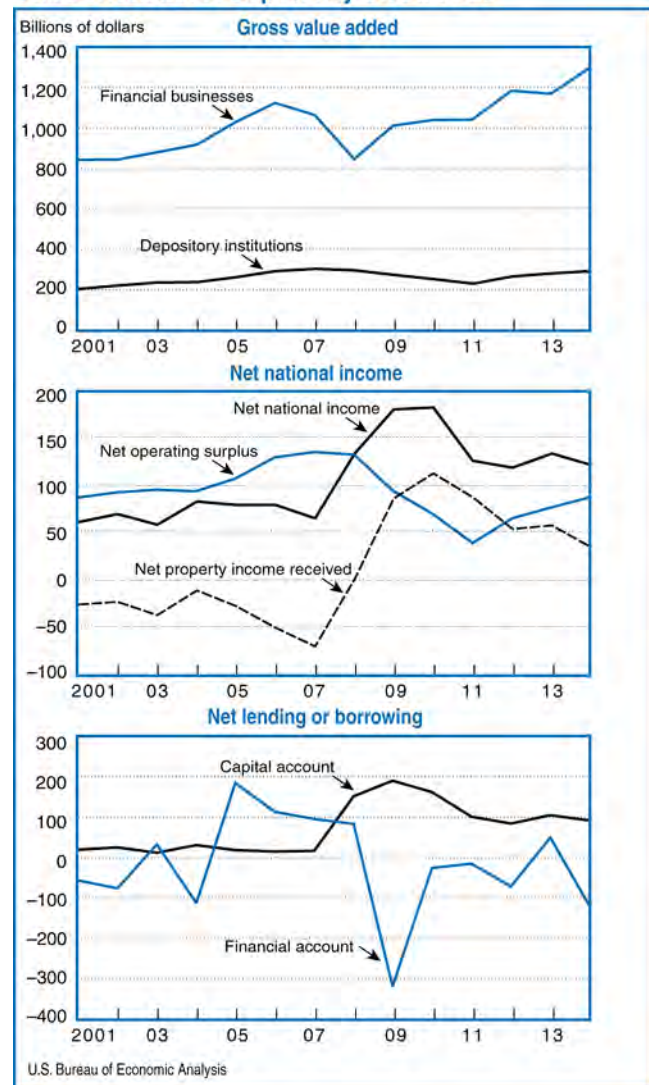
A separate IMA for depository institutions reveals substantial statistical discrepancies in net lending or borrowing as estimated in the capital account and in the FAUS. For 2009, the statistical discrepancy exceeds \$500 billion. According to the FAUS (table F 109, line

3), depository institutions were net borrowers in 2001–2002, 2004, 2009–2012, and 2014; in 2009, net borrowing was \$316.8 billion. On the other hand, the capital account shows consistently positive net lending for this sector. These discrepancies are an important research topic for the future.

Federal Reserve banks

The central bank of the United States is the Federal Reserve System, which includes the Board of Governors and twelve regional, private Federal Reserve banks. In the NIPAs, IMAs, and the GDP by industry accounts, the Board of Governors of the Federal Reserve System is classified in the federal government sector, while the Federal Reserve banks are classified as private financial corporations. Similarly, in the FAUS, the account for the central bank (the “monetary authority”) measures the activity of the private Federal Reserve banks only.

Chart 1. Trends for Depository Institutions



8. As defined in the SNA, gross output for banks also includes the spread between ask/bid price and the mid-price for foreign exchange transactions. For the Call Reports, banks are only required to report total gains and losses from foreign exchange trading so we cannot separate the implicit service fees from holding gains and losses from currency fluctuations. For U.S. banks, we suspect these service fees are small as exporters and importers can invoice in dollars and do not rely on banks for foreign exchange.

The scope of the proposed IMA account (table 4) for the central bank is also restricted to the private Federal Reserve banks, which we treat as financial corporations.⁹ We leave the Board of Governors in the federal government sector of the IMAs.

9. In an earlier paper (Kornfeld, Lynn, and Yamashita (2015)), we treated the Federal Reserve banks as nonmarket producers, consistent with some of the recommendations of the SNA. For the published IMA for the central bank, we have opted to maintain consistency with the current NIPA treatment, and so we treat the Federal Reserve banks as financial corporations that are market producers.

The measures of income, gross value added, and saving for the proposed IMA for the central bank are consistent with the measures in the NIPAs. This new account presents some additional data for the central bank that are subsumed in more aggregated series in the NIPAs and are not published separately. The main data source for these estimates is “Table 10. Income and expenses of the Federal Reserve Banks, by Bank” from the Federal Reserve’s *Annual Reports* for several years.

Table 4. Central Bank (Table S.61.a)

Line		2001	2006	2007	2008	2009	2010	2014
	Current account							
1	Gross value added.....	3.0	2.0	2.0	3.4	2.5	2.5	3.4
2	Less: Consumption of fixed capital.....	1.1	0.8	0.8	0.8	0.8	0.8	0.8
3	Equals: Net value added.....	1.9	1.2	1.2	2.6	1.7	1.7	2.6
4	Compensation of employees (paid).....	1.4	1.6	1.7	1.9	2.1	2.1	2.2
5	Wages and salaries.....	1.2	1.4	1.5	1.7	1.8	1.8	1.9
6	Employers' social contributions.....	0.2	0.2	0.2	0.2	0.2	0.2	0.3
7	Taxes on production and imports less subsidies.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Operating surplus, net.....	0.6	-0.4	-0.6	0.6	-0.3	-0.4	0.4
9	Net national income/Balance of primary incomes, net.....	29.5	33.1	36.6	35.2	47.3	71.7	104.4
10	Operating surplus, net.....	0.6	-0.4	-0.6	0.6	-0.3	-0.4	0.4
11	Property income (received).....	30.9	36.8	40.9	38.9	53.3	78.5	115.9
12	Interest.....	30.9	36.8	40.9	38.9	53.3	78.5	115.9
13	Distributed income of corporations (dividends).....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Reinvested earnings on U.S. direct investment abroad.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Less: Uses of property income (paid).....	1.9	3.3	3.8	4.4	5.7	6.4	12.0
16	Interest.....	1.5	2.4	2.8	3.2	4.3	4.8	10.3
17	Distributed income of corporations.....	0.4	0.9	1.0	1.2	1.4	1.6	1.7
18	Dividends.....	0.4	0.9	1.0	1.2	1.4	1.6	1.7
19	Withdrawals from income of quasi-corporations ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	Reinvested earnings on foreign direct investment.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	Rents on land and natural resources.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Net national income/Balance of primary incomes, net.....	29.5	33.1	36.6	35.2	47.3	71.7	104.4
23	Less: Current taxes on income, wealth, etc. (paid).....	27.1	29.1	34.6	31.7	47.4	79.3	96.9
24	Less: Other current transfers (paid).....	0.6	0.8	0.9	0.9	0.9	1.1	1.9
25	Equals: Disposable income, net.....	1.8	3.3	1.1	2.6	-1.1	-8.7	5.6
26	Equals: Net saving.....	1.8	3.3	1.1	2.6	-1.1	-8.7	5.6
	Capital account							
27	Net saving less capital transfers.....	1.8	3.3	1.1	2.6	-1.1	-8.7	5.6
28	Net saving.....	1.8	3.3	1.1	2.6	-1.1	-8.7	5.6
29	Less: Capital transfers paid (net).....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	Capital formation, net.....	0.0	0.0	0.1	-0.2	0.0	-0.2	-0.2
31	Gross fixed capital formation (nonresidential).....	1.0	0.8	0.9	0.7	0.8	0.7	0.7
32	Less: Consumption of fixed capital.....	1.1	0.8	0.8	0.8	0.8	0.8	0.8
33	Net lending (+) or borrowing (-), capital account (lines 27-30).....	1.9	3.3	1.0	2.8	-1.0	-8.5	5.8
	Financial account (not all rows shown)							
34	Net lending (+) or borrowing (-) (line 33).....	1.9	3.3	1.0	2.8	-1.0	-8.5	5.8
35	Net acquisition of financial assets.....	47.0	29.6	42.7	1,319.8	-4.5	185.5	481.6
45	Net incurrence of financial liabilities.....	46.5	27.2	39.6	1,317.2	-9.1	184.6	480.6
50	Net lending (+) or borrowing (-), financial account (lines 35-45).....	0.5	2.4	3.1	2.6	4.6	0.9	1.1
	Other changes in volume account							
51	Total other volume changes.....	-1.3	-0.9	2.1	-0.2	5.6	9.4	-4.7
52	Other volume changes.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	Less: Statistical discrepancy (lines 33-50) ²	1.3	0.9	-2.1	0.2	-5.6	-9.4	4.7
	Revaluation account (not all rows shown)							
58	Changes in net worth due to nominal holding gains/losses.....	0.0	0.6	0.3	0.6	-0.4	0.0	0.2
	Changes in balance sheet account							
59	Change in net worth (lines 27+30+51+58).....	0.5	3.0	3.6	3.0	4.2	0.8	1.1

1. Consists of rental income of tenant-occupied housing and proprietors' income. Quasi-corporations are unincorporated enterprises that function as if they were corporations; they primarily cover their operating costs through sales, and they keep a complete set of financial records.

2. The statistical discrepancy is the difference between net lending or net borrowing derived in the capital account and the same concept derived in the financial account. The discrepancy reflects differences in source data, timing of recorded flows, and other statistical differences

between the capital and financial accounts.

This sector is equivalent to the monetary authority sector in the Financial Accounts of the United States. The sector includes the 12 Federal Reserve Banks and their subsidiary offices (but not the Board of Governors of the Federal Reserve System).

To see the full set of tables (with all rows) of the Integrated Macroeconomic Accounts, go to BEA's Web site at www.bea.gov.

In the NIPAs, corporate profits before tax from the Federal Reserve banks is estimated as total current income less current expenses and assessments, with some minor adjustments. Current income consists mainly of interest income from Treasury securities, federal agency and government-sponsored enterprise mortgage-backed securities, and government-sponsored enterprise debt securities. The Federal Reserve banks also receive income for “priced services” to financial institutions, such as collecting checks, operating an automated clearinghouse service, transferring funds and securities, and providing a multilateral settlement service. The Federal Reserve banks also receive securities lending fees and other income from private banks.

Net expenses include expenses for interest, personnel, administration, and other items. Assessments fund activities classified as part of the federal government—currency costs, the Board of Governors, the Consumer Financial Protection Bureau, and the Office of Financial Research in the Treasury Department. Profits before tax for the central bank were about \$103.4 billion in 2014. The Federal Reserve banks pay earnings remittances to the Treasury (\$96.9 billion in 2014) equal to current income less current expenses and assessments, plus additional items not classified as income from current production in the NIPAs. In the NIPAs, these earnings remittances are classified as a corporate tax, the assessments are classified as a current transfer from business to government, and dividends to member banks are classified as corporate dividends.

The proposed IMA for the central bank is based on these NIPA estimates. Gross value added equals the sum of CFC, compensation, taxes on production and imports and net operating surplus. Net operating surplus equals noninterest receipts less noninterest expenses. Net income equals net operating surplus plus net property income received, which consists mainly of net interest received. Interest paid equals monetary interest paid plus the NIPA estimate of FISIM. The earnings remittance to the Treasury is classified as a corporate tax, and the assessments are classified a current transfer paid to government. Capital formation (fixed investment) is based on FRB and BEA estimates. Net lending or borrowing is close to zero for most years because the Federal Reserve banks provide their net income to the federal government as a remittance.

One of the main advantages of a separate account for the Federal Reserve banks is that we can explicitly show the rising interest receipts and corporate taxes paid after the financial crisis, and we can separate these interest flows from the interest flows of other financial

subsectors.¹⁰ The statistical discrepancy for net lending or borrowing for this sector, while generally small, is somewhat larger in 2010 and 2012; these larger discrepancies are a topic for future research.

Property-casualty and life insurance

The SNA defines the insurance sector as “incorporated, mutual and other entities whose principal function is to provide life, accident, sickness, fire or other forms of insurance to individual institutional units or groups of units or reinsurance services to other insurance corporations” (paragraph 4.115, 78). The SNA insurance subsector corresponds to NAICS industry 5241 “Insurance carriers.” Insurance agents and brokers are classified as financial auxiliaries in the SNA and as “Agencies, brokerages, and other insurance related activities” in NAICS (5242).

Consistent with the SNA, the FAUS provide separate accounts for property-casualty and life insurance carriers, and count brokers and agents as financial auxiliaries. The estimates of income for property-casualty and life insurance industry in the NIPAs and GDP by industry accounts differ from the SNA, however, in that they combine insurance carriers and brokers. (The benchmark input-output accounts do provide separate estimates for carriers and brokers.). Our proposed IMA for the property-casualty and life insurance subsector is limited to insurance carriers, consistent with the SNA and the FAUS.

In the NIPAs, the treatment of the property-casualty insurance industry is largely consistent with the SNA. The output of the property-casualty insurance industry is measured as direct premiums earned plus premium supplements (the investment income insurance companies expect to earn from the investment of reserves) minus normal losses (estimated expected losses based on the history of past claims) and dividends to policyholders. The premium supplements also appear in the NIPAs as an imputed interest payment from insurance companies to policyholders. The difference between actual losses and normal losses, or “net insurance settlements,” is recorded as a business current transfer from insurance companies to policyholders.¹¹ In the event of a major disaster, such as Hurricane Katrina in 2005,¹² insurance payouts for damages are classified as capital transfers rather than as current transfers.

10. Interest and profit flows related to variable interest entities are not included in the central bank accounts in the NIPAs or the IMAs; the FAUS classify these entities as funding agencies.

11. See Chen and Fixler (2003) and Moulton and Seskin (2003).

12. An event is classified as a disaster if the losses incurred are equal to, or greater than, 0.1 percent of GDP. See Seskin and Smith (2009).

Life insurance carriers provide services that combine both insurance and saving. They earn property income (dividends and interest) on insurance reserves that are held for the benefit of policyholders and that will be paid out to the beneficiaries as distributions of income in the future. In the NIPAs, life insurance carriers charge policyholders an imputed fee that is equal to the institutions' operating expenses for the services provided. The imputed fees are included in gross value added of life insurance and are treated as personal outlays and are recorded as "life insurance" in personal consumption expenditures (PCE). The property income of life insurance carriers is recorded as "imputed interest received from life insurance carriers" in personal interest income.¹³

The estimates for the proposed IMA for insurance are derived from NIPA estimates (table 5). BEA source data for many insurance-related series are available at the four-digit NAICS level (with data for carriers separate from brokers), but only at the three-digit NAICS level (carriers and brokers combined) for taxes on production and imports, business current transfer payments, proprietors' income, and compensation. For these series, we use the economic census and other data sources to estimate shares for insurance carriers.

Gross value added is the sum of compensation, taxes on production and imports, CFC, and net operating surplus. Net operating surplus equals the sum of corporate profits before taxes, net interest paid, the capital consumption adjustment, net business current transfer payments, and proprietors' income. Interest received includes both imputed interest and monetary interest. Interest paid also includes monetary and imputed interest; consistent with the SNA, this imputed interest includes imputed interest paid by life insurance carriers and property and casualty insurance companies to policyholders. Current transfers paid includes net insurance settlements paid by insurance companies. Capital transfers paid (net) include net disaster-related payouts by insurers as well as financial stabilization payments received by insurers from the federal government.

The results highlight the additional information obtained by producing a separate account for insurance carriers within the financial sector (chart 2, page 11). Throughout the period, gross value added for insurance ranged between 21 percent and 30 percent of gross value added for financial business. Net operating surplus and net lending or borrowing has been more

stable for insurance carriers in recent years than for financial business as a whole: for financial business, net operating surplus fell by over \$300 billion in 2006–2008 and then rose by over \$200 billion afterward; for insurance carriers, the changes were smaller. Both the capital account and the financial account confirm that insurance carriers are net lenders for most years. The financial account measure of net lending or borrowing is also greater than the capital account measure for most years and is more volatile. A distinguishing feature of the insurance carrier subsector is that unlike other subsectors, it is a net payer of interest, largely because of the imputed interest paid by life insurers to households and businesses.

Pensions

Pension funds are personal saving for retirement. According to the SNA definition, "social insurance schemes" that "may be organized by employers or by government." They may also "be organized by insurance corporations on behalf of employees or separate institutional units may be established to hold and manage the assets to be used to meet the pensions and to distribute the pensions. The pension fund subsector consists of only those social insurance pension funds that are institutional units separate from the units that create them" (paragraph 4.116, 78). Economic activity related to the management of pension funds may be classified in the financial auxiliary subsector (SNA 2008, paragraph 4.112g, 77).

Employer-sponsored retirement plans include defined contribution plans, which provide benefits during retirement based on the amount of money that has accumulated in an employee's account, and defined benefit plans, which provide benefits during retirement based on a formula that typically depends on an employee's length of service and average pay among other factors. To fund promised benefits to retirees, defined benefit plans primarily rely on contributions from employers and employees as well as interest and dividend income earned on the financial assets that the plans hold. In addition, many plans hold assets that are expected to yield capital gains, which are treated as changes in the balance sheet rather than as current income in the NIPAs.

In 2013, BEA adopted the accrual accounting approach for measuring pension income and entitlements, relying on actuarial estimates of pension costs. This treatment is, with some minor exceptions, consistent with the SNA. BEA treats defined benefit pension plans as "pass-through" entities that are owned by the household sector and classifies these plans as financial corporations that receive contributions and property income on behalf of plan participants but do not have

13. Personal saving is raised by the amount that the property income of these institutions exceeds the imputed fees that are added to PCE. The underwriting income of life insurance carriers (premiums less benefits) is treated as a transfer payment within the personal sector and not recorded in the NIPAs. See Bureau of Economic Analysis (2014).

income or saving of their own.

The proposed current and capital accounts for the pension sector in the IMAs parallels the current NIPA treatment, which is summarized in NIPA table 7.20 and in several papers and articles.¹⁴ Consistent with the

treatment of pensions as pass through entities that pass receipts to households, the estimates of net national income, net operating surplus, net property income received and net current transfers received, net disposable income, net saving, and net lending or borrowing are all essentially zero. Specifically, property income received (interest and dividends) equals property income paid to households. Current transfers received

14. See Smith and Holdren (2013), Reinsdorf (2013), and Reinsdorf, Lenze, and Rassier (2014).

Table 5. Property-Casualty and Life Insurance Companies (Table S.63.a)

Line	2001	2006	2007	2008	2009	2010	2014
Current account							
1 Gross value added	215.1	286.7	308.8	258.2	285.7	269.2	328.1
2 Less: Consumption of fixed capital	18.6	25.2	25.6	26.7	27.6	27.4	31.7
3 Equals: Net value added	196.6	261.6	283.2	231.6	258.1	241.9	296.4
4 Compensation of employees (paid)	91.6	113.9	118.2	119.5	116.0	118.7	137.7
5 Wages and salaries	76.1	95.3	99.1	99.3	97.4	99.5	117.0
6 Employers' social contributions	15.5	18.7	19.1	20.2	18.6	19.1	20.7
7 Taxes on production and imports less subsidies	14.0	20.4	21.1	21.4	22.1	22.3	34.5
8 Operating surplus, net	90.9	127.2	144.0	90.6	120.0	100.9	124.2
9 Net national income/Balance of primary incomes, net	22.9	58.0	73.8	27.9	55.6	65.2	23.7
10 Operating surplus, net	90.9	127.2	144.0	90.6	120.0	100.9	124.2
11 Property income (received)	203.7	265.6	295.0	301.5	273.1	287.3	260.3
12 Interest	191.3	240.2	267.4	273.8	251.5	248.0	229.1
13 Distributed income of corporations (dividends)	9.1	15.3	17.4	19.2	12.2	27.9	18.4
14 Reinvested earnings on U.S. direct investment abroad	3.2	10.1	10.2	8.6	9.3	11.4	12.8
15 Less: Uses of property income (paid)	271.7	334.8	365.2	364.3	337.5	323.1	360.7
16 Interest	253.8	309.0	339.3	342.0	325.7	304.6	329.9
17 Distributed income of corporations	18.9	23.6	24.5	21.5	11.3	17.1	28.4
18 Dividends	13.7	17.2	18.1	15.5	5.4	13.5	23.7
19 Withdrawals from income of quasi-corporations ¹	5.2	6.4	6.4	6.1	5.9	3.7	4.7
20 Reinvested earnings on foreign direct investment	-1.0	2.2	1.3	0.7	0.4	1.3	2.5
21 Rents on land and natural resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22 Net national income/Balance of primary incomes, net	22.9	58.0	73.8	27.9	55.6	65.2	23.7
23 Less: Current taxes on income, wealth, etc. (paid)	11.1	45.3	42.4	20.7	25.0	28.9	31.8
24 Less: Other current transfers (paid)	20.9	-39.9	-7.6	31.5	-4.9	-8.4	-42.9
25 Equals: Disposable income, net	-9.2	52.6	38.9	-24.4	35.4	44.7	34.9
26 Equals: Net saving	-9.2	52.6	38.9	-24.4	35.4	44.7	34.9
Capital account							
27 Net saving less capital transfers	-16.9	52.6	38.9	-21.6	40.9	44.7	34.9
28 Net saving	-9.2	52.6	38.9	-24.4	35.4	44.7	34.9
29 Less: Capital transfers paid (net)	7.7	0.0	0.0	-2.8	-5.5	0.0	0.0
30 Capital formation, net	4.6	-1.0	0.4	0.8	0.1	-4.3	3.1
31 Gross fixed capital formation (nonresidential)	23.1	24.2	26.0	27.4	27.7	23.1	34.8
32 Less: Consumption of fixed capital	18.6	25.2	25.6	26.7	27.6	27.4	31.7
33 Net lending (+) or borrowing (-), capital account (lines 27-30)	-21.5	53.6	38.5	-22.3	40.8	49.0	31.7
Financial account (not all rows shown)							
35 Net acquisition of financial assets	264.6	289.4	283.5	191.1	156.5	143.2	246.6
54 Net incurrence of liabilities	277.0	243.4	207.0	167.4	27.9	147.9	173.3
63 Net lending (+) or borrowing (-), financial account (lines 35-54)	-12.4	46.1	76.5	23.7	128.6	-4.7	73.3
Other changes in volume account							
64 Total other volume changes	50.0	-44.5	31.3	181.2	22.2	-100.5	42.7
65 Disaster losses	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0
66 Other volume changes	41.0	-36.9	-6.7	135.3	-65.6	-46.8	1.1
67 Less: Statistical discrepancy (lines 33-63)²	-9.1	7.5	-38.0	-46.0	-87.8	53.7	-41.6
Revaluation account (not all rows shown)							
81 Changes in net worth due to nominal holding gains/losses	-36.5	-75.5	245.9	155.7	-9.9	19.7	-50.0
Changes in balance sheet account							
82 Change in net worth (lines 30+33+64+81)	-3.4	-67.4	316.0	315.4	53.2	-36.1	27.5

1. Consists of rental income of tenant-occupied housing and proprietors' income. Quasi-corporations are unincorporated enterprises that function as if they were corporations; they primarily cover their operating costs through sales, and they keep a complete set of financial records.

2. The statistical discrepancy is the difference between net lending or net borrowing derived in the capital account and the same concept derived in the financial account. The discrepancy reflects differences in source data, timing of recorded flows, and other statistical differences

between the capital and financial accounts.

This sector aggregates the property-casualty insurance companies sector and the life insurance companies sector from in the Financial Accounts in the United States. The current and capital accounts for this sector are based on new prototype estimates from the BEA. In the published NIPAs, estimates for insurance also include brokers.

To see the full set of tables (with all rows) of the Integrated Macroeconomic Accounts, go to BEA's Web site at www.bea.gov.

equals contributions received (actual and imputed) plus household premium supplements received (which consists of property income received by households and then reinvested in the pension fund), net of pension service charges. Current transfers received equals current transfers paid, which is equal to benefit payments and withdrawals plus the net change in benefit entitlements from defined benefit plans and net change in assets from defined contribution plans.¹⁵

The treatment of the pension subsector in the FAUS is similar to the treatment in the NIPAs. The FAUS, like the NIPAs, present a consolidated private and pension fund table and separate tables for private, federal government, and state and local government funds. Each pension fund table includes both defined benefit and

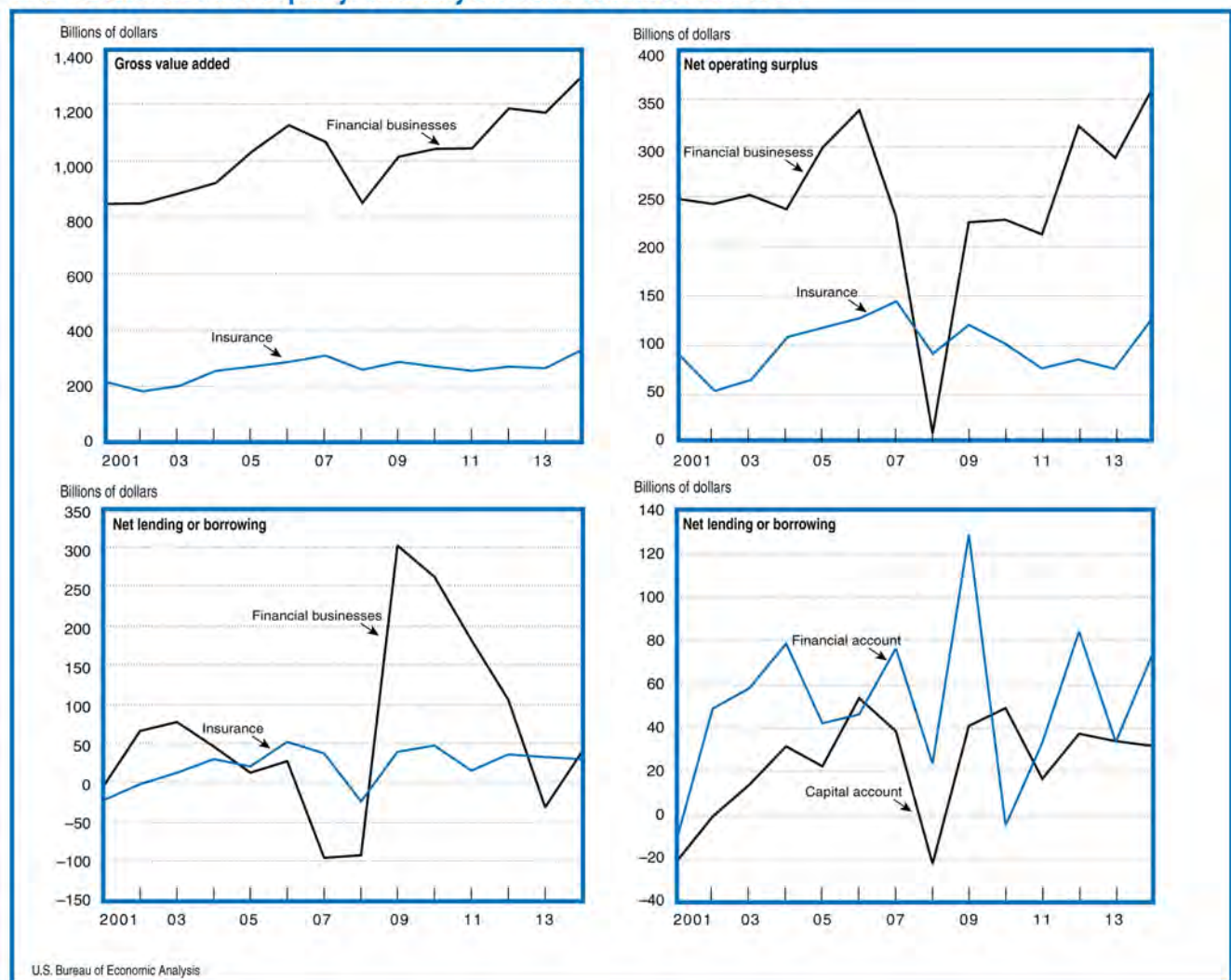
defined contribution pension funds. The assets include specific instruments as well as unfunded claims of the pension fund on the pension sponsor. Pension liabilities reflect the actuarial value of accrued pension entitlements in defined benefit plans and assets of defined contribution plans. The liabilities of the pension funds are assets of the household sector. Financial flows of assets generally equal the flows of liabilities, consistent with treating the fund as a pass-through. The balance sheet shows funded and unfunded pension entitlements for defined benefit plans. In the financial accounts, the measure of net lending or net borrowing is close to zero.

Remaining financial subsectors

We can also estimate an additional account for all remaining financial subsectors by subtracting the estimates for depository institutions, the Federal Reserve banks, pensions, and insurance companies from the

15. For the IMA for pensions, we classify pension service charges as received by financial auxiliaries. This treatment differs from the NIPAs, which classify these service charges as part of the output of the pension sector and as part of PCE.

Chart 2. Trends for Property-Casualty and Life Insurance Carriers



financial business account. While the boundaries of the IMA financial sector and this residual financial subsector are imperfectly estimated, partly because of our reliance on data from consolidated tax returns, the results are nevertheless useful (table 6). Based on the NAICS, this subsector includes the nondepository por-

tion of credit intermediation and related activities; securities, commodity contracts, other financial investments and related activities; insurance brokers; funds, trusts, and other financial vehicles (other than pension funds); and management of companies and enterprises (including holding companies). According

Table 6. Other Financial Business (Table S.65.a)

Line		2001	2006	2007	2008	2009	2010	2014
Current account								
1	Gross value added	416.4	538.9	445.4	285.9	445.0	509.9	669.9
2	Less: Consumption of fixed capital	70.0	99.7	107.3	114.5	116.9	116.7	126.6
3	Equals: Net value added	346.5	439.2	338.1	171.4	328.2	393.2	543.3
4	Compensation of employees (paid)	257.0	330.4	358.5	358.6	283.7	302.5	371.5
5	Wages and salaries	217.2	280.5	307.7	305.3	241.8	256.7	317.7
6	Employers' social contributions	39.9	49.9	50.8	53.3	41.9	45.8	53.8
7	Taxes on production and imports less subsidies	18.6	25.5	26.6	25.8	32.7	33.1	24.3
8	Operating surplus, net	70.8	83.3	-47.1	-212.9	11.8	57.6	147.5
9	Net national income/Balance of primary incomes, net	52.1	35.5	-64.3	-197.7	8.5	59.3	38.0
10	Operating surplus, net	70.8	83.3	-47.1	-212.9	11.8	57.6	147.5
11	Property income (received)	907.4	1,601.4	1,959.6	1,619.3	977.6	871.9	840.5
12	Interest	845.7	1,441.4	1,753.0	1,403.8	807.6	673.4	510.7
13	Distributed income of corporations (dividends)	56.5	137.9	180.7	187.1	143.5	163.3	298.2
14	Reinvested earnings on U.S. direct investment abroad	5.3	22.2	25.9	28.5	26.5	35.2	31.6
15	Less: Uses of property income (paid)	926.2	1,649.2	1,976.8	1,604.1	980.9	870.2	950.0
16	Interest	798.0	1,377.6	1,669.0	1,286.7	701.4	591.0	539.9
17	Distributed income of corporations	131.2	265.4	302.3	312.5	277.1	272.4	401.7
18	Dividends	78.2	221.8	269.0	295.8	208.9	191.4	354.8
19	Withdrawals from income of quasi-corporations ¹	53.0	43.5	33.3	16.7	68.2	81.0	46.9
20	Reinvested earnings on foreign direct investment	-3.0	6.3	5.5	4.9	2.4	6.8	8.4
21	Rents on land and natural resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Net national income/Balance of primary incomes, net	52.1	35.5	-64.3	-197.7	8.5	59.3	38.0
23	Less: Current taxes on income, wealth, etc. (paid)	21.2	37.1	33.5	13.5	16.5	23.2	43.3
24	Less: Other current transfers (paid)	6.4	14.1	10.0	9.2	26.2	21.3	42.7
25	Equals: Disposable income, net	24.5	-15.7	-107.8	-220.3	-34.2	14.8	-48.0
26	Equals: Net saving	24.5	-15.7	-107.8	-220.3	-34.2	14.8	-48.0
Capital account								
27	Net saving less capital transfers	24.5	-15.7	-107.8	-205.4	64.2	56.3	-58.0
28	Net saving	24.5	-15.7	-107.8	-220.3	-34.2	14.8	-48.0
29	Less: Capital transfers paid (net)	0.0	0.0	0.0	-14.9	-98.4	-41.5	10.0
30	Capital formation, net	29.4	27.7	43.1	17.9	-10.6	-4.8	32.0
31	Gross fixed capital formation (nonresidential)	99.3	127.4	150.4	132.4	106.3	111.9	158.6
32	Less: Consumption of fixed capital	70.0	99.7	107.3	114.5	116.9	116.7	126.6
33	Net lending (+) or borrowing (-), capital account (lines 27-30)	-4.8	-43.4	-150.9	-223.3	74.8	61.1	-90.0
Financial account (not all rows shown)								
35	Net acquisition of financial assets	2,254.4	2,869.7	3,571.3	755.5	-1,269.4	-640.7	937.4
53	Net incurrence of liabilities	2,193.8	2,787.9	3,621.3	965.3	-1,455.9	-672.2	861.0
71	Net lending (+) or borrowing (-), financial account (lines 35-53)	60.6	81.8	-50.0	-209.8	186.5	31.4	76.4
Other changes in volume account								
72	Total other volume changes	92.1	120.4	1.4	-225.8	224.0	-75.7	159.9
73	Disaster losses	-3.3	0.0	0.0	-0.3	0.0	0.0	0.0
74	Other volume changes	30.1	-4.8	-99.5	-239.1	112.3	-46.0	-6.5
75	Less: Statistical discrepancy (lines 33-71) ²	-65.4	-125.2	-100.9	-13.6	-111.8	29.7	-166.4
Revaluation account (not all rows shown)								
89	Changes in net worth due to nominal holding gains/losses	180.3	-253.2	454.2	1,178.8	-219.5	-347.6	-407.3
Changes in balance sheet account								
90	Change in net worth (lines 30+33+72+89)	297.0	-148.5	347.8	747.6	68.7	-367.0	-305.4

1. Consists of rental income of tenant-occupied housing and proprietors' income. Quasi-corporations are unincorporated enterprises that function as if they were corporations; they primarily cover their operating costs through sales, and they keep a complete set of financial records.

2. The statistical discrepancy is the difference between net lending or net borrowing derived in the capital account and the same concept derived in the financial account. The discrepancy reflects differences in source data, timing of recorded flows, and other statistical differences between the capital and financial accounts.

This sector represents the aggregation of the following financial subsectors from the Financial Accounts of the United States: money market mutual funds, mutual funds, closed-end and exchange-traded funds, government-sponsored enterprises, agency- and GSE-backed mortgage pools, issuers of asset-backed securities, finance companies, equity real estate investment trusts (REITs), mortgage REITs, security brokers and dealers, holding companies, and funding corporations. The current and capital accounts for this sector are based on new prototype estimates from the BEA.

to the FAUS, this subsector should include money market mutual funds, mutual funds, closed-end and exchange-traded funds, the government-sponsored enterprises (GSEs), agency-backed, and GSE-backed mortgage pools, issuers of asset-backed securities, finance companies, real estate investment trusts, security brokers and dealers, holding companies, and funding corporations.

Gross value added for this financial subsector fell from \$538.9 billion in 2006 to \$285.9 billion in 2008 and then increased to \$669.9 billion in 2014. This subsector was thus a significant contributor to the downturn in total gross value added during the recession. Net operating surplus fell from \$83.3 billion in 2006 to -\$212.9 billion in 2008 and then recovered. National income also turned negative in 2007–2008. Both interest paid and received fell by more than half after 2007. Net lending or borrowing turned negative starting in 2004, fell to -\$223.3 billion in 2008, and turned positive again until 2013.

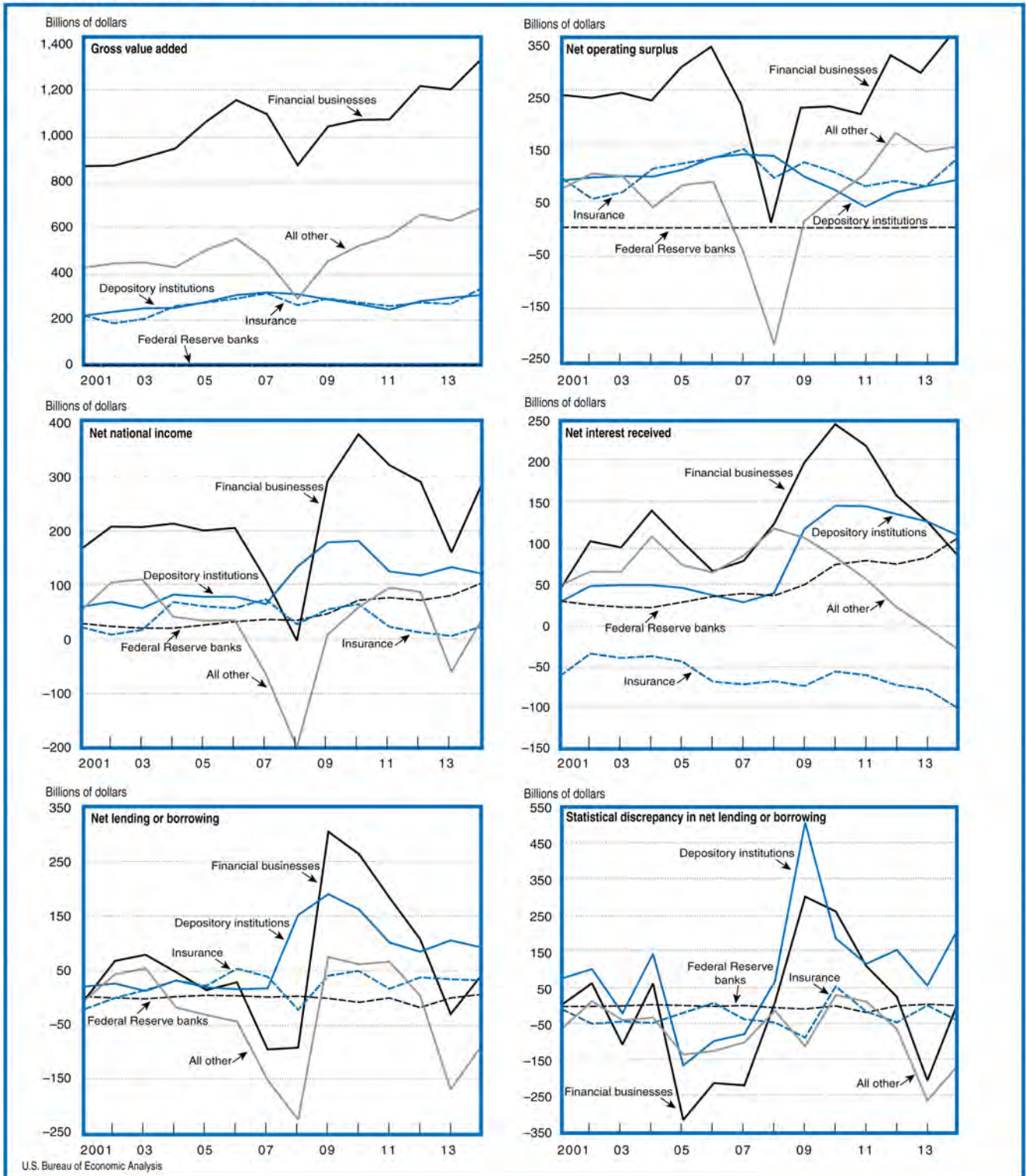
Conclusion

In this article, we use the framework of the IMAs to develop prototype estimates for several subsectors within the financial business sector. The publication of these accounts for depository institutions, the Federal Re-

serve banks, property-casualty and life insurance companies, pension funds, and all other financial business is consistent with the recommendations for a more detailed presentation of financial business from the SNA and from the G–20 Data Gaps Initiative.

The results confirm that recent trends in gross value added varied considerably across these financial subsectors (chart 3). Put another way, these subsectors made different contributions to changes in gross domestic income over the course of the recession and recovery. Similarly, recent trends in other major aggregates (net operating surplus, net national income, net interest received, net lending or borrowing) also varied across the financial subsectors, which face very different markets, risks, and regulations. A major share of the large declines in gross value added, net operating surplus, net national income, and net lending or borrowing resulted from trends in the residual “other financial business” sector. Future research on estimates for additional financial subsectors and on the sources of statistical discrepancies in net lending or borrowing by subsector (capital accounts versus financial accounts) will improve our understanding of trends in financial business. All of these results show the value of a more disaggregated presentation of the financial sector.

Chart 3. Trends for Financial Subsectors



Bibliography

- Board of Governors of the Federal Reserve System. 2001–2013 *Annual Reports*. Washington, DC: Board of Governors of the Federal Reserve System.
- Bond, Charlotte Anne, Teran Martin, Susan Hume McIntosh, and Charles Ian Mead. 2007. “Integrated Macroeconomic Accounts for the United States.” *SURVEY OF CURRENT BUSINESS* 87 (February): 14–24.
- Bureau of Economic Analysis. 2014. “Personal Consumption Expenditures” and “Corporate Profits.” In *Concepts and Methods of the U.S. National Income and Product Accounts* Washington, DC.
- Cagetti, Marco, Elizabeth Ball Holmquist, Lisa Lynn, Susan Hume McIntosh, and David Wasshausen. 2012. “The Integrated Macroeconomic Accounts of the United States.” Paper presented at the 32nd General Conference of the International Association for Research in Income and Wealth, Boston, MA, August 5–12.
- Chen, Baoline, and Dennis J. Fixler. 2003. “Measuring the Services of Property-Casualty Insurance in the NIPAs,” *SURVEY OF CURRENT BUSINESS* 83 (October): 10–26.
- Eichner, Matthew J., Donald L. Kohn, and Michael G. Palumbo. 2010. “Financial Statistics for the United States and the Crisis: What Did They Get Right, What Did They Miss, and How Should They Change?” Finance and Economics Discussion Series 2010–20. Washington, DC: Federal Reserve Board of Governors.
- European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank. 2009. *System of National Accounts 2008*. New York, NY: United Nations.
- Fixler, Dennis J., and Kimberly Zieschang. 2014. “Financial Services Output in the National Accounts: Evidence from U.S. Banking Data.” Paper presented at the annual meetings of the American Economic Association, Philadelphia, PA, January 3–5.
- Fixler, Dennis J., Marshall B. Reinsdorf, and George M. Smith. 2003. “Measuring the Services of Commercial Banks in the NIPAs: Changes in Concepts and Methods.” *SURVEY OF CURRENT BUSINESS* 83 (September): 33–44.
- Gallin, Joshua, and Paul Smith. 2014. “Enhanced Financial Accounts.” *FEDS Notes*. Washington, DC: Board of Governors of the Federal Reserve System.
- Heath, Robert. 2013. “Why are the G–20 Data Gaps Initiative and the SDDS Plus Relevant for Financial Stability Analysis?” International Monetary Fund Working Paper. Washington, DC: Statistics Department, January.
- Hood, Kyle K. 2013. “Measuring the Services of Commercial Banks in the National Income and Products Accounts: Changes in Concepts and Methods in the 2013 Comprehensive Revision.” *SURVEY OF CURRENT BUSINESS* 93 (February): 8–19.
- Keister, Todd, and James J. McAndrews. 2009. “Why Are Banks Holding So Many Excess Reserves?” *Current Issues in Economics and Finance*, no. 8 (December).
- Kornfeld, Robert J., Lisa Lynn, and Takashi Yamashita. 2015. “Financial Subsectors in the Integrated Macroeconomic Accounts” BEA working paper.
- Moulton, Brent R., and Eugene P. Seskin. 2003. “Preview of the 2003 Comprehensive Revision of the National Income and Product Accounts: Changes in Definitions and Classifications.” *SURVEY OF CURRENT BUSINESS* 83 (June): 17–34.
- Palumbo, Michael G., and Jonathan A. Parker. 2009. “The Integrated Financial and Real System of National Accounts for the United States: Does it Presage the Financial Crisis?” *American Economic Review* 99, no. 2 (May): 80–86.
- Reinsdorf, Marshall B. 2013. “Comment on the Treatment of Defined Benefit Pension Plans in the SNA,” Presented at the Working Party on Financial Statistics Workshop on Pensions, April 22–24, 2013.
- Reinsdorf, Marshall B., David G. Lenze, and Dylan G. Rassier. 2014. “Bringing Actuarial Measures of Defined Benefit Pensions into the U.S. National Accounts.” Paper prepared for the IARIW 33rd General Conference, Rotterdam, the Netherlands, August 24–30.
- Seskin, Eugene P., and Shelly Smith. 2009. “Preview of the 2009 Comprehensive Revision of the NIPAs: Changes in Definitions and Presentations.” *SURVEY OF CURRENT BUSINESS* 89 (March): 10–27.
- Smith, Shelly, and Alyssa E. Holdren. 2013. “Preview of the 2013 Comprehensive Revision of the National Income and Product Accounts: Changes in Definitions and Presentations.” *SURVEY OF CURRENT BUSINESS* 93 (March): 13–39.
- Yamashita, Takashi. 2013. “A Guide to the Integrated Macroeconomic Accounts.” *SURVEY OF CURRENT BUSINESS* 93 (April): 12–27.