

Investment Funds in the U.S. National Accounts

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Abstract

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Investment funds, which include mutual funds, other regulated investment companies, and real estate investment trusts, play an increasingly important role in the U.S. economy, with financial assets of about \$23 trillion in 2017. Currently, in the U.S. National Income and Product Accounts (NIPAs), statistics on investment funds are included within larger aggregate statistics but not published separately. This paper presents separate statistics on investment funds from the NIPAs, using the framework of the integrated macroeconomic accounts, or sectoral accounts. As expected, investment funds account for a significant share of total interest and dividend payments. One feature of BEA's accounting treatment of investment funds is that they are persistent net borrowers. This paper also discusses possible alternative treatments of investment funds, currently used by the Federal Reserve Board's Financial Accounts and the national accounts of some other countries, in which net saving and net lending are closer to zero.

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Introduction

This paper¹ presents previously unpublished statistics on investment funds from the U.S. National Income and Product Accounts (NIPAs) using the framework of the integrated macroeconomic accounts (IMAs). Currently, in the published NIPAs, statistics on investment funds are included within larger aggregates but not presented separately. Investment funds consist of regulated investment companies (RICs) and real estate investment trusts (REITs).² RICs include money market mutual funds (MMFs), mutual funds (MFs), closed-end funds, and exchange traded funds (ETFs). REITs include both equity and mortgage REITs. RICs and REITs play an increasingly important role in the U.S. economy, with over \$23 trillion in financial assets in 2017, more than defined benefit pension funds or commercial banks, and they account for a significant share of total interest and dividend payments. Under the current accounting treatment by the Bureau of Economic Analysis (BEA), investment funds are persistent net borrowers. While this treatment has a clear rationale, it may seem counterintuitive. Accordingly, this paper also describes alternative treatments for investment funds, employed by other countries, in which net lending is closer to zero.

The IMAs, or sectoral accounts, produced jointly by BEA and the Federal Reserve Board (FRB), are ideal for describing the activities of investment funds.³ The IMAs relate production, income, saving, transactions in real and financial assets, and asset revaluations to changes in net worth and balance sheets for major economic sectors. By providing a comprehensive picture of economic activity within an integrated framework with consistent definitions, classifications, and accounting conventions, the IMAs provide a better understanding of the financial sector.

This work is also part of a larger effort by BEA and the FRB to improve statistics for the financial sector,⁴ in line with the recommendations of the G-20 Data Gaps Initiative (DGI), led by the International

¹ I would like to thank Howard Krakower and Kurt Kunze (BEA) for very helpful assistance, Dylan Rassier (BEA) for helpful comments, and Brent Moulton (BEA) for internal BEA memos about investment funds that were written in previous years. I would also like to thank Gerard Eding and Ronald Nelisse (Statistics Netherlands), Sanjiv Mahajan (UK ONS), Emmanuel Manolikakis (Statistics Canada), and Peter van de Ven (OECD) for helpful comments. Also, thanks to James Duvall, Doug Richardson, and Judy Steenstra at ICI for helpful explanations of their statistics.

² In this paper, investment funds do not include private hedge funds, for which separate data are unavailable.

³ For an overview of the IMAs, see Yamashita (2013). This paper presents only the current and capital accounts for the IMAs for investment funds; the FRB already publishes financial statistics for investment funds.

⁴ In 2016, BEA and the FRB introduced new IMAs for several financial subsectors - the Federal Reserve banks, pension funds, insurance companies, and other financial institutions. See Kornfeld, Lynn, and Yamashita (2016).

Monetary Fund and the international Financial Stability Board. Following the financial crisis that began in 2008, the DGI suggested a more disaggregated presentation of sectoral accounts for the financial sector, with statistics for subsectors that face different markets and risks.⁵ The 2008 *System of National Accounts* (SNA) and the DGI disaggregate the financial sector into nine subsectors, including two types of investment funds—money market funds (S123) and all other non-money market funds (S124). Because net lending or borrowing in the capital account and the financial account should be equal in the sectoral accounts, developing separate IMAs for each financial subsector helps identify discrepancies in net lending and possible sources of measurement error.

The first section of this paper describes the main features of RICs and REITs. The second section explains the current treatment of RICS and REITs in the NIPAs. The third section describes some key published BEA statistics which include activities of RICs and REITs. The fourth section presents the current and capital accounts (annual data, 2001–2017) for IMAs for all RICs, money market funds, other non-money market RICs, and REITs. The last section describes possible alternative treatments of investment funds.

Overview of Investment Funds: RICs and REITs

What are RICs? RICS are financial intermediaries that allow small investors to pool their resources and take advantage of economies of scale to reduce investment expenses, diversify their portfolio, access professional management services, and improve the liquidity of their investments. The most prominent type of RIC is a mutual fund, a fund collected from many investors (shareholders) for the purpose of investing in stocks, bonds, and other financial assets. RICs are deemed eligible by the Internal Revenue Service (IRS) to pass through the taxes on capital gains, dividends, or interest earned through investments to individual investors, thereby avoiding double taxation of both the company and the individual investors.

⁵ For reports on the DGI, see the annual reports from IMF Staff and FSB Secretariat (2016-2018). Recommendation II.8 states that “The G-20 economies to compile and disseminate, on a quarterly and annual frequency, sectoral accounts flows and balance sheet data, based on the internationally agreed template, including data for the other (non-bank) financial corporations sector...” For the data reporting templates for the DGI, see “Templates for Minimum and Encouraged Set of Internationally Comparable Sectoral Accounts and Balance Sheets,” (IMF 2017).

RICs must be registered with the Securities and Exchange Commission (SEC) and must meet requirements designed to ensure that they are pass-through institutions that invest in relatively diversified, liquid portfolios of assets. A RIC must derive a minimum of 90 percent of its income from capital gains, interest, or dividends earned on investments. It must distribute a minimum of 90 percent of its net investment income in the form of interest, dividends, or capital gains to its shareholders; otherwise, the company may be subject to an excise tax by the IRS. At least 50 percent of a company's total assets must be in the form of cash, cash equivalents, or securities. No more than 25 percent of the company's total assets may be invested in securities of a single issuer, unless the securities are government securities or securities of other RICs.

Types of RICs. The SNA makes a distinction between two types of investment funds—money market mutual funds (S123) and non-money market funds (S124). Money market mutual funds (MMFs) invest in diversified pools of short-term, liquid, low-risk assets that pay its shareholders returns that reflect short-term interest rates.⁶ MMFs are close substitutes for commercial bank deposits (although they and other investment funds are not FDIC insured).⁷ MMFs are included in the DGI reporting templates under “monetary financial institutions,” a category which also includes the central bank (S121) and deposit-taking corporations (S122).

Non-money market funds, which consist mainly of mutual funds (MFs), invest in relatively longer-term securities as well as equities. MFs and MMFs are “open end” investment companies that can issue an unlimited number of shares and are required to redeem the shares at their net asset value (NAV), which reflects the market value of the fund's holdings less expenses charged by the fund. MFs typically invest in a specific class of assets, such as domestic stocks, stocks issued by companies in specific industries, corporate bonds and notes, Treasury securities, and/or municipal securities. Shareholders receive returns from current interest and dividends, distributions of realized capital gains, and an accumulation of unrealized capital gains. Mutual funds and other non-money market RICs (S124) are grouped in the SNA and the DGI reporting requirements with “other financial corporations,” a category which also

⁶ This description of RICs borrows from the FRB's [tables description](#) of the Financial Accounts of the United States, and the tables of the Financial Accounts. The SEC limits the MMFs' holdings of securities of a single private issuer to no more than 5 percent of assets, limits the average maturity of a fund's portfolio to 60 days or less, and requires that each fund maintain minimum levels of assets that can be readily converted to cash.

⁷ The balances of retail MMFs are part of the M2 definition of the money supply. See [Money Stock and Debt Measures—H.6 Release](#), Federal Reserve Board

includes other financial intermediaries (S125), financial auxiliaries (S126), and captive financial institutions and money lenders (S127).

Non-money market RICS also include, in addition to mutual funds, exchange traded funds (ETFs) and closed-end funds. All of these types of funds are subject to the same requirements for RICS. An ETF is an open-end RIC whose shares are traded on stock exchanges at market prices which reflect the performance of their underlying assets. A closed-end fund does not issue additional shares after an initial public offering and is not required by to redeem outstanding shares. Instead, a closed-end fund's shares are listed on a stock exchange or traded in the over-the-counter market, and the market price of closed-end fund shares fluctuates like the price of other publicly traded securities. The Financial Accounts of the United States have separate data tables for money market funds (tables F.121 and L.121), mutual funds (tables F.122 and L.122), closed-end funds (tables F.123 and L.123) and ETFs (tables F.124 and L.124).

The distribution of assets of these types of RICS reflect their different objectives. According to the Financial Accounts of the US, mutual funds held \$15,899 billion in financial assets in 2017, including \$10,820 billion in corporate equities and \$2,038 billion in corporate and foreign bonds, as well as treasury securities, municipal securities, and agency- and GSE-backed securities. ETFs (\$3,401 billion in assets) and closed-end funds (\$277 billion) held a roughly similar distribution of assets. Money market funds held \$2,848 billion in short-term interest-bearing assets, such as short-term treasury securities, agency- and GSE-backed securities, security-repurchase agreements (repos), and deposits. The liabilities of RICS are the investment fund shares purchased by shareholders.

What are REITs? REITs allow individual investors to buy shares in commercial real estate portfolios that receive income from a variety of properties. REITs, like RICS, allow small investors to pool their resources to take advantage of economies of scale to reduce investment expenses, diversify their portfolio, and access professional management services. REITs are also designed to be pass-through institutions and avoid double taxation of both the company and the individual investors. REITs must invest at least 75 percent of their total assets in real estate, cash or U.S. Treasuries; receive at least 75 percent of their gross income from rents from real property, interest on mortgages financing real property or from sales of real estate; and pay a minimum of 90 percent of their taxable income in the form of shareholder dividends each year.

Types of REITs. Most REITs are equity REITs, which buy, own, and manage income-producing real estate, both residential and nonresidential. Revenues are generated primarily through rents, although REITs can also receive capital gains and interest. The main assets of equity REITs are fixed assets (the properties) and various financial assets; their main liabilities are mortgages and debt securities (corporate bonds).

Mortgage REITs, on the other hand, lend money to real estate owners and operators, either through mortgages and loans or through the acquisition of mortgage-backed securities. Their earnings are generated mainly by the net interest spread between the interest they earn on mortgage loans and the cost of funding these loans. The main assets of mortgage REITs are mortgages and agency- and GSE-backed securities; their main liabilities include debt securities (corporate bonds) and security repurchase agreements. The Financial Accounts of the United States have separate data tables for all REITs (Tables F.129 and L.129), equity REITs (Tables F.129e and L.129e), and mortgage REITs (Tables F.129m and L.129m). According to the Financial Accounts, mortgage and equity REITs together had a total of \$754 billion in financial assets in 2017—a substantial amount— but far less than the assets of RICs.

Some key features of RICs and REITs. RICs and REITs have several key features that need to be reflected in the national accounts:

- RICs and REITs are designed to act as pass-through institutions. Almost all their income is sent directly to their shareholders. They pay minimal corporate taxes.
- RICs and REITs typically do not charge investors explicit fees for their services. Their expenses are funded indirectly as a reduction in shareholders' dividends and returns on investment.
- Because RICs invest in stocks and bonds, a share of their income comes in the form of capital gains. Similarly, REITs invest in properties and financial assets and also receive capital gains. Capital gains do not appear in the NIPAs or in the current and capital accounts of the IMAs. Instead, capital gains appear in the revaluation accounts.
- RICs and mortgage REITs generally do not have any employees or fixed assets. They purchase the services of fund advisers, often affiliated with the fund's sponsor, as an intermediate input.

- Equity REITs, unlike RICs, can have employees and fixed assets from owning and maintaining residential and nonresidential properties, for which they receive income.

How RICs and REITs are treated in the NIPAs

BEA's estimates for RICs are based on the Statistics of Income (SOI) from the IRS, compiled from submissions of [Form 1120-RIC](#), which all RICs must submit.⁸ Part I of the form consists of sections for income, deductions, and net income. "Investment company taxable income" equals the portion of net income that remains after subtracting dividends paid to shareholders. Taxes are assessed on this undistributed net income. Part II of the form calculates capital gains, deducting capital gain dividends from net capital gains. If realized capital gains are not distributed, they are subject to capital gains tax. Given that total taxes paid by RICs are typically under \$100 million, with assets of over \$20 trillion, RICs appear to distribute nearly all their net income, thus avoiding taxes, consistent with the incentives and goals of RICs. Note that in form 1120-RIC, all payments to shareholders are reported to the IRS in a single entry, as total "dividends," regardless of whether the payments come from income from interest, paid dividends, or capital gains.

The stylized t-account (table 1) for RICs is based on typical data BEA receives from form 1120-RIC. This RIC has \$100 in income from interest (\$40), paid dividends (\$25), and capital gains (\$35). The RIC deducts \$30 of expenses for accounting and legal services and management fees. The RIC pays for these services by a reduction in the net investment returns received by shareholders. The RIC has no employees and no fixed assets. Consistent with the rules and tax incentives for RICs, this RIC distributes all of the remaining \$70, \$50 as ordinary dividends and \$20 as capital gain dividends.

RICs in the current and capital accounts. Table 2 continues the example to show how the NIPAs currently treat RICs in the estimates of GDP. For the production-based estimate of GDP (right side), the RIC incurs \$30 in intermediate expenses for the purchased services. Without an imputation of an implicit service, RICs would have negative value added. Consequently, the NIPAs impute an implicit service

⁸ This description of how RICs are treated in the NIPAs, and the stylized t-account, borrows extensively from a previous memo (August 2012), written by Howard Krakower and Martin Simmons (BEA). This memo is based on an internal 2012 BEA memo by Brent Moulton, titled "Issues in Measuring the Output and Income of Regulated Investment Companies" that describes the treatment of RICs in the NIPAs.

("financial services furnished without payment"), which is valued as the sum of monetary costs, based on IRS data on "total deductions." In addition to monetary costs, the NIPAs also recognize that the RICs also receive implicit financial services (\$3) provided by other financial institutions, such as banks and securities dealers. The sum of intermediate expenses is thus $\$30 + \$3 = \$33$. The RIC's implicit output is also \$33. Because we assume that the RIC's implicit output equals the sum of costs, and all its costs are in the form of intermediate inputs, the RIC's value added is zero.

The income-side components and distributions (gross domestic income or "GDI" in the U.S. accounts) are shown on the left side of table 2. While the RIC receives investment income in the form of interest, dividends, and capital gains, all of its distributions to shareholders are classified by the IRS as "dividends." To avoid distorting the NIPA estimates of net interest, net dividends, and profits, the NIPAs reclassify these IRS-reported "dividend" distributions to be consistent with the same proportions as the IRS-reported shares of RIC income. In this example, 40 percent of investment income comes from interest, so 40 percent of the distribution is classified as monetary interest paid ($.4 \times 70 = 28$). Similarly, 25 percent of the distribution is classified as dividends paid ($.25 \times 70 = 17.5$), and the remaining 35 percent of the distribution is classified as capital gains paid ($.35 \times 70 = 24.5$).⁹ These capital gains received and paid will not appear as income received and paid in the NIPAs.

As this example shows, RICs have negative values for net dividends paid, monetary net interest paid, and net capital gains paid. This result occurs because RICs pay for their services by subtracting expenses from the investment income they receive, and then pay the remainder to shareholders. The total cost of the RIC's purchased inputs (\$30) are allocated to monetary net interest (\$12), net dividends (\$7.5), and capital gains distributed less received (\$10.5), each in proportion to its share of RIC investment income. As a result, dividends paid less received (\$17.5-\$25), monetary interest paid less received, (\$28 - \$40), and capital gains paid less received (\$24.5 - \$35), are all negative. Total net interest paid is still positive (\$18) because net imputed interest paid is \$30 (\$33-\$3).

It may seem counterintuitive that RICs have negative profits and undistributed profits. If the RIC has zero value added, but positive net interest paid (\$18), then it must have negative profits (-\$18), which, in turn, must equal the sum of net dividends paid (-\$7.5), plus undistributed profits (-\$10.5). The negative

⁹ This method implies that BEA's calculation of the portion of the distribution attributed to capital gains may differ from the capital gains dividends that are reported on the tax form.

value for undistributed profits also equals the difference between capital gains paid and capital gains received, which reflects the expenses for managing capital gains. In effect, because the RIC does not count capital gains income in the current account, it “pays for” expenses related to capital gains with negative undistributed profit. With zero taxes, the negative undistributed profit of -\$10.5 also implies negative net saving of -\$10.5. Because RICs have no consumption of fixed capital (CFC) or fixed investment, net lending in the capital account also equals -\$10.5. RICs are therefore net borrowers in the NIPAs.

Timing issues and other complications. This example makes the simplifying assumption that all the deductible distributions occur within the same accounting period. The tax code recognizes that distributions may not always be completed within the tax year and allows deductions for dividends distributed the following year that the RIC may elect to treat as paid during the tax year. Because of these timing issues, the dividends deducted on the tax form may be either greater or less than the dividends actually distributed during the year. These timing issues may be relatively more important for capital gains distributions, which are volatile, and which are often paid annually or semiannually.¹⁰

The biggest timing issue may be the treatment of capital losses. If a RIC realizes a capital loss, it can use it to offset capital gains and reduce its capital gains distribution. However, if its aggregate capital losses during the year exceed its capital gains, it can carry the losses forward and use them to offset capital gains in subsequent tax years. These tax provisions mean that after a large market sell-off (as in 2008), capital gain distributions may be reduced for several subsequent years, causing a prolonged timing mismatch between net income earned and net income distributed.¹¹

An additional timing issue arises because the methodology for estimating RIC payments in the NIPAs relies on a 2-year moving average of the shares of interest and dividends in total investment income. This method focuses on getting stable, reasonable estimates of net monetary interest and net dividends, and leaves the capital gains distribution as a residual.¹²

¹⁰ These timing adjustments may be relatively less important for money market mutual funds or bond funds, which receive interest income and which usually pay monthly or quarterly dividends.

¹¹ Before 2010, RICs could carry losses forward for up to eight years. Under the Regulated Investment Company Modernization Act of 2010, RICs can carry these losses forward indefinitely. See Blackrock. 2011.

¹² First, the NIPAs calculate a 2-year moving average of the shares of interest and dividends in total investment income to smooth out volatility caused largely by fluctuations in capital gains. Next, these shares are applied to total deductions, and then they are subtracted from income received to derive interest paid and dividends. Capital

An implication of these timing issues, and other complications, is that a RIC's current year distributions are imperfectly related to its current year income. In addition, for many reasons, the NIPA estimate of value added will not be exactly zero. The stylized example of RICs nevertheless highlights many of the key features of how RICs are treated in the NIPAs.

REITs. For the NIPAs, the main source of information for REITs is also the SOI, specifically data compiled from submissions of IRS [Form 1120-REIT](#), which REITs must submit. "REIT taxable income" is the net income that remains after shareholder distributions are subtracted from net income. Taxes are assessed on this undistributed net income; however, because of the incentives facing REITs, taxes paid tend to be minimal.

The treatment of REITs and RICs in the NIPAs is similar in several ways, and so the stylized example for RICs is also relevant for REITs. REITs also incur intermediate expenses for fund management, paid for by a reduction in payments to shareholders. REITs, like RICs, will tend to have negative undistributed profits, negative net saving, and negative net lending because they incur expenses to receive capital gains, which are not counted as income in the NIPAs.

The treatment of REITs and RICs in the NIPAs also differs in some ways. REITs tend to pay relatively less imputed interest for financial services than RICs, because REITs own different types of assets. As a result, net interest paid (monetary and imputed) tends to be negative for REITs and positive for RICs. On the other hand, equity REITs pay substantial dividends from income from their properties, so net dividends paid tends to be positive for REITs and negative for RICs. Equity REITs pay compensation, property taxes, and operating surplus from owning and maintaining property and providing housing services, and so they can have positive value added, fixed investment, and CFC.

RICs and REITs in published NIPA tables

BEA estimates statistics for RICs and REITs as part of the NIPAs but does not show these statistics in published tables. Instead, they are part of broader aggregate statistics, such as statistics for industry

gains are calculated as the residual and can be negative (total RIC distributions less derived interest and dividends paid).

NAICS 525, “funds, trusts, and other financial vehicles.”¹³ Nevertheless, RICs and REITs are a major share of NAICS 525. Accordingly, the size and sign of published statistics for NAICS 525 are similar to what one would expect for RICs and REITs, based on the current NIPA treatment, and the proposed estimates for the IMAs for RICs and REITs are similar to these published NIPA statistics. Table 3 lists several published NIPA statistics that are strongly influenced by the unpublished statistics for RICs and REITs. The statistics cited below are for 2015, the latest year for which BEA published SOI-based data; statistics for other years are generally similar.

- For NAICS 525, corporate profits before tax was –\$47.8 billion (line 3 of table 3); corporate profits after tax was –\$49.1 billion (line 5); corporate taxes was \$1.3 billion (line 4); and undistributed corporate profits was –\$151.2 billion (line 7). These estimates of negative profits and relatively low tax payments are consistent with the NIPA treatment of RICs and REITs.
- For NAICS 525, net dividends paid (line 6) is positive \$102 billion, mainly because REITs pay substantial dividends, offsetting negative net dividends paid from RICs. Undistributed profits are noticeably lower than profits after tax for NAICS 525 because of dividends from REITs.
- For NAICS 525, tax basis depreciation (capital consumption allowance or CCA) was a relatively low \$18.0 billion (line 8), partly reflecting property from equity REITs.
- Monetary interest payments paid by RICs are directly reported in NIPA Table 7.16, “Relation of Corporate Profits, Taxes, and Dividends in the NIPAs to Corresponding Measures as Published by the IRS.” The IRS labels RIC payments to shareholders obtained from interest receipts as dividends rather than interest. Accordingly, BEA subtracts (adds the negative of) the NIPA estimate of interest payments of RICS (\$156.2 billion, line 9 of table 3) from IRS-reported corporate profits to obtain NIPA corporate profits.¹⁴

¹³ NAICS 525 also includes pension funds; health- and welfare-related employee benefit funds; self-insurance funds; workers' compensation insurance funds; trusts, estates, and agency accounts; special purpose vehicles; collateralized mortgage obligations (CMOs); and hedge funds.

¹⁴ NIPA Table 7.16 also shows the relation between dividends paid reported by the IRS and the NIPAs, and subtracts the same value of dividend payments from RICs that are reclassified as interest payments. NIPA Table 7.17. “Relation of Monetary Interest Paid and Received in the NIPAs to Corresponding Measures as Published by the IRS,” also shows that the NIPAs reclassify these dividend payments of RICs as interest payments.

- In NIPA Table 7.11, “Interest Paid and Received,” monetary interest paid by RICs and REITs is a significant portion of the larger published aggregate “monetary interest paid by corporate financial business on other non-depository liabilities” (\$400.3 billion, line 10 of table 3).
- In NIPA Table 7.11, imputed interest paid by RICs and REITs is part of the broader published aggregate “imputed interest paid by domestic corporate financial business—banks, credit agencies, and RICs” (\$264.9 billion in 2015, line 11 of table 3) Imputed interest received from RICs and REITs is included within total imputed interest received by persons for depositor services from banks, credit agencies, and investment companies (\$190.7 billion in 2015, line 12 of table 3.)¹⁵
- For NAICS 525, compensation was less than \$1 billion (line 1) in 2015. For NAICS 525, the fixed assets accounts (lines 13-15 of table 3) show that, in 2015, CFC was only \$1.5 billion, fixed investment was \$0.5 billion, and the level of net stocks was only \$39.8 billion.¹⁶ The small levels of compensation, CFC, and fixed assets for NAICS 525 are as expected because RICs and mortgage REITs have no employees and no fixed assets.

While most of the activities of RICs and REITs appear as part of the financial sector in NAICS 525, compensation and fixed investment of equity REITs are included in NAICS 531 (real estate). To explain, BEA’s placement of income and saving flows for RICs and REITs in NAICS 525 is mostly consistent with NAICS guidelines. NAICS 525910 (open-end investment funds), includes mutual funds, money market funds, and ETFs. NAICS 525990 (other financial vehicles) includes closed-end funds and mortgage REITs. Beginning with the 2007 NAICS, however, equity REITs were placed in 5311, lessors of real estate. As a result, BEA’s source data for fixed investment (from the Census Bureau) and wages (from BLS), place the activities of equity REITs within the larger industry NAICS 531 and do not report them separately. The NIPAs and the Financial Accounts continue to place income, savings, CCA, and financial statistics of equity REITs within the financial sector (NAICS 525). A challenge for estimating separate statistics for an IMA for equity REITs is deriving estimates of fixed investment, CFC, and compensation.

¹⁵ RICs make up only a minor share of imputed interest received for borrower services by banks, credit agencies, and RICs. NIPA Table 7.10, “Dividends Paid and Received,” shows dividends for financial corporations as a whole, without additional detail.

¹⁶ Also, the PCE services estimates include estimates of imputed financial services and commissions of mutual funds sales and brokerage charges on mutual fund sales.

The industry accounts. The annual industry statistics for NAICS 525 (lines 16-21 of table 3) are also consistent with this description of RICs and REITs. In the annual industry accounts, gross value added for NAICS 525 was \$17.6 billion in 2015, consisting of compensation (\$1.1 billion), taxes on production and imports (TOPIs, less than \$1 billion) and gross operating surplus (\$15.7 billion)—“small” levels relative to total financial assets of over \$20 trillion.

The benchmark supply/use tables (not shown here) also reflect the treatment of investment funds in the NIPAs and confirm that NAICS 525 pays for fund management services as intermediate expenses. In the 2012 benchmark supply table, NAICS industry 525 supplies only commodity 525 (except for a small portion of other commodities); industry 525 does not supply fund management services to other industries. In the 2012 benchmark use tables, industry 525 uses about \$104 billion of intermediate input, most of which is in the form of commodities, such as financial services, that one would expect RICs and REITs to use as intermediate inputs.¹⁷ In the same use table, the commodity 525 is used by insurance agencies, brokerages, and related activities (NAICS 5242) and also NAICS 525, but mostly appears in final demand, as PCE (consumer spending) for imputed financial services. NAICS 525 does not use construction-related commodities and does not supply housing services or fixed investment; for equity REITs, these activities are included within NAICS 531 instead.

The financial accounts: Currently, the NIPAs and the Financial Accounts have an inconsistent treatment of net lending for RICS: net lending is negative in the NIPAs but zero in the financial accounts. In table F.122 of the Financial Accounts, which shows financial flows for mutual funds, net acquisition of financial assets is always set equal to net share issues (liabilities), implying net lending of zero in the financial account. The negative net lending estimates from the NIPAs appear as “gross saving” and a “discrepancy” in this table. In the Financial Accounts tables for money market funds, ETFs, and closed end funds, net lending in the financial account is also set to zero. In the Financial Accounts stock (L) tables for all these investment funds, assets are set to equal liabilities, implying net worth of zero.

¹⁷ These intermediates include nondepository credit intermediation and related activities; monetary authorities and depository credit intermediation; other financial investment activities; securities and commodity contracts intermediation and brokerage; insurance agencies, brokerages, and related activities; funds, trusts, and other financial vehicles; legal services; accounting, tax preparation, bookkeeping, and payroll services; and management consulting services.

REITs have nonzero values of net lending in both the NIPAs and the Financial Accounts, although the two estimates of net lending are not the same. In table F.129 of the Financial Accounts, which shows flows for all REITs, the negative net saving for REITs in the NIPAs appears as “gross saving” and differences in net lending in the NIPAs and the Financial Accounts appear as a “discrepancy.” In the separate Financial Accounts tables for equity and mortgage REITs, net acquisitions of financial assets are not constrained to equal net increase in liabilities, so both types of REITs can have nonzero net lending.

The proposed IMAs for investment funds

RICs. Publishing separate statistics on investment funds will help explain their treatment in the national accounts and highlight their growing importance in the U.S. economy. The proposed IMA for RICs (table 4 and figure 1) is based on unpublished detail from the NIPA estimates and is consistent with the current NIPA treatment of RICs. Because investment funds are assumed to have no employees and pay for the services of funds managers as intermediate inputs, compensation is set equal to zero. Similarly, RICs are assumed to have no fixed assets or fixed investment, and so CFC, gross fixed capital formation, and taxes on production and imports (including property taxes) are all set to zero. The key flows for an IMA for RICs are within property income paid and received.¹⁸

Over this period, interest payments by RICs (line 16 of table 4) accounted for a steadily rising share of total interest paid by corporate financial business—about 20 percent by 2017. Interest paid by RICs rose from \$142 billion to \$345 billion from 2002 to 2007, fell to \$221 billion by 2010, and rose again to \$326 billion by 2017. These total interest payments are equal to the sum of monetary interest payments and imputed interest payments. Monetary interest paid by RICs (reported in the NIPA IRS reconciliation table 7.16 and table 3, line 9 of this paper) is based on the share of RIC dividends paid that is estimated to come from income from interest-bearing assets. Monetary interest paid rose from \$83 to \$249 billion from 2002 to 2007, fell to \$130 billion by 2010, and rose again to \$185 billion by 2017. Monetary interest paid by RICs accounted a rising share (16 to 41 percent) of total monetary interest paid by corporate financial business on other non-depository liabilities (table 3, line 10) over this period. Imputed interest paid (not shown; obtained by subtracting monetary interest paid from total interest

¹⁸ The tables in this paper show only the current and the capital accounts for the IMAs because these statistics are based on the NIPAs. The Federal Reserve’s Financial Accounts provides or will provide most of the information on the financial accounts, revaluation accounts, and balance sheets.

paid) also shows roughly similar trends and ranged from \$60 billion to \$141 billion from 2001 to 2017. Imputed interest paid by RICs accounted for 37 to 55 percent of total imputed interest paid by banks, credit agencies, and RICs (table 3, line 11).

Interest received by RICs, like interest paid, rose from 2003 to 2007, fell with the financial crisis, and then rose again afterward. Almost all interest received by RICs is monetary interest rather than imputed interest. Monetary interest paid was about 85 percent of monetary interest received over this period, as one would expect because RICs subtract a portion of interest received to pay for expenses. Total net interest paid by RICs remains positive because of substantial imputed interest payments.

Dividends paid by RICs (line 18) rose to \$167 billion by 2008, fell with the financial crisis, and rose again after 2010, to \$249 billion in 2017. Dividends received by RICs show a similar pattern. Net dividends paid by RICs are negative because RICs subtract a portion of dividends received to pay for expenses. In recent years, about 40 percent of dividends paid by the U.S. financial corporate business sector occur through RICs.

Taxes paid by RICs (line 23) are typically well under \$100 million, consistent with tax incentives and the requirement for RICs to distribute virtually all their income to shareholders, leaving little taxable income remaining. These estimates of taxes are consistent with small estimates of taxes for NAICS 525 in NIPA table 6.18D (table 3, line 4).

Net operating surplus (NOS)—the same as gross operating surplus with zero CFC—is the sum of undistributed corporate profits, net interest paid, net dividends paid, and corporate taxes paid. NOS rose from \$2 billion in 2001 to \$12 billion in 2007, and fluctuated afterward, rising to \$31 billion in 2017. These estimates are roughly similar to gross operating surplus for NAICS 525, as reported in the industry accounts (NAICS 525 includes several other activities). With zero compensation, production taxes, and CFC, gross value added equals net operating surplus for RICs. These estimates of value added are not zero as in the stylized example but are “small” relative to total assets of over \$20 trillion.

In the IMA account for RICs, net national income (line 9), which equals undistributed profits plus taxes paid, is always negative, ranging from -\$18 billion in 2003 to -\$84 billion in 2015. These negative estimates are consistent with the treatment of corporate profits of RICs in the NIPAs and are similar to

the estimates of negative undistributed profits for NAICS 525 in table 3 of this paper. Net national income less corporate taxes equals undistributed profits and also equals disposable income and net saving; therefore, net saving of RICs is negative. With zero capital transfers and zero net fixed capital formation, net lending or borrowing is also negative, consistent with the previous explanation of RICs.

Money market mutual funds and non-money market RICs. The SNA and the DGI reporting requirements call for separate estimates for money market mutual funds (MMFs) and all other investment funds. The Financial Accounts already separate money market funds from other types of RICs. The SOI data BEA receives from submissions of IRS form 1120-RIC, however, do not provide separate statistics for MMFs and for other RICs. The best available data source for statistics for MMFs is the Investment Company Institute (ICI) (www.ici.org), which collects and reports detailed statistics on all types of investment funds, including MMFs. BEA and the FRB already use the widely cited ICI data for several estimates.

The estimates for MMFs are, in many ways, simpler than the estimates for all RICs. As one would expect based on the regulations for money market funds, and as the Financial Accounts show, MMFs hold only interest-bearing assets. Accordingly, the proposed IMA for MMFs shows only interest paid and received (table 5), with zero values for dividends, capital gains, compensation, fixed investment, taxes, and CFC.

For MMFs, the ICI reports annual total dividends paid to shareholders, assumed to be entirely from interest receipts, as well as expense ratios (annual expenses as a percentage of its assets) and total assets. The interest flows for MMFs can be estimated with these data. Monetary interest paid is equal to dividends paid to shareholders. Total expenses can be estimated by multiplying expense ratios by total assets. These total expenses are equivalent to purchases of intermediate inputs in the stylized t-account in table 2 (the \$30 figure) and are equal to imputed interest paid. Total interest paid equals the sum of monetary and imputed interest paid. Total monetary interest received can also be estimated by summing monetary interest paid plus the expenses, under the assumption that the MMFs receive interest income, subtract expenses, and pay the rest to investors. Net interest paid is therefore zero. Corporate profits, undistributed profits, value added, net saving, and net lending or borrowing are also all zero. Under this approach, the negative undistributed profits and net savings for RICs are assigned

entirely to non-money market RICs, which can earn capital gains.¹⁹ This approach is also consistent with the U.S. Financial Accounts table for MMFs, in which net lending or borrowing is also zero.

The current and capital accounts in the IMA for MMFs (table 5) therefore consist solely of identical estimates of interest paid and received. Monetary interest paid was \$90 billion in 2001, fell to \$26 billion in 2003, rose to \$140 billion by 2007, fell with the financial crisis and recession to \$11 billion by 2011, and rose again to \$26 billion by 2017. Trends in expenses, which ranged from \$4 billion to \$13 billion during these years, reflect trends in interest payments and a steady decline in expense ratios over these years.

The IMA for non-money market fund RICs (mutual funds, ETFs, and closed-end funds) is not presented here but can be obtained by subtracting the (identical) interest paid and received series for MMFs from the IMA interest paid and received series for all RICs. In the IMAs for all RICs and for non-MMF RICs, the values for gross value added, net national income, dividends paid and received, disposable income, net saving, and net lending are all the same. The general trends in interest paid and received for all RICs and for non-MMF RICs are very similar.

REITs The IMA for REITs (both equity and mortgage REITs, table 6) is also based on unpublished detail from the NIPA estimates and is consistent with the NIPA treatment of REITs. The estimates of profits, interest, dividends, and taxes paid are based on SOI data from IRS form 1120-REIT, and from BEA's internal estimates. The proposed IMA for REITs is incomplete at this point because of a lack of data on compensation, fixed investment, and depreciation. In the NIPAs, compensation, investment, and depreciation for REITs are included within NAICS 531, real estate, and not estimated separately. These series will be estimated in the future and, for this paper, have been set to zero in table 6. The available statistics for REITs nevertheless provide useful information on how REITs appear in the NIPAs.

¹⁹ See the [2018 Investment Company Factbook](#) for data. These estimates for the IMA are admittedly missing imputed interest received by MMFs (equivalent to the \$3 figure for imputed interest in the stylized t-account in table 2). But this series has no impact on value added or on saving since it would be included in both interest paid and in interest received. It is possible that interest received less expenses diverges somewhat from interest paid because of timing issues, but we assume these problems are most likely minor. Also, the calculation of imputed interest may be improved by using an average of month-to-month calculations over a year, or the average of the current year's assets with the prior year's assets multiplied by the current year's expense ratio (thanks to James Duvall at ICI for these suggestions.) The proposed approach nevertheless provides a reasonable approximation.

For REITs, interest paid and interest received consist mostly of monetary interest. Interest flows are far smaller for REITs than for RICs because of differences in the size and composition of their assets, but the trends over time are somewhat similar. Interest paid rose from \$7 billion in 2001 to \$28 billion in 2007, fell afterward with the recession, and then rose to \$23 billion in 2017. Interest received rose from \$24 billion in 2001 to \$65 billion in 2007, fell to \$29 billion in 2010, and was \$33 billion in 2017. Net interest paid is consistently negative.

REITs pay substantial dividends, obtained mainly from rental payments. Dividends paid rose from \$32 billion in 2001 to \$76 billion in 2007, fell sharply to \$35 billion by 2009, and rose again afterward, to \$90 billion in 2017. REITs do not receive significant dividends. These substantial dividend payments are consistent with positive net dividends paid by NAICS 525 in the NIPAs (table 3, line 6).

Net operating surplus is consistently positive for REITs. A REIT can have a positive net operating surplus (and net and gross value added) associated with providing residential and nonresidential real estate services. Net operating surplus rose from \$14 billion in 2001 to \$20 billion in 2006, fluctuated afterward, and reached \$30 billion in 2017.

Net national income, which is equivalent to undistributed profits plus taxes paid, is negative for REITs in every year except 2009, when it is about zero. These negative undistributed profits, which are also present for RICs, reflect expenses incurred for capital gains, as explained previously, and contribute to the negative retained profits for NAICS 525 (table 3, line 7). Taxes paid by REITs are minimal during these years, as expected. Net saving and net lending or borrowing are also negative, as is also true for RICs. If one had estimates for compensation, fixed investment, and depreciation, net lending would still be negative.

In the Financial Accounts (not shown), the flows and stocks of financial assets of REITs are not constrained to equal the flows and stocks of financial liabilities, and so net lending or borrowing in the financial account is not constrained to be zero. The estimates of net lending or borrowing in the capital and financial accounts are currently derived independently, and the difference would appear as a statistical discrepancy in a complete IMA.

Conclusions and alternative treatments of investment funds

One striking feature of BEA's treatment of investment funds is the persistence of substantial negative undistributed profits, net saving, and net lending. The accounting rationale for negative net lending is that investment funds incur expenses to pursue capital gains, but capital gains do not count as income in the current account, and so RICs need to reduce undistributed profits to pay for these expenses. While this treatment has a clear rationale, the negative estimates of net lending may also seem counterintuitive. Accordingly, this final section discusses possible alternative treatments of investment funds, in which net lending is closer to zero.

One might have expected investment funds to have roughly zero net lending because RICs and REITs, as pass-through institutions, receive money from investors, invest in financial assets or properties, remove a small amount to cover expenses, and send virtually all the remaining returns back to investors, leaving little or no savings. The U.S. financial accounts also assume zero net lending for RICs. The 2008 SNA can be interpreted as recommending that investment funds have zero net saving:

Investment income attributed to investment fund shareholders

7.151 Investment income attributed to holders of shares or units in investment funds (including mutual funds and unit trusts) is shown as two separate items. The first of these is the dividends distributed to investment fund shareholders. The second is retained earnings attributed to investment fund shareholders.

7.152 The dividend component is recorded in exactly the same manner as dividends for individual corporations, as described above. The retained earnings component is recorded using the same principles as those described for foreign direct investment enterprises but is calculated excluding any reinvested earnings on foreign direct investment. That is to say, the remaining retained earnings are distributed to the shareholders (leaving the investment fund with no saving) and are reinjected into the fund by the shareholders in a transaction recorded in the financial account.

According to data on the OECD website,²⁰ which shows statistics for major financial subsectors of several countries, the U. S. accounts seem atypical in their treatment of non-money market investment funds. For this sector in the U.S. accounts, the estimates for net lending in the OECD data are based on BEA estimates of net lending in the capital account, and show persistent, relatively large negative values similar to those derived in this paper. Although differences in net lending of investment funds across

²⁰ See https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE620R, Annual Financial accounts—non-consolidated (flows) and https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE720R, Annual Financial balance sheet—non-consolidated (stocks).

countries could reflect many factors, such as tax policies, measurement error, timing issues, and the relative shares of RICs and REITs, a comparison is still useful. Canada and the Netherlands, for example, show net lending values that are much smaller (as a proportion of assets) and fluctuate around zero, or are set at zero. Net lending for the UK tends to be just above zero. For other OECD countries, net lending fluctuates around zero over time. These results suggest that other countries are treating investment funds in a different way.

Based on some discussions, at least three other countries—Canada, the Netherlands, and the UK—account for investment funds in ways that estimate net lending as much closer to zero.²¹

- Statistics Canada measures the output of the fund industry as the administrative expenses incurred by the fund. The administrative expenses include all intermediate inputs. For the fund, there is no gross value added and no employees. The fund receives and pays property income, and any difference between the two results in an imputation to property income payable to eliminate the difference. The imputation is also accounted for in the financial account, by an increase in mutual fund liabilities. As a result, net lending and net financial investment are zero.
- The UK Office of National Statistics also treats fund managers as separate from the fund, paid for as intermediate expenses. Income (excluding holding gains and losses) generated by investment funds in whatever form is partly distributed to the investors as “dividends” (D4431).²²
- The remaining undistributed earnings (D4432) is calculated as a residual, in an analogous way as reinvested earnings, shown as payable to the investors (for example, S14) and re-routed back through the Financial Accounts (AF521 or AF522). This residual calculation results in zero net lending or borrowing for S123 or S124 (investment funds). Output is calculated at cost with blended margin for normal profits.
- Statistics Netherlands employs a similar treatment for investment funds. Because investment funds include real estate funds, the Dutch accounts show values for value added and net lending

²¹ Thanks to Emmanuel Manolikakis (Statistics Canada), Sanjiv Mahajan (UK ONS), Gerard Eding and Ronald Nelisse (Statistics Netherlands), and Peter van de Ven (OECD) for their patience and helpful insights.

²² The “S,” “D,” and “AF” codes in this section refer to classifications of sectors and transactions; see the 2008 SNA.

that are not equal to zero. Nevertheless, they impute uses for undistributed earnings (D4432) in such a way to set net savings of the sector S124 to zero. Without real estate funds, gross and net operating surplus and net lending would be set to zero

The current treatment of RICs and REITs in the NIPAs also seems inconsistent with the treatment of defined contribution (DC) pensions in the NIPAs. DC pensions and investment funds are similar in many ways. DC pensions have no employees but incur intermediate expenses for fund managers. These expenses are the imputed output of the pension sector, so gross value added of DC pensions plans is zero. DC pensions take contributions from investors (households) and invest in equities and interest-bearing assets, and they receive income in the form of interest, dividends, and capital gains. DC pensions are pass-through institutions and their returns are ultimately owned by the investors. But under the current NIPA treatment for DC pensions, expenses for capital gains do not appear as negative undistributed earnings. DC pension funds' interest and dividends receipts are paid out as interest and dividends to persons. For DC pensions, net interest paid, net dividends paid, corporate profits, undistributed profits, net income, net saving, and net lending are all set at zero.²³

In the future, BEA will continue to examine the treatment of investment funds and will consider adopting an alternative treatment of investment funds, in which net lending is closer to zero.²⁴ While BEA's existing treatment is reasonable, this alternative approach may be more intuitive to analysts. The alternative approach may be more consistent with the treatment used by the U.S. Financial Accounts and several other countries, with the existing NIPA treatment of DC pensions, and with a reasonable interpretation of the SNA. The effects of any alternative treatment on total personal and business saving and other major aggregates would need to be clarified.

²³ For an explanation of the NIPA treatment of defined contribution plans, see Stephanie H. McCulla, Alyssa E. Holdren, and Shelly Smith, "[The 2014 Annual Revision of the National Income and Product Accounts](#)," *Survey of Current Business* 94 (August 2014). In the NIPAs, defined benefit pension plans have a very similar accounting treatment, and also have zero net saving, zero net lending, and zero undistributed profits. For an explanation of the NIPA treatment of defined benefit pension plans, see "[Preview of the 2013 Comprehensive Revision of the National Income and Product Accounts: Changes in Definitions and Presentations](#)," *Survey of Current Business* 93 (March 2013). NIPA tables 7-20 to 7-25 show the transactions of the pension subsector.

²⁴ To express this alternative treatment using the framework of the stylized RIC t-account in table 2, one could set interest paid equal to interest received, dividends paid equal to dividends received, and capital gains paid equal to capital gains received, and then impute expenses as a separate transaction, similar to the way expenses are treated as output and administrative costs for pensions. With this treatment, an imputed payment of \$33 would go from investors to the fund as revenue, and this payment would pay for intermediate expenses for fund managers, leaving corporate profits, retained earnings, and net saving equal to zero. Other approaches are also possible.

Under either the current approach or an alternative approach, the publication of separate statistics for investment funds in the IMAs would be useful in many ways. The levels of assets managed by investment funds have risen dramatically over time, and RICs now account for a substantial portion of total interest and dividend payments. The proposed IMAs will clarify the role of investment funds in the estimates of corporate profits and net lending and will improve BEA's presentation of statistics for financial business.

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Table 1: Taxable Income and Deductions of a Regulated Investment Company
(Stylized RIC t-account)

Deductions and net income		Income	
Total deductions	30	Total income	100
Accounting and legal services	10	Interest	40
Management fees	20	Dividends	25
		Capital gains	35
Income less total deductions	70		
<i>Less:</i>			
Deductible dividends	70		
Ordinary dividends	50		
Capital gain dividends	20		
<i>Equals:</i>			
Taxable income	0		

Table 2: NIPA GDP, GDI, and Corporate Profits of a Regulated Investment Company

GDI (income measure of GDP)		GDP (production account)	
Net interest	18	Output (financial services imputed without payment)	33
Interest paid	61		
Monetary	28	<i>Less:</i>	
Imputed	33	Intermediate inputs	33
<i>Less:</i>		Purchased	30
Interest received	43	Implicit	3
Monetary	40		
Imputed	3	<i>Equals:</i>	
Corporate profits	-18	Value added (GDP)	0
<i>Less:</i>			
Net dividends	-7.5		
Dividends paid	17.5		
<i>Less:</i>			
Dividends received	25		
<i>Equals:</i>			
Undistributed (retained) profits	-10.5		
Value added (GDI, or income-based measure of GDP)	0		
Addenda:			
Capital gains distributed:	24.5		
Capital gains received:	35		

Table 3: Some published NIPA statistics related to RICs and REITs

(billions of dollars, statistics available as of March, 2019)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NIPA tables on income and employment:																	
statistics for NAICS 525 - funds, trusts, and other financial vehicles																	
1. Table 6.2D. Compensation of Employees by Industry	1.2	1.2	1.3	1.5	1.7	1.8	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.9	1.1	1.6	2.1
2. Table 6.8D. Persons Engaged in Production by Industry (thousands of persons)	16	15	16	16	17	17	8	8	7	5	4	3	3	6	7	10	12
3. Table 6.17D. Corporate Profits Before Tax by Industry	-3.5	11.8	14.6	7.5	10.6	11.1	4.1	-8.9	-1.8	-4.9	-12.8	-7.8	-38.5	-20.7	-47.8	.....	.....
4. Table 6.18D. Taxes on Corporate Income by Industry	1.0	1.0	1.5	1.8	1.9	2.1	3.1	1.6	-0.1	0.9	0.9	0.9	1.1	1.8	1.3	.....	.....
5. Table 6.19D. Corporate Profits After Tax by Industry	-4.6	10.7	13.1	5.7	8.7	9.1	1.0	-10.5	-1.7	-5.8	-13.7	-8.7	-39.6	-22.5	-49.1	.....	.....
6. Table 6.20D. Net Corporate Dividend Payments by Industry	29.7	34.9	37.7	39.1	67.1	71.7	82.1	63.4	41.4	33.3	37.2	51.1	54.6	90.3	102.1	.....	.....
7. Table 6.21D. Undistributed Corporate Profits by Industry	-34.3	-24.2	-24.6	-33.4	-58.4	-62.6	-81.0	-73.9	-43.1	-39.1	-50.9	-59.8	-94.2	-112.8	-151.2	.....	.....
8. Table 6.22D. Corporate Capital Consumption Allowances by Industry	4.4	4.9	5.6	6.5	6.9	7.8	8.9	9.7	10.6	9.6	10.4	11.9	14.2	16.5	18.0	.....	.....
Interest																	
<u>NIPA Table 7.16. Relation of Corporate Profits, Taxes, and Dividends in the NIPAs to Corresponding Measures as Published by the IRS</u>																	
9. Interest payments of RICs reclassified from dividends to interest	151.8	98.6	82.5	91.3	142.8	202.8	248.6	201.8	134.4	129.7	130.5	140.7	144.0	150.8	156.2	.....	.....
<u>NIPA Table 7.11. Interest Paid and Received by Sector and Legal Form of Organization</u>																	
10. Monetary interest paid by corporate financial business, on non-depository liabilities (line 6 of NIPA table 7.11)	740.2	504.2	439.8	569.4	865.6	1,269.1	1,489.4	1,144.4	637.8	520.1	517.0	487.2	407.0	398.3	400.3	431.0	450.2
11. Imputed interest paid by banks, credit agencies, and investment companies (line 44 of NIPA table 7.11)	152.0	155.0	159.2	170.6	183.6	186.3	197.4	205.9	182.5	200.4	204.1	203.3	212.6	227.5	264.9	274.3	304.9
12. Imputed interest received, for depositor services, by persons from banks, credit agencies, and investment companies (line 67 of NIPA table 7.11)	107.0	108.8	111.9	124.5	136.3	138.2	145.1	156.4	142.3	147.2	154.0	154.4	159.9	164.8	190.7	194.7	217.0
Fixed assets accounts: statistics for NAICS 525																	
13. Table 3.7ESI. Investment in Private Fixed Assets by Industry	1.8	1.2	1.3	3.3	3.0	2.4	3.8	1.7	0.9	0.8	0.8	1.1	0.4	0.4	0.5	0.8	0.8
14. Table 3.1ESI. Current-Cost Net Stock of Private Fixed Assets by Industry	19.3	20.4	21.5	26.2	31.1	35.1	39.3	42.2	40.0	39.5	40.3	40.5	40.3	40.1	39.8	39.7	39.8
15. Table 3.4ESI. Current-Cost Depreciation of Private Fixed Assets by Industry	0.7	0.7	0.7	0.7	0.8	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.5	1.5	1.5	1.6
Annual industry accounts: statistics for NAICS 525																	
16. Gross output	80.9	71.4	70.3	80.6	88.2	97.9	114.3	118.3	99.9	109.0	113.8	117.3	138.7	144.5	162.9	152.2	167.2
17. Intermediate inputs	65.7	54.4	50.1	59.6	64.7	76.7	91.9	95.9	84.0	92.4	100.8	104.3	126.2	123.9	145.4	136.2	150.5
18. Value added	15.2	17.0	20.2	21.0	23.4	21.2	22.4	22.4	15.9	16.5	13.0	12.9	12.6	20.5	17.6	16.0	16.7
19. Compensation of employees	1.2	1.2	1.3	1.5	1.7	1.8	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.9	1.1	1.6	2.1
20. Taxes on production and imports less subsidies	0.8	0.9	0.7	0.6	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21. Gross operating surplus	13.2	15.0	18.2	18.9	21.1	18.6	20.8	20.8	14.4	15.1	11.6	11.6	11.2	18.9	15.7	13.6	13.8

Table 4: Integrated Macroeconomic Account for Regulated Investment Companies (based on NIPA estimates)

Billions of dollars; data available as of March 2019

Line		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Data source
	Current account																		
1	Gross value added	1.7	1.6	5.3	5.1	6.3	8.1	12.1	10.3	13.0	17.5	12.5	21.8	11.6	32.0	17.7	11.5	31.2	Sum of lines 2 and 3
2	Less: Consumption of fixed capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	RICs have no fixed assets
3	Equals: Net value added	1.7	1.6	5.3	5.1	6.3	8.1	12.1	10.3	13.0	17.5	12.5	21.8	11.6	32.0	17.7	11.5	31.2	Sum of lines 4, 7, and 8
4	Compensation of employees (paid)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	RICs have no employees
5	Wages and salaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	Employers' social contributions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	Taxes on production and imports less subsidies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	RICs have no property taxes, sales taxes, etc
8	Operating surplus, net	1.7	1.6	5.3	5.1	6.3	8.1	12.1	10.3	13.0	17.5	12.5	21.8	11.6	32.0	17.7	11.5	31.2	Sum of net interest paid (including imputed interest), undistributed corporate profits after tax, net dividends paid, and corporate taxes paid, based on SOI data and NIPA estimates
9	Net national income/Balance of primary incomes, net	-34.3	-20.5	-17.6	-26.0	-38.4	-47.1	-58.2	-52.7	-40.7	-24.9	-35.7	-41.7	-57.9	-77.0	-84.2	-65.4	-53.5	Line 10 + line 11 - line 15
10	Operating surplus, net	1.7	1.6	5.3	5.1	6.3	8.1	12.1	10.3	13.0	17.5	12.5	21.8	11.6	32.0	17.7	11.5	31.2	See line 8
11	Property income (received)	228.8	183.0	171.2	199.1	269.2	352.6	439.1	408.0	301.8	312.4	337.0	365.0	391.2	433.4	446.4	443.1	490.6	Sum of lines 12, 13, and 14
12	Interest	180.2	132.4	113.1	119.9	168.3	228.9	277.4	238.0	170.0	167.2	165.1	172.4	174.5	174.3	181.9	182.9	203.6	Sum of monetary and imputed interest received (almost all monetary), based on SOI data and NIPA estimates
13	Distributed income of corporations (dividends)	48.7	50.7	58.1	79.2	100.9	123.7	161.7	169.9	131.8	145.2	171.8	192.7	216.7	259.1	264.5	260.2	287.0	Based on SOI data and NIPA estimates
14	Reinvested earnings on U.S. direct investment abroad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
15	Less: Uses of property income (paid)	264.9	205.2	194.1	230.2	313.9	407.8	509.4	471.0	355.5	354.8	385.2	428.5	460.8	542.4	548.3	520.0	575.3	Sum of lines 16, 17, 20, and 21
16	Interest	218.5	158.4	141.6	159.7	217.8	285.1	345.0	303.7	218.7	220.5	226.2	239.3	260.6	273.0	296.8	283.1	326.4	Sum of monetary and imputed interest paid (substantial imputed interest), based on SOI data and NIPA estimates
17	Distributed income of corporations	46.4	46.8	52.5	70.5	96.0	122.7	164.4	167.3	136.9	134.4	159.0	189.1	200.1	269.4	251.5	236.9	248.9	Sum of lines 18 and 19
18	Dividends	46.4	46.8	52.5	70.5	96.0	122.7	164.4	167.3	136.9	134.4	159.0	189.1	200.1	269.4	251.5	236.9	248.9	Based on SOI data and NIPA estimates
19	Withdrawals from income of quasi-corporations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
20	Reinvested earnings on foreign direct investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
21	Rents on land and natural resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
22	Net national income/Balance of primary incomes, net	-34.3	-20.5	-17.6	-26.0	-38.4	-47.1	-58.2	-52.7	-40.7	-24.9	-35.7	-41.7	-57.9	-77.0	-84.2	-65.4	-53.5	See line 9
23	Less: Current taxes on income, wealth, etc. (paid)	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	Based on SOI data and NIPA estimates
24	Less: Other current transfers (paid)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
25	Equals: Disposable income, net	-34.3	-20.5	-17.8	-26.0	-38.4	-47.2	-58.3	-52.7	-40.7	-24.9	-35.7	-41.7	-58.0	-77.0	-84.2	-65.4	-53.5	Line 22 - line 23 - line 24
26	Equals: Net saving	-34.3	-20.5	-17.8	-26.0	-38.4	-47.2	-58.3	-52.7	-40.7	-24.9	-35.7	-41.7	-58.0	-77.0	-84.2	-65.4	-53.5	Same as line 25
	Capital account																		
27	Net saving less capital transfers	-34.3	-20.5	-17.8	-26.0	-38.4	-47.2	-58.3	-52.7	-40.7	-24.9	-35.7	-41.7	-58.0	-77.0	-84.2	-65.4	-53.5	Line 28 - line 29
28	Net saving	-34.3	-20.5	-17.8	-26.0	-38.4	-47.2	-58.3	-52.7	-40.7	-24.9	-35.7	-41.7	-58.0	-77.0	-84.2	-65.4	-53.5	Same as line 25
29	Less: Capital transfers paid (net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for RICs
30	Capital formation, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	RICs have no fixed assets
31	Gross fixed capital formation (nonresidential)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
32	Less: Consumption of fixed capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
33	Net lending (+) or borrowing (-), capital account (lines 27-30)	-34.3	-20.5	-17.8	-26.0	-38.4	-47.2	-58.3	-52.7	-40.7	-24.9	-35.7	-41.7	-58.0	-77.0	-84.2	-65.4	-53.5	Same as net saving

Figure 1: Key Series for RICs
(billions of dollars)

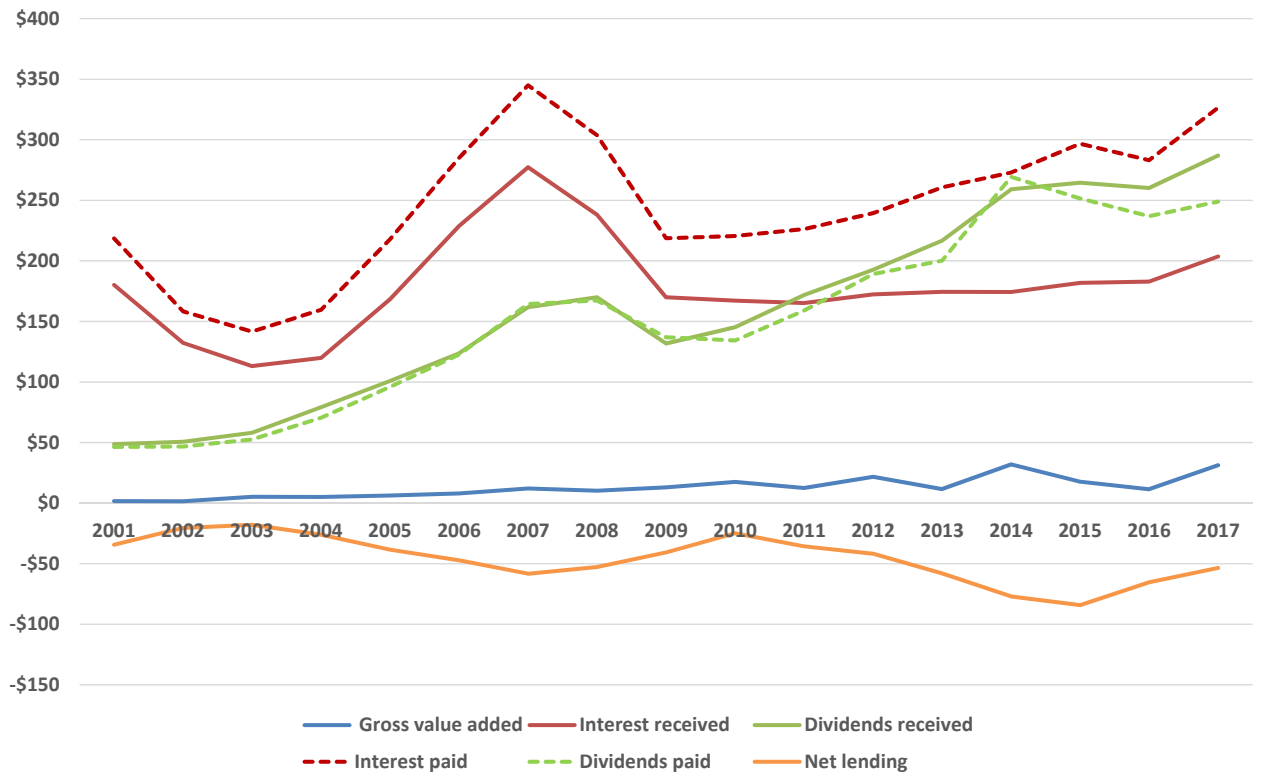


Table 5: Interest Received and Paid, Monet Market Mutual Funds

Based on data from the Investment Company Institute

Billions of dollars; data available as of March 2019

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Interest received = (3) + (4)	89.8	42.2	25.6	26.4	58.7	105.8	139.6	107.3	29.6	13.9	10.9	11.5	12.6	11.1	11.5	14.1	25.6
Interest paid = (3) + (4)	89.8	42.2	25.6	26.4	58.7	105.8	139.6	107.3	29.6	13.9	10.9	11.5	12.6	11.1	11.5	14.1	25.6
Net interest received	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1. Total net assets	2,285.3	2,265.1	2,040.0	1,901.7	2,026.8	2,338.5	3,085.8	3,832.2	3,315.9	2,803.5	2,691.0	2,693.2	2,717.8	2,724.6	2,754.7	2,728.1	2,847.3
2. Expense ratio (percent)	0.46	0.44	0.42	0.42	0.42	0.40	0.38	0.35	0.33	0.24	0.21	0.18	0.17	0.13	0.13	0.20	0.25
3. Expenses = (1) x (2) (an estimate of imputed interest payments)	10.5	10.0	8.6	8.0	8.5	9.4	11.7	13.4	10.9	6.7	5.7	4.8	4.6	3.5	3.6	5.5	7.1
4. Dividends paid (classified as monetary interest payments)	79.3	32.3	17.0	18.4	50.2	96.4	127.9	93.9	18.6	7.2	5.2	6.6	8.0	7.6	7.9	8.6	18.5

Data sources: Total assets: 2018 Investment Company Factbook, Table 36 Money Market Funds: Total Net Assets by Type of Fund, p. 243

Total dividend payments: 2018 Investment Company Factbook, Table 39, Money Market Funds: Paid and Reinvested Dividends by Type of Fund, p.245

Expense ratios: Duvall, James and Morris Mitler. 2018. "Trends in the Expenses and Fees of Funds, 2017." ICI Research Perspective 24, no. 3 (April), figure 1

In the proposed current and capital account for an Integrated Macroeconomic Account for Money Market Mutual Funds, the only nonzero series are interest paid and received. All other series (value added, CFC, compensation, taxes, net operating surplus, net national income, dividends, reinvested earnings and rents, current and capital transfers, disposable income, net saving, capital formation, and net lending) are set to zero.

Table 6: Integrated Macroeconomic Account for Real Estate Investment Trusts (based on NIPA estimates)

Billions of dollars; data available as of March 2019

Line		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Data source
	Current account																		
1	Gross value added	14.3	15.8	16.4	16.2	19.7	20.3	17.4	20.6	17.4	18.9	22.1	26.4	32.6	38.3	41.1	41.9	30.4	Sum of lines 2 and 3
2	Less: Consumption of fixed capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
3	Equals: Net value added	14.3	15.8	16.4	16.2	19.7	20.3	17.4	20.6	17.4	18.9	22.1	26.4	32.6	38.3	41.1	41.9	30.4	Sum of lines 4, 7, and 8
4	Compensation of employees (paid)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
5	Wages and salaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	Employers' social contributions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	Taxes on production and imports less subsidies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
8	Operating surplus, net	14.3	15.8	16.4	16.2	19.7	20.3	17.4	20.6	17.4	18.9	22.1	26.4	32.6	38.3	41.1	41.9	30.4	Sum of net interest paid (including imputed interest), undistributed corporate profits after tax, net dividends paid, and corporate taxes paid, based on SOI data and NIPA estimates
9	Net national income/Balance of primary incomes, net	-0.5	-3.6	-5.3	-7.5	-22.1	-15.5	-22.4	-18.7	0.0	-11.2	-12.9	-15.3	-34.3	-34.0	-64.5	-49.8	-48.9	Line 10 + line 11 - line 15
10	Operating surplus, net	14.3	15.8	16.4	16.2	19.7	20.3	17.4	20.6	17.4	18.9	22.1	26.4	32.6	38.3	41.1	41.9	30.4	See line 8
11	Property income (received)	24.1	26.3	26.7	32.9	46.1	61.4	64.9	46.9	34.1	29.1	30.8	30.1	28.4	27.9	28.5	29.9	33.3	Sum of lines 12, 13, and 14
12	Interest	24.1	26.3	26.7	32.9	46.1	61.4	64.9	46.9	34.1	29.1	30.8	30.1	28.4	27.9	28.5	29.9	33.3	Sum of monetary and imputed interest received (almost all monetary), based on SOI data and NIPA estimates
13	Distributed income of corporations (dividends)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Based on SOI data and NIPA estimates
14	Reinvested earnings on U.S. direct investment abroad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
15	Less: Uses of property income (paid)	38.9	45.7	48.4	56.5	87.9	97.2	104.8	86.2	51.6	59.1	65.7	71.9	95.3	100.1	134.2	121.6	112.5	Sum of lines 16, 17, 20, and 21
16	Interest	7.2	7.4	7.4	10.4	17.8	26.1	28.4	22.7	16.7	16.5	17.2	19.6	26.3	22.6	20.9	24.9	22.7	Sum of monetary and imputed interest paid (almost all monetary), based on SOI data and NIPA estimates
17	Distributed income of corporations	31.7	38.3	41.0	46.1	70.2	71.1	76.4	63.6	34.8	42.6	48.5	52.3	69.0	77.5	113.3	96.7	89.9	Sum of lines 18 and 19
18	Dividends	31.7	38.3	41.0	46.1	70.2	71.1	76.4	63.6	34.8	42.6	48.5	52.3	69.0	77.5	113.3	96.7	89.9	Based on SOI data and NIPA estimates
19	Withdrawals from income of quasi-corporations (1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
20	Reinvested earnings on foreign direct investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
21	Rents on land and natural resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
22	Net national income/Balance of primary incomes, net	-0.5	-3.6	-5.3	-7.5	-22.1	-15.5	-22.4	-18.7	0.0	-11.2	-12.9	-15.3	-34.3	-34.0	-64.5	-49.8	-48.9	See line 9
23	Less: Current taxes on income, wealth, etc. (paid)	0.0	0.1	0.0	0.1	0.2	0.1	0.0	-0.2	-1.0	-0.2	-0.1	0.0	0.0	0.1	0.3	0.1	0.0	Based on SOI data and NIPA estimates
24	Less: Other current transfers (paid)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
25	Equals: Disposable income, net	-0.5	-3.7	-5.3	-7.6	-22.3	-15.7	-22.4	-18.5	0.9	-11.0	-12.8	-15.3	-34.3	-34.0	-64.9	-49.9	-48.9	Line 22 - line 23 - line 24
26	Equals: Net saving	-0.5	-3.7	-5.3	-7.6	-22.3	-15.7	-22.4	-18.5	0.9	-11.0	-12.8	-15.3	-34.3	-34.0	-64.9	-49.9	-48.9	Same as line 25
	Capital account																		
27	Net saving less capital transfers	-0.5	-3.7	-5.3	-7.6	-22.3	-15.7	-22.4	-18.5	0.9	-11.0	-12.8	-15.3	-34.3	-34.0	-64.9	-49.9	-48.9	Line 28 - line 29
28	Net saving	-0.5	-3.7	-5.3	-7.6	-22.3	-15.7	-22.4	-18.5	0.9	-11.0	-12.8	-15.3	-34.3	-34.0	-64.9	-49.9	-48.9	Same as line 25
29	Less: Capital transfers paid (net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Assume zero for REITs
30	Capital formation, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
31	Gross fixed capital formation (nonresidential)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
32	Less: Consumption of fixed capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Unavailable, set to zero
33	Net lending (+) or borrowing (-), capital account (lines 27-30)	-0.5	-3.7	-5.3	-7.6	-22.3	-15.7	-22.4	-18.5	0.9	-11.0	-12.8	-15.3	-34.3	-34.0	-64.9	-49.9	-48.9	