Economic contribution of REITs in the United States

Prepared for the National Association of Real Estate Investment Trusts

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Executive summary

EY was commissioned by the National Association of Real Estate Investment Trusts® (NAREIT) to estimate the current economic contribution of all U.S. REITs (including public listed, public non-listed, and private REITs) in the United States. This report summarizes the estimates of the economic impact of REITs on the U.S. economy for 2014.

Key findings of the economic contribution of U.S. REITs to the U.S. economy for 2014 are presented below and summarized in Table E-1:

- **The total economic contribution of U.S. REITs in 2014 was an estimated 1.8 million full-time equivalent (FTE) jobs and $107.5 billion of labor income.** The total economic contribution, or "footprint," of REITs consists of the direct operations of REITs and related businesses in the United States, as well as the impacts from dividend and interest payments by REITs and REIT property improvement and construction investments.
- **REITs directly employed an estimated 200,000 FTE employees who earned $11.7 billion of labor income in the United States.** REIT supplier purchases and spending by REIT employees supported an additional 314,000 FTE jobs and $17.7 billion of earnings in the United States. In total, the economic footprint of U.S. REIT operations comprised 514,000 FTE jobs and $29.5 billion in labor income in 2014.
- **REIT activities also resulted in the payment of an estimated $44.0 billion of interest income and the distribution of $81.6 billion of dividend income by REITs in 2014.** This interest and dividend income supported 346,000 FTE jobs earning $19.0 billion of labor income through the induced contribution of re-spending by REIT bondholders and shareholders. An additional $51.6 billion of interest and dividends was paid by REITs to the retirement accounts of U.S. residents, where it is available for future consumption spending.
- **REITs invested $55.9 billion in new construction and routine capital expenditures to maintain existing property in 2014.** The related construction activity supported 366,000 FTE construction jobs that earned $23.0 billion in labor income. Purchases of goods from suppliers and consumer spending by construction and supplier employees contributed an estimated 555,000 FTE jobs and $36.1 billion in labor income in 2014.

Table E-1. Total economic contribution of All REIT operations, dividend distributions, interest payments, and construction activities, 2014
Billions of dollars; thousands of FTE employees

	Direct	Indirect & induced	Total
Operations			
Labor income	$11.7	$17.7	$29.5
Employment	200	314	514
Dividends and interest payments			
Labor income	$0.0	$19.0	$19.0
Employment	0	346	346
Construction and capital expenditures			
Labor income	$23.0	$36.1	$59.1
Employment	366	555	921
Total			
Labor income	$34.7	$72.8	$107.5
Employment	565	1,215	1,780

Note: Includes public listed, public non-listed and private REITs. Operations exclude the economic contribution of REIT interest payments and REIT dividend distributions. The above table does not include the economic contribution of the tenants of REIT-owned properties. Figures may not sum due to rounding.
Source: EY analysis.

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Economic contribution of REITs in the United States

I. Introduction

EY has been commissioned by the National Association of Real Estate Investment Trusts (NAREIT) to estimate the current economic contribution of REITs in the United States. This report summarizes the estimates of the economic contribution of REITs to the U.S. economy in 2014.

As described in this report, REITs and related companies provide employment and earnings for hundreds of thousands of employees and contribute jobs in other sectors of the economy that support REIT operations. Dividend distributions and interest payments by REITs to shareholders and bondholders contribute to spending in the United States. Capital investments undertaken by REITs or related to new buildings purchased by REITs also contribute hundreds of thousands of jobs to the U.S. economy. Overall, REITs directly employed an estimated 200,000 FTE employees who earned $11.7 billion of labor income in the United States. The total economic contribution of U.S. REITs in 2014 was an estimated 1.8 million full-time equivalent (FTE) jobs and $107.5 billion of labor income.

Overview of U.S. REITs

Real Estate Investment Trusts (REITs) are real estate companies first authorized in the United States in 1960 as a way to make equity and mortgage debt investment in diversified and professionally managed portfolios of large-scale, income-producing real estate accessible to all Americans in the same way they typically invest in the stocks and bonds of most other companies. Modeled after mutual funds, REITs provide all investors with access to the investment attributes of commercial real estate, including reliable dividend income, potential long-term capital appreciation and portfolio diversification.

Today, 33 other countries have adopted various forms of the U.S. REIT model in an effort to provide their economies and capital markets with the benefits of a listed, REIT-based approach to real estate investment. Every G-7 nation and a majority of the members of the Organisation for Economic Co-operation and Development have adopted a model for REIT-based real estate investment.

REITs in the U.S. today comprise a diverse industry. A REIT may be a *public* company with its shares registered with the Securities and Exchange Commission (SEC), or it may be a *private* company. In addition, a *public* REIT's shares may be *listed* and publicly traded on an established stock exchange such as the New York Stock Exchange, or its shares may be *non-listed* and sold directly to investors through a broker-dealer or an investment advisor.

REITs generally specialize in either owning or financing real estate. *Equity* REITs primarily own, and in most cases operate, income-producing real estate, including apartments, data centers, offices, shopping centers, health care facilities, telecommunications towers, hotels and other properties. *Mortgage* REITs primarily invest in mortgages and mortgage-backed securities, providing financing for residential and commercial properties.

Today, REITs in the United States own nearly $3 trillion of gross real estate assets. Public listed REITs have seen their combined equity market capitalization grow from the end of 1990 at a 21% compound annual rate, from $9 billion to nearly $950 billion at the end of 2015.

Public listed equity REITs constitute the bulk of today's REIT market. As of year-end 2014, equity REITs accounted for more than 70% of all U.S. public listed REIT gross assets and more than 90% of the approximately $950 billion of equity market capitalization.

Public listed equity REIT portfolios included more than 190,000 properties at year-end 2014. The portfolios included:[1]

- More than 3,900 office buildings.
- Nearly 550 regional malls; more than 3,500 shopping centers; more than 4,700 restaurant locations; and more than 11,500 other retail properties.
- More than 4,400 industrial facilities.
- Nearly 4,000 multi-family rental properties, with an estimated 760,000 apartments.
- More than 1,800 hotels.
- More than 6,700 medical facilities comprised of more than 1,600 medical office buildings, more than 2,900 assisted living facilities and more than 2,200 other health care facilities.
- More than 80,000 telecommunications towers.[2]
- More than 66,000 single-family home rental properties.

To be eligible to operate and be taxed as a REIT with respect to the Internal Revenue Code, REITs are required to be in the real estate business and to invest primarily in qualified real estate assets. Specifically, at least 75% of a REIT's total assets must be invested in real estate; and at least 75% of a REIT's gross income must be derived from real estate sources, such as rents from real property, interest from mortgages on real property or sales of real estate investments. REITs are also required to distribute nearly all of their taxable income — at least 90% — annually to their shareholders as dividends. Most REITs today pay out 100% of their taxable income as dividends.

Companies operating as REITs may claim a dividends paid deduction for federal income tax purposes if the income distribution, organizational and ownership requirements are satisfied.[3] As noted, Federal tax law requires that REITs distribute at least 90% of their taxable income each year as dividends. However, these dividends are subject to the non-qualified dividend tax rate rather than the lower tax rate on qualified dividend income. The current top non-qualified dividend tax rate is 44.6% and the top qualified dividend tax rate is 25%.[4] REITs often operate taxable REIT subsidiaries (TRSs). As taxable subsidiaries, TRSs are allowed to engage in a broader range of activities than are their REIT parents. TRS activities are typically complementary to the REIT business model, for example providing services to the tenants of its parent REIT.

In addition to the employees working either directly for internally-managed REITs, the managers of externally-managed REITs and the TRSs of REITs, millions of individuals work for the businesses that occupy REIT-owned properties. The economic contributions of these REIT tenants are not included in this analysis.

Direct REIT employment

As shown in Table 1, REITs directly employed an estimated 199,900 full-time equivalent (FTE) workers in 2014.[5] The vast majority of these workers were employed by equity REITs.

As noted above, equity REITs own and manage a broad variety of commercial and residential properties. Each of these property types requires specialized employees to support their operation. In addition to employees who operate these properties, REITs directly employ workers through taxable REIT subsidiaries (TRSs). TRSs provide services to tenants and undertake other activities that support the operation and financing of REIT-owned properties. For this report, employees at a TRS are considered part of the direct employment contribution of REITs.

Mortgage REITs primarily hold commercial and residential mortgage loans and commercial and residential mortgage-backed securities. By purchasing mortgage loans from banks and other originators, mortgage REITs provide capital that can be used to extend further loans to homebuyers and businesses. Further, commercial mortgage REITs engage in a number of other activities that support commercial real estate financing, including originating, servicing, and securitizing loans. Like equity REITs, mortgage REITs employ workers through TRSs. Mortgage REITs employed approximately 10,400 FTE workers in 2014.

Table 1. Direct employment of all U.S. REITs by property sectors included in the FTSE NAREIT All REITs Index, 2014

Employment is shown in terms of total full-time equivalent employees (FTEs)

Property sector	Total REIT employment	As % of total
Equity REITs		
Diversified	74,000	37%
Residential	37,500	19%
Timber	19,400	10%
Retail	19,400	10%
Self-storage	13,900	7%
Office	9,800	5%
Infrastructure	6,700	3%
Industrial	4,100	2%
Health care	2,500	1%
Lodging / resorts	2,200	1%
Total, equity REITs	**189,500**	**95%**
Mortgage REITs	10,400	5%
Total direct REIT employment	**199,900**	**100%**

Note: Includes public listed, public non-listed and private REITs. Employment shown above includes that of “Taxable REIT Subsidiaries” (TRSs). These are companies that provide services to REIT tenants such as landscaping, cleaning, or concierge services. "Property type" and "Property subtype" data reported by companies and captured in SNL Financial are mapped to the property sectors included in the FTSE NAREIT All REITs Index using the categories assigned to individual companies appearing on the list of constituent companies of the index. Figures may not sum due to rounding.
Source: Internal Revenue Service, SNL Financial, and EY analysis.

II. The economic contribution of REIT operations

The U.S. economic contribution of REITs extends beyond the direct operations of REITs and includes the indirect contributions of their suppliers and the induced contributions of businesses supported by the spending of REIT employees, bondholders, and shareholders. The U.S. economic contribution also includes the direct, indirect, and induced contributions of capital expenditures on building construction related to REITs.

The economic contributions described in this study include the following economic contribution metrics:

- **Employment.** Employment is measured as the number of FTE employees. In estimating the direct employment contribution of REITs, a full-time worker is counted as one FTE and a part-time worker is counted as one-half of a FTE.[6] For industries that are indirectly affected by REITs, FTEs are calculated as the number of employees required if each worked an average of 40 hours per week.[7]

- **Labor income.** Labor income includes employee compensation (wages and benefits) and proprietor income.[8]

The overall economic contribution of REITs is measured as the sum of direct, indirect, and induced economic contributions, described below and summarized in Figure 2.

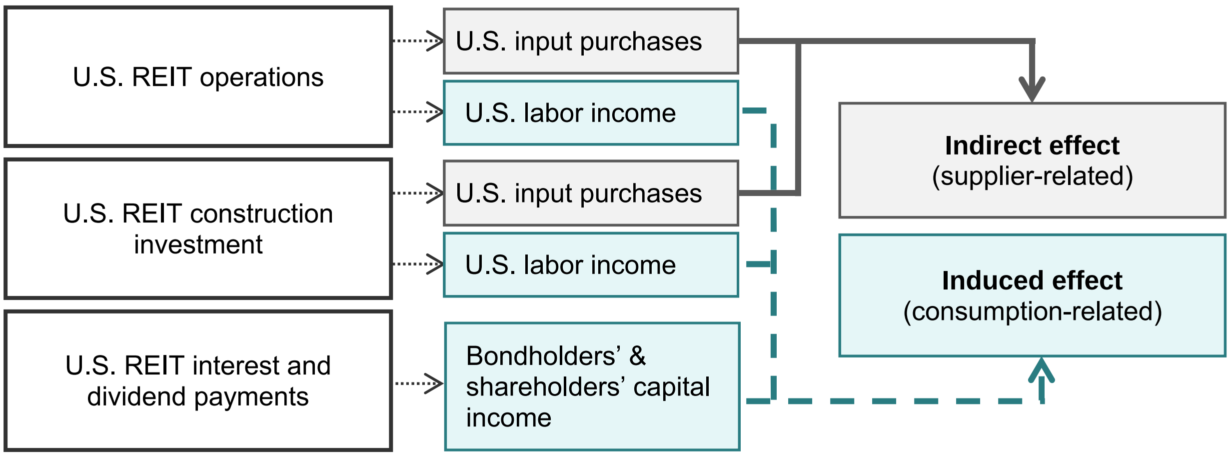
- **Direct contribution.** The estimated direct private-sector economic contribution consists of direct employment by REITs and the labor income earned by REIT employees. The direct contribution also includes regular capital expenditures for existing structures and investment in new structures and the associated temporary construction employment. Direct contribution estimates rely on available information from the IRS and SEC-filed financial statements.

- **Indirect contribution.** REITs purchase goods and services from other U.S. businesses, supporting employment and income at these supplier businesses. REIT expenditures on utilities, telecommunications, landscaping, cleaning, and security, among other goods and services, support sales and employment in these U.S. industries. Demand for these products and services by REITs leads to additional rounds of economic activity as REIT suppliers purchase operating inputs from their own suppliers. These additional rounds of economic activity throughout supply chains are known as “spillover” or “multiplier” effects. Goods and services imported from abroad are not included in estimates of U.S. economic contributions.

- **Induced contribution.** The induced economic contribution reflects the additional economic activity that results from consumer re-spending of income earned from REITs and related activities, including the dividend-funded spending of REIT shareholders and the spending of interest income by REIT bondholders and other creditors. When REIT employees, REIT bondholders, REIT shareholders, and employees of businesses indirectly supported by REITs spend their earnings at U.S. businesses (e.g., grocery stores, retailers, movie theaters), they support economic activity in those sectors. The earnings that employees, bondholders, and shareholders spend on food at a restaurant, for example, creates jobs at the restaurant and at farms, transportation companies, and in other industries that are involved in the restaurant industry's supply chain.

The composition of REITs' contribution to the U.S. economy is illustrated in Figure 2.

Figure 2. Overview of the U.S. economic contribution of REITs



Note: Construction activities include renovations of existing structures.

The magnitude of the economic contribution of REITs is determined by several factors, including supplier relationships among businesses in the United States. This contribution can be expressed in terms of "economic multipliers" equal to the total economic contribution per unit of direct contribution. This analysis uses the 2013 Impacts for Planning (IMPLAN) input-output model of the United States to estimate the economic contributions of REITs in the United States in 2014. The model, which describes U.S. economic linkages as they existed in 2013, was scaled to the size of the 2014 U.S. economy to estimate the economic contributions of REITs. Unlike other economic models, IMPLAN includes the interaction of more than 500 industry sectors, thus identifying the interaction of specific industries that benefit from REIT operations, interest and dividend payments, and construction activity. See the Appendix for further details.

Employment and labor income resulting from REIT employment

REITs directly employed an estimated 199,900 FTE workers in 2014. These employees conducted a variety of activities in support of REIT operations. This study categorizes the activities of REIT employees into two main types of activities. First, employees of equity REITs that own and manage properties such as retail establishments, offices, factories and residential properties are allocated to either the management of real estate or the provision of services—such as maintenance and other support services—to properties. These employees are grouped into the equity REIT management and services to building and dwellings activities, respectively. Similarly, the employees of mortgage REITs are assumed to engage in mortgage REIT management activities.

Second, some equity REITs own and manage specialized types of property, such as data centers, wireless communications towers and timberland. To model the economic contribution of these REITs, employees of these companies are categorized into property-specific employment activities.[9] For example, data center REIT employees are assumed to conduct computer facilities management activities, wireless communication tower REIT employees are assumed to conduct communications infrastructure activities, and timber REIT employees contribute to the economy through commercial logging activities. Tying highly specialized REITs to specific employment activities in this way offers more accurate estimates of the economic contribution of REITs to the U.S. economy.

As shown in Table 2, workers conducting building services, facilities and support services, and computer facilities management activities comprised 65% of total direct REIT employment in 2014. Other REIT employment activities include the operation of communications infrastructure and warehousing and storage facilities.

Table 2. Distribution of direct employment of all U.S. REITs by employment activity, 2014

Employment is shown in terms of total full-time equivalent employees (FTEs)

Employment activity	REIT employment	As % of total
Services to buildings & dwellings	69,800	35%
Facilities support services	31,500	16%
Computer facilities management services	27,900	14%
Commercial logging	19,400	10%
Equity REIT management	17,100	9%
Warehousing & storage	13,900	7%
Mortgage REIT management	10,400	5%
Communications infrastructure	6,700	3%
Advertising	3,200	2%
Total	**199,900**	**100%**

Note: Includes public listed, public non-listed and private REITs. Figures may not sum due to rounding.
Source: EY analysis.

Each of these employment activities has a different impact on the U.S. economy, based on the U.S. supply chain (operating inputs purchased from domestic businesses) required to support these activities, as well as the average wage levels of workers conducting these activities. Activities that produce a higher output per worker (e.g., more capital-intensive tasks, such as the operation of communications infrastructure) generally have higher employment multipliers due to the higher amount of supplier spending they require. The more a business spends on supplier spending, the higher its indirect economic contribution. A higher average wage level also leads to a larger economic contribution—workers with greater disposable income spend more on consumption, which leads to a higher induced economic contribution. The average multiplier across all types of economic activity in which REIT employees engage is 2.7. That is, for every 10 direct jobs at a REIT, REIT and REIT supplier activities, including the purchases of goods and services and the consumer spending of employees, supported an additional 17 jobs elsewhere in the United States for a total employment contribution of 27 jobs.[10]

REIT dividend and interest payments

Because REITs are required to distribute at least 90% of their taxable income, dividend payments by REITs represent an important part of their contribution to the U.S. economy. Moreover, a complete picture of the investment income resulting from REIT activity requires the inclusion of interest income resulting from REIT interest payments. Interest payments and dividends contribute to the induced economic contribution of REITs that occurs when REIT bondholders and shareholders spend a portion of their interest and dividend income at U.S. businesses. This re-spending contributes to the economic activity of restaurants, retailers, and other establishments that sell to consumers.

In a study examining the effect of such dividend and interest payments on consumption, Baker, Nagel, and Wurgler (2007) find that dividends generate consistently higher consumption than equivalent amounts of retained earnings that generate capital gains for shareholders.[11] Because REITs are required to pay out 90% of their taxable income as dividends, they have a larger contribution to current U.S. consumption than a similar business that retains its earnings. In particular, they find that 72% of dividend payments are used to fund consumption expenditures (i.e., the marginal propensity to consume from dividend income is 72%). When interest income is included in their estimation, this propensity declines to 56%. The IMPLAN model is adjusted to reflect these results to more accurately estimate the economic contribution of interest and dividend income.

REITs paid an estimated $81.6 billion in dividends to shareholders in 2014.[12] A portion of these dividends – approximately 14% – is paid to foreign shareholders and makes no further contribution to U.S. economic activity.[13] The remaining amount of approximately $70.1 billion was paid to U.S. shareholders. It is estimated that 48% of this amount was paid to U.S. shareholders' retirement accounts. These accounts, such as 401(k)s or Individual Retirement Accounts (IRAs), include distribution rules that encourage investors to take distributions only once the investors have reached a certain age. As such, these dividend payments were generally not immediately available for consumption spending in 2014. After adjusting for foreign shareholders and dividends paid to retirement accounts, approximately $36.5 billion was available for consumption or saving in 2014.

REITs paid $44.2 billion of interest to their creditors in 2014.[14] REIT interest and dividends are assumed to have the same investor base. After adjusting REIT interest payments for payments to residents of foreign countries and to U.S. shareholders' retirement accounts, $19.8 billion in interest payments remained for spending in the U.S. economy in 2014. In total, $56.9 billion of investment income received from REITs was available for spending in the U.S. economy in 2014.

The estimated U.S. economic contribution of REIT operations, dividends, and interest payments

In total, REIT operations, including dividend and interest payments, contributed $48.4 billion in labor income to the U.S. economy and supported nearly 850,000 FTE jobs. These estimated economic contributions of U.S. REIT operations are summarized in Table 3. REITs paid $11.7 billion in labor income to their 200,000 FTE employees in 2014.

Table 3. Total economic contribution of REIT operations, dividends, and interest payments, 2014

Billions of dollars; thousands of full-time equivalent employees

	Direct	Indirect & induced	Total
Operations			
Labor income	$11.7	$17.7	$29.5
Employment	200	314	514
Dividends and interest payments			
Labor income	$0.0	$19.0	$19.0
Employment	0	346	346
Total			
Labor income	$11.7	$36.7	$48.4
Employment	200	660	860

Note: Includes public listed, public non-listed and private REITs. Operations excludes the economic contribution of REIT interest payments and REIT dividend distributions. The above table does not include the economic contribution of the tenants of REIT-owned properties. Figures may not sum due to rounding.
Source: EY analysis.

The indirect and induced economic contribution of REITs and related companies has two components. First, REIT operations (i.e., excluding interest and dividend payments) supported an additional 314,000 FTE jobs and $17.7 billion of labor income in the United States through the indirect and induced economic activity associated with suppliers and businesses that sell to employees of REITs and related companies. In addition, dividend and interest payments by REITs to U.S. investors contribute to U.S. employment and earnings when this dividend and interest income is used to purchase consumption goods and services. The $36.5 billion of dividend distributions and $19.8 billion of interest expenses paid to U.S. residents outside of retirement accounts are estimated to support 346,000 FTE workers earning $19.0 billion of labor income as a result of REIT bondholder and REIT shareholder re-spending. This re-spending constitutes the “induced” contribution of REIT dividend and interest payments.

III. The economic contribution of REIT construction activities

In addition to the economic contribution of REITs from their operations, REITs also fund billions of dollars of new building construction and routine capital expenditures on existing structures in each year. In 2014, REITs are estimated to have spent $12.2 billion to construct new buildings.[15] In some cases, REITs fund and manage the construction of a new building, while in other instances buildings are funded and constructed by a developer who sells the building to a REIT. Both of these types of investments in new structures are included in the economic contribution estimates summarized below. However, the purchase or transfer of existing buildings and structures does not create new economic activity and is therefore excluded from the analysis.

Further, REITs are estimated to have spent $43.6 billion on routine capital investments needed for property maintenance and upkeep.[16] REIT construction spending is summarized in Table 4.

Table 4. REIT construction spending, 2014
Billions of dollars

Routine capital expenditures for property maintenance and upkeep	$43.6
Construction of new buildings	$12.2
Estimated new property investment, all REITs	**$55.9**

Note: Includes public listed, public non-listed and private REITs. Figures may not sum due to rounding.
Source: SNL Financial, IRS, EY analysis.

Table 5 shows the economic contribution of the $55.9 billion of REIT construction spending to the U.S. economy in 2014. REIT construction activities supported an estimated 366,000 direct, one-year, full-time construction jobs in the United States. These construction workers earned $23.0 billion in labor income. Purchases of goods from suppliers and consumer spending by construction and supplier employees contributed an additional 555,000 FTE jobs and $36.1 billion in labor income to the U.S. economy in 2014.

Table 5. Economic contribution of construction spending by REITs in the United States, 2014
Billions of dollars; thousands of full-time equivalent (FTE) employees

	Direct	Indirect & Induced	Total
Construction activities			
Labor income	$23.0	$36.1	$59.1
Employment	366	555	921

Note: Includes public listed, public non-listed and private REITs. Construction activities include renovations of existing structures. Figures may not sum due to rounding.
Source: EY analysis.

Table 6 summarizes the overall estimated total economic contribution of REITs and related companies to the U.S. economy in 2014: nearly 1.8 million FTE jobs and $107.5 billion of labor income.

Table 6. Total economic contribution of REIT operations, dividends, interest, and construction activities, 2014
Billions of dollars; thousands of FTE employees

	Direct	Indirect & induced	Total
Operations			
Labor income	$11.7	$17.7	$29.5
Employment	200	314	514
Dividends and interest payments			
Labor income	$0.0	$19.0	$19.0
Employment	0	346	346
Construction			
Labor income	$23.0	$36.1	$59.1
Employment	366	555	921
Total			
Labor income	$34.7	$72.8	$107.5
Employment	565	1,215	1,780

Note: Includes public listed, public non-listed and private REITs. Operations excludes the economic contribution of REIT interest payments and REIT dividend distributions. The above table does not include the economic contribution of the tenants of REIT-owned properties. Construction activities include renovations of existing structures. Figures may not sum due to rounding.
Source: EY analysis.

REIT operations supported 514,000 FTE jobs earning $29.5 billion of income. Dividends and interest paid by REITs to U.S.-resident investors contributed to U.S. consumer spending, supporting an estimated 346,000 induced jobs in 2014 at retailers, restaurants, health care providers, and other businesses supported by consumer spending. These workers earned $19.0 billion of labor income. Finally, annual REIT spending on new building construction and routine property maintenance and upkeep contributed a total of more than 900,000 jobs and $59.1 billion in labor income.

IV. Limitations of the analysis

The estimates of the REIT industry's contributions to the U.S. economy presented in this report are based on an input-output model of the U.S. economy and the data and assumptions described elsewhere in the report. Readers should be aware of the following limitations of the modeling approach and limitations specific to this analysis.

- **The results show a snapshot of current economic contributions.** The input-output modeling approach used in this analysis shows the 2014 economic contribution of the U.S. REIT sector based on its relationships with other industries and households in the U.S. economy. The results do not reflect the impacts of an expansion or contraction of the industry.

- **Estimates are limited by available public information.** The analysis relies on information reported by federal government agencies, financial data for SEC-registered public REITs (from SNL Financial), and aggregate REIT tax return information (from the IRS). The contributions of private REITs are estimated based on the activities of public REITs using aggregate REIT tax return information. The analysis did not attempt to verify or validate this information using sources other than those described in the report.

- **Modeling the economic contribution resulting from REIT employment relies on government industry classifications.** This report relates the activities of REIT employees to the operating profiles of various industries to most effectively estimate the economic contribution of REIT employment. REIT employees engaged in these activities are assumed to receive the average wages and to require the level of operating input purchases characteristic of the industries into which they have been categorized (unless otherwise noted). This analysis relies on estimates of the domestically purchased inputs from the IMPLAN economic model, which are estimated using aggregate trade flow data and may vary by industry.

- **Capital expenditures undertaken by developers are attributed to REITs.** REITs construct new buildings, renovate existing buildings, and purchase buildings from developers. These purchases provide developers with the funding needed to undertake additional construction projects. The analysis includes the contribution of construction activities undertaken directly by REITs, as well as construction activities performed by developers that result in a building sold to a REIT within three years of construction.

- **Dividend distributions of REITs fluctuated widely in the years directly following the financial crisis.** From 2008 to 2009 total public and private REIT dividend payments decreased 30%, from $52.5 billion to $36.6 billion. By 2010, REIT dividend payments had rebounded to $51.7 billion. This analysis includes an estimate of 2014 REIT dividend distributions based on the most recently reported amount of dividend distributions for public listed and non-listed REITs (2014) and the assumption that the average ratio of public REIT dividends to private REIT dividends from 2010 to 2012 could also be applied to 2014 REIT dividends.

V. Summary

U.S. REITs own and manage billions of square feet of office, industrial, hotel, and other properties that provide space in which U.S. businesses operate. The direct employment of REITs is estimated to be 200,000 FTEs in 2014. Purchases by REITs of goods and services used in their operations supported 314,000 FTE jobs in the U.S. economy in 2014. Additionally, interest expenses paid and dividends distributed by REITs to U.S. bondholders and shareholders supported U.S. consumer spending, accounting for an estimated 346,000 U.S. FTE jobs. Totaling these effects, the operations and interest and dividend payments of REITs and related companies are estimated to have supported 860,000 FTEs in the U.S. economy in 2014.

REITs' spending on new building construction and the maintenance and upkeep of existing buildings contributed an estimated 366,000 direct construction-related jobs. The construction activity undertaken by REITs also generated an estimated 555,000 jobs from suppliers and consumer spending by construction and supplier employees.

Combining REITs' direct, indirect, and induced economic contributions to employment, the overall contribution of REITs to U.S. employment in 2014 was nearly 1.8 million FTE jobs. REITs and related companies also supported an estimated $107.5 billion in direct, indirect, and induced labor income earned by U.S. workers in 2014.

Appendix. Technical details: Economic contribution model using IMPLAN

This analysis uses an input-output model to estimate the economic contributions of REITs in the United States in 2014. The regional economic multipliers in this study were estimated using the 2013 Impacts for Planning (IMPLAN) input-output model of the United States. This 2013 model was scaled to the size of the 2014 U.S. economy. IMPLAN is used by more than 500 universities and government agencies. Unlike other economic models, IMPLAN includes the interaction of more than 500 industry sectors, thus identifying the interaction of specific industries that benefit from REIT operations, interest and dividend payments, and construction activity.

The multipliers in the IMPLAN model are based on the Leontief production function, which estimates the total economic requirements for every unit of direct output in a given industry based on detailed inter-industry relationships documented in the input-output model. The input-output framework connects commodity supply from one industry to commodity demand by another. The multipliers estimated using this approach capture all of the upstream economic activity (or backward linkages) related to an industry's production by attaching technical coefficients to expenditures. These output coefficients (dollars of demand) are then translated into dollars of value added and labor income and number of employees based on industry averages.

The multipliers presented in this report include direct, indirect, and induced effects. Direct effects include employment and spending by REITs. Indirect effects are attributable to operating input purchases from local suppliers. Induced effects are attributable to spending by REIT and supplier employees, as well as recipients of REIT interest and dividend payments, based on regional household spending patterns for different levels of income.

Indirect and induced effects are driven by: (1) input purchases by REITs and their suppliers, (2) the percentage of each type of commodity that is purchased from within the United States, and (3) household consumption profiles of REIT employees and investors, based on their income levels.

Table A-1 below shows the multipliers representing the total direct, indirect, and induced economic activity supported by REITs in the United States.

Table A-1. Multipliers for economic activity associated with REIT operations, interest and dividend payments, and construction activities in the United States

	Total multiplier
Operations	
Labor income	2.48
Employment	2.60
Construction	
Labor income	2.57
Employment	2.52
Dividend and interest payments	
Labor income	n/a
Employment	n/a
Total	
Labor income	3.39
Employment	3.54

Note: A multiplier is calculated as the sum of direct, indirect, and induced activity, divided by the level of direct activity. An employment multiplier of 2.60 indicates that the employment of 10 workers at a REIT supports the employment of 16 additional workers elsewhere in the economy. Multipliers cannot be calculated for the effect of REIT dividend and interest payments because the effects of these payments are considered to be induced effects only. These induced effects are, however, included in the calculation of the total labor income and employment multipliers indicated at the bottom of the table. Construction activities include renovations of existing structures.
Source: 2013 IMPLAN model of the United States economy.

Endnotes

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[1] Data from SNL Financial and NAREIT.

[2] "2014 Annual Report," American Tower Corporation, http://corpdocs.gmianalyst.com/Annual/ar_2014_18158.pdf, and "2014 Form 10-K," Crown Castle International Corporation, http://investor.crowncastle.com/phoenix.zhtml?c=107530&p=irol-sec.

[3] At least 75% of a REIT's total assets must be invested in real estate and at least 75% of gross income must be derived from real estate sources. Further, REITs must be widely held, with more than 100 shareholders and no fewer than five individuals owning, directly or indirectly, more than 50% of their stock.

[4] The 44.6% rate includes the top statutory income tax rate on non-qualified dividends (39.6%), the Medicare tax and its application to unearned income (e.g., dividends, capital gains, and interest income) for high-income taxpayers (3.8%), and the "Pease" provision, a limitation on itemized deductions for high-income taxpayers (1.2%). The 25% rate includes the top statutory income tax rate on qualified dividends (20%), the Medicare tax (3.8%), and the Pease provision (1.2%).

[5] FTE employment of public listed and public non-listed REITs is reported by REITs in their annual SEC filings. FTE employment reported to the SEC counts a full-time employee as one FTE and a part-time employee as one half of a FTE. The FTE employment reported in this study for REITs uses the SEC reporting convention for direct employment. FTE employment was imputed for REITs for which such data were missing. FTE employees at mortgage REITs focused on home financing were conservatively imputed as the simple average number of FTE employees among those REITs that reported FTE employees. For all other types of REITs for which FTE employment data were missing, employment was imputed using the average number of FTE employees per dollar of assets among REITs classified in the same property sector for which data were available.

Data from SEC filings are available only for public listed and public non-listed REITs. To estimate the amount of employment for all REITs, including private REITs employment data were "grossed up" to the level of all REITs. Separate gross-up factors were used for equity REITs and mortgage REITs. The gross-up factor for equity REITs was 0.79, which represents the ratio of total 2012 public REIT assets reported by SNL Financial to a special tabulation of total 2012 equity REIT assets prepared by the IRS. Prison REITs employment is not grossed up because there are no private prison REITs, per NAREIT.

The gross-up factor for mortgage REITs was 0.61, which represents the ratio of total 2012 public mortgage REIT assets reported by SNL Financial to a special tabulation of total 2012 mortgage REIT assets prepared by the IRS.

Employment levels by property sector for equity REITs were mapped to activity types such as facilities support services and advertising based on the property subsector in which each REIT was classified in SNL Financial data. Equity REIT employees that could not be assigned to certain activity types were assumed to be involved in either equity REIT management activities or in providing services to buildings and dwellings. Equity REIT management employment was estimated by first estimating the level of REIT management employment (27,400) and then subtracting the level of mortgage REIT employment (10,400), already estimated from SEC filings data as described above. To estimate the number of REIT management employees, 2014 public equity and mortgage REIT assets as reported by SNL Financial were grossed up using the gross-up factors described above to estimate the value of all 2014 REIT assets. The resulting asset estimate was then multiplied by the ratio of salaries and wages to assets as reported in 2012 IRS data compiled from Form 1120-REIT filings. Finally, this amount was divided by the average wage of REIT employees as reported for 2007 by the Bureau of Labor Statistics. The result was an estimate of approximately 27,400 REIT management employees.

The use of different years reflects the limited data available regarding all REITs; this is partially because the 2007 NAICS revision reclassified equity REITs into a broader real estate NAICS code and mortgage REITs into a broader finance and insurance NAICS code; in both cases REITs were reclassified into a code with non-REIT entities.

[6] This assumption is made by SNL Financial, which compiles data reported by public REITs.

[7] For estimated indirect and induced employment, employee headcount is converted to FTE employment using data from the Bureau of Labor Statistics (BLS) showing hours worked per week, by industry. The estimated full and part-time employment contribution for each property sector is converted to FTE employment by multiplying the number of estimated full and part-time employees by [average hours worked per week]/40.

[8] Proprietor income includes the payments received by self-employed individuals and unincorporated business owners.

[9] The economic contributions of the activities of REIT employees were modeled in IMPLAN using the following industries: 1) employees providing services to building and dwellings were grouped into IMPLAN sector 468 (services to buildings); 2) corrections and detention employees were grouped into sector 463 (facilities support services); 3) equity REIT management employees were grouped into sector 440 (real estate); 4) employees providing computer facilities management services were grouped into sector 430

(data processing, hosting, and related services); 5) employees working in commercial logging were grouped into sector 15 (forestry, forest products, and timber tract production); 6) employees operating warehousing and storage facilities were grouped into sector 416 (warehousing and storage); 7) employees engaging in advertising activities were grouped into sector 457 (advertising, public relations, and related services); 8) employees supporting communications infrastructure were grouped into sector 427 (wired telecommunications carriers); and 9) mortgage REIT management employees were grouped into sector 439 (funds, trusts, and other financial vehicles).

[10] The multipliers reported by IMPLAN for REIT employment activities are as follows: 1.5 for employees providing services to building and dwellings; 2.9 for facilities support services employees; 1.7 for equity REIT management employees; 4.2 for employees providing computer facilities management services; 4.2 for employees working in commercial logging; 2.1 for employees operating warehousing and storage facilities; 2.6 for employees engaging in advertising; 7.5 for employees supporting communications infrastructure; and 2.9 for mortgage REIT management employees.

[11] See Baker, Nagel and Wurgler, "The Effect of Dividends on Consumption," *Brookings Papers of Economic Activity*, 2007, p. 1.

[12] A gross-up factor of 0.57, comparing public REIT dividends with total REIT dividends, was calculated using SNL Financial and IRS "line count" data from Form 1120-REIT filings from 2010 to 2012. This factor was then applied to SNL Financial data indicating $46.4 billion of dividends paid by public REITs in 2014. The result is the estimate of $81.6 billion of dividends paid by all REITs in 2014.

[13] The 14% figure was calculated as the average percent of foreign-owned shares weighted by assets for 43 SEC-registered REITs in 2011. This data was obtained from SNL Financial.

[14] Public REIT interest paid as a percentage of total REIT interest paid is assumed to be equal to public REIT dividends paid as a percentage of total REIT dividends paid. In 2014, it is estimated that public REIT dividends paid was equal to 57% of total REIT dividends paid. Separately, SNL Financial data indicate that public REITs paid interest of $24.5 billion in 2014. By grossing up this amount by the 55% ratio, it is estimated that REITs paid interest totaling $44.2 billion in 2014.

[15] Data on public REIT transactions available from SNL Financial indicate that public listed REIT transactions were valued at nearly $40.1 billion in 2014. These transactions include spending on the construction of new buildings as well as purchases of existing buildings. An analysis of the top 35 transactions representing 23% of total value suggests that approximately 22% of such spending was for the construction of new buildings. This analysis assumed that "new construction" includes buildings whose recorded construction date was in 2012, 2013, or 2014. In this way, REIT's construction

expenditures and purchases of newly constructed buildings whose construction was initially funded by a different entity are both considered. The analysis yielded an estimate of new building construction spending totaling $8.8 billion. This amount was then grossed-up using 1) a gross-up factor, 0.915, comparing public listed REITs with all public REITs (calculated from 4th-quarter 2014 asset data for REITs in the FTSE/NAREIT All REIT Index) and 2) the equity REIT gross-up factor of 0.79. The result was the estimate of total REIT spending on new building construction of $12.2 billion in 2014. Mortgage REITs are generally not involved in building construction.

[16] The estimate of REIT spending on the maintenance and upkeep of existing properties is based on a November 2015 study by the MIT Center for Real Estate, "Commercial Buildings Capital Consumption in the United States" ("MIT Study"). This study estimated the level of routine capital expenditures needed "on an on-going basis for property maintenance, upkeep, and leasing." In particular, the study estimated that such spending, on an annual basis, is equivalent to 3.47% of the value of commercial buildings and 3.36% of multifamily residential buildings. See the Executive Summary of the study.

These capital expenditure rates were applied to the 2014 year-end estimated market value of existing commercial and multifamily residential structures for public listed equity REITs in the FTSE/NAREIT All REIT Index. The total estimated market value of existing properties is divided between commercial and multifamily properties using the using the proportions of SNL Financial data on the gross depreciable property of public REITs and land values are netted out assuming that land comprises 32% of commercial property value and 18% of residential property value, per the MIT Study. Using these assumptions, the value of existing commercial and multifamily residential structures are estimated at $784 billion and $130 billion, respectively. Applying the estimates from the MIT Study yields an estimate of $31.6 billion of routine maintenance and upkeep spending by public REITs. This is then grossed-up to all public equity REITs using the proportion of assets for public listed equity REITs in the FTSE/NAREIT All REIT Index to all public equity REIT assets as of year-end 2014 (0.915) and grossed up to account for private REITs using the equity REIT gross-up factor of 0.79 to estimate the value of such spending by all REITs at $43.6 billion.