

Valuation Insights

In this edition of Valuation Insights, we discuss highlights from the 2016 U.S. and European Goodwill Impairment Studies. The U.S. study, done in partnership with the Financial Executives Research Foundation, analyzed goodwill impairment trends for over 8,500 U.S. publicly traded companies. The European study analyzed companies in the STOXX® Europe 600 Index, which included companies in 18 countries.

In our Technical Notes section, we discuss a key focus of the new administration: retention incentives designed to keep jobs in the United States. The article discusses the different types of retention incentives that are available and the steps firms can take to go about securing them.

In our International in Focus article, we discuss highlights from the Duff & Phelps Transaction Trail report, a biannual report that analyzes transaction and capital markets activities in Singapore, Malaysia and Indonesia.

Finally, our Spotlight article discusses the use of the Duff & Phelps *Valuation Handbooks* in the merger dispute case of *Dunmire v. Farmers & Merchants Bancorp of W. Pa.*

In every issue of Valuation Insights, you will find industry market multiples that are useful for benchmark valuation purposes. We hope that you will find this and future issues of this newsletter informative and reliable.

Read this issue to find out more.



Industry Market Multiples Always Online

Valuation Insights Industry Market Multiples are now available online with data back to 2010. Visit www.duffandphelps.com/multiples to analyze market multiple trends over time across industries and geographies.

First Quarter 2017

Inside

- 2 Lead Story**
Goodwill Impairment Trends Up in the U.S. and Europe
- 3 Technical Notes**
Retention Incentives Are Moving to the Mainstream
- 4 International In Focus:**
Duff & Phelps Publishes Transaction Trail Report on M&A and Capital Markets Activity in Southeast Asia
- 5 Spotlight**
Delaware Court of Chancery cites Duff & Phelps Valuation Handbooks
- 6 North American Industry Market Multiples**
- 7 European Industry Market Multiples**
- 8 About Duff & Phelps**

Lead Story:

Goodwill Impairment Trends Up in the U.S. and Europe

The **2016 U.S. Goodwill Impairment Study** (the “2016 U.S. Study”), prepared in partnership with the Financial Executives Research Foundation, analyzed the general and industry trends of goodwill impairment for over 8,500 U.S. publicly traded companies for calendar year 2015.

Goodwill impairments (GWI) by U.S. companies in 2015 more than doubled compared to the prior year, rising to \$57 billion in 2015 from \$26 billion in 2014. This comes against the backdrop of 2015 being an extremely robust year for M&A activity, with a massive \$458 billion of goodwill added to balance sheets, a record high since we began tracking this information in 2008.

Industry Highlights

- **Energy** was the hardest-hit industry for 2 consecutive years. The amount of GWI more than tripled from 2014 to 2015 (increasing from \$5.8 billion to \$18.2 billion), driven by a significant drop in oil prices. Five of the top 10 largest impairment events were in Energy.
- **Information Technology** also was particularly impacted in 2015, with aggregate GWI more than tripling from 2014 (up to \$12.9 billion from \$3.6 billion).
- **Industrials and Consumer Discretionary** GWI also doubled in 2015 (\$7.7 billion and \$7.6 billion, respectively) compared to the 2014 levels (\$3.5 billion and \$2.8 billion, respectively).

Survey of FEI Members

The 2016 U.S. Study also includes the results of the annual GWI survey (the “2016 Survey”) of Financial Executives International (FEI) members. Notably, Step 0 continues to gain popularity among companies. The 2016 Survey demonstrates record use of the Step 0 test since the option first became available: 59% of public company respondents report that they use Step 0 when performing GWI analyses, which is up from 54% in the 2015 survey and 29% in the 2013 survey. A similar trend was noted with private companies: 50% of private company respondents currently apply Step 0, compared to 40% in 2015 and 22% in 2013. Separately, the 2016 Survey revealed that over 80% of respondents are in favor of FASB’s elimination of Step 2 of the current GWI test.

The **2016 European Goodwill Impairment Study** (the “2016 European Study”) continues to examine general GWI trends across industries and countries in the European market. The 2016 European Study is focused on companies in the STOXX® Europe 600 Index, which comprises large, midsize and small capitalization companies across 18 countries in the European region.

European companies in the STOXX® Europe 600 Index recognized a total of €37.1 billion of GWI in calendar year 2015, an increase of approximately 26% from €29.4 billion in 2014.

Industry Highlights

Financials returned to first place in 2015 (also topping the list in 2013), with the highest aggregate GWI at €14.3 billion. Contributing to impairments were the effect of the European Central Bank’s quantitative easing policies, conducive to an environment of ultra-low or even negative interest rates that hurt margins, and an adverse regulatory and litigation environment. Should Financials be excluded from the aggregate GWI amounts in both 2014 and 2015, total impairment would stay flat at €23 billion.

Utilities followed with an aggregate GWI amount of €9.0 billion, a fourfold increase from the 2014 level of €2.1 billion, partly driven by a low oil and gas price environment.

Country Highlights

- **Germany** recorded the highest aggregate amount of GWI in 2015 at €11.6 billion, with 90% occurring in the top two events. This represents an eightfold increase relative to 2014 level of €1.4 billion, a historic high. German Utilities suffered from a shift toward renewable energy and a more decentralized production, while the Financials were impacted by tightened regulation and low interest rates.
- The **United Kingdom** had the second-highest aggregate GWI amount (€7.7 billion) yet saw a significant decrease (of €4.7 billion, or 38%) from 2014, the lowest amount in the last 5 years. Approximately 83% of UK Energy companies recorded GWI. Notably, following Brexit, all industries are expected to be under increased pressure as goodwill calculations should reflect the resulting uncertain business environment.
- **France** recorded the third-highest aggregate GWI amount in 2015 at €6 billion, a significant increase compared to 2014. Financials and Utilities were most affected by impairments. A high degree of GWI concentration was observed as three companies accounted for 76% of the total GWI. Impairments by French Utilities were mainly attributable to the collapse in oil and gas prices, while the largest impairment event in Financials was tied to increased regulatory capital requirements.
- **Spain** recorded aggregate GWI of €1.5 billion in 2015, significantly higher than the amounts in each of the previous 3 years. A large degree of concentration was present as three companies accounted for nearly 80% of the total 2015 GWI amount. Also, 81% of the aggregate GWI occurred in the Financial and Industrial sectors, the latter being impacted by an adverse regulatory environment for a number of Spanish motorway concessions.

To learn more and read the Duff & Phelps goodwill impairment studies visit www.duffandphelps.com/GWIstudies.

Technical Notes:

Retention Incentives Are Moving to the Mainstream

Soon after the U.S. national election concluded, the new administration and United Technologies announced a deal to retain Carrier Corporation's furnace manufacturing facility in Indiana. In exchange for \$7 million of economic development incentives – and, according to some commentators, "additional considerations" – Carrier rescinded its earlier decision to leave the United States and instead decided to retain 1,069 jobs at its Indiana plant. The incentives are reported to include \$5 million of Economic Development for a Growing Economy Tax Credit refundable income tax credits, \$1 million of training grant reimbursements and \$1 million of other incentives related to Carrier's investment of \$16 million.¹

Typically, states have used economic development incentives to attract new facilities. For example, in a recent announcement, Amazon indicated that the company will build a new 1 million square foot distribution center in suburban Detroit, creating 1,000 jobs and investing \$90 million. In exchange, the State of Michigan will provide the company with a \$7.5 million cash grant from the Michigan Strategic Fund.²

As the recent deal with Carrier indicates, incentives used to retain jobs may become just as important as incentives used to create jobs. According to our recent, informal survey of state incentives, at least 35 states offer some type of retention incentives. While the types of incentives vary, the most common retention incentive is training, especially incumbent worker training.³ States justify these programs on the grounds that enhancing the skills of existing workers improves their productivity and increases the competitiveness of the facility.

The next most common retention incentive derives from federal funds and is known as Community Development Block Grants (CDBG), which are awarded annually by the U.S. Department of Housing and Urban Development. These funds are in turn devolved to eligible local communities (ironically called "non-entitlement" communities), which are largely rural areas with populations of less than 50,000 people.⁴ Eligible local communities may use the CDBG funds to construct public infrastructure improvements (e.g., roads, water, sewer) and conduct training that is required to support a number of national objectives, one of which is the retention of low-to-moderate-income individuals.⁵

Some states have their own grant funds that may support job retention. For example, in Georgia, the One GA Authority may use grants to support job retention in rural areas of the state.⁶ Projects that can demonstrate that their benefits exceed the public costs will receive public funding.

In addition to states, local communities may tap retention incentives. Local communities in Pennsylvania may use Tax Increment Finance (TIF) to encourage new capital investment and preserve jobs.⁷ While 48 of the 50 states have enacted TIF incentives, the Keystone state has one of the most expansive TIF statutes in the country. The Commonwealth permits its local communities to use TIF revenues to float bonds and use proceeds to front-load funds for a project, to pay for on- and off-site infrastructure that enables new investment, and to purchase land and construct facilities.

To improve your prospects of obtaining an economic development incentive, there are a few best practices to be aware of before approaching states or local communities.

- First, perform an Economic Impact Study (EIS). As required by the One GA Authority cited previously, a well-constructed and thoughtful study will quantify the importance of a facility to the community. Moreover, a thorough EIS will provide support to political leaders who want to back the project.
- Second, as noted in the CDBG discussion above, look for retention incentives that are targeted to the company's geographic region.
- Third, start early. The process to obtain incentives, as evidenced by the Carrier deal, can take many turns and require at least six months to work through the required administrative channels.
- Finally, if your state or local community does not have an incentive that neatly fits your factual circumstances, consider reaching out to your legislative bodies or executive agencies to amend existing policies or statutes.

To learn more about how we can help you to secure retention and other related incentives, contact Greg Burkart, Managing Director, Site Selection & Business Incentives Advisory practice leader, at + 1 248 675 6959.

¹ Gerry Dick, "More Details on Carrier Deal, Indiana's Offer", Inside INdiana Business (12/1/16).

² Matthew Dolan, "Amazon to Hire 1,000 for New Livonia Distribution Center", Detroit Free Press (12/20/16).

³ Florida's Incumbent Worker Training Grant Guidelines for 2016-2017 may be found at https://careersourceflorida.com/wp-content/uploads/2016/07/2016-2017_IWTPProgramGuidelines.pdf.

⁴ For general provisions, please see 24 CFR Part 570. For definition of "retained jobs", please see Part 570.208(a)(4)(ii), "Criteria for National Objectives".

⁵ 24 CFR Part 570.201 and 203.

⁶ GA Regulation 413-2.01, et seq.

⁷ 53 P.S. Section 6930.1, et seq. Please see section 6930.3 for definition of eligible "Project Costs" which includes capital, financing, real property assembly, professional, administrative, relocation and organizational costs. Interesting the statute also permits "reimbursement of prior expenditures made for any of these eligible project costs."

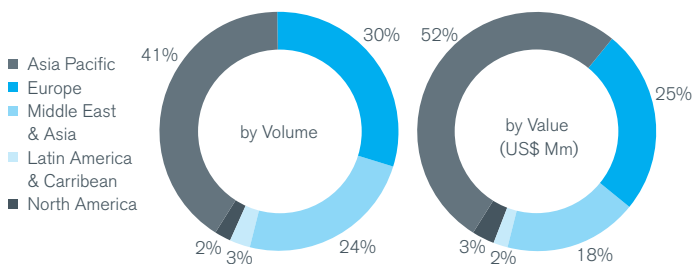
International in Focus: Duff & Phelps Publishes Transaction Trail Report on M&A and Capital Markets Activity in Southeast Asia

Singapore witnesses sustained deal activity with 800 Deals in 2016 Worth US\$88 billion

The Transaction Trail report is a biannual report that takes an in-depth look at transaction and capital markets activities in Singapore, Malaysia and Indonesia (the “region”), including mergers and acquisitions (M&A), private equity (PE)/venture capital (VC) investments and initial public offerings (IPOs).

In 2016, the region had aggregate total deal activity valued at US\$111.8 billion spread across 1,308 deals. Globally, more than 35,000 deals valued at over US\$3 trillion were registered in the same period. As highlighted by Srividya Gopalakrishnan, Managing Director of Duff & Phelps' Singapore office, “Asia has emerged as a strong player in the M&A arena, overtaking Europe, driven by large outbound acquisitions by China, Singapore and other Asian countries in their ambition to increase their global footprint.” Key findings from the report are summarized below.

Region Breakouts



Singapore Remains at the Helm of Deal-Making in the Region

Singapore recorded a total of 800 deals (M&A, PE/VC and IPOs) worth US\$88 billion for 2016, which compares with 685 deals (M&A, PE/VC and IPOs) worth US\$103.8 billion for 2015. M&A comprised the bulk of the deal volume in Singapore, registering 684 deals valued at US\$82.7 billion in 2016 compared to US\$101.2 billion in 2015.

The continued momentum in deal volume was mainly attributable to sizeable M&A transactions by the Sovereign Wealth Funds (SWF), GIC and Temasek Holdings in consortium as well as stand-alone investments, complemented by other notable deals such as CMA CGM's acquisition of Neptune Orient Lines, Singapore Telecom's stake acquisition in Intouch Holdings and Qatar Investment Authority's acquisition of Asia Square Tower 1.

Outbound Deals Continue to Drive Singapore's M&A Deal Value

While Singapore M&A deal volumes grew 16% in 2016, deal values declined by 18% compared to the same period a year ago. In 2016, there were 485 cross-border M&A deals in Singapore registering US\$69.7 billion. The bulk of deal values came from 318 outbound deals (Singapore-based companies or SWFs acquiring overseas companies) worth US\$57 billion, contributing to over 81.9% of the total deal value in 2016 for total cross-border deals. Domestic deals contributed to 15.8% of total M&A deal value, with 199 deals valued at US\$13.0 billion.

The largest contributor to M&A deal values in Singapore was the Real Estate sector, which comprised close to 30% of deal values. This sector has overtaken last year's leader, the Technology sector, which has moved to third place in 2016. Industrials contributed approximately 19% to the deal values. Based on M&A deal values, the top 3 sectors (Real Estate, Industrials and Technology) accounted for 65% of total deal values.

Highest Transacted Value of PE/VC Deals in Singapore in 2016, Since 2012

PE/VC investments in Singapore companies for 2016 have continued their upward trend to US\$3.5 billion compared to US\$2.2 billion, US\$2.4 billion and US\$0.9 billion for 2015, 2014 and 2013, respectively. Some of the notable PE/VC investments in 2016 were SoftBank Group's investment in GrabTaxi, valued at US\$750.0 million; investment in BOC Aviation Pte Ltd by China Investment Corporation and other investors, valued at US\$572.0 million; GIC, Bain Capital and Advent International's US\$350.0 million investment into Quest Global Engineering Pvt Ltd; and Baring Private Equity's US\$320.1 million privatization of Interplex Holdings Ltd. Most of the notable deals were minority stake investments, unlike in the last few years, which saw more buyouts.

Significant Pick-Up in the Singapore IPO Market

The Singapore IPO market has seen improvement in activity in 2016 compared to 2015, with a total of 16 IPOs constituting US\$1.9 billion raised on the Singapore Exchange, compared with 13 IPOs in 2015 raising US\$450.7 million. However, this is lower than the capital raised in previous years. The largest contributor to Singapore Exchange listings was Frasers Logistics & Industrial Trust, which raised approximately US\$664 million.

Bounce Back in Deal Activity in Malaysia and Indonesia

Malaysia and Indonesia recorded 413 and 178 deals (M&A, PE/VC and IPOs) worth US\$15.6 billion and US\$10.8 billion, respectively, for 2016. This compares to 360 and 143 deals worth US\$9.7 billion and US\$2.8 billion for Malaysia and Indonesia, respectively, for 2015.

Robust Pipeline

Looking ahead, there are over 50 deals in the pipeline in the region with potential deal value of over US\$16 billion, based on information disclosed. The pipeline and possible deals include the proposed acquisition of InterOil Corp by Exxon Mobil Corp (potential deal value of US\$2.5 billion), the proposed acquisition of Super Group Ltd by Jacobs Douwe Egberts B.V. (potential deal value of US\$1.0 billion), as well as the proposed acquisition of ARA Asset Management (potential deal value of US\$688 million).

To learn more about this report, contact Srividya Gopalakrishnan, Managing Director, at +65 6589 9190.

Spotlight: Delaware Court of Chancery cites Duff & Phelps Valuation Handbooks

The Delaware Court of Chancery recently declined to accept the deal price in a merger dispute as evidence of fair value, relying instead on the value resulting from a discounted net income analysis, a method both sides' experts used, with varying emphasis.

The dispute arose out of the 2014 merger of Farmers & Merchants Bancorp of Western Pennsylvania (F&M), a small community bank, with NexTier. The Court found that F&M pursued the merger at the request of the Snyder family, which "stood on both sides of the transaction" because it controlled both F&M and NexTier. There was no auction, and even though there was a special committee, "the record does not inspire confidence that the negotiations were truly arms-length." The chairman of the F&M board who appeared to serve as chairman of the special committee "appeared to be working toward a price that would meet the Snyders' objective to recoup their original investment in NexTier." As such, the Court gave no weight to the merger price.

Court rejects transaction analysis: The petitioners' expert based his conclusion solely on a comparable transactions analysis. The Court rejected the comparable analysis because the expert failed to account for any synergistic value captured in the eight comparable transactions. "The Court's task in a Section 262 appraisal action is to determine the

going concern value of the enterprise as of the merger date exclusive of any element of value – such as the value of achieving expected synergies – from accomplishment of the merger."

In terms of the discounted net income analyses, the Court validated the analysis the respondent's expert performed by adopting all of the expert's inputs (projected net income, risk-free rate, equity risk premium, size premium, growth rate, excess capital) for its own valuation, excepting the beta variable. "In the following analysis, I [the Judge] evaluate each of these variables in turn with an eye to utilizing data in the Duff & Phelps 2014 Valuation Handbooks where possible to maintain consistency in the analysis," citing the 2014 Valuation Handbook – Guide to Cost of Capital and the 2014 Valuation Handbook – Industry Cost of Capital.

The Court cited data contained in the 2014 Valuation Handbook – Industry Cost of Capital in arriving at its own concluded beta. The Court found that overall, the respondent's expert's analysis better satisfied the demand for consistency and, as such, was more reliable.

Dunmire v. Farmers & Merchants Bancorp of W. Pa., 2016 Del. Ch. LEXIS 167 (Nov. 10, 2016).

PRE-RELEASE ORDER NOW – RESERVE YOUR COPY

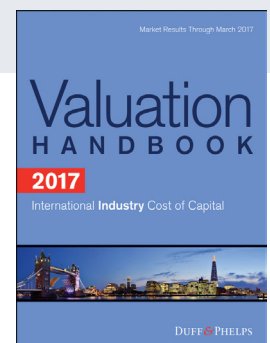
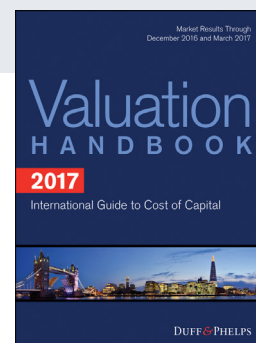
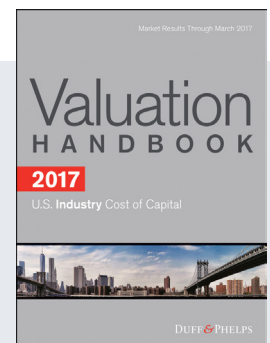
2017 Valuation Handbook

U.S. Guide to Cost of Capital

You can now place a pre-release order for the Duff & Phelps 2017 Valuation Handbook – U.S. Guide to Cost of Capital (John Wiley & Sons, Inc.). This invaluable handbook and its online companion application, the Risk Premium Toolkit, provide U.S.-based valuation data to help finance professionals value equity securities and assess the feasibility of merger and acquisition transactions and other strategic investments.

Starting with the 2017 editions, the names of the four books have been changed to Valuation Handbook – U.S. Guide to Cost of Capital, Valuation Handbook – U.S. Industry Cost of Capital, Valuation Handbook – International Guide to Cost of Capital, and Valuation Handbook – International Industry Cost of Capital.

Learn more at www.duffandphelps.com/costofcapital



DUFF & PHELPS

Valuation and Corporate Finance Advisors

North American Industry Market Multiples

As of December 31, 2016



Industry Market Multiples are now available online!
Visit www.duffandphelps.com/multiples

Industry	Market Value of Equity to Net Income		MVIC to EBIT		MVIC to EBITDA	
	U.S.	Canada	U.S.	Canada	U.S.	Canada
Energy	16.5	24.9	20.6	26.6	15.0	15.8
Energy Equipment & Services	16.1	21.4	17.9	21.0	14.6	13.8
Integrated Oil & Gas	—	—	—	—	19.9	—
Materials	19.9	16.0	16.1	17.2	10.3	10.0
Chemicals	21.1	—	16.5	17.5	11.0	13.0
Diversified Chemicals	17.6	—	15.0	—	11.3	—
Specialty Chemicals	23.3	—	16.4	—	11.8	—
Construction Materials	26.1	—	20.2	—	11.2	7.7
Metals & Mining	12.7	15.9	16.2	24.6	10.2	10.4
Paper & Forest Products	17.9	11.5	14.4	12.3	8.6	7.5
Industrials	21.8	17.5	16.3	16.7	11.5	11.7
Aerospace & Defense	19.0	16.8	15.9	16.8	12.6	10.8
Industrial Machinery	25.3	21.1	19.2	17.0	13.8	12.6
Commercial Services & Supplies	22.9	9.9	16.0	19.8	10.8	8.9
Road & Rail	19.5	18.4	15.4	15.7	8.1	11.7
Railroads	19.6	—	14.0	—	10.7	—
Consumer Discretionary	18.5	17.3	14.8	14.8	10.5	11.2
Auto Parts & Equipment	15.9	8.1	11.3	7.6	7.9	5.3
Automobile Manufacturers	—	—	—	—	12.0	—
Household Durables	13.1	—	13.4	—	11.5	—
Leisure Equipment & Products	17.8	—	12.7	—	9.6	—
Textiles, Apparel & Luxury Goods	17.5	—	13.8	—	11.4	—
Restaurants	26.9	19.9	18.0	14.7	10.8	18.8
Broadcasting	15.9	—	13.3	22.2	10.0	11.7
Cable & Satellite	26.3	—	20.5	13.9	13.9	8.0
Publishing	32.9	—	14.8	—	10.6	—
Multiline Retail	16.4	—	11.5	—	10.0	—

Industry	Market Value of Equity to Net Income		MVIC to EBIT		MVIC to EBITDA	
	U.S.	Canada	U.S.	Canada	U.S.	Canada
Consumer Staples	21.2	23.3	15.9	16.2	12.6	11.4
Beverages	25.9	—	20.2	19.6	16.9	12.6
Food Products	20.6	24.9	15.9	15.0	13.4	10.9
Household Products	21.4	—	16.1	—	12.6	—
Health Care	25.9	28.3	18.9	21.5	14.3	14.5
Health Care Equipment	33.7	—	22.8	—	17.4	—
Health Care Services	23.9	—	15.6	—	10.7	—
Biotechnology	27.7	30.7	21.0	—	23.2	19.1
Pharmaceuticals	29.0	25.6	16.6	20.4	14.0	27.7
Information Technology	26.4	24.1	21.9	22.9	16.8	17.0
Internet Software & Services	22.8	29.0	25.7	20.7	20.1	13.8
IT Services	25.9	26.4	18.5	25.8	13.9	14.2
Software	32.1	24.8	27.5	39.7	21.4	20.4
Technology Hardware & Equipment	23.7	17.8	18.4	13.9	13.4	13.3
Communications Equipment	24.8	27.9	19.1	15.1	15.9	14.1
Computers & Peripherals	18.7	—	13.6	—	11.0	—
Semiconductors	30.9	—	38.0	—	21.7	—
Telecommunication Services	21.4	—	20.8	—	9.3	9.2
Integrated Telecommunication Services	16.5	—	17.1	—	6.9	—
Wireless Telecommunication Services	50.4	—	27.2	—	9.7	—
Utilities	22.8	20.2	18.6	25.0	11.6	13.1
Electric Utilities	22.7	—	17.7	—	10.8	—
Gas Utilities	23.2	—	17.7	—	11.5	—

Industry	Market Value of Equity to Net Income		Market Value of Equity to Book Value	
	U.S.	Canada	U.S.	Canada
Financials	18.2	12.8	1.3	1.4
Commercial Banks	18.7	12.9	1.3	1.7
Investment Banking and Brokerage	18.4	—	1.6	—
Insurance	15.9	13.7	1.3	1.4

An industry must have a minimum of 5 company participants to be calculated. For all reported multiples in the U.S. and Canada, the average number of companies in the calculation sample was 80 (U.S.), and 25 (Canada); the median number of companies in the calculation sample was 41 (U.S.), and 11 (Canada). Sample set includes publicly-traded companies (private companies are not included). Source: Data derived from Standard & Poor's Capital IQ databases. Reported multiples are median ratios (excluding negatives). MVIC = Market Value of Invested Capital = Market Value of Equity plus Book Value of Debt. EBIT = Earnings Before Interest and Taxes for latest 12 months. EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization for latest 12 months.

European Industry Market Multiples

As of December 31, 2016



Industry Market Multiples are now available online!
Visit www.duffandphelps.com/multiples

Industry	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
	Europe	Europe	Europe
Energy	10.9	16.1	9.2
Energy Equipment & Services	12.1	16.2	9.9
Integrated Oil & Gas	30.9	22.5	11.2
Materials	16.6	15.0	9.3
Chemicals	19.9	15.6	9.7
Diversified Chemicals	21.4	15.1	8.6
Specialty Chemicals	20.9	16.1	12.3
Construction Materials	16.8	16.4	9.4
Metals & Mining	14.6	16.5	9.3
Paper & Forest Products	13.4	13.7	8.3
Industrials	17.5	15.7	10.8
Aerospace & Defense	20.8	20.6	12.6
Industrial Machinery	19.6	16.4	11.6
Commercial Services & Supplies	19.0	15.8	10.2
Road & Rail	12.9	13.9	7.6
Railroads	12.8	19.1	8.0
Consumer Discretionary	16.4	14.8	10.5
Auto Parts & Equipment	14.3	12.5	7.5
Automobile Manufacturers	7.8	14.8	11.2
Household Durables	14.0	12.8	9.8
Leisure Equipment & Products	18.2	15.9	10.8
Textiles, Apparel & Luxury Goods	18.7	15.4	11.3
Restaurants	18.3	14.9	11.2
Broadcasting	17.9	15.0	11.1
Cable & Satellite	31.0	24.0	11.7
Publishing	13.1	15.1	10.1
Multiline Retail	20.7	13.0	11.7
Consumer Staples	18.3	16.4	11.4
Beverages	21.4	16.6	11.4
Food Products	17.1	15.3	10.4
Household Products	17.8	13.8	10.5

Industry	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
	Europe	Europe	Europe
Health Care	24.5	21.5	15.9
Health Care Equipment	27.2	21.5	16.2
Health Care Services	13.6	15.3	11.6
Biotechnology	38.6	30.5	25.9
Pharmaceuticals	22.8	19.1	14.9
Information Technology	21.9	17.7	13.4
Internet Software & Services	25.4	22.4	20.0
IT Services	18.5	13.7	11.5
Software	27.6	21.6	17.9
Technology Hardware & Equipment	20.7	16.5	11.4
Communications Equipment	15.9	16.8	11.2
Computers & Peripherals	18.7	15.3	11.9
Semiconductors	21.8	24.7	14.4
Telecommunication Services	18.7	16.9	9.6
Integrated Telecommunication Services	18.1	16.8	8.3
Wireless Telecommunication Services	—	17.3	10.1
Utilities	14.3	18.1	9.7
Electric Utilities	14.2	16.0	9.1
Gas Utilities	12.6	12.7	8.7

Industry	Market Value of Equity to Net Income	Market Value of Equity to Book Value
	Europe	Europe
Financials	12.3	1.0
Commercial Banks	9.9	0.7
Investment Banking and Brokerage	19.5	1.6
Insurance	12.1	1.1

An industry must have a minimum of five company participants to be calculated. For all reported multiples in Europe, the average number of companies in the calculation sample was 89 and the median number of companies in the calculation sample was 37. Sample set includes publicly-traded companies (private companies are not included). Source: Data derived from Standard & Poor's Capital IQ databases. Reported multiples are median ratios (excluding negatives). MVIC = Market Value of Invested Capital = Market Value of Equity plus Book Value of Debt. EBIT = Earnings Before Interest and Taxes for latest 12 months. EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization for latest 12 months.

For more information about our global locations and expertise, or to subscribe to Valuation Insights, visit:

www.duffandphelps.com/subscribe

About Duff & Phelps

Duff & Phelps is the premier global valuation and corporate finance advisor with expertise in complex valuation, dispute and legal management consulting, M&A, real estate, restructuring, and compliance and regulatory consulting. The firm's more than 2,000 employees serve a diverse range of clients from offices around the world.

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory and capital raising services in the United Kingdom and across Europe are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. In Germany M&A advisory and capital raising services are also provided by Duff & Phelps GmbH, which is a Tied Agent of DPSL. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.

Valuation Insights Contributors

Greg Burkart
Srividya Gopalakrishnan
Roger Grabowski
Carla Nunes
Gary Roland
Sherri Saltzman
Marianna Todorova
Jamie Warner

