DUFF & PHELPS

Third Quarter 2015

Valuation Insights

In this edition of Valuation Insights we discuss key observations from the *2015 Global Enforcement Review*, a study conducted by Duff & Phelps' Kinetic Partners division. The study examined regulatory enforcement trends in the U.S., Europe and Asia impacting the financial services sector.

In our Technical Notes section we discuss highlights from the 2015 Fairness and Solvency Opinions Report, which includes a review of several transaction structures that have become more prevalent in today's market environment.

In our International in Focus article we discuss the current financial crisis in Greece and its impact on cost of capital. Finally, our Spotlight article discusses available resources to help companies address changing transfer pricing guidelines pursuant to the OECD's Base Erosion and Profit Shifting Plan initiatives.

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

Read this issue to find out more.



Now Available:

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.

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Cover Story: A 'New Normal' for Financial Services Regulators

The severity of sanctions imposed by the world's leading financial services regulators for securities law violations has increased significantly over the past several years. Enforcement agencies globally have continued to crack down on both firms and individuals in the shadow of the 2008 financial crisis. Records have been set around the world for fines, and these have made clear that egregious breaches will be penalized to the severest degree possible. Regulators have been pushing for the banking and asset management industry to fulfill obligations in areas such as market integrity and consumer protection, while working to deter professional improprieties.

Analysis in the 2015 Global Enforcement Review¹ revealed that the average fine issued by the Securities and Exchange Commission (SEC) in 2014 was up by 10% to \$5.5 million per penalty, with a record number of enforcements during the year – 755. The Commodity Future Trading Commission (CFTC) in the U.S. saw fines more than double from 2013, at \$48.8 million per action. Similarly, the average value of each fine issued by the UK's Financial Conduct Authority (FCA) in 2014 was \$36.8 million, an increase of over three-and-a-half times on last year.

Heavier penalties for breaches

The average penalty values only tell part of the story. Massive fines relating to FX manipulation accounted for several billion dollars of penalties across four international regulators, including over \$1.4 billion at the CFTC in 2014 and £1.1 billion at the FCA. Libor and benchmark rigging was another area for record-breaking penalties, with six major global banks agreeing to pay in excess of \$5 billion to the U.S. Department of Justice for their infractions. The Financial Industry Regulatory Authority (FINRA), also saw the number of "supersized" fines, or those larger than \$1 million, double from 2013 to 2014. It would appear that a "new normal" is emerging in global regulatory enforcement, with regulators focusing on complex, high-profile cases and issuing tremendous fines for impropriety.

A noticeable overlap in focus areas was also apparent in the actions that the major authorities pursued, particularly around market abuse and customer protection. At the SEC, the number of insider trading cases rose 18% in 2013/14 on the previous year, while market manipulation accounted for another 63%. In Hong Kong, market manipulation and insider dealing were the second and third most cited breaches. The FCA also focused on similar topics, with violations relating to market integrity cases accounting for 84% of the sum of fines the regulator issued in 2014. A similar story was found at the CFTC, where market manipulation cases trailed only supervision/ compliance cases as the most common cause of actions.

A further observation is who the regulators are targeting. Although the fines against individuals in the UK seemed to have declined from 2013 to 2014, the focus on individual bad actors is still a priority globally. For example, in January of 2015 the FCA oversaw the first individual fines in relation to the Libor rate-rigging offences. Of those fines issued by the SEC in 2013/14, 499 individuals were penalized, compared to 306 financial institutions. The Securities and Futures Commission of Hong Kong (SFC) pressed criminal charges against the highest number of individuals since 2010. Actions against individuals are likely to become more common and are an undeniably powerful deterrent, as they cannot be written off as a business cost in the same way that financial penalties on firms can be.

The global challenge in managing compliance risk

Regulators have created scope for significant cross-border cooperation that has seen some high-profile success in the past year. This has included the pursuit of multi-national wrongdoers in Libor cases, as well as a record fine against Deutsche Bank for FX rigging. Over the course of fiscal year 2013/14, hundreds of formal requests for assistance were sent between the FCA, SEC and SFC.

There is still work to be done, however, with gaps in continuity still limiting the global harmonization of regulatory agendas, representing a significant cost burden on firms with multinational compliance obligations. Moreover, there is an ongoing challenge for firms to manage both global and local regulatory requirements across jurisdictions.

A tale of two pillars

Regulators have found an approach they believe to be sustainable, which is largely based on two pillars: technology and heavy penalties. The first – together with international cooperation to share information – enables regulators to more efficiently detect market abuse and other misconduct. The latter, coupled with the increased targeting of individuals, enables them to maintain a credible deterrence. Together with technological innovation, high fines and the prospect of individual action seem to be a highly effective way to discourage market abuse and promote integrity.

Time to invest

Enforcement is no longer something that can be considered "a cost of doing business" and firms' investment priorities must increasingly reflect this. Compliance, technology and people are fundamental to mitigating regulatory risk, and must form the cornerstone of investment strategy.

As technology develops and resources become more limited, the reliance on the industry to police itself is only likely to grow. It is vital that firms recognize their degree of vulnerability as it relates to enforcement risk and take steps to proactively manage their regulatory burdens beyond mere compliance.

For more information contact **Richard Crannis**, Managing Director, at +44 207862 0858.

1. 2015 Global Enforcement Review is an annual study performed by Duff & Phelps' Kinetic Partners division. Visit www.kinetic-partners.com to download a copy of the report.

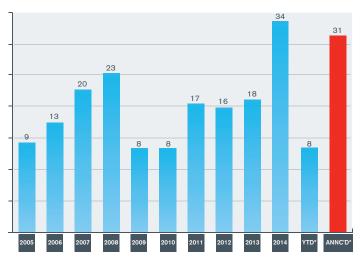
Technical Notes: Most Prevalent Transaction Structures in 2015

This month, Duff & Phelps published its 2015 Fairness and Solvency Opinions Report, covering six recurring transaction structures often pursued by our clients. Why are certain transaction types prevalent? We believe the seeds were planted when the financial crisis unleashed massive deflationary forces across the globe. The relentless efforts of the Fed (and other central banks) to stimulate growth with unprecedented monetary easing have driven interest rates to historic lows. These two macro trends – stagnant growth and low interest rates – are contributing factors to several transactions we discuss in the report.

Many companies all over the world have found growth to be very difficult post the financial crisis. Companies have resorted to other ways of increasing shareholder value, including spin-off transactions and special dividends. These transactions involve specific considerations for boards of directors, and opinions of experts provide a safe harbor for boards deliberating these issues.

Very low interest rates have driven higher debt levels. While higheryielding, second lien loans have partially quenched investors' thirst for yield, an additional response to heavy demand for yield is the proliferation of yield-based investment vehicles: Master Limited Partnerships, YieldCos and REITS. The formation and growth (via acquisition of assets) of these specialized investment vehicles typically involve related parties on either side of the transaction, leading to the creation of special committees and conflicts committees to approve the deal. Committee members turn to independent financial advisors like Duff & Phelps for assistance in assessing the fairness of the transaction.

Number of Closed and Anounced U.S. Spin-Offs



*YTD as of June 19, 2015. Source: CapitalIQ (Major U.S. Exchanges; Market cap greater than \$500 million) Highlights from the 2015 Fairness and Solvency Opinions Report include:

Corporate Spin-Off Transactions: There were 34 U.S. spin-off transactions in 2014, the highest number in 10 years. In 2015, there have already been 31 transactions announced through late June, spurred by a focus on alternatives to drive value and an increase in activist investor activity.

Go-Private Transactions in China: In the past four years, more than 50 Chinese companies formerly listed on U.S. exchanges have been taken private. This trend is expected to continue into 2016, despite volatility in the Chinese markets, given the persistent gap in relative valuations between Chinese companies traded in the U.S. versus on China or Hong Kong exchanges, among other factors. Duff & Phelps has been engaged on over 15 of these transactions.

Dividend Recapitalizations: As debt markets began to recover in 2010, the volume of leveraged loans directly related to dividend recap transactions for private equity owned enterprises rose rapidly, reaching a peak of \$70 billion in 2013. Leverage ratios increased alongside rising company valuations. Based on Duff & Phelps' proprietary deal data, average post-transaction leverage multiples reached a peak of 5.5x for 2014 and have contracted slightly through the first half of 2015.

REIT Rollup Transactions: Investor interest in these transactions has increased substantially in recent years. The three largest REIT IPOs in history – Paramount Group, Douglas Emmett and Empire State Realty Trust – were all formed through REIT roll-up transactions. Although advantageous, these transactions have inherent conflicts of interest that need to be carefully managed. These include the determination of the relative allocation of value post transaction that is fair to all investors, who must consent to the transaction before the final IPO pricing is set.

Master Limited Partnerships (MLP): The MLP structure allows sponsors with stable, cash-producing assets to access capital and investors at a relatively low cost, which has led to a surge in activity in the MLP and YieldCo space. During 2013 and 2014, there were 38 MLP IPOs and six YieldCo IPOs, which raised over \$50 billion when combined with a follow-on offering.

The need for independent financial advice in connection with these new transaction types has never been greater. Conflicted investment bankers with contingent fees, transactions without a market clearing mechanism, and related-party deals elevate scrutiny on boards and committees. Duff & Phelps continues to provide high-quality, independent financial advice on which decision makers can confidently rely.

Please email **Chris Janssen**, Managing Director, at chris.janssen@duffandphelps.com for more information or to receive a copy of the report.

International in Focus: Greek Crisis and its Impact on Cost of Capital

Over the last several months we have watched a Greek melodrama unfold. While the economy of Greece is relatively small (Greece accounts for less than 1.5% of European Union (EU) Gross Domestic Product), the "solution" being implemented points to problems that may resurface with several Eurozone countries, as Greece is not the only highly indebted Eurozone member country.

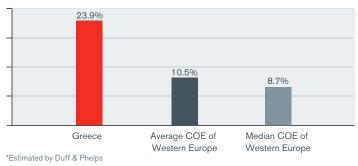
The austerity measures scheduled to be implemented by Greece do not address the constraints the use of the Euro places on managing debt. EU leaders have ruled out face-value reductions, and continue to allow banks to hold member country debt at face value, though most banks and private investors have sold Greek sovereign debt, leaving the European Central Bank (ECB), the International Monetary Fund and other EU countries as the primary holders of Greek debt.

But simply reducing Greek's financing costs accompanied by "austerity" measures will not solve its long-term debt problems. Typical solutions cited for such problems are growing the economy, increasing inflation (counter to the ECB mandate), and restructuring. Greece wanted debt restructuring (write-down) but did not get it (at least not in this round of crisis) as a condition to remain in the Eurozone. But Greece does need significant restructuring of its pension system and overall economy to start growing, if it wants to avoid abandoning the Euro and defaulting. Many consider the current "solution" just another episode of "putting off until tomorrow what needs to be done today".

For companies holding or considering investments in Greece, the ongoing crisis has again increased the risks and resulting cost of capital of such investments.

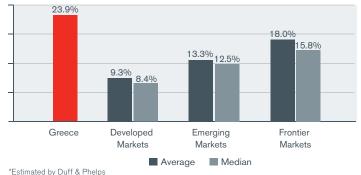
The first chart displays current estimates of the base country-level cost of equity capital (COE) for investments in Greece compared to other western European countries.^{1,2} These COE estimates were developed as of June 30 2015, by applying the Erb-Harvey-Viskanta Country Credit Rating Model (Country Credit Rating Model), and are presented in terms of the perspective of a U.S. based investor. "Investor perspective" (i.e., the country in which the investor is based) is defined here by the currency in which the equity returns used in the Country Credit Rating Model's regression analyses are expressed. The methodology for the Country Credit Rating Model (and other models used to estimate international cost of capital) is explained in the Duff & Phelps *2015 International Valuation Handbook – Guide to Cost of Capital* (John Wiley & Sons).³

Estimated Base Country-Level Cost of Equity Capital for Greece Compared to Other Western European Countries, as of June 30, 2015*



The second chart displays a current estimate of the base country-level cost of equity capital for Greece compared to the base country-level cost of equity capital for investments in developed markets, emerging markets and frontier markets.⁴

Estimated Base Country-Level Cost of Equity Capital for Greece Compared to MSCI Developed Markets, MSCI Emerging Markets, and MSCI Frontier Markets, as of June 30, 2015*



Estimated by Dutt & Pheips

The risks from investing in Greece remain high and investors need to be aware of the magnitude of that relative risk in valuing such investments.

Final Thoughts

What have we learned? While Eurozone countries can force losses on private sector lenders, they cannot do the same for their sovereign members if they are to remain in the Eurozone.

Is there a long-term solution? In a 2011 article (when the EU previously "solved" the Greek debt problem), Professor John Cochrane recommended that "Bailouts are the real threat to the Euro...Europe can have a monetary union without fiscal union...but it needs to be based on two central ideas: sovereigns must be able to default just like companies; and banks, including the ECB, must treat sovereign debt just like company debt." ⁵

For more information contact **Roger Grabowski**, Managing Director, at +1 312 697 4720.

 "Base country-level cost of equity capital" is defined here as the risk of investing in a country's market as a whole (i.e., an assumed beta of 1.0). Individual industries/companies may be riskier or less risky based on their individual risk characteristics.

 Based on MSCI Market Classification Framework. To learn more, please go to: www.msci.com.
John H. Cochrane, "How Bad Ideas Worsen Europe's Debt Meltdown", www.bloomberg.com/ news/print/2011-12-22.

^{2.} The "other" western European countries (excluding Greece) used in this analysis are based on Institutional Investor region definitions. These countries include Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. To learn more, please go to: www.institutionalinvestor.com.

^{3.} The 2015 International Valuation Handbook – Guide to Cost of Capital provides country-level country risk premia (CRPs), Relative Volatility (RV) factors, and equity risk premia (ERPs) which can be used to estimate country-level cost of equity capital globally, for up to 188 countries, from the perspective of investors based in any one of up to 56 countries (depending on data availability). For more information about Duff & Phelps valuation data resources published by John Wiley & Sons, please go to: www.wiley.com/go/ValuationHandbooks.

Spotlight: Transfer Pricing in a Post BEPS World

The OECD's Base Erosion and Profit Shifting (BEPS) project is in its final stages, with final reports expected in October. In addition to other areas, the BEPS project has focused on changing the OECD's transfer pricing guidelines to purportedly enhance the alignment of income recognition and value creating activities, and to reduce the opportunities to recognize income in low tax jurisdictions with minimal economic substance. Our practitioners have been actively involved in reviewing draft guidance, providing commentary to the OECD during the public consultations, and in developing processes and tools to help companies understand how to best address the shifting environment associated with the BEPS initiatives.

Identifying processes and best practices to assist multinational companies in their response to changes in transfer pricing guidance and reporting procedures will undoubtedly be a challenge. In the coming months, the Duff & Phelps Transfer Pricing practice will host local and regional workshops to share our perspectives on how companies can best position themselves for the transfer pricing regulatory environment they will be facing as a result of the BEPS project. If you wish to speak with a transfer pricing practitioner at any time, we welcome the opportunity to share our knowledge and practical approach to these changes.

Upcoming workshop dates:

- Chicago: September 9
- Palo Alto: September 22
- San Francisco: September 23
- Boston: September 29
- New York: October 6
- London: October 2

To learn more or to register for one of these workshops email events@duffandphelps.com

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Three unique tracks to explore:

- Valuation and M&A Key trends and Issues Impacting IP Transactions and Valuations: a Corporate Perspective, How IP Impacts Decisions on Discovering, Buying or Collaborating on New Products and Technologies
- Tax and Transfer Pricing Practical Strategies to prepare for a post-BEPS environment, Best practices in developing projections focusing on probability weighted forecasts, and Nuances in Tax and Transfer Pricing valuation a special focus on Asia
- Licensing, Litigation and Strategy IP Trends in Litigation, State of IP across industry verticals, and International Arbitration on new product development and an update on M&A and carve-out transactions involving IP

Keynote Speaker: David Kappos, Partner, Cravath, Swaine & Moore LLP and Former Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

To learn more, and register for this event, visit www.duffandphelps.com/ipvaluesummit

North American Industry Market Multiples As of June 30, 2015

	of Equ Net Inc	come		o EBIT	MVIC EBITD	A
Industry		Canada		Canada		Canada
Energy	12.7	19.1	14.6	15.4	7.8	5.7
Energy Equipment & Services	13.5	15.2	11.2	10.7	7.0	5.7
Integrated Oil & Gas	10.5	—	—	—	7.8	—
Materials	18.2	13.4	14.5	15.5	10.0	8.4
Chemicals	20.0	21.0	16.0	20.0	10.9	10.7
Diversified Chemicals	19.8	_	14.0	—	10.0	_
Specialty Chemicals	25.8	_	19.1	_	13.1	_
Construction Materials	34.8	_	20.7	_	13.1	_
Metals & Mining	11.9	11.0	12.6	14.2	8.8	6.8
Paper & Forest Products	13.8	23.9	12.5	18.8	8.1	12.5
Industrials	19.3	17.2	14.8	15.3	10.8	10.1
Aerospace & Defense	18.8	37.8	14.9	18.0	11.0	12.4
Industrial Machinery	19.2	25.9	14.2	21.0	10.1	10.2
Commercial Services & Supplies	21.7	16.6	15.8	20.1	10.8	8.3
Road & Rail	19.6	19.4	14.2	15.6	8.6	9.4
Railroads	17.1	_	14.8	_	10.1	_
Consumer Discretionary	20.3	18.7	15.5	16.4	11.6	11.0
Auto Parts & Equipment	19.2	12.7	12.5	11.1	7.8	7.8
Automobile Manufacturers	_	_	_	_	_	_
Household Durables	18.4	_	16.8	_	13.4	_
Leisure Equipment & Products	22.1	_	14.1	_	11.4	_
Textiles, Apparel & Luxury Goods	18.5	_	16.1	_	12.9	_
Restaurants	30.4	23.7	21.2	15.7	13.0	_
Broadcasting	18.5	_	14.1	20.6	11.1	12.5
Cable & Satellite	21.9	_	15.4	14.5	11.6	7.9
Publishing	18.1	15.5	16.6	10.0	11.9	9.3
Multiline Retail	20.6	_	13.8	_	11.1	_



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	Marke of Equ Net Inc		MVIC t	o EBIT	MVIC EBITD	
ndustry	U.S. (Canada	U.S.	Canada	U.S. (Canada
Consumer Staples	22.1	25.7	15.9	17.7	12.3	12.1
Beverages	21.3	36.7	19.7	24.1	14.3	13.0
Food Products	23.7	20.4	17.2	17.5	12.3	13.2
Household Products	25.9	_	18.0	_	12.9	_
Health Care	28.1	19.5	21.1	37.8	15.3	20.1
Health Care Equipment	27.9	_	24.2	_	16.3	_
Health Care Services	27.4	_	17.6	_	13.4	_
Biotechnology	33.5	10.0	32.3	_	29.2	_
Pharmaceuticals	23.8	_	22.9	41.9	19.1	23.1
nformation Technology	25.3	18.8	20.6	21.3	15.0	14.0
nternet Software & Services	35.9	32.6	30.7	21.9	18.7	14.1
T Services	25.4	18.8	18.3	14.7	14.2	15.8
Software	35.3	45.9	28.7	39.1	20.1	27.8
Fechnology Hardware & Equipment	20.9	14.4	16.5	14.2	11.6	11.7
Communications Equipment	22.8	14.8	18.6	13.9	14.4	13.0
Computers & Peripherals	22.0	_	16.5	_	11.2	_
Semiconductors	28.9	_	24.7	_	18.5	_
Telecommunication Services	18.9	18.5	17.3	14.7	8.0	8.7
ntegrated Telecommunication Services	14.3	_	15.7	_	6.8	_
Wireless Telecommunication Services	23.3	_	14.4	_	8.3	_
Utilities	17.9	14.9	15.3	22.2	9.8	12.5
Electric Utilities	16.5	_	15.3	_	9.7	_
Gas Utilities	19.5	_	14.4	_	9.3	_

	Market Value of Equity to Net Income	Market Value of Equity to Book Value
Industry	U.S. Canada	U.S. Canada
Financials	15.3 12.4	1.1 1.4
Commercial Banks	15.1 10.6	1.1 1.6
Investment Banking and Brokerage	23.8 —	1.6 1.4
Insurance	13.1 10.8	1.2 1.3

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 85 (U.S.), and 29 (Canada); the median number of companies in the calculation sample was 47 (U.S.), and 12 (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 June 30, 2015

	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
Industry	Europe	Europe	Europe
Energy	14.4	12.7	8.1
Energy Equipment & Services	12.9	10.2	7.4
Integrated Oil & Gas	22.7	14.2	7.3
Materials	19.6	16.7	10.0
Chemicals	22.5	18.8	10.9
Diversified Chemicals	29.2	16.1	9.3
Specialty Chemicals	23.1	19.3	11.6
Construction Materials	19.9	21.8	10.4
Metals & Mining	13.1	13.0	8.8
Paper & Forest Products	18.4	18.8	9.7
Industrials	18.7	16.1	11.3
Aerospace & Defense	23.0	18.8	12.1
Industrial Machinery	19.7	15.5	11.2
Commercial Services & Supplies	19.0	16.6	10.1
Road & Rail	17.2	16.3	8.6
Railroads	_	_	_
Consumer Discretionary	18.6	16.1	11.5
Auto Parts & Equipment	15.4	13.6	8.7
Automobile Manufacturers	11.5	18.2	13.2
Household Durables	14.7	13.5	11.1
Leisure Equipment & Products	19.3	15.9	9.9
Textiles, Apparel & Luxury Goods	17.2	16.2	12.8
Restaurants	23.0	18.9	12.6
Broadcasting	22.5	17.0	13.3
Cable & Satellite	46.5	32.6	16.2
Publishing	15.6	16.9	11.5
Multiline Retail	19.3	17.4	12.5
Consumer Staples	21.4	16.7	11.5
Beverages	23.8	18.7	12.6
Food Products	19.9	16.3	11.1
Household Products	_	16.1	11.2



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

	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
Industry	Europe	Europe	Europe
Health Care	28.2	22.8	17.5
Health Care Equipment	27.0	23.7	18.1
Health Care Services	21.2	13.8	9.5
Biotechnology	39.6	42.5	35.0
Pharmaceuticals	29.3	23.8	18.1
Information Technology	20.9	17.4	13.2
Internet Software & Services	31.0	25.3	17.1
IT Services	18.6	13.2	10.7
Software	25.1	20.3	14.9
Technology Hardware & Equipment	18.8	16.0	12.5
Communications Equipment	18.1	16.0	11.3
Computers & Peripherals	19.7	15.0	13.2
Semiconductors	33.1	25.2	17.1
Telecommunication Services	19.0	17.7	9.3
Integrated Telecommunication Services	18.2	15.8	9.0
Wireless Telecommunication Services	18.8	19.7	10.0
Utilities	16.5	18.1	10.6
Electric Utilities	14.1	16.2	10.2
Gas Utilities	13.6	15.0	10.1

	Market Value of Equity to Net Income	Market Value of Equity to Book Value
Industry	Europe	Europe
Financials	14.5	1.1
Commercial Banks	13.0	0.8
Investment Banking and Brokerage	21.1	1.7
Insurance	12.6	1.2

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 93 and the median number of companies in the calculation sample was 42 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.

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