

*Journal of***APPLIED CORPORATE FINANCE**

A MORGAN STANLEY PUBLICATION

In This Issue: Infrastructure Financing and Public-Private Partnerships

Canada's Budget Triumph	8	<i>David R. Henderson, Naval Postgraduate School in Monterey and Hoover Institution</i>
Re-imagining Infrastructure	18	<i>Mark Gerencser, Booz Allen Hamilton</i>
Privatizing Waterworks: Learning from the French Experience	30	<i>Steve H. Hanke, Johns Hopkins University, and Stephen J.K. Walters, Loyola University Maryland</i>
Reflections on Private Water Supply: Agency and Equity Issues	36	<i>Steve H. Hanke, Johns Hopkins University, and Stephen J.K. Walters, Loyola University Maryland</i>
A Fresh Look at U.S. Water and Wastewater Infrastructure: The Commercial and Environmentally Sustainable Path Forward	41	<i>David Haarmeyer</i>
The Upside to Fiscal Challenges: Innovative Partnerships Between Public and Private Sector	53	<i>Martha Amram, WattzOn and The Milken Institute, and Tabitha Crawford, President, Balfour Beatty Energy Solutions</i>
Infrastructure Public-Private Partnerships: "Partnerships" Come to Fruition	60	<i>J. Perry Offutt, James Runde, and Stacie D. Selinger, Morgan Stanley</i>
The Role of Finance and Private Investment in Developing Sustainable Cities	64	<i>John Macomber, Harvard Business School and BuildingVision, Inc.</i>
Energy Infrastructure Investment and the Rise of the Uncorporation	75	<i>Larry E. Ribstein, University of Illinois College of Law</i>
Why Financial Institutions Matter: The Case of Energy Infrastructure MLPs	84	<i>Conrad S. Ciccotello, Georgia State University</i>
The Future of U.S. Infrastructure: Proposals for Progress	92	<i>Sadek Wahba, Morgan Stanley</i>
Environmental Finance: Innovating to Save the Planet	99	<i>Franklin Allen, University of Pennsylvania's Wharton School of Business, and Glenn Yago, Milken Institute</i>

Why Financial Institutions Matter: The Case of Energy Infrastructure MLPs

by Conrad S. Ciccotello, Georgia State University

In the perfect-markets world of academic research, financial institutions are an abstraction that is either ignored entirely or modeled in a very limited way.¹ Yet in practice, financial institutions play a very important role in the capital market. While finance professors with an “institutional” bent lament the divergence between research and practice, we recognize that showing how and why financial institutions matter is often difficult in a research context. In most financial markets, institutions are a fixture; they don’t tend to enter or leave *en masse*. What would be interesting to study is a scenario where financial institutions enter a market in a manner where they did not exist previously.

Master Limited Partnerships (MLPs) provide an opportunity to study the entry of financial institutions into a marketplace. In 2001, Kinder Morgan’s innovative offering of I-share units opened the MLP space to institutional investors. Prior to that time, tax-exempt institutions would have had to pay income tax on their pro-rata share of MLP earnings. This effectively limited the public ownership of MLP units to individual (retail) investors. In a 2003 *Journal of Applied Corporate Finance* article, Chris Muscarella and I examined the Kinder offering and predicted that it would open the door to capital access for MLP firms and allow them to grow.² This article extends our previous research by examining the MLP in the decade following the Kinder Morgan offering.

Since 2001, MLPs have not only quadrupled in number, but have also become highly concentrated in energy infrastructure. Growth in domestic energy production and infrastructure is essential for creating jobs in the United States as well as for addressing the geo-political challenges of importing oil. Recent increases in domestic energy production are coming from a number of sources, including large shale formations like the Marcellus, Haynesville, and Barnett. With growing domestic production comes the need for additional energy infrastructure. Having a well-functioning capital market for energy infrastructure is thus in the national interest.

Building new energy infrastructure is capital-intensive, and so is maintaining the pipelines, terminals, and storage facilities that are already in place. This puts the MLP in an odd spot. MLPs need capital to build new distribution or storage or acquire other networks, as well as to maintain the assets that they already have in place.³ Yet the MLP is a pass-through form for tax purposes. Relative to the C-Corporation, pass-through forms (such as the MLP) favor the payout over the retention of earnings. The MLP thus finds itself at the crossroads of two very divergent needs. They require large amounts of capital to meet the needs for growth and maintenance. At the same time, tax incentives favor paying out the MLP’s cash flow to investors. The two demands place a premium on a well-functioning and innovative capital market. This capital market was born with the Kinder offering a decade ago.

The article proceeds as follows: To begin, I offer some context based on the first two decades of the MLP’s existence (1981-2001). During this time, the MLP was a retail investor phenomenon. I then examine several dimensions of the birth and growth of the institutional MLP marketplace from 2001 to the present. I conclude by offering some perspectives on the use of pass-through structures by operating companies and taxable structures by investment companies. Building on arguments made by Larry Ribstein in his article about unincorporate forms in this issue, I demonstrate how innovative financial intermediaries that take on a taxable structure can promote the growth of operating companies that take pass-through form.⁴

MLPs in the Last Century: The Individual Investor Period

In the 30 years since its birth, the MLP has undergone a growth period (the 1980s), followed by a quiet period (the 1990s), and then another growth period (the 2000s). MLPs exploded in number during the 1980s, especially in 1986 and 1987. At the peak, about 150 firms were MLPs and these firms were spread out over 30 industries.⁵ Tax changes were one reason for the boom. The Tax Reform Act of 1986 lowered

1. See Franklin Allen, 2001, “Do Financial Institutions Matter?,” American Finance Association Presidential Address, *Journal of Finance* 56, 1165-1175.

2. See Conrad Ciccotello and Chris Muscarella, 2003, The Energy MLP Goes Institutional: Implications for Strategy and Governance, *Journal of Applied Corporate Finance* 15(3), 112-119.

3. Capital expenditure to maintain existing pipelines can average 10-15% of operating earnings, so they are not trivial.

4. See Larry Ribstein, 2011, “Energy Infrastructure Investment and the Rise of the Uncorporation,” *Journal of Applied Corporate Finance*.

5. Only six of these firms in this period were pipeline or natural gas transmission firms. See Conrad Ciccotello and Chris Muscarella, Matching Organizational Structure With Firm Attributes: A Study of Master Limited Partnerships. *Review of Finance* 1,169-191.

individual tax rates (relative to corporate rates) and made pass-through tax treatment attractive. In addition, 1987 tax-law changes limited use of the MLP to natural resource and passive income sectors. Some firms changed to MLP status to gain “grandfathering” before the 1987 law became effective.

In a 1997 *Review of Finance* article, Chris Muscarella and I documented that it was low-growth companies (in low-growth industries) that tended to become MLPs during the 1981-1990 timeframe.⁶ After converting from corporate status, MLPs significantly increased distributions of cash and dramatically cut capital expenditures (relative to their last year of corporate operations). On average, firms did not increase their profitability after converting to an MLP, but they had been highly profitable relative to their peers when operated as corporations. In sum, it was highly-profitable, low-growth firms (in low-growth industries) that converted to the MLP form. In “academic speak,” one could say that the choice of the MLP represented “efficient self-selection” for these firms. In “management speak,” one might say that their choice of organizational structure matched their strategy.

Our research also found that some firms subsequently left the MLP structure and returned to corporate status. In completing the organizational form “round trip,” these firms reversed course, cut dividends, and increased capital expenditures. In that day, there was no MLP capital marketplace, so returning to corporate form might have been necessary even if the firm’s operating and distribution strategy were a good fit for the MLP.

During the 1980s, the public float of MLP units was typically owned by individual investors due to the unfavorable treatment certain tax-exempt investors (typically, institutions) faced if they owned partnership units. For an institution to escape unrelated business tax income (UBTI) treatment, the MLP’s earnings themselves would have to be related to the purpose for the institution being tax-exempt—which was rarely the case.

In our 2001 paper in the *Journal of Corporate Finance*, Chris Muscarella and I documented that individual investors tended to own a larger proportion of MLP units when the MLP partnership agreement was more protective of shareholder interests with respect to issues like payment of distributions, allowable scope of operations, and provisions to remove the general partner.⁷ Insiders and entities with a relationship to the general partner tended to own more units in those MLPs where the partnership agreement was less protective of limited partner interests. Governance in an MLP was in this sense more “contractual” in nature than that found in corporations. Individual investors in an MLP had neither a board of directors to protect their interests nor the existence of large, institutional shareholders whose voice could gain the attention of management.

During most of the technology bull market of the 1990s, MLPs attracted very little attention. Capital markets focused on growth stories, and not on mature firms with tax-favorable cash-flow payouts. The MLP had no high-tech growth story to sell, no institutional investors, and a very limited analyst following. Companies continued to drift away from the MLP form. By 1995, there were only 12 MLPs left, down from over 150 at the peak in the late 1980s. These remaining MLPs had a total market capitalization of about \$5 billion. Always a small corner of the universe of publicly-traded stocks, the MLP had nearly become extinct.

The 21st Century MLP: The Birth and Growth of an Institutional Marketplace

The modern era for the MLP begins with the Goldman Sachs-led offering of I-share units of Kinder Morgan in 2001. The offering followed a period of modest growth in MLPs around the turn of the century. By 2001, the overall number of MLPs had grown to 20 firms with a total market capitalization of around \$20 billion. To provide some context for the growth since that time, there are now over 80 MLPs and the market capitalization of MLPs totals about \$200 billion.

What roles did institutional investors play in the last decade? I begin by evaluating what we said in our 2003 *Journal of Applied Corporate Finance* paper. We hailed the offering as an innovation that would allow institutional investors to participate in MLPs and bring needed capital to the energy infrastructure sector. By allowing institutional investors to buy units in the limited liability company (LLC), the offering addressed the UBTI issues associated with having distributions pass from one pass-through entity to another. The view we had at the time was that the I-share was a great idea that would spread widely across the sector, given the need for capital.

The Kinder Morgan I-share offering was indeed a clever underwriting innovation, but it has not grown as much as might be expected over the past decade. To this point, only two of the larger MLPs, Kinder Morgan and Enbridge, have I-shares outstanding. As we pointed out in 2003, I-shares did set up some interesting governance issues, including the lack of voting power for the institutions holding the I-shares. In addition, the divergence in value between the I-share and the linked MLP share in the aftermarket became a subject of extended debate.

The reasons the I-share did not take off, however, could also be related to changes in tax rules and the emergence of innovative investment company structures. The American Jobs Creation Act of 2004 greatly expanded the ability for open-end mutual funds (as well as other pass-through registered investment companies) to hold MLPs in their portfolio. While there are still relatively tight restrictions (25% of fund assets limited

6. *Id.*

7. Conrad Ciccotello and Chris Muscarella. 2001. “Contracts between Managers and Investors: A Study of Master Limited Partnership Agreements,” *Journal of Corporate Finance* 7, 1-23.

to MLPs), this relaxation provides MLP access to a very large pool of capital. Pass-through investment vehicles can also hold I-share units in addition to the 25% of assets held in MLPs.

Another innovation in the MLP capital market came in the form of the C-Corporation investment company. The first of these was Tortoise Energy Infrastructure, a closed-end fund that conducted its initial public offering in February 2004. The C-Corporation investment company structure was novel and was a way to address the UBTI issues that tax-exempt institutions would face by owning units in a business partnership. The investment company, now a C-Corporation, could offer its shares to institutions as well as offering its investors an escape from partnership tax forms (K-1s) with a single Form 1099-DIV.

Starting in 2004, a number of investment companies in an array of structures entered the MLP marketplace. As of this writing (August 2011), there are 12 closed-end C-Corporation funds focused on investing in MLPs. In addition, there is one exchange-traded fund (ETF) and eight exchange-traded notes (ETNs) that have been launched in the MLP sector. There are also nine C-Corporation open-end funds that have recently entered the space, as well as nine registered investment companies (pass-through structure) that hold MLPs and are focused on energy infrastructure. Last, there are over a dozen funds pending in the MLP sector, spanning each of the categories above.

MLP Performance Since 2001

Comparing the MLP universe during its two periods of rapid growth illustrates how this organizational structure has become better understood over time. In the 1980s, MLPs spanned over 30 industries, with the greatest concentration (23%) in “upstream” oil and gas development (Standard Industrial Classification (SIC): 13xx). The rest of the MLPs were all over the SIC map. Our 1997 paper showed that entrants tended to be highly-profitable firms in slow-growth industries, at first-glance a good fit for the structure. But even so, the vast majority of these firms had abandoned the MLP form by the mid-1990s.

The entrants into the MLP form since the mid-1990s have been highly concentrated in the energy sector. Currently, over 90% of MLPs are energy-related. The focus in the energy sector is not surprising, given the restrictions on MLP entry to natural resource firms. But the focus *within* the energy sector is worth noting. Most MLPs hold significant assets in the mid-stream area of the energy value chain, where long-term, fee-based contracting with price escalators is common. Most of the largest firms in the sector, like Kinder Morgan, are focused on energy infrastructure.

Upstream MLPs exist in the modern era, but with several key differences from the 1980s. First, they are fewer in number. Second, their strategy is different. The nine modern exploration and production (E&P) MLPs tend to have a focus on the “P” as opposed to the “E.” Moreover, they tend to hedge a large amount of commodity price risk in order to smooth revenue streams.⁸ The elements of their production and financial risk management strategies are thus much more consistent with the MLP form than was the typical E&P MLP of the 1980s. As we observed in our earlier research, the MLP is a poor fit for businesses that cannot be managed to produce stable cash flows.⁹ What has changed since the early days, however, is a more robust understanding of the link between operations and financial hedging that can help bring some E&P firms under the MLP umbrella.

Managers of the modern MLP have also grasped the importance of steady distribution growth. In the 1980s, some MLPs made only vague promises to distribute cash and followed-up by not maintaining distributions. The contrast with the distribution performance of the MLP sector over the last decade is quite striking. MLPs today pay out a large percentage of their cash flow to investors; they do not choose to retain large amounts of cash. The average annual distribution growth of energy MLPs over the past ten years has been about 6%.¹⁰

Finally, in terms of MLP unit performance, the last decade for the MLP has been outstanding. The average return for holding a portfolio of the largest MLPs (measured by the major indexes, such as the Tortoise or Alerian) has been roughly 16% a year for the decade ending June 2011. The standard deviation has been about 16% annually as well. The return for MLPs has thus been well above that of the overall stock market with lower than market volatility. Having nearly become extinct during the roaring 1990s, the MLP has clearly risen from the ashes.

Why Do Institutions Matter? The Case of MLPs

The first decade of the modern MLP has brought about very strong overall performance, quite unlike the 1980s experience. In the early days, the MLP form was an individual investor phenomenon; in the last decade institutions have entered. Is the rapid growth of institutional ownership and the strong performance of MLPs during the last decade just a coincidence? In this section, I return to the question of why financial institutions matter, using the MLP as a test case.

The emergence and growth of MLP investment funds in both closed- and open-end forms since 2004 has brought expertise in analysis to the sector. While MLPs have tended to remain focused in energy infrastructure, many have grown rapidly during the decade through acquisition and/or build out. Portfolio managers dedicated to the MLP space provide

8. In 2011, for example, E&P MLPs have hedged about two-thirds of their production, on average.

9. See Ciccotello and Muscarella, 1997.

10. Estimate excludes general partners, E&P, and coal MLPs. While the average annual MLP distribution growth has been relatively steady over the past decade, there are differences in distribution growth both within and across sectors of the energy MLP space over time.

Table 1 Institutional Ownership of MLPs by Energy Sector

Sector (# of MLPs)	Market Value of MLPs (\$K)	Public Float (%)	Institutional Ownership of Float (%)
Refined Products Pipelines (N=9)	\$40,828	89.8%	35.4%
Crude Oil Pipelines (N=5)	\$16,126	83.6%	37.6%
Nat. Gas Transmission (N=11)	\$67,117	57.8%	21.8%
Gathering & Processing (N=12)	\$13,861	77.2%	29.3%
Shipping (N=5)	\$3,538	72.3%	29.4%
Upstream (N=9)	\$8,638	78.0%	14.0%
Coal (N=3)	\$4,494	44.1%	15.6%
Propane (N=5)	\$8,531	76.5%	16.6%
General Partners (N=9)	\$21,390	41.3%	29.9%
Other Energy (N=2)	\$3,384	60.0%	7.0%
SUM/AVERAGE	\$187,909	68.2%	25.2%

Data as of June 2010.

analysis and feedback to firms on these strategies. While MLPs remain focused in terms of energy-sector operations, analysis of growth options is complex. To conduct an in-depth analysis of MLP strategies within the 21st century network of North American energy infrastructure requires significant analytical scale and expertise. Disclosure of MLP investment company performance brings accountability to the analysis and provides incentives for the discovery of information.

Since the investment funds themselves have clienteles who measure performance by the quality of distribution growth, portfolio managers have a metric by which to judge the MLP's growth strategy. The development of a focused investor clientele, both individual and institutional, is a great advantage of the MLP form. The key question is whether the capital expenditures being considered enhance the growth of a quality distribution stream and increase the value of the firm.

Institutional investors, if unhappy with the managerial strategies of a particular MLP, can sell the MLP's shares in the open market. On the bright side, portfolio managers pleased by MLP growth strategies can buy units either on exchanges or through secondary offerings. In the MLP space, institutional selling (or buying) of a particular name could be quite noticeable in terms of market price impact. The overall market capitalization of the MLP sector has grown to about \$200 billion, and liquidity, especially in the top MLP names, has improved significantly over the past decade. But to put the size of the sector in context, the market capitalization of Exxon *alone* is about \$400 billion, about twice that of all MLPs.

The governance game in MLPs has also changed since the 1980s. Our early research focused on the MLP partnership agreement and its role in the protection of individual investors in the 1981-1990 timeframe.¹¹ Table 1 shows that, by

2010, institutional ownership ranged from about 15% to 35% across the energy-related sectors in the MLP universe. With institutions now owning about one-quarter of the public float of MLP units, their voice is an important one in governance that did not exist prior to the Kinder Morgan I-share offering in 2001 and the initial public offering of Tortoise Energy Infrastructure in 2004. While the 25% institutional ownership of MLPs is still well below the levels of publicly-traded stock owned by institutions (around 60% to 70% in the S&P 500), the *growth* of institutional ownership in MLPs over the decade is clearly an unprecedented phenomenon.

The governance role of institutional investors has become even stronger with the emergence of innovative capital market intermediation. One example is the direct placement of MLP units with closed-end investment companies. The secondary sale of MLP units directly to closed-end funds created an entirely new capital marketplace. The private placement of units has offered MLPs a flexible means to obtain capital. Private placements offer speed, flexible sizing, and low costs (both in terms of spread and indirect costs) relative to those of traditional secondary offerings through underwriters.

Table 2 illustrates the growth of the MLP private placement market since 2004, the year that Tortoise Energy Infrastructure fund had its IPO. The table shows wide participation, as there are a large number of private placements relative to the overall number of MLPs. The median size private placement ranges from about \$50 million to \$200 million on an annual basis, and the range of offering sizes within year is often much larger. Over \$15 billion in direct placements of MLP units have occurred since 2004.¹²

In recent years MLPs have been quite active in the capital markets in the form of both private placements and under-

11. See Ciccotello and Muscarella, 2001.

12. The private placement data in Table 2 is obtained from partnership reports and other publicly-available documents. The data is not always consistent across sources,

suggesting that the reporting of private placements varies. Overall, however, the differences between sources are relatively small and do not materially affect the overall pattern shown.

Table 2 **Private Placement of MLP Equity Units**

Year	Number of Deals	Median Size (\$M)	Total Value (\$M)
2004	7	53.7	462.6
2005	14	51.2	1259.2
2006	15	159.1	2822.7
2007	32	133.2	8548.8
2008	3	99.0	363.1
2009	4	50.0	267.1
2010	6	63.0	587.0
2011 (to date)	5	204.0	1569.9
Total Sample	86		15,880.4

Data gathered from partnership reports and other publicly-available sources. There are some inconsistencies in the reporting of private placements across sources, but the results

shown (and the pattern) are qualitatively similar regardless of the data sources used.

written secondary offerings. An analysis of the first six months of 2010 illustrates the nature of the cash flow flowing out to investors and back into MLPs through follow-on equity offerings. During this six-month period, 32 different energy MLPs did follow-on equity offerings, raising a total of about \$6B. The 32 MLPs are just less than half of the MLP energy universe in terms of the number of firms, which shows the high level of MLP capital market activity. Also consider that, over that same six-month time period, the total amount of cash distributions those 32 MLPs paid out to investors is very close to what they raised in follow-on equity offerings. The balance exists in broader timeframes as well. From mid-2008 through mid-2010, energy MLPs in total raised about \$16 billion in follow-on equity offerings while paying out about \$18 billion in distributions to investors.

MLPs tend to pay out a very high percentage of their cash flow generated from operations, but net of maintenance capital expenditures (commonly known as “distributable cash flow”) to investors. In 2010, the median payouts of distributable cash flow in the refined products pipelines and natural gas transmission sectors were 89% and 88%, respectively.¹³ Without the robust capital market that has developed it would clearly be difficult for MLPs to grow their infrastructure networks. This is different from the earlier MLP period, where firms might have left the MLP form and returned to corporate status due, at least in part, to the lack of capital access.

The growth of C-Corporation funds that invest in MLPs has also reduced transactions costs for investors, especially with regard to tax.¹⁴ If an individual were to hold a portfolio of MLPs directly, she could potentially face the filing of

tax returns in over 20 states. The C-Corporation investment companies offer the individual investor a single Form 1099 and eliminate the need for the individual investor to file state tax forms.

In sum, institutions have brought economies of scale to the MLP sector. These economies exist in terms of analysis, capital formation, and transactions costs. The 2001-2010 growth and strong performance of the MLP sector thus provides direct evidence of the role of financial institutions in a marketplace.¹⁵

Uncorporate Forms: Operating Company and Investment Company Structure

The MLP provides an excellent venue to discuss the future role of uncorporate forms in capital markets. Consider the MLP phenomenon in which the operating company is a pass-through (partnership) and the investment company is a taxable entity (C-Corporation). This reverses the typical pattern in the United States, where the operating company is a C-Corporation and the registered investment company is a pass-through structure.

In the MLP context, this switch is clearly motivated by income tax, but the operating and governance implications are also intriguing. The academic literature documents the high agency costs in C-corporation operating companies in situations where there are large amounts of free cash flow.¹⁶ The problems with free cash flow in C-Corporations are compounded to the extent that dividends are discouraged by unfavorable tax treatment. If operating companies that generate large and steady amounts of cash were to take on a pass-through form, with incentives to pay out cash, agency costs could be reduced.¹⁷

13. Median payout percentages across the other MLP energy sectors are similar to those shown.

14. As an individual investor, my association with MLPs began in 1983. While I was fortunate enough to buy some MLP units that performed well, the tax treatment was a challenge, especially with regard to requirements to file state-level tax forms.

15. The modern MLP also illustrates the impact of a broadening of the investor base

in ways that are consistent with arguments made by Robert Merton in his classic 1987 paper. See Robert Merton. 1987. A Simple Model of Capital Market Equilibrium with Incomplete Information. *Journal of Finance* 42, 483-510.

16. See, e.g., Michael C. Jensen, Eclipse of the Public Corporation, *Harvard Business Review* (Sept.-Oct. 1989), revised 1997, available at <http://ssrn.com/abstract=146149>.

17. *Id.*

Borrowing from the experiences of the MLP's last decade, suppose that operating companies within the energy sector continue to adopt a pass-through structure. Is this problematic for the development of energy infrastructure in the U.S.? The recent MLP experience suggests otherwise. Direct secondary offerings of equity show that closed-end C-Corporation intermediaries can be a valuable source of capital for MLPs. MLP operating companies tend to stay very close to the capital market, and have focused strategies that the capital market intermediaries can evaluate. The closeness to the capital market is likely to continue because the MLP firms tend to pay out the vast majority of their cash flow.

The C-Corporation investment company structure also raises novel issues with regard to investment company incentives. For example, the funds might choose to retain their earnings rather than pay them out to investors. Even if it is in a C-Corporation structure, however, the investment company still faces tight regulatory restrictions under the 1940 Investment Company Act with regard to disclosures about its investment policy, distribution policy, managerial compensation, and leverage. The management of the MLP investment company is also likely to be highly focused on its particular clientele, having advertised itself to investors as a specialty fund with growing distributions. If the fund's clientele is looking for quality distribution growth, the investment company has a strong incentive to provide it in order to perform well against its benchmarks.¹⁸

Having the investment company take the C-Corporation structure also has implications for its treatment of tax. Investment companies typically have a pass-through structure, which generally means the company itself pays no tax, but distributes net realized capital gains and current income (pro-rata) to its investors. Churn of securities in the portfolio can thus create more realized capital gains for investors, while not affecting the investment company's performance since it is not a taxable entity.¹⁹ This is an agency problem. If the investment company is a taxable entity, however, it will have to manage tax for itself as well as for its investors. There will be disclosure on both fronts. For example, a C-Corporation investment company must disclose its deferred-tax liability (or asset) on its financial statements. A deferred tax liability (asset) would reduce (increase) the fund's Net Asset Value. There is no equivalent pass-through investment company balance sheet disclosure. One example would be a pass-through investment company with a capital gains "overhang."²⁰

In sum, the unincorporate innovation provides incentives for the pass-through *operating company* to pay out cash and stay very close to the capital market intermediaries. Operating decisions might also be distorted less by tax motivations since the company itself is not a tax-paying entity. Instead, tax management moves to the C-Corporation investment company level, where distribution policy is unlikely to change since investment objectives (such as an income-fund orientation) are clearly stated. The C-Corporation investment company will also have taxes on its own books, unlike the typical registered investment company context. Thus, the tax situation of a C-Corporation investment company (such as its deferred tax liability) could be more transparent than that of a pass-through investment company.

Wedges in the tax code provide opportunities and challenges for tax planning at either the company or individual level. One such wedge is between corporate and individual tax rates. While predicting how tax rates might change in the future is difficult, there is conjecture that future marginal corporate tax rates in the U.S. could fall while individual tax rates may rise.²¹ Ordinarily, this would be a bad signal for the growth of pass-through operating companies like MLPs. Recall that *falling* individual tax rates (relative to corporate rates) in the 1986 Tax Act made the MLP more attractive as a pass-through entity. Thus, if the relative rates were to move in the other direction in the U.S., this might put pressure on energy infrastructure MLPs to return to the corporate form (with all of its associated agency problems). This would be consistent with the 1986-1987 experience.

The game has changed, however, with regard to the modern MLP institutional marketplace. One key difference is that the pass-through operating company and C-Corporation intermediary structure puts a tradeoff between corporate and individual taxes within the intermediary itself. The net effect of the changes in corporate and individual tax rates on investors thus requires more careful analysis.

Falling corporate rates relative to individual rates would make the MLP less attractive relative to the C-corporation in a direct ownership situation, but could benefit the holders of a C-Corporation investment company that holds MLPs.²² In addition, the C-Corporation investment fund can choose the types of MLPs to buy and sell, and thus manage its own tax situation as well as the nature of the distributions it makes to investors.

The taxability of the C-Corporation investment company

18. Pass-through investment company intermediaries and real-estate investment trusts must pay out the vast majority (typically at least 90%) of their income to investors. Their ability to hold pass through securities, however, is at this time limited, as described earlier in the article.

19. Proper disclosure of after-tax performance in a pass-through investment company is challenging. In general, more actively managed funds (higher turnover) are less tax efficient and a better fit for tax-deferred accounts like IRAs than after-tax accounts.

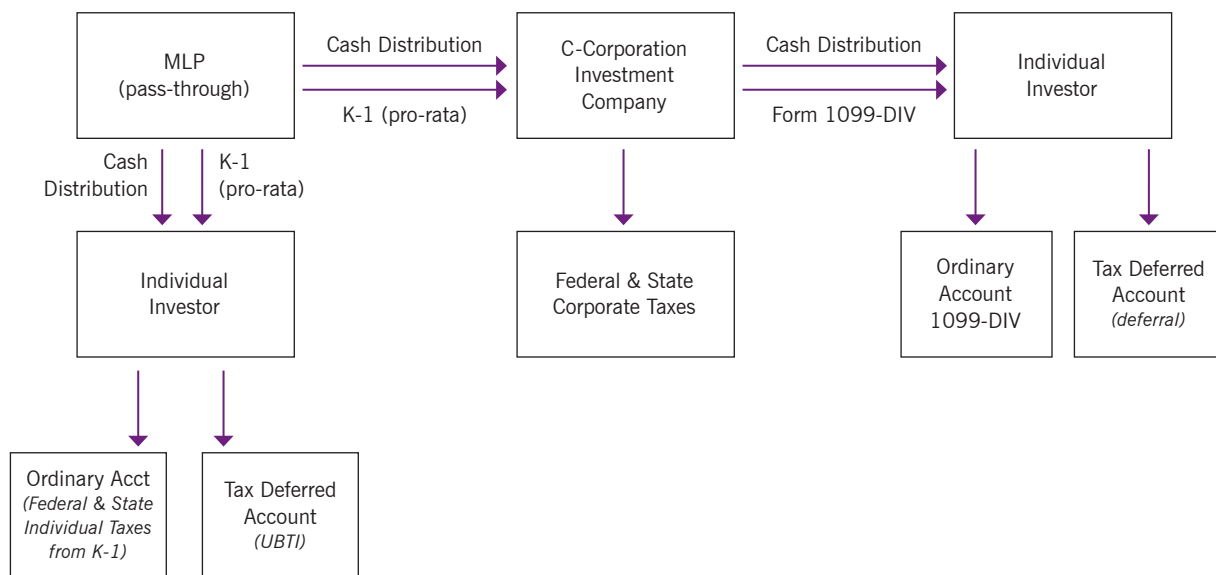
20. This issue has attracted a great deal of academic research. See, e.g., Michael Barclay, Neil Pearson, and Michael Weisbach, 1998, "Open-end Mutual Funds and Capital-Gains Taxes," *Journal of Financial Economics* 49(1), 3-43. In this paper, the

authors argue that the unrealized gains in the portfolio increase the "expected future taxable distributions" and the present value of a new investor's tax liability." Disclosure of these impacts in a pass-through investment structure is problematic since each investor will have her own situation...similar in concept to a "dollar weighted" versus "time-weighted" return. In the C-Corporation investment company, the fund itself will have a tax position that is disclosed.

21. The U.S. currently has one of the highest corporate tax rates in the world, while expiration of the "Bush tax cuts" would raise individual tax rates.

22. One example is a reduction in the deferred tax liability on the books of the C-Corporation investment company.

Figure 1 MLP and Investment Company Flow Chart



Sources: The Canadian Council for Public-Private Partnerships

and the tax nature of its distributions will depend upon a number of factors, including but not limited to its realization of gains or losses on MLPs in the portfolio, investment company leverage, and additional equity issuances. The key, however, is that tax-related decisions will be made on a *portfolio* of MLPs at the *investment company* level. The traditional pattern is to have individual operating (C-Corporation) firms making tax-motivated decisions while the investment company that holds the securities is a pass-through vehicle. Having the C-Corporation structure at the investment company level shifts some tax management burden to the financial institution, and allows the pass-through operating firm to focus more on generating operating cash flow—instead of managing taxes.

To generalize, assume for the sake of argument that *either* the operating company or the investment company must take taxable form. The production function of the investment company deals with providing returns to investors. Disclosure requirements in the 1940 Act context are extensive, and investment companies arguably should compete on a net-of-tax return basis. Being a C-Corporation and dealing with tax is thus clearly part of the investment company production function. In contrast, at the operating company level, being a taxable entity can distort incentives to both invest and distribute cash. Managing tax would ideally not be part of the operating company production function.

MLP Investment Companies and the Individual Investor

What does the rise of the C-Corporation MLP investment company mean to the individual with regard to her taxes? First, MLP investment companies must disclose the tax nature of distributions to investors (taxable dividends or return of capital). The individual has the opportunity to choose the type of account to hold the investment company shares. The income tax treatment to the individual investor is a function of the type of account where the investor holds the asset.²³ When there are large amounts of tax-deferred distributions (return of capital), an ordinary after-tax account is a good fit. For investment companies with large amounts of taxable distributions, however, tax-deferred accounts such as IRAs are better suited. One advantage of C-Corporation MLP investment companies is that individual investors can own their shares inside of a tax-deferred structure, like an IRA. If an individual were to hold MLP units directly in an IRA-type account, they would be subjected to UBTI treatment similar to the issues facing a pass-through institution that holds MLPs directly.²⁴

Figure 1 illustrates the structure of the pass-through operating company, the C-Corporation intermediary, and the asset location choice of the individual investor. For the individual, the decision on where to hold the MLP investment company is both a function of the tax nature of the distribu-

23. Institutions that have entered the MLP space have opened the door to individual investors, but also to other institutions. At present, about 29% of the shares of Tortoise Energy Infrastructure Fund are owned by institutional investors.

24. At present, each retirement account is allowed a \$1000 deduction for UBTI, but over that amount the retirement account must pay ordinary income tax at the corporate rate.

tion and the individual's own estimation of wedges between her current and future tax rates. Ordinary (after-tax) accounts would tend to be favored when MLP investment company distributions are largely a return of capital, as opposed to taxable dividends, or when the individual does not expect her future tax rates to be lower than the present. In contrast, the IRA-type account is better suited for MLP investment company distributions that are largely taxable income, or when the individual anticipates being in a lower tax bracket when withdrawals from the tax-deferred account are made.

Summary

Focused operations, commitments to pay out cash to a focused investor clientele, and the need to remain very close to capital providers are all hallmarks of the MLP operating company. The entry of financial institutions into the MLP sector a decade ago has revived the MLP, which was nearly gone by the late 1990s. Innovations in intermediation structures have also helped to establish a robust capital market and allow MLPs to grow in the energy infrastructure sector while they continue to distribute most of their cash flow to investors.

The combination of pass-through operating companies (like MLPs) with taxable investment companies is an example of a functional innovation in financial intermediation.²⁵ In this structure, the operating company can distribute cash flow to investors without the dual-taxation tax penalty of C-corporation status. Tax could also become less of a distortion to operational investment decisions. Meanwhile, the investment company acts as an ongoing capital provider to

the pass-through operating company. It also manages tax on its own books, based on a portfolio of assets, making tax considerations more clearly a part of the active portfolio management process. This change addresses the agency issues associated with having pass-through investment companies and taxable individual investors.

While still a small corner of the investment universe in terms of market capitalization, MLPs are of disproportionate importance to the national economy. The energy infrastructure sector in the U.S. is projected to grow rapidly over the next few decades. Estimates for the capital needs for natural gas, natural gas liquids, and oil midstream are about \$10 billion a year for the next 25 years, or slightly over \$250 billion between now and 2035.²⁶ Along with organic growth, there are well over \$200 billion in existing energy infrastructure assets currently held in some type of corporate form that could also enter the MLP structure.

CONRAD S. CICCOTELLO is Associate Professor in the Robinson College of Business at Georgia State University and an Independent Director of the Tortoise Capital Advisors Family of Closed-End Funds.

Disclaimer

Morgan Stanley does not render advice on tax and tax accounting matters to clients. This material was not intended or written to be used, and it cannot be used or relied upon by any recipient, for any purpose, including the purpose of avoiding penalties that may be imposed on the taxpayer under U.S. federal tax laws.

25. See Robert Merton, 1995, "A Functional Perspective on Financial Intermediation," *Financial Management*, 24(2), 23-42.

26. See, e.g., INGAA Report, as conducted by ICF International, available at <http://www.ingaa.org/cms/31/7306/11925.aspx>

Journal of Applied Corporate Finance (ISSN 1078-1196 [print], ISSN 1745-6622 [online]) is published quarterly, on behalf of Morgan Stanley by Wiley Subscription Services, Inc., a Wiley Company, 111 River St., Hoboken, NJ 07030-5774. Postmaster: Send all address changes to JOURNAL OF APPLIED CORPORATE FINANCE Journal Customer Services, John Wiley & Sons Inc., 350 Main St., Malden, MA 02148-5020.

Information for Subscribers *Journal of Applied Corporate Finance* is published in four issues per year. Institutional subscription prices for 2011 are:

Print & Online: US\$441 (US), US\$529 (Rest of World), €343 (Europe), £271 (UK). Commercial subscription prices for 2010 are: Print & Online: US\$590 (US), US\$703 (Rest of World), €455 (Europe), £359 (UK). Individual subscription prices for 2010 are: Print & Online: US\$105 (US), £59 (Rest of World), €88 (Europe), £59 (UK). Student subscription prices for 2011 are: Print & Online: US\$37 (US), £21 (Rest of World), €32 (Europe), £21 (UK).

Prices are exclusive of tax. Australian GST, Canadian GST and European VAT will be applied at the appropriate rates. For more information on current tax rates, please go to www.wileyonlinelibrary.com/tax-vat. The institutional price includes online access to the current and all online back files to January 1st 2007, where available. For other pricing options, including access information and terms and conditions, please visit www.wileyonlinelibrary.com/access

Journal Customer Services: For ordering information, claims and any inquiry concerning your journal subscription please go to www.wileycustomerhelp.com/ask or contact your nearest office.

Americas: Email: cs-journals@wiley.com; Tel: +1 781 388 8598 or +1 800 835 6770 (toll free in the USA & Canada).

Europe, Middle East and Africa: Email: cs-journals@wiley.com; Tel: +44 (0) 1865 778315.

Asia Pacific: Email: cs-journals@wiley.com; Tel: +65 6511 8000.

Japan: For Japanese speaking support, Email: cs-japan@wiley.com; Tel: +65 6511 8010 or Tel (toll-free): 005 316 50 480.

Visit our Online Customer Get-Help available in 6 languages at www.wileycustomerhelp.com

Production Editor: Joshua Gannon (email: jacf@wiley.com).

Delivery Terms and Legal Title Where the subscription price includes print issues and delivery is to the recipient's address, delivery terms are Delivered Duty Unpaid (DDU); the recipient is responsible for paying any import duty or taxes. Title to all issues transfers FOB our shipping point, freight prepaid. We will endeavour to fulfil claims for missing or damaged copies within six months of publication, within our reasonable discretion and subject to availability.

Back Issues Single issues from current and recent volumes are available at the current single issue price from cs-journals@wiley.com. Earlier issues may be obtained from Periodicals Service Company, 11 Main Street, Germantown, NY 12526, USA. Tel: +1 518 537 4700, Fax: +1 518 537 5899, Email: psc@periodicals.com

This journal is available online at Wiley Online Library. Visit www.wileyonlinelibrary.com to search the articles and register for table of contents e-mail alerts.

Access to this journal is available free online within institutions in the developing world through the AGORA initiative with the FAO, the HINARI initiative with the WHO and the OARE initiative with UNEP. For information, visit www.aginternetwork.org, www.healthinternetwork.org, www.healthinternetwork.org, www.oarescience.org, www.oarescience.org

Wiley's Corporate Citizenship initiative seeks to address the environmental, social, economic, and ethical challenges faced in our business and which are important to our diverse stakeholder groups. We have made a long-term commitment to standardize and improve our efforts around the world to reduce our carbon footprint. Follow our progress at www.wiley.com/go/citizenship

Abstracting and Indexing Services

The Journal is indexed by Accounting and Tax Index, Emerald Management Reviews (Online Edition), Environmental Science and Pollution Management, Risk Abstracts (Online Edition), and Banking Information Index.

Disclaimer The Publisher, Morgan Stanley, its affiliates, and the Editor cannot be held responsible for errors or any consequences arising from the use of information contained in this journal. The views and opinions expressed in this journal do not necessarily represent those of the Publisher, Morgan Stanley, its affiliates, and Editor, neither does the publication of advertisements constitute any endorsement by the Publisher, Morgan Stanley, its affiliates, and Editor of the products advertised. No person should purchase or sell any security or asset in reliance on any information in this journal.

Morgan Stanley is a full-service financial services company active in the securities, investment management, and credit services businesses. Morgan Stanley may have and may seek to have business relationships with any person or company named in this journal.

Copyright © 2011 Morgan Stanley. All rights reserved. No part of this publication may be reproduced, stored or transmitted in any form or by any means without the prior permission in writing from the copyright holder. Authorization to photocopy items for internal and personal use is granted by the copyright holder for libraries and other users registered with their local Reproduction Rights Organization (RRO), e.g. Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, USA (www.copyright.com), provided the appropriate fee is paid directly to the RRO. This consent does not extend to other kinds of copying such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to: permissionsuk@wiley.com.

This journal is printed on acid-free paper.