

# **CS MLP Primer - Part Deux**

**INDUSTRY PRIMER** 

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## Just Real Assets and Real Cash Flow Housed in a Master Limited Partnership Structure

Master Limited Partnerships (MLPs) have been around since the 1980's but have only recently gained prominence as more investors search for yield and attractive total returns. As of this writing, the MLPs in our research universe provide an average pre-tax yield of 6.5% and an expected three year compounded annual distribution growth rate of about 7%. Indeed, since 1996 the average annual total return of MLPs (based on the Alerian Index) has approximated 16%. The goal of this primer is to explain MLPs so that investors can feel comfortable in allocating capital to MLPs and can make informed decisions. After all, *these are just real assets that generate real cash flow that are housed in a master limited partnership structure*.



Exhibit 1: Total Returns - MLPs vs. S&P500 & Russell 2000 (1996-2011)

Source: Factset, Credit Suisse estimates

DISCLOSURE APPENDIX CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, INFORMATION ON TRADE ALERTS, ANALYST MODEL PORTFOLIOS AND THE STATUS OF NON-U.S ANALYSTS. FOR OTHER IMPORTANT DISCLOSURES, visit www.credit-suisse.com/ researchdisclosures or call +1 (877) 291-2683. U.S. Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.





# **Executive Summary**

Master Limited Partnerships (MLPs) have been around since the 1980's but have only recently gained prominence as more investors search for yield and attractive total returns. As of this writing, the MLPs in our research universe provide an average pre-tax yield of 6.5% and an expected three year compounded annual distribution growth rate of about 7%. Indeed, since 1996 the average annual total return of MLPs (based on the Alerian Index) has approximated 16%. Such a return over so long a period sounds too good to be true. How is it possible?

We would suggest that the *real and perceived complexity* of investing in MLPs created an inefficient market and that returns over time should trend toward the more normal range for equities. Unlike corporate equities, MLPs generate unrelated business taxable income (UBTI), payout cash flow in the form of distributions rather than dividends and generate Schedule K-1s instead of 1099's. As such MLPs do create impediments to investments by tax exempt entities and foreign institutions. However, these hurdles are fairly easily surmountable through newly created open and closed end funds. The goal of this primer is to explain MLPs so that investors can feel comfortable in allocating capital to MLPs and can make informed decisions. After all, *these are just real assets that generate real cash flow that are housed in a master limited partnership structure.* 

Hopefully, readers will take the following away from this primer:

(1) MLPs provide investors with relatively high current income that is partially tax deferred.

(2) Distribution growth has consistently exceeded inflation.

(3) MLPs are investing billions of dollars in building vital US energy infrastructure. Returns from these investments are fueling distribution growth.

(4) Managements have been excellent stewards of capital which has facilitated the raising of capital to finance growth.

What are the primary risks to an investment in MLPs?

(1) A potential change in the tax treatment of pass-through entities such as MLPs could impact cash flow available for distributions to unitholders. As of this writing, we do not believe that this is likely. Firstly, the potential tax revenue impact would be just \$2.8 billion over five years according to the US Joint Committee on Taxation. Secondly, MLPs can rightfully claim that through capital investment in energy infrastructure they are creating thousands of jobs.

(2) Inability to access capital markets to finance growth. MLPs have successfully relied on capital markets (debt and equity) to finance growth and would be negatively impacted should the capital markets become unavailable (such as during the credit crisis in 2008).

(3) A rapid rise in interest rates would likely negatively impact investors' total returns from MLP investments. The impact may be muted by growth in distributions.

(4) A severe economic downturn would likely negatively impact demand for energy and commodities. This could impact MLP cash flows as demand for their services may decline.





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## What is a MLP?

Real Assets...

Real Cash Flow...





## MLPs' Value Proposition = High Yield + Real Income Growth

Master limited partnerships (MLPs) offer investors an attractive expected total return via a high (tax-advantaged) yield plus real growth in income via distribution growth.

#### High (Tax-Advantaged) Yield...

Historically, as well as today, MLPs have provided investors with a relatively high yield as compared to alternative yield-oriented investments. Currently, the Alerian MLP index yields 6.4%, which compares favorably relative to investment grade corporate bonds, S&P500 utilities, US Treasuries and the S&P500 index (Exhibit 2).

High yield corporate bonds do offer a higher yield than MLPs, however we would argue this is justified given MLPs generally carry investment grade credit ratings and also provide the potential for income growth over time.



Exhibit 2: MLP Yield vs. Alternative Yield-Oriented Investments

Source: Company data, Credit Suisse estimates

High tax-advantaged yield + dist. growth = attractive total return proposition

MLPs have a solid track record of distribution growth

that has exceeded inflation



#### ... Plus Real Growth In Income

MLPs have a solid track record of distribution growth that has exceeded inflation in every year since 1998. A challenging capital market environment in the second half of 2008 led to a slowdown in distribution growth in the fourth quarter of 2008 through the first half of 2009. However, distribution growth re-accelerated from 2009 lows as MLPs' cash flows recovered.

Exhibit 3: MLPs' Dist Growth Has Exceeded Inflation



Source: FactSet, Bureau of Labor Statistics, Credit Suisse estimates;

Exhibit 4: Growth Capex Drives Distribution Growth



Source: FactSet, Credit Suisse estimates; Dist growth excludes GPs;

#### **Total Returns Have Exceeded Equity Benchmarks**

The combination of high yield and real income growth has resulted in exceptional total shareholder returns over time for MLPs. Since 1996, MLPs have generated a compound annualized total return of 15.9% which compares favorably to the S&P500 at 6.4% and Russell 2000 at 6.8%. We continue to believe MLPs offer a compelling value proposition given a relatively high (tax-advantaged) yield along with the potential for real income growth.



#### Exhibit 5: Total Returns – MLPs vs. S&P500 & Russell 2000 (1996-2011)

Source: Factset, Credit Suisse estimates



MLPs are limited

exchanges

partnerships that are

publicly traded on U.S. stock



# **MLP Basics**

## What Is a MLP?

Master limited partnerships (MLPs) are limited partnerships that are publicly traded on U.S. stock exchanges. They trade just like common stock. Instead of shares, MLP interests are denominated in units, and instead of dividends, investors receive quarterly distributions. MLPs are required by their partnership agreements to distribute all of their available cash to their partners.

The assets of the MLP will typically be held in an operating limited partnership (OLP) which is managed by the general partner (GP). The GP will usually also own a 2% stake in the MLP and incentive distribution rights (IDRs). Limited partners own units in the MLP but have no role in the partnership's operations or management.



Source: Company data, Credit Suisse estimates

## What Are the Requirements to Qualify as an MLP?

In 1987, Section 7704 of the Internal Revenue Code placed restrictions on which entities could operate as MLPs. Specifically, an MLP must generate at least 90% of its income from qualifying sources. A common misperception is that MLPs are required to distribute at least 90% of their cash flow to maintain their qualifying status. This is not the case. It is the partnership agreement that mandates that MLPs distribute all of its available cash flow, not U.S. tax laws.

#### What are the qualifying sources of income?

As defined by the tax code, the following types of income are suitable for an MLP: (1) interest, dividends and capital gains, (2) rental income and capital gains from real estate, (3) income and capital gains from natural resources activities, (4) income from commodity investments and (5) capital gains from the sale of assets used to generate the aforementioned types of income.

Our coverage universe is focused on energy-related MLPs, specifically midstream activities. These include: (1) gathering and processing, (2) compression, (3) transportation (primarily pipelines), and (4) storage, terminals and marketing. Other energy-related

An MLP must generate at least 90% of its income from qualifying sources activities include: (1) refining, (2) mining (such as coal), (3) marine transportation, (4) propane distribution, and (5) exploration, development, and production.

Below is the Credit Suisse MLP coverage universe. Please note the average yield of 6.5% and three year expected distribution growth rate of 6.9%. Also, recognize that the yields range from 15.3% (an outlier and speculative) to 4.6% (fast grower).

| Exhibit 7: | Credit | Suisse | MLP | Coverage | Universe |
|------------|--------|--------|-----|----------|----------|
|            |        |        |     |          |          |

|                                   |        |          | Curi     | rent Stoc | k Informa | tion     |         |            |        | Rating   | gs / Price <sup>-</sup> | Targets |       |       |       |      | Total I | Returns |      |          |
|-----------------------------------|--------|----------|----------|-----------|-----------|----------|---------|------------|--------|----------|-------------------------|---------|-------|-------|-------|------|---------|---------|------|----------|
|                                   |        |          |          |           |           |          |         |            |        | Upside/  | Expected                | 3-Yr    |       |       |       |      |         |         |      |          |
|                                   |        | Price    | Market   | Current   | Current   | 52-Wk    | 52-Wk   |            | Price  | Downside | Total                   | Dist    |       | P/DCF |       |      |         |         | 1    | IPO      |
|                                   | Ticker | 11/18/11 | Cap (m)  | Dist.     | Yield     | High     | Low     | Rating     | Target | to PT    | Return                  | CAGR    | 2010  | 2011E | 2012E | YTD  | 1-Yr    | 3-Yr    | 5-Yr | Date     |
| Energy MLPs                       |        |          |          |           |           |          |         |            |        |          |                         |         |       |       |       |      |         |         |      |          |
| Boardwalk Pipeline Partners, LP   | BWP    | \$27.29  | \$5,420  | \$2.10    | 7.7%      | \$33.47  | \$23.86 | Outperform | \$35   | 28%      | 36%                     | 3.2%    | 12.8x | 13.7x | 13.0x | -6%  | -7%     | 63%     | 30%  | 11/9/05  |
| Chesapeake Midstream Partners     | CHKM   | \$26.45  | \$3,654  | \$1.45    | 5.5%      | \$28.95  | \$24.17 | Outperform | \$32   | 21%      | 27%                     | 12.4%   | 16.9x | 14.5x | 13.2x | -3%  | -3%     | NA      | NA   | 07/29/10 |
| DCP Midstream Partners            | DPM    | \$45.01  | \$2,000  | \$2.53    | 5.6%      | \$45.01  | \$34.61 | Outperform | \$51   | 13%      | 19%                     | 7.1%    | 18.1x | 16.3x | 15.0x | 28%  | 38%     | 562%    | 112% | 12/02/05 |
| Energy Transfer Partners, LP      | ETP    | \$44.09  | \$9,240  | \$3.58    | 8.1%      | \$55.08  | \$39.90 | R          | R      | R        | R                       | R       | 12.8x | R     | R     | -9%  | -7%     | 76%     | 21%  | 6/25/96  |
| El Paso Pipeline Partners, LP     | EPB    | \$32.57  | \$6,699  | \$1.92    | 5.9%      | \$38.01  | \$31.69 | Outperform | \$41   | 26%      | 32%                     | 9.8%    | 13.4x | 12.6x | 12.8x | 3%   | 5%      | 141%    | NA   | 11/15/07 |
| Enterprise Products Partners, LP  | EPD    | \$45.72  | \$40,013 | \$2.45    | 5.4%      | \$45.72  | \$37.50 | Outperform | \$47   | 3%       | 8%                      | 5.2%    | 17.6x | 13.0x | 14.2x | 16%  | 13%     | 158%    | 126% | 7/28/98  |
| Kinder Morgan Energy Partners, LP | KMP    | \$76.94  | \$25,618 | \$4.64    | 6.0%      | \$77.83  | \$64.58 | Neutral    | \$81   | 5%       | 12%                     | 5.9%    | 17.2x | 16.4x | 14.6x | 16%  | 17%     | 91%     | 130% | 7/30/92  |
| Kinder Morgan Management, LLC     | KMR    | \$68.90  | \$6,670  | \$4.64    | 6.7%      | \$68.90  | \$53.71 | Outperform | \$76   | 10%      | 17%                     | 5.9%    | 15.4x | 14.7x | 13.0x | 10%  | 17%     | 98%     | 126% | 5/15/01  |
| Linn Energy LLC                   | LINE   | \$36.91  | \$6,522  | \$2.76    | 7.5%      | \$40.90  | \$31.91 | Neutral    | \$42   | 14%      | 22%                     | 4.1%    | 11.5x | 11.3x | 12.1x | 6%   | 8%      | 234%    | 135% | 1/13/06  |
| Magellan Midstream Partners , LP  | MMP    | \$65.01  | \$7,329  | \$3.20    | 4.9%      | \$65.01  | \$53.18 | Neutral    | \$64   | -2%      | 4%                      | 7.1%    | 17.8x | 16.6x | 14.6x | 21%  | 23%     | 183%    | 132% | 2/6/01   |
| Targa Resources Partners, LP      | NGLS   | \$35.97  | \$3,049  | \$2.33    | 6.5%      | \$36.35  | \$29.92 | Outperform | \$42   | 17%      | 24%                     | 8.5%    | 10.5x | 11.7x | 12.1x | 13%  | 24%     | 399%    | NA   | 02/09/07 |
| Niska Gas Storage Partners        | NKA    | \$9.15   | \$619    | \$1.40    | 15.3%     | \$22.09  | \$9.06  | Neutral    | \$12   | 31%      | 46%                     | 0.0%    | 3.5x  | 4.7x  | 12.0x | -50% | -49%    | NA      | NA   | 5/11/10  |
| NuStar Energy, LP                 | NS     | \$55.64  | \$3,598  | \$4.38    | 7.9%      | \$71.69  | \$51.31 | Neutral    | \$65   | 17%      | 25%                     | 1.7%    | 12.6x | 12.5x | 11.9x | -14% | -10%    | 72%     | 43%  | 4/10/01  |
| ONEOK Partners, LP                | OKS    | \$50.09  | \$10,209 | \$2.34    | 4.7%      | \$50.41  | \$37.74 | Outperform | \$55   | 10%      | 15%                     | 12.3%   | 21.9x | 16.9x | 15.3x | 33%  | 34%     | 151%    | 130% | 9/24/93  |
| Plains All American Pipeline, LP  | PAA    | \$64.15  | \$9,583  | \$3.93    | 6.1%      | \$66.57  | \$57.04 | Outperform | \$72   | 12%      | 19%                     | 5.9%    | 15.8x | 11.9x | 13.7x | 9%   | 11%     | 139%    | 84%  | 11/18/98 |
| Spectra Energy Partners, LP       | SEP    | \$29.97  | \$2,888  | \$1.86    | 6.2%      | \$34.83  | \$25.68 | Neutral    | \$31   | 3%       | 10%                     | 4.2%    | 14.9x | 14.5x | 14.2x | -3%  | -5%     | 79%     | NA   | 6/27/07  |
| Sunoco Logistics Partners, LP     | SXL    | \$105.77 | \$3,643  | \$4.86    | 4.6%      | \$106.11 | \$75.72 | Neutral    | \$100  | -5%      | 0%                      | 7.6%    | 18.6x | 13.8x | 13.1x | 34%  | 40%     | 205%    | 204% | 2/5/02   |
| Tesoro Logistics LP               | TLLP   | \$27.26  | \$832    | \$1.40    | 5.1%      | \$27.58  | \$21.34 | Outperform | \$29   | 6%       | 6%                      | 9.4%    | NA    | 26.1x | 17.8x | NA   | NA      | NA      | NA   | 4/19/11  |
| Western Gas Partners              | WES    | \$36.38  | \$3,279  | \$1.68    | 4.6%      | \$37.06  | \$29.39 | Outperform | \$42   | 15%      | 21%                     | 13.1%   | 16.3x | 15.9x | 16.1x | 26%  | 28%     | 223%    | NA   | 5/9/08   |
| Average                           |        |          |          |           | 6.5%      |          |         |            |        |          | 19%                     | 6.9%    | 14.9x | 14.3x | 13.8x | 7%   | 10%     | 180%    | 106% |          |
| Median                            |        |          |          |           | 6.0%      |          |         |            |        |          | 19%                     | 6.5%    | 15.6x | 14.1x | 13.5x | 10%  | 12%     | 146%    | 126% |          |
|                                   |        |          |          |           |           |          |         |            |        |          |                         |         |       |       |       |      |         |         |      |          |
| General Partners                  |        |          |          |           |           |          |         |            |        |          |                         |         |       |       |       |      |         |         |      |          |
| Energy Transfer Equity            | ETE    | \$37.56  | \$8,375  | \$2.50    | 6.7%      | \$46.23  | \$32.07 | R          | R      | R        | R                       | R       | 17.3x | R     | R     | 2%   | 3%      | 179%    | 81%  | 2/3/06   |
| Kinder Morgan Inc.                | KMI    | \$28.25  | \$19,973 | \$1.20    | 4.2%      | \$31.37  | \$23.66 | Neutral    | \$32   | 13%      | 18%                     | 11.9%   | NA    | 23.4x | 21.1x | NA   | NA      | NA      | NA   | 02/11/11 |
| NuStar GP Holdings                | NSH    | \$30.25  | \$1,288  | \$1.98    | 6.5%      | \$39.63  | \$28.88 | Neutral    | \$34   | 12%      | 19%                     | 3.1%    | 16.2x | 15.3x | 14.5x | -12% | -9%     | 111%    | 91%  | 7/14/06  |
| Targa Resources Corp.             | TRGP   | \$33.34  | \$1,414  | \$1.23    | 3.7%      | \$36.25  | \$24.70 | Neutral    | \$38   | 14%      | 18%                     | 24.5%   | NA    | 23.6x | 23.6x | 28%  | NA      | NA      | NA   | 12/07/10 |
| Average                           |        |          |          |           | 5.3%      |          |         |            |        |          | 19%                     | 13.2%   | 16.7x | 20.7x | 19.7x | 6%   | -3%     | 145%    |      |          |
| Median                            |        |          |          |           | 5.4%      |          |         |            |        |          | 18%                     | 11.9%   | 16.7x | 23.4x | 21.1x | 2%   | -3%     | 145%    |      |          |
|                                   |        |          |          |           |           |          |         |            |        |          |                         |         |       |       |       |      |         |         |      |          |
| Indices                           |        |          |          |           |           |          |         |            |        |          |                         |         |       |       |       |      |         |         |      |          |
| Alerian Index                     | AMZ    | \$369    |          |           | 6.3%      | \$390    | \$316   |            |        |          |                         |         |       |       |       | 8%   | 10%     | 146%    | 89%  |          |
| S&P 500 Index                     | SP50   | \$1,216  |          |           | 2.3%      | \$1,364  | \$1,099 |            |        |          |                         |         |       |       |       | -2%  | 4%      | 51%     | -3%  |          |
| 10-year Treasury Note             | US10Y  |          |          |           | 2.0%      | 3.7%     | 1.7%    |            |        |          |                         |         |       |       |       | 6%   | 2%      | -2%     | 0%   |          |

Source: FactSet, Credit Suisse estimates as of November 18, 2011

## Why Create an MLP?

There are several reasons a company would choose the MLP structure:

- As a pass-through entity, MLPs are an efficient way to distribute cash to owners and avoid double taxation. By paying out their cash flow to unitholders, MLPs reduce agency costs associated with the stewardship of capital.
- Financing vehicle: Initially, there is a cost of capital advantage because MLPs pay no corporate level federal tax. However, this advantage is eroded as distributions are raised and the general partner receives a disproportionate share of distributions via ownership of incentive distribution rights. Perhaps a bit counterintuitive, but the more successful an MLP becomes, as measured by the growth in distributions, the more costly its equity becomes (more on this later). Note, also that because there is no tax shield, the MLP should have a higher cost of debt.
- MLPs are an efficient way to monetize strategic assets because the sponsor (via its ownership of the general partner) still manages (controls) the assets.
- Additionally, by owning IDRs, the sponsor benefits disproportionately from the growth in the MLP.

There are several reasons for a company with qualifying assets to create an MLP

## What Are the Tax Characteristics?

Unlike corporations, MLPs are pass-through entities that pay no corporate level federal taxes. Taxes are paid by limited partners as if they were directly earning the income. There are several benefits to the MLP owner.

- (1) A significant amount of income is sheltered primarily because of depreciation expense.
- (2) There is no double taxation. MLPs are an efficient way to distribute cash to owners.
- (3) Cash distributions are treated as a tax deferred return of capital.
- (4) MLPs are ideal for estate planning. As with other securities, the cost basis in MLP units is stepped up to fair market value upon the owner's death and the heir avoids taxation on any previous distributions.

#### An Example of How the Taxes Work

CREDIT SUISSE

For illustrative purposes assume an investor purchases an MLP at \$20 per unit and the MLP pays distributions that total \$2.00 per unit annually over the next five years. Each year, the investor's cost basis is reduced by the distribution. XYZ also allocates \$2.00 per unit of income to the investor and expenses \$1.60 related to depreciation annually. The investor's cost basis is adjusted upward each year by this net income allocation of \$0.40. So after year one, the investor's cost basis is \$18.40 and by the end of year five his cost basis is \$12. Please note that the investor will be taxed at an ordinary tax rate on the net income allocated in the year that it was earned. After year five, the investor decides to sell the MLP for \$22 per unit and realizes a total gain of \$10.00 per unit (\$22-12). In this example, most of the gain (\$8) will be taxed as ordinary income because it represents the recapture of depreciation expense over the five years (\$1.60 times 5) and only \$2 will represent long-term capital gains.

MLPs offer several tax benefits. They do not pay taxes at the entity level and the majority of distributions are tax-deferred

#### Exhibit 8: MLP XYZ Tax Example

|                                    | Year 0  | Year 1  | Year 2  | Year 3  | Year 4  | Year 5  |
|------------------------------------|---------|---------|---------|---------|---------|---------|
| Purchase price                     | \$20.00 |         |         |         |         |         |
| Distribution per unit              |         | \$2.00  | \$2.00  | \$2.00  | \$2.00  | \$2.00  |
| Income per unit                    |         | \$2.00  | \$2.00  | \$2.00  | \$2.00  | \$2.00  |
| Depreciation expense               |         | \$1.60  | \$1.60  | \$1.60  | \$1.60  | \$1.60  |
| Cost basis                         | \$20.00 | \$18.40 | \$16.80 | \$15.20 | \$13.60 | \$12.00 |
| Sales price                        |         |         |         |         |         | \$22.00 |
| Taxes:                             |         |         |         |         |         |         |
| Earnings per unit                  |         | \$0.40  | \$0.40  | \$0.40  | \$0.40  | \$0.40  |
| Depreciation recapture             |         |         |         |         |         | \$8.00  |
| Amt subject to ordinary tax rates  |         | \$0.40  | \$0.40  | \$0.40  | \$0.40  | \$8.40  |
| Ordinary tax rate                  |         | 35%     | 35%     | 35%     | 35%     | 35%     |
| Taxes owed at ordinary rates       |         | \$0.14  | \$0.14  | \$0.14  | \$0.14  | \$2.94  |
| Amt subject to LT capital gains ra | ates    |         |         |         |         | \$2.00  |
| LT capital gains rate              |         |         |         |         |         | 15%     |
| Taxes owed at ordinary rates       |         |         |         |         |         | \$0.30  |
| Total taxes owed                   |         | \$0.14  | \$0.14  | \$0.14  | \$0.14  | \$3.24  |

Source: Credit Suisse estimates.

#### What Is the Tax Shield?

Taxable income and distributions are two distinct terms. The amount of distributions an investor receives is based on the MLP's distributable cash flow and as noted is technically 100% tax deferred to the extent of an investor's cost basis in his MLP. But it is common practice to compare the investor's allocation of net income to distributions paid to the investor. So using the above example, 80% of the distribution (\$1.60/\$2.00) may be considered to be shielded from taxes (or tax deferred).

## What Is the Minimum Quarterly Distribution (MQD)?

This is the initial distribution established when the MLP is formed.

## What Are Subordinated Units?

The subordinated units are generally owned by the sponsor and comprise about half the units outstanding. They provide a layer of distribution protection for the public unitholders who will be paid prior to the subordinated unitholders. In the typical partnership agreement, distributions at the MQD level that are not paid will accrue arrearages. The subordination period will typically end after the MLP has earned and distributed the MQD on all units for twelve consecutive quarters. If a distribution is missed, the subordination period is reset. At the end of the period, the subordinated units are converted into common units on a one-for-one basis.

Subordinated units provide a layer of distribution protection for public unitholders





## What Are Incentive Distribution Rights?

The general partner owns incentive distribution rights (IDRs) that entitle the GP to a higher proportion of distributions as certain target distribution levels are reached. The rationale for IDRs is to motivate the general partner to manage the MLP for distribution growth and to compensate the GP for ownership of subordinated units.

The best way to understand this is to work through an example for MLP XYZ depicted in Exhibit 10. The conventional MLP will have an MQD and three distribution tiers. For our example, let's assume there are 1,000 units outstanding and the MQD is set at \$0.45 per unit or \$1.80 annualized. The three tiers are set at \$0.50 (\$2.00 annualized), \$0.575 (\$2.30 annualized) and \$0.70 (\$2.80 annualized), respectively. At the MQD, XYZ will pay out total distributions of \$1,837. The limited partners receive \$1,800 (98% of the total) and the GP receives \$37 (2% of the total). The GP will receive 2% of the total distributions paid up to \$2.00. So at a declared rate of \$2.00, XYZ pays total distributions of \$2,041 with \$2,000 (98%) paid to limited partners and \$41 paid to the general partner. We now assume that XYZ declares a distribution of \$2.30 and that the GP is entitled to 15% of the incremental distributions paid between \$2.00 and \$2.30. At this higher rate, the limited partners receive incremental distributions of \$353. In other words the GP receives 15% of the increment or \$53. To recap, at a declared distribution of \$2.30, the limited partners will receive \$2,300 (\$2,000 plus \$300) and the GP will receive \$94 (\$41 + \$53).

Incentive distribution rights (IDRs) entitle the GP to a higher proportion of distributions as target distribution levels are met





Source: Credit Suisse example; assumes top tier is 50/50 between LP/GP



#### Exhibit 10: IDR Example for XYZ MLP

|                                         | An nual<br>Dist/LP Unit | Units<br>O/S | LP<br>Take | GP<br>Take  | Dist. To<br>LP (\$mn) | Dist. To<br>GP (\$mn)  | Total Dists<br>Pd (\$mn) | Cumulative<br>GP Take |
|-----------------------------------------|-------------------------|--------------|------------|-------------|-----------------------|------------------------|--------------------------|-----------------------|
| Example 1: \$1.80 declared distribution | n                       |              |            |             |                       |                        |                          |                       |
| Minimum Quarterly Distribution (MQD)    | \$1.80                  | 1,000        | 98%        | 2%          | \$1,800               | \$37                   | \$1,837                  |                       |
| Total Distribution Paid                 |                         |              |            |             | \$1,800               | \$37                   | \$1,837                  | 2%                    |
| Total Distribution Paid / Unit          |                         |              |            |             | \$1.80                | \$0.04                 | \$1.84                   | 2%                    |
|                                         |                         |              |            |             |                       |                        |                          |                       |
| Example 2: \$2.00 declared distribution | n<br>                   |              |            |             |                       |                        |                          |                       |
| Minimum Quarterly Distribution          | \$1.80                  | 1,000        | 98%        | 2%          | \$1,800               | \$37                   | \$1,837                  |                       |
| First Target Distribution               | \$2.00                  | 1,000        | 98%        | 2%          | \$200                 | \$4                    | \$204                    |                       |
| Total Distribution Paid                 |                         |              |            |             | \$2,000               | \$41                   | \$2,041                  | 2%                    |
| Total Distribution Paid / Unit          |                         |              |            |             | \$2.00                | \$0.04                 | \$2.04                   | 2%                    |
| Example 3: \$2.30 declared distribution | •                       |              |            |             |                       |                        |                          |                       |
| Minimum Quarterly Distribution          | \$1.80                  | 1 000        | 0.8%       | 2%          | \$1.800               | \$37                   | \$1 837                  |                       |
| First Target Distribution               | \$2.00                  | 1,000        | 0.8%       | 2%          | ψ1,000<br>\$200       | ψ07<br>\$Λ             | \$204                    |                       |
| Second Target Distribution              | \$2.00                  | 1,000        | 85%        | 2 /0<br>15% | \$200<br>\$200        | Ψ <del>4</del><br>\$53 | Ψ <u>2</u> 04<br>\$353   |                       |
| Total Distribution Paid                 | ψ2.00                   | 1,000        | 0070       | 10 /0       | \$2,300               | \$94                   | \$2.394                  | 4%                    |
| Total Distribution Paid / Unit          |                         |              |            |             | \$2,30                | \$0.09                 | \$2,39                   | 4%                    |
|                                         |                         |              |            |             | <b>4</b> 2100         | çulou                  | <u><u></u></u>           | 1,0                   |
| LP / GP Growth Rates from MQD to de     | clared distril          | oution o     | f \$2.30   | )           |                       |                        |                          |                       |
| LP growth rate from MQD:                | 28%                     |              | ,          |             |                       |                        |                          |                       |
| GP growth rate from MQD:                | 155%                    |              |            |             |                       |                        |                          |                       |
|                                         |                         |              |            |             |                       |                        |                          |                       |
| Example 4: \$2.80 declared distribution | n                       |              |            |             |                       |                        |                          |                       |
| Minimum Quarterly Distribution          | \$1.80                  | 1,000        | 98%        | 2%          | \$1,800               | \$37                   | \$1,837                  |                       |
| First Target Distribution               | \$2.00                  | 1,000        | 98%        | 2%          | \$200                 | \$4                    | \$204                    |                       |
| Second Target Distribution              | \$2.30                  | 1,000        | 85%        | 15%         | \$300                 | \$53                   | \$353                    |                       |
| Third Target Distribution               | \$2.80                  | 1,000        | 75%        | 25%         | \$500                 | \$167                  | \$667                    |                       |
| Total Distribution Paid                 |                         |              |            |             | \$2,800               | \$260                  | \$3,060                  | 9%                    |
| Total Distribution Paid / Unit          |                         |              |            |             | \$2.80                | \$0.26                 | \$3.06                   | 9%                    |
| Example 5: \$3.00 declared distribution | •                       |              |            |             |                       |                        |                          |                       |
| Minimum Quarterly Distribution          | \$1.80                  | 1 000        | 0.8%       | 2%          | \$1.800               | \$37                   | \$1.837                  |                       |
| First Target Distribution               | \$2.00                  | 1 000        | 98%        | 2%          | \$200                 | \$4                    | \$204                    |                       |
| Second Target Distribution              | \$2.30                  | 1 000        | 85%        | 15%         | \$300                 | Ψ <sup>-</sup><br>\$53 | \$353                    |                       |
| Third Target Distribution               | \$2.00                  | 1 000        | 75%        | 25%         | \$500                 | \$167                  | \$667                    |                       |
| Above Third Target Distribution         | \$3.00                  | 1.000        | 50%        | 20 %        | \$200                 | \$200                  | \$400                    |                       |
| Total Distribution Paid                 | ψ0.00                   | .,000        | 5070       | 50 / 0      | \$3.000               | \$460                  | \$3,460                  | 13%                   |
| Total Distribution Paid / Unit          |                         |              |            |             | \$3.00                | \$0.46                 | \$3.46                   | 13%                   |
|                                         |                         |              |            |             | ψ0.00                 | υτισφ                  | ψυτιυ                    | 10/0                  |

Source: Credit Suisse example

Let's pause a moment to reflect. In total, XYZ has paid out \$2,394—\$2,300 to limited partners and \$94 to the GP. The distribution to limited partners has been raised by 28% from \$1,800 to \$2,300 while the distribution to the GP has grown by 155% from \$37 at the MQD to \$94. In other words, the GP has benefited disproportionately from the increase in distributions. Although the GP has just a 2% equity stake, it now receives 4% of the total distributions paid because of the IDRs. There is one additional way to think about the distribution. XYZ has declared a distribution of \$2.30 but is actually paying a total distribution of \$2.39.

Now please refer back to Exhibit 10. Between declared distributions of \$2.30 and \$2.80, the GP receives 25% of the incremental distributions and receives 50% of the incremental payments for all distributions declared above \$2.80.

## What About Corporate Governance?

Every MLP is governed by the general partner, and in most cases, limited partners do NOT vote for members of the board of directors. The general partner generally will make all decisions regarding the operation of the MLP and set distribution policy. However, the major stock exchanges do require that there be at least three independent members on the GP's board of directors and the general partner does have certain fiduciary duties owed to the limited partners. Additionally, the partnership agreement may set certain parameters for a unitholder vote to decide on such things as the sale of asset or removal of the general partner.

## How Many MLPs Are There?

Today there are about 90 MLPs, the largest category and the focus of our coverage is energy related MLPs. The number of energy related MLPs total 68 (pro-forma for year-end 2011), with an aggregate market capitalization of approximately \$221 billion (see Exhibit 25 on page 23). The median market cap is approximately \$1,566 million and the top ten MLPs represent approximately 56.9% of the total (EPD, KMP, WPZ, OKS, PAA, ETP, ETE, EPB, EEP and MMP).

## What Are the Common Investment Characteristics?

Generally, these assets should be long-lived, generate predictable and stable cash flows and have minimal commodity price risk. However, in recent years riskier assets that have commodity exposure have reemerged—i.e., exploration and production MLPs, refinery and nitrogen fertilizer companies.

## What Are the Differences between MLPs and LLCs?

Limited liability companies are not master limited partnerships but can be treated as such for tax purposes. There are three similarities between MLPs and LLCs. They are non-taxable entities, holders receive a K-1 instead of Form 1099 for tax reporting and there is a tax shield. However, unlike MLPs, LLCs have no general partner and no IDRs and better corporate governance because owners have voting rights.

| Exhibit <sup>•</sup> | 11: | Maior | Differences | Between | MLPs.    | LLCs | and Cor | oorations |
|----------------------|-----|-------|-------------|---------|----------|------|---------|-----------|
|                      |     | major | Differences | Detween | IVILI 3, |      |         | Jorations |

| Characteristic                       | MLP | LLC | Corporation |
|--------------------------------------|-----|-----|-------------|
| Taxable at entity level              | No  | No  | Yes         |
| Tax items flow through               | Yes | Yes | No          |
| Tax deferral on distributions        | Yes | Yes | No          |
| Tax reporting                        | K-1 | K-1 | DIV-1099    |
| Generalpartner                       | Yes | No  | No          |
| Incentive distribution rights (IDRs) | Yes | No  | No          |
| Investor voting rights               | No  | Yes | Yes         |

Source: National Association of Publicly Traded Partnerships (NAPTP)

## What Are the Challenges to Ownership?

- Structure appears on the surface to be complex.
- Investors receive a K-1 instead of a 1099.
- Investors may have state tax filing requirements in the states in which the MLP does business or owns assets. From a practical standpoint, many individual investors are not burdened by these requirements because the income allocated among the states will be relatively small and is many times below state filing thresholds.
- Tax exempt entities such as pension and profit sharing plans, IRAs and charities will incur UBTI or unrelated business taxable income. This will necessitate that they file tax returns and generate a tax liability if the UBTI exceeds \$1,000 per year.

Limited partners generally do not vote for members of the board of directors

Generally, MLP assets should be long-lived, generate predictable and stable cash flows and have minimal commodity price risk





- Foreigners investing directly in MLPs are required to file US tax returns and pay taxes on that income. To encourage compliance, the U.S. tax code requires that MLPs withhold taxes at the maximum rate applicable on distributions.
- There are limitations to mutual funds or regulated investment companies (RICs) ownership of MLPs. Since passage of the American Jobs Creation Act of 2004, mutual funds are permitted to own MLPs, but MLPs in aggregate can not exceed 25% of the fund's assets nor can the fund own more than 10% of any one security.
- There is limited trading liquidity. As noted, the aggregate market cap of the energy related MLPs is just \$221 billion and the average size is approximately \$3.2 billion. There are only thirteen MLPs with a market cap above \$5 billion.

## Are There Alternative Ways to Own MLPs?

#### Yes.

MLP-dedicated closed-end funds. There are several MLP dedicated closed-end funds. (See Exhibit 12). Closed-end fund investors receive Form 1099s instead of Schedule K-1s and ownership is allowed in IRAs since closed-end funds do not generate any UBTI. A portion of the distributions received from MLP-dedicated closed-end funds is generally tax deferred and dividend income received is treated as "qualified dividends" for income tax purposes.

#### Exhibit 12: MLP-Dedicated Closed-End Funds

|                                           |        | Price    | NAV/    | Price/ | Current |       |          |            |      | I otal H | leturns |      |
|-------------------------------------------|--------|----------|---------|--------|---------|-------|----------|------------|------|----------|---------|------|
| Name                                      | Ticker | 11/21/11 | Share   | NAV    | Dist    | Yield | Mkt Cap  | Inception  | YTD  | 1-Yr     | 3-Yr    | 5-Yr |
| Closed-End Funds                          |        |          |         |        |         |       |          |            |      |          |         |      |
| ClearBridge Energy MLP Fund               | CEM    | \$21.39  | \$21.40 | 1.00x  | \$1.42  | 6.6%  | \$1,369  | 6/25/2010  | 4%   | 11%      | NA      | NA   |
| ClearBridge Energy MLP Opportunity Fund   | EMO    | \$18.08  | \$19.31 | 0.94x  | \$1.32  | 7.3%  | \$544    | 6/10/2011  | NA   | NA       | NA      | NA   |
| Cushing MLP Total Return Fund             | SRV    | \$9.17   | \$7.60  | 1.21x  | \$0.90  | 9.8%  | \$302    | 8/27/2007  | -7%  | 3%       | 43%     | NA   |
| Energy Income and Growth Fund             | FEN    | \$27.43  | \$27.27 | 1.01x  | \$1.90  | 6.9%  | \$309    | 6/24/2004  | 9%   | 9%       | 185%    | 63%  |
| Fiduciary/Claymore MLP Oppty Fund         | FMO    | \$20.89  | \$20.13 | 1.04x  | \$1.42  | 6.8%  | \$510    | 12/22/2004 | 3%   | 8%       | 177%    | 38%  |
| Kayne Anderson Energy Development Company | KED    | \$19.87  | \$22.01 | 0.90x  | \$1.52  | 7.6%  | \$205    | 9/20/2006  | 18%  | 20%      | 203%    | 35%  |
| Kayne Anderson Energy Total Return Fund   | KYE    | \$23.85  | \$25.57 | 0.93x  | \$1.92  | 8.1%  | \$831    | 6/28/2005  | -14% | -9%      | 235%    | 54%  |
| Kayne Anderson Midstream / Energy Fund    | KMF    | \$21.98  | \$25.81 | 0.85x  | \$1.64  | 7.5%  | \$474    | 11/24/2010 | -8%  | NA       | NA      | NA   |
| Kayne Anderson MLP Investment Co.         | KYN    | \$28.40  | \$26.86 | 1.06x  | \$2.01  | 7.1%  | \$2,126  | 9/28/2004  | -4%  | 8%       | 198%    | 35%  |
| MLP & Strategic Equity Fund               | MTP    | \$15.76  | \$17.62 | 0.89x  | \$0.95  | 6.0%  | \$233    | 6/29/2007  | -6%  | -6%      | 127%    | NA   |
| Nuveen Energy MLP Total Return Fund       | JMF    | \$16.60  | \$17.34 | 0.96x  | \$1.26  | 7.6%  | \$368    | 2/24/2011  | NA   | NA       | NA      | NA   |
| Salient MLP & Energy Infrastructure Fund  | SMF    | \$23.43  | \$23.53 | 1.00x  | \$1.60  | 6.8%  | \$187    | 5/25/2011  | NA   | NA       | NA      | NA   |
| Tortoise Capital Resources Corp.          | TTO    | \$7.92   | \$10.62 | 0.75x  | \$0.40  | 5.1%  | \$73     | 2/2/2007   | 14%  | 13%      | 126%    | NA   |
| Tortoise Energy Capital Corp.             | TYY    | \$26.14  | \$25.24 | 1.04x  | \$1.62  | 6.2%  | \$509    | 5/31/2005  | 0%   | 0%       | 259%    | 45%  |
| Tortoise Energy Infrastructure Corp.      | TYG    | \$37.96  | \$33.36 | 1.14x  | \$2.21  | 5.8%  | \$1,046  | 2/27/2004  | 5%   | 9%       | 298%    | 57%  |
| Tortoise North American Energy Corp.      | TYN    | \$23.46  | \$24.65 | 0.95x  | \$1.52  | 6.5%  | \$148    | 10/31/2005 | 0%   | -1%      | 266%    | 63%  |
| Tortoise MLP Fund                         | NTG    | \$24.54  | \$24.47 | 1.06x  | \$1.64  | 6.7%  | \$1,119  | 7/30/2010  | 6%   | 7%       | NA      | NA   |
| Total                                     |        |          |         |        |         |       | \$10.254 |            |      |          |         |      |

Source: FactSet, Bloomberg, Credit Suisse estimates (as of 11/21/11)

MLP dedicated open-end funds: Open-end funds began in 2010 and have ramped up considerably over the past two years. In addition to providing the same benefits as closed-end funds, open-end funds can be liquidated at net asset value and thus offer greater liquidity to the investor.

#### Exhibit 13: MLP-Dedicated Open End Funds

|                                        |        | Price    |            | Total Returns |      |      |      |
|----------------------------------------|--------|----------|------------|---------------|------|------|------|
| Name                                   | Ticker | 11/21/11 | Inception  | YTD           | 1-Yr | 3-Yr | 5-Yr |
| Open-End Funds                         |        |          |            |               |      |      |      |
| Center Coast MLP Focus Fund            | CCCAX  | \$10.08  | 12/31/2010 | 6%            | NA   | NA   | NA   |
| Cushing® MLP Premier Fund              | CSHAX  | \$19.79  | 10/19/2010 | 2%            | 4%   | NA   | NA   |
| Famco MLP & Energy Income Fund         | INFIX  | \$10.59  | 12/27/2010 | 9%            | NA   | NA   | NA   |
| Famco MLP & Energy Infrastructure Fund | MLPPX  | \$11.16  | 9/13/2010  | 8%            | 11%  | NA   | NA   |
| MainGate MLP Fund                      | AMLPX  | \$9.65   | 2/17/2011  | NA            | NA   | NA   | NA   |
| SteelPath MLP Alpha Fund               | MLPOX  | \$10.40  | 3/31/2010  | 2%            | 3%   | NA   | NA   |
| SteelPath MLP Income Fund              | MLPZX  | \$10.22  | 3/31/2010  | -1%           | 1%   | NA   | NA   |
| SteelPath MLP Select 40 Fund           | MLPTX  | \$10.58  | 3/31/2010  | 3%            | 5%   | NA   | NA   |
| Tortoise MLP & Pipeline Fund           | TORTX  | \$10.73  | 6/1/2011   | NA            | NA   | NA   | 0%   |

Source: Company data, Credit Suisse estimates

Exchange-trade notes (ETN). In April 2009, JPMorgan launched the JPMorgan Alerian MLP Index ETN (AMJ). The ETN pays a variable quarterly coupon tied to the cash



distributions paid on the MLPs in the Alerian MLP Index, less accrued tracking fees. Investors receive Form 1099s for their ETN coupons instead of Schedule K-1s.

- Exchange-traded funds (ETF). Less prevalent than ETNs are MLP ETFs. The primary MLP ETF is the Alerian MLP ETF.
- Total return swaps. Institutions can own MLPs via total return swaps entered into with investment banks such as Credit Suisse.
- I-Shares: I-Shares present another avenue of tax-friendly MLP ownership. There are currently two MLP I-Share securities available: (1) Kinder Morgan Management, LLC (KMR) and (2) Enbridge Energy Management, LLC (EEQ). KMR and EEQ have the same economic interest in the underlying assets of Kinder Morgan Energy Partners, LP (KMP) and Enbridge Energy Partners, LP (EEP), respectively, but there are a few major differences: (1) I-Shares pay distributions in the form of additional shares, also known as Paid-In-Kind (PIK) distributions, (2) distributions are not taxable when received, so there is no tax consequence for shareholders until the I-Shares are sold (at which point, Form 1099s are issued, not Schedule K-1s), (3) I-Shares are subject to capital gains tax treatment upon sale (differences between I-Shares and limited partner unit ownership is highlighted in Exhibit 14).

KMR and EEQ are the two MLP I-Share securities available

| Exhibit 14: I-Sha      | ares vs   | LPs           | Exhibit 15:      | I-Share  | e tax example                     |          |           |             |           |          |          |
|------------------------|-----------|---------------|------------------|----------|-----------------------------------|----------|-----------|-------------|-----------|----------|----------|
|                        | KMP/      | KMR/          | Assumptions      |          |                                   | Year 0   | Year 1    | Year 2      | Year 3    | Year 4   | Year 5   |
| Characteristic         | EEP       | EEQ           | Purchase price   | \$20.00  | Dists received (in shares)        |          | 200       | 200         | 200       | 200      | 200      |
| Distributions          | Cash      | Units         | Shares purchased | 1,000    | Shares owned                      | 1,000    | 1,200     | 1,400       | 1,600     | 1,800    | 2,000    |
| Tax reporting          | K-1       | DIV-1099      | Total investment | \$20,000 | Cost basis                        | \$20,000 | \$20,000  | \$20,000    | \$20,000  | \$20,000 | \$20,000 |
| UBTI generated         | Yes       | No            |                  |          | Cost basis / share                | \$20.00  | \$16.67   | \$14.29     | \$12.50   | \$11.11  | \$10.00  |
| Annual tax consequence | Yes       | No            |                  |          | Sales price                       |          |           |             |           |          | \$22.00  |
| Tax rate upon sale     | Ordinary* | Capital gains |                  |          | Gross proceeds                    |          |           |             |           |          | \$44,000 |
|                        |           |               |                  |          | Taxes:                            |          |           |             |           |          |          |
|                        |           |               |                  |          | Gain subject to taxes (per share) |          |           |             |           |          | \$12.00  |
|                        |           |               |                  |          | Long-term capital gains rate      |          |           |             |           |          | 15%      |
|                        |           |               |                  |          | Taxes owed (per share)            |          | No tax co | nsequence u | ntil sale |          | \$1.80   |
|                        |           |               |                  |          | Sharesowned                       |          |           |             |           |          | 2,000    |
|                        |           |               |                  |          | Taxes owed (total)                |          |           |             |           |          | \$3,600  |
|                        |           |               |                  |          |                                   |          |           |             |           |          |          |

Source: NAPTP; \*Capital gains rates may apply to a portion of the sale.

Source: Credit Suisse example.



# **Analytical Framework**

## **Distribution Sustainability Is Key**

The analysis of an MLP should first and foremost begin with evaluating the sustainability of the distribution. Factors to consider include:

The cash flow characteristics of the assets. For example, the most secure and stable cash flows are typically generated from natural gas pipelines because a reservation fee is paid regardless of whether or not the customer fully utilizes his committed allocation. Refining, because of the crack spread risk, and exploration and production, because of commodity price risk and depleting nature of the assets, generate the least predictable cash flow. Commodity price risk is usually mitigated by employing hedges. In addition to commodity price risk, other risk factors include contract rollovers and project cost overruns.

Distribution sustainability is vital to an MLP

Assets that provide stable cash flow streams are preferred



Source: Credit Suisse

- The capital required to maintain the assets (maintenance capital expenditures). Maintenance capital is analogous to depreciation expense. From an accounting perspective, depreciation represents the annual erosion of an asset. In contrast, maintenance capital is the amount actually spent to offset this annual erosion. To note, maintenance capital is normally significantly less than depreciation (an accounting creation). Maintenance capital spending is an important concept because MLPs distribute their available cash flow after setting aside cash to maintain their assets. If an MLP does not spend enough for maintenance or mischaracterizes maintenance capital there could be negative consequences. In the first case, poorly maintained assets would generate less cash flow over the long run. In the second instance, distributable cash flow would be overstated, which may lead the MLP to set its distribution at a level that is not sustainable.
- Cash flow coverage of the distribution. The more predictable and stable the cash flow stream, the less need for a distribution coverage ratio above one times. Conversely, MLPs with less predictable cash flow streams (e.g. commodity price risk), should retain some cash flow to sustain the distribution during challenging markets. Typically, lower commodity sensitive businesses target a coverage ratio of approximately 1.00 times to 1.10 times, whereas more commodity sensitive businesses may target coverage ratios of 1.15 times to 1.25 times.
- Cumulative surplus cash provides cushion for the distribution. Over time, an MLP may build a cash reserve. This cash reserve may be used to finance growth capital expenditures internally, thus reducing the need to access the capital markets, or the cash reserve may be used to supplement a temporary shortfall in the distribution coverage.
- Capital structure and liquidity. Things to consider include debt maturities, refinancing risk, amount of debt that is floating and debt covenants. If an MLP is at risk of violating a debt covenant, it logically follows that a distribution cut maybe looming.

It is important for an MLP to properly assess and characterize maintenance capital expenditures

MLPs with riskier assets should maintain higher distribution coverage ratios



Since MLPs distribute most

of their available cash flow,

they rely on external

markets for growth

## **MLPs Rely on External Markets to Finance Growth**

The MLP model is such that MLPs must rely predominantly on external markets (debt and equity) to finance growth because, unlike corporations, MLPs generally do not retain cash flow to reinvest in their businesses. Rather, all available cash flow is distributed quarterly to their partners. MLPs are predominantly income oriented vehicles and are accordingly valued on the current cash distribution paid, distribution growth expectations and the sustainability of the distribution (risk profile, if you will).

#### What Are the Implications of This Model?

The MLP model is only sustainable as long as MLPs have adequate access to capital. During 2008, the model was severely tested as MLPs relied heavily on credit facilities to finance growth capital projects.



#### Exhibit 17: Energy MLPs Have Been Able to Access Capital as Needed

Source: FactSet

- The model promotes transparency and requires that management display prudent capital discipline. MLPs that undertake dilutive projects and/or make poor acquisitions will eventually not be able to access affordable capital.
- Likewise, MLPs will find it extremely difficult to recover should they find it necessary to cut their distribution. The MLP mantra should be, "never, ever, cut the distribution."

### **Valuation Framework**

#### Follow the Cash, No One Really Cares About Earnings

MLPs are primarily valued on their distributions, expectations for distribution growth and perceived risk profile. At the peak of the MLP market in July 2007 the perceived risk profile for MLPs was mistakenly low (given the benefit of hindsight) and growth potential was too richly rewarded. The average yield at the peak in July 2007 was just 5.4% versus 6.4% currently, and there was little differentiation in valuations for risk.

There are several common metrics used to value MLPs. To note at the outset, earnings per unit is not one of them. For MLPs it's all about the cash and distributions to equity owners.

#### **Distribution Discount Methodology (DDM)**

The methodology we prefer is the distribution discount model (DDM). Under this approach, a price target is derived via a three-stage model to better capture the growth dynamics of the businesses. We discount a first-stage five year distribution forecast, a second stage five year distribution growth forecast reflecting a moderation in growth, and terminal value

The MLP mantra should be, "never, ever, cut the distribution"

MLPs are primarily valued on their distributions, expectations for distribution growth and perceived risk profile

We prefer a DDM valuation approach



at an appropriate discount rate. The terminal value is usually based on an assumed perpetual growth rate of zero to two percent. To arrive at a discount rate we use a blended approach combining the discount rate implied by the capital asset pricing model with the discount rate implied by investor's required rate of return (yield plus expected distribution growth). Admittedly there is some art in calculating the discount rate used in the DDM and subjective factors are considered. These include asset mix, stability of cash flows, credit profile and rating, liquidity and management track record.

#### **Target Yield Methodology**

A frequently used stock valuation methodology is based on a targeted yield on a projected distribution rate at year-end or 12 months out. Since 1999, MLPs have traded at an approximately 326 basis points spread to the ten-year US treasury note and 119 basis point spread to the Credit Suisse Investment Grade Bond Index. The spread is influenced by growth expectations and investor risk appetite. The current spread to the ten-year treasury is historically wide at 434 basis points but has narrowed considerably from an unprecedented level of more than 1,200 basis points in November of 2008. The argument could be made that at the market peak for MLPs in July 2007, investors had overvalued growth and undervalued risk.

#### Exhibit 18: MLP Current Yield Spreads

| Current Yield Spreads |          |       |          |          |  |  |  |  |  |  |
|-----------------------|----------|-------|----------|----------|--|--|--|--|--|--|
|                       | 10-Yr    | AMZ   | LUCI BBB | CS HY    |  |  |  |  |  |  |
|                       | Treasury | Index | 7-10 Yr  | Index II |  |  |  |  |  |  |
| 10-Yr Treasury        | -        | 434   | 258      | 646      |  |  |  |  |  |  |
| AMZ Index             | 434      | -     | 176      | (213)    |  |  |  |  |  |  |
| LUCI BBB 7-10 Yr      | 258      | 176   | -        | 389      |  |  |  |  |  |  |
| CS HY Index II        | 646      | (213) | 389      | -        |  |  |  |  |  |  |
|                       |          |       |          |          |  |  |  |  |  |  |

Source: Credit Suisse LOCuS; Bloomberg; Yields for CS HY Index II > AMZ Index > LUCI BBB 7-10 Yr > 10-Yr Treasury, as of 11/18/2011

#### **Exhibit 19: MLP Average Yield Spreads**

|                  | Average Yield Spreads |       |          |          |  |  |  |  |  |  |  |
|------------------|-----------------------|-------|----------|----------|--|--|--|--|--|--|--|
|                  | 10-Yr                 | AMZ   | LUCI BBB | CS HY    |  |  |  |  |  |  |  |
|                  | Treasury              | Index | 7-10 Yr  | Index II |  |  |  |  |  |  |  |
| 10-Yr Treasury   | -                     | 324   | 207      | 596      |  |  |  |  |  |  |  |
| AMZ Index        | 324                   | -     | 117      | (272)    |  |  |  |  |  |  |  |
| LUCI BBB 7-10 Yr | 207                   | 117   | -        | 389      |  |  |  |  |  |  |  |
| CS HY Index II   | 596                   | (272) | 389      | -        |  |  |  |  |  |  |  |
|                  |                       |       |          |          |  |  |  |  |  |  |  |

Source: Credit Suisse LOCuS; Bloomberg; Yields for CS HY Index II > AMZ Index > LUCI BBB 7-10 Yr > 10-Yr Treasury; average since 1/15/99, as of 11/18/2011 A frequently used valuation methodology is based on a targeted yield on a projected distribution rate at year-end or 12 months out

MLPs are currently trading at a 434 basis point spread to the ten-year US Treasury note, above their historical average of 324 basis points



#### Exhibit 20: Yield Spread to the 10-Year Treasury Note



Source: Credit Suisse LOCuS database, Bloomberg, Alerian website, as of 11/18/2011

The Rise of the MLP and Great Credit Bubble (Nov 2002 – July 2007): From November 2002 through July 2007, the spread between yields of MLPs and the 10year treasury note contracted from 483 basis points to 26 basis points. We posit there were three main drivers of this contraction: (1) distribution growth acceleration, (2) risk



premium contraction across all asset classes, and (3) MLP ownership expansion with the entry of more institutional investors into MLPs.

- Credit Crisis (late 2007-2008): MLPs' spread to the 10-year treasury widened dramatically in 2008 (to a high of more than 1,200 basis points in November 2008), as MLPs were hit hard by the credit crunch. We believe there were six main drivers of this blowout: (1) hedge fund investors were forced sellers of MLPs, as cash was needed to meet margin calls and redemptions, (2) many institutional investors owned MLPs via total return swaps with brokerage firms such as Lehman Brothers, Merrill Lynch, etc.; investors unwound these swaps as they became less comfortable with counterparty risk, (3) MLPs need access to external capital for growth, so with the capital markets closed, distribution growth outlook was materially reduced, (4) tax loss selling toward the end of the year exacerbated poor performance, (5) risk premiums for all asset classes, especially high-yielding securities, materially increased, and (6) a greater perceived risk of distribution cuts for MLPs with commodity price exposure.
- Global Economic Recovery (2009-2010): MLP yield spreads narrowed beginning in 2009, as the credit markets re-opened and risk premiums narrowed across all risk assets. During this period we saw a significant rally in credit spreads for both investment grade and high-yield debt. As the credit markets re-opened and the global economy began recovering, MLPs picked up right where they left off. The build out of energy infrastructure reaccelerated, and MLPs began raising distribution growth rates yet again.
- Sovereign Debt Shocks (2011): MLP yield spreads widened yet again in 2011 as equity investors became concerned about the strength of the global recovery and the health of many sovereign nations. As a result, US treasury yields were bid down to near record low levels and equity risk premiums rose yet again. While the wide spread may be more a function of the unsustainably low treasury yields, we would argue the MLPs are in much better shape this time around as compared to 2008. Today, as a group, MLPs are generating large levels of excess cash flow and their balance sheets are in much better shape with limited near-term maturities and largely undrawn credit revolvers. We continue to believe MLPs offer a compelling value proposition with high (tax-advantaged) yield and the potential for distribution growth underpinned by the continued need for a large build out of the nation's energy infrastructure.

#### Price to Distributable Cash Flow

Price to distributable cash flow (DCF) is useful to determine relative valuations. It does not penalize companies for maintaining a conservative distribution payout as do the DDM and target yield methodologies. *We define distributable cash flow per LP unit as the maximum distribution that can be paid to limited partners*. Please note that our definition is *different* from the conventional definition. Most analysts define distributable cash flow to LP unitholders as the amount of cash flow left over after the general partner is paid based on an assumed distribution (see Exhibit 21). Generally, the conventional calculation takes EBITDA less interest expense, maintenance capital expenditures and the cash paid to the general partner to arrive at distributable cash flow to limited partners. We think this definition slightly overstates/understates the DCF to limited partners if DCF exceeds/falls short of distributions (explained in more detail in the example below).

The ratio between the distributable cash flow and distributions declared is commonly referred to as the distribution coverage ratio. A coverage ratio above one means that there is surplus cash flow generated and a coverage ratio below one means that not enough cash is generated to support the distribution.

Let's assume a declared distribution of \$1.80 and a conventionally defined distributable cash flow per LP unit of \$2.00 (see Exhibit 21). According to this DCF definition, the coverage ratio would be 1.1 times and there would be a surplus of \$0.20 per unit. However, the *limited partners are not entitled to the entire surplus* because of the general

Price/DCF is a useful relative valuation tool

Credit Suisse's definition of DCF is slightly different from the conventional definition

Maintenance capex: capital required to maintain operation of assets

Coverage ratio: a measure of distribution support; a coverage ratio above one implies surplus cash flow



partner's incentive distribution rights. Our calculation assumes that the entire surplus is distributed between the general partner and limited partner, depending on the MLP's current IDR splits level. In the example below, the surplus cash flow to limited partners would actually be \$0.10 per unit (assuming the MLP is at the 50% splits level) and the Credit Suisse distributable cash flow per unit value is \$1.90 not \$2.00 as conventionally defined.

| Exhibit 21: Conventional Distributable Cash Flow Definition versus Credit Suisse Defini |
|-----------------------------------------------------------------------------------------|
|-----------------------------------------------------------------------------------------|

| Assumptions (m           | n)     | Conventional DCF calc    | :. (mn) | Credit Suisse DCF calc   | :. (mn) | Surplus cash flow calc. (mn) |         |  |  |
|--------------------------|--------|--------------------------|---------|--------------------------|---------|------------------------------|---------|--|--|
| Units outstanding        | 100    | EBITDA                   | \$500   | EBITDA                   | \$500   | Total available DCF          | \$325   |  |  |
| Declared dist / unit     | \$1.80 | Interest Expense         | (\$125) | Interest Expense         | (\$125) | Distributions paid to LP     | (\$180) |  |  |
| Distributions paid to LP | \$180  | Maintenance capex        | (\$50)  | Maintenance capex        | (\$50)  | Distributions paid to GP     | (\$125) |  |  |
|                          |        | Total available DCF      | \$325   | Total available DCF      | \$325   | Total surplus cash flow      | \$20    |  |  |
|                          |        | Distributions paid to GP | (\$125) | Distributions paid to GP | (\$125) | GP IDR splits level          | 50%     |  |  |
|                          |        | DCF to LP unitholders    | \$200   | Surplus cash to the GP   | (\$10)  | Surplus cash flow to GP      | \$10    |  |  |
|                          |        | DCF to LP / unit         | \$2.00  | DCF to LP unitholders    | \$190   | Surplus cash flow to LP      | \$10    |  |  |
|                          |        | Dedared dist / unit      | \$1.80  | DCF to LP / unit         | \$1.90  | Surplus cash flow / unit     | \$0.10  |  |  |
|                          |        | Surplus cash flow / unit | \$0.20  | Declared dist / unit     | \$1.80  |                              |         |  |  |
|                          |        |                          |         | Surplus cash flow / unit | \$0.10  |                              |         |  |  |

Source: Credit Suisse example.

#### Adjusted Enterprise Value to EBITDA

Another common metric is adjusted enterprise value to EBITDA. We like this methodology because it removes the impact of how a company is capitalized on valuation. In our calculation, we gross up the equity market capitalization to reflect the percentage of cash flow accruing to the general partner. For example, if the equity market capitalization of the MLP is \$1 billion, but the general partner receives 20% of the cash flow, we would use a grossed up market capitalization of \$1.25 billion in our calculation of the enterprise value.

#### Exhibit 22: Example of Adjusted EV / EBITDA Calculation

| Adjusted EV / E | BIT | DA calculation  |                            |   |                  |   |                       |                |   |                     |
|-----------------|-----|-----------------|----------------------------|---|------------------|---|-----------------------|----------------|---|---------------------|
| Mkt Cap (mn)    | 1   | (1 - GP Take) = | Grossed up<br>Mkt Cap (mn) | + | Net Debt<br>(mn) | = | Adjusted<br>EV (mn) / | EBITDA<br>(mn) | = | Adj. EV /<br>EBITDA |
| \$1,000         | 1   | (1 - 20%) =     | \$1,250                    | + | \$1,000          | = | \$2,250 /             | \$200          | = | 11.3x               |

Source: Company data, Credit Suisse example

## **Understanding the Cost of Capital**

MLPs generally finance growth equally with debt and equity. The incremental cost of debt is pretty straight forward. For investment grade MLPs, it is currently around 5% for ten year issuances. Note that MLPs will have a higher after-tax cost of debt than corporations because MLPs receive no tax shelter on their interest expense.

The cost of equity is a little trickier. We view an MLP's cost of equity as the cost of issuing incremental units, taking into account the cash to which the GP is entitled and distribution growth expectations embedded in the yield.

- Cash to which GP is entitled. For each additional unit an MLP issues, it must pay out incentive distribution rights (IDRs) on those units to its general partner. Therefore, we include this cash flow to the GP in our cost of equity calculation.
- Distribution growth expectations. When an MLP issues equity to finance a growth project or acquisition, the project should support the existing distribution growth expectations for the MLP. To account for this growth expectation in our cost of equity calculation, we take the yield on our total distribution estimate (LP and GP) in the fourth quarter five years forward, the end of our forecast period, and add 1.5% to account for growth beyond our forecast period.

MLPs generally finance growth equally with debt and equity

An MLP's cost of equity should take into account:

1) The cash to which the GP is entitled

2) Distribution growth expectations



#### **Analyzing Cost of Equity**

While many investors (and MLP management teams) adjust the MLP's current yield upward to take into account IDRs when calculating cost of equity, we do not think many include the distribution growth component when evaluating an MLP's cost of equity. We suggest that ignoring the growth component may understate an MLP's cost of equity and partnerships may approve projects that are accretive in early years but dilutive to distributable cash flow growth in later years. We believe it is irrefutable that the cost of equity should reflect investors' expectations for growth. The debate arises when trying to quantify the precise amount of that the group component represents in the total cost of equity. In our view, going out five years and adding a terminal growth rate adequately captures this growth component. We provide an example:

Impact of an acquisition providing a 15% rate of return. In Exhibit 23, we examine the impact of an acquisition providing a 15% return on MLP XYZ's five-year distribution CAGR. In the base case scenario, we assume that MLP XYZ pays an initial distribution of \$2.80 to limited partners (LP) and \$0.75 to the general partner (GP), for a total of \$3.55, which implies the adjusted gross yield is approximately 10.1%. Conventional wisdom, ignoring the distribution growth component, may assume that 10.1% is therefore the MLP's cost of equity. This would be a mistake.

We believe the cost of equity in this example would be approximately 15.6%, which is the adjusted gross yield on distributions in year five (14.1%) plus a terminal growth rate assumption (1.5%).

We assume that MLP XYZ is currently generating EBITDA of \$500 million and will grow this EBITDA by five percent annually. Assuming a constant interest expense and maintenance capex, a current 50/50 IDR tier level and GP take of approximately 21%, and a coverage ratio of one times, MLP XYZ should generate a five-year distribution CAGR of approximately 4.5%.

We then assume MLP XYZ consummates a \$400 million acquisition at a 6.5 times EBITDA multiple (Acquisition 1), which implies an approximate 15% return. To isolate the effect on cost of equity, we assume the acquisition is financed entirely with equity (e.g., looking at an unlevered return). Moreover, we assume that the acquisition's EBITDA remains constant over the five year period (i.e. does not grow).

*Key takeaway*: While the acquisition seems very accretive to distributions in Year 1 (7% distribution growth rate in Year 1 compared to 4% in the base case), if we look at the distribution in Year 5, we see that the acquisition provided minimal accretion (distribution to LP unitholders of \$3.50 compared to \$3.49 in the base case and a five year distribution CAGR of 4.6% compared to 4.5% in the base case).

We acknowledge that this example assumes that the base business grows by 5% (without the need for additional capital) and the acquisition generates a static cash flow stream. We also assume the acquisition is financed entirely with equity. To note, the acquisition would be more accretive if financed partially with debt. Assuming 50/50 debt/equity financing with a 6% cost of debt, the weighted average cost of capital (WACC) would be approximately 10.8% instead of 15.6% (when assuming 100% equity financed).

Ignoring the growth component of an MLP's cost of equity may understate the MLP's true cost of equity

#### Base Case Assumptions:

1) Distribution per unit to LP/GP of \$2.80/0.75

2) 50/50 IDR tier level

3) Effective GP take of 21%

4) Base EBITDA of \$500mn, growing at 5% annually

- 5) 5-yr dist. CAGR of 4.5%
- 6) Unit price of \$35

#### Acquisition 1 Assumptions:

- 1) \$400mn purchase price
- 2) Generate a return of 15%
- 3) 100% equity financed
- 4) 11.4mn new units issued

#### Key Takeaway:

Acquisition seems very accretive in Year 1 (dist growth of 7% vs 4% in base case) but is less so by Year 5 (4.6% 5-yr CAGR vs 4.5% in base case)



#### Exhibit 23: Impact of Acquisition 1 on Cost of Equity

Exhibit 24: Impact of Acquisition 2 on Cost of Equity

| Base Case                |              |         |         |         |              |            | Acquisition 1 Assumptions   |        | Distribution Growth Follow   | ving A cqu | uisition 1 |         |         |         |         |
|--------------------------|--------------|---------|---------|---------|--------------|------------|-----------------------------|--------|------------------------------|------------|------------|---------|---------|---------|---------|
|                          | Year 0       | Year 1  | Year 2  | Year 3  | Year 4       | Year 5     |                             |        |                              | Year 0     | Year 1     | Year 2  | Year 3  | Year 4  | Year 5  |
| EBITDA                   | \$500        | \$525   | \$551   | \$579   | \$608        | \$638      | Purchase price              | \$400  | EBITDA                       | \$500      | \$525      | \$551   | \$579   | \$608   | \$638   |
| Base y/y growth          | 5%           | 5%      | 5%      | 5%      | 5%           | 5%         | EBITDA acquisition multiple | 6.5x   | Base y/y growth              | 5%         | 5%         | 5%      | 5%      | 5%      | 5%      |
| Interest expense         | (\$100)      | (\$100) | (\$100) | (\$100) | (\$100)      | (\$100)    | EBITDA                      | \$62   | Interest expense             | (\$100)    | (\$100)    | (\$100) | (\$100) | (\$100) | (\$100) |
| Maintenance capex        | (\$45)       | (\$45)  | (\$45)  | (\$45)  | (\$45)       | (\$45)     | Maintenance capex           | (\$2)  | Maintenance capex            | (\$45)     | (\$45)     | (\$45)  | (\$45)  | (\$45)  | (\$45)  |
| Total Base DCF           | \$355        | \$380   | \$406   | \$434   | \$463        | \$493      | EBITDA less maint capex     | \$60   | Total Base DCF               | \$355      | \$380      | \$406   | \$434   | \$463   | \$493   |
| Distributions paid to GP | (\$75)       | (\$88)  | (\$101) | (\$115) | (\$129)      | (\$144)    | Acquisition return          | 15%    | Acq EBITDA                   |            | \$62       | \$62    | \$62    | \$62    | \$62    |
| DCF to LP unitholders    | \$280        | \$292   | \$306   | \$319   | \$334        | \$349      |                             |        | Acq interest expense         |            | \$0        | \$0     | \$0     | \$0     | \$0     |
| Units outstanding        | 100          | 100     | 100     | 100     | 100          | 100        | Financing Assumptions       |        | Acq maintenance capex        |            | (\$2)      | (\$2)   | (\$2)   | (\$2)   | (\$2)   |
| DCF to LP / unit         | \$2.80       | \$2.92  | \$3.06  | \$3.19  | \$3.34       | \$3.49     | Percentage debt             | 0%     | DCF from acquisition         | \$0        | \$60       | \$60    | \$60    | \$60    | \$60    |
|                          |              |         |         |         |              |            | Cost of debt                | 6%     | Total DCF                    | \$355      | \$440      | \$466   | \$493   | \$522   | \$553   |
| Declared LP dist / unit  | \$2.80       | \$2.92  | \$3.06  | \$3.19  | \$3.34       | \$3.49     | Percentage equity           | 100%   | Distributions paid to GP     | (\$75)     | (\$106)    | (\$119) | (\$133) | (\$147) | (\$162) |
| Y/Y dist growth (%)      |              | 4%      | 4%      | 5%      | 5%           | 4%         | Current distribution        | \$2.80 | DCF to LP unitholders        | \$280      | \$334      | \$347   | \$360   | \$376   | \$390   |
| GP dist / unit           | \$0.75       | \$0.88  | \$1.01  | \$1.15  | \$1.29       | \$1.44     | Assumed yield               | 8.0%   | Units issued for acquisition |            | 11.4       |         |         |         |         |
| GP % take of dist        | 21%          | 23%     | 25%     | 26%     | 28%          | 29%        | Issue price                 | \$35   | Units outstanding            | 100.0      | 111.4      | 111.4   | 111.4   | 111.4   | 111.4   |
|                          |              |         |         |         |              |            | # of new units issued       | 11.4   | DCF to LP / unit             | \$2.80     | \$3.00     | \$3.11  | \$3.24  | \$3.37  | \$3.50  |
| Total dist (LP & GP)     | \$3.55       |         |         |         |              | \$4.93     |                             |        |                              |            |            |         |         |         |         |
| Yield on LP + GP         | 10.1%        |         |         |         |              | 14.1%      |                             |        | Declared LP dist / unit      | \$2.80     | \$3.00     | \$3.11  | \$3.24  | \$3.37  | \$3.50  |
| Terminal growth rate     | $\sim$       |         |         |         |              | 1.5%       |                             |        | Y/Y dist growth (%)          |            | 7%         | 4%      | 4%      | 4%      | 4%      |
| Cost of equity           | (10.1%)      |         |         |         |              | (15.6%)    |                             |        | Base case dist / unit        | \$2.80     | \$2.92     | \$3.06  | \$3.19  | \$3.34  | \$3.49  |
| Conv                     | entional def | inition |         | Crec    | dit Suisse o | definition |                             |        | GP dist / unit               | \$0.75     | \$0.95     | \$1.07  | \$1.19  | \$1.32  | \$1.46  |
|                          |              |         |         |         |              |            |                             |        | GP % take of dist            | 21%        | 24%        | 26%     | 27%     | 28%     | 29%     |
| Distribution 5-yr CAGR:  |              |         |         |         |              | 4.5%       |                             |        | Distribution 5-yr CAGR:      |            |            |         |         |         | 4.6%    |

Source: Credit Suisse example

Impact of an acquisition providing an 11% rate of return. In Exhibit 17, we examine the impact of an acquisition providing an 11% return on MLP XYZ's five-year distribution CAGR. We assume the same base case scenario as above.

We then assume MLP XYZ consummates a \$400 million acquisition at an *8.5 times* EBITDA multiple (Acquisition 2), which implies an approximate 11% return. To isolate the effect on cost of equity, we again assume the acquisition is financed entirely with equity (e.g., looking at an unlevered return). We also maintain the assumption that the acquisition's EBITDA remains constant over the five year period (i.e. does not grow).

*Key takeaway*: As with Acquisition 1, Acquisition 2 seems accretive to distributions in Year 1 (5% distribution growth rate in Year 1 compared to 4% in the base case), but if we look at the distribution in Year 5, we see the acquisition was actually *dilutive* to distribution growth (distribution to LP unitholders of \$3.44 versus \$3.49 in the base case and a five year distribution CAGR of 4.2% compared to 4.5% in the base case).

Acquisition 2 Assumptions:

Same as Acquisition 1 except return assumption (11% return assumed for Acquisition 2)

#### Key Takeaway:

Acquisition seems accretive in Year 1 (dist growth of 5% vs 4% in base case) but is *dilutive* by Year 5 (4.2% 5-yr CAGR vs 4.5% in base case)

| Base Case                |              |         |         |         |            |            | Acquisition 2 Assumptions   |        | <b>Distribution Growth Follow</b> | ving A cqu | uisition 2 |         |         |         |         |
|--------------------------|--------------|---------|---------|---------|------------|------------|-----------------------------|--------|-----------------------------------|------------|------------|---------|---------|---------|---------|
|                          | Year 0       | Year 1  | Year 2  | Year 3  | Year 4     | Year 5     |                             |        |                                   | Year 0     | Year 1     | Year 2  | Year 3  | Year 4  | Year 5  |
| EBITDA                   | \$500        | \$525   | \$551   | \$579   | \$608      | \$638      | Purchase price              | \$400  | EBITDA                            | \$500      | \$525      | \$551   | \$579   | \$608   | \$638   |
| Base y/y growth          | 5%           | 5%      | 5%      | 5%      | 5%         | 5%         | EBITDA acquisition multiple | 8.5x   | Base y/y growth                   | 5%         | 5%         | 5%      | 5%      | 5%      | 5%      |
| Interest expense         | (\$100)      | (\$100) | (\$100) | (\$100) | (\$100)    | (\$100)    | EBITDA                      | \$47   | Interest expense                  | (\$100)    | (\$100)    | (\$100) | (\$100) | (\$100) | (\$100) |
| Maintenance capex        | (\$45)       | (\$45)  | (\$45)  | (\$45)  | (\$45)     | (\$45)     | Maintenance capex           | (\$2)  | Maintenance capex                 | (\$45)     | (\$45)     | (\$45)  | (\$45)  | (\$45)  | (\$45)  |
| Total Base DCF           | \$355        | \$380   | \$406   | \$434   | \$463      | \$493      | EBITDA less maint capex     | \$45   | Total Base DCF                    | \$355      | \$380      | \$406   | \$434   | \$463   | \$493   |
| Distributions paid to GP | (\$75)       | (\$88)  | (\$101) | (\$115) | (\$129)    | (\$144)    | Acquisition return          | 11%    | Acq EBITDA                        |            | \$47       | \$47    | \$47    | \$47    | \$47    |
| DCF to LP unitholders    | \$280        | \$292   | \$306   | \$319   | \$334      | \$349      |                             |        | Acq interest expense              |            | \$0        | \$0     | \$0     | \$0     | \$0     |
| Units outstanding        | 100          | 100     | 100     | 100     | 100        | 100        | Financing Assumptions       |        | Acq maintenance capex             |            | (\$2)      | (\$2)   | (\$2)   | (\$2)   | (\$2)   |
| DCF to LP / unit         | \$2.80       | \$2.92  | \$3.06  | \$3.19  | \$3.34     | \$3.49     | Percentage debt             | 0%     | DCF from acquisition              | \$0        | \$45       | \$45    | \$45    | \$45    | \$45    |
|                          |              |         |         |         |            |            | Cost of debt                | 6%     | Total DCF                         | \$355      | \$425      | \$451   | \$479   | \$508   | \$538   |
| Declared LP dist / unit  | \$2.80       | \$2.92  | \$3.06  | \$3.19  | \$3.34     | \$3.49     | Percentage equity           | 100%   | Distributions paid to GP          | (\$75)     | (\$98)     | (\$112) | (\$125) | (\$140) | (\$155) |
| Y/Y dist growth (%)      |              | 4%      | 4%      | 5%      | 5%         | 4%         | Current distribution        | \$2.80 | DCF to LP unitholders             | \$280      | \$327      | \$340   | \$353   | \$368   | \$383   |
| GP dist / unit           | \$0.75       | \$0.88  | \$1.01  | \$1.15  | \$1.29     | \$1.44     | Assumed yield               | 8.0%   | Units issued for acquisition      |            | 11.4       |         |         |         |         |
| GP % take of dist        | 21%          | 23%     | 25%     | 26%     | 28%        | 29%        | Issue price                 | \$35   | Units outstanding                 | 100.0      | 111.4      | 111.4   | 111.4   | 111.4   | 111.4   |
|                          |              |         |         |         |            |            | # of new units issued       | 11.4   | DCF to LP / unit                  | \$2.80     | \$2.93     | \$3.05  | \$3.17  | \$3.30  | \$3.44  |
| Total dist (LP & GP)     | \$3.55       |         |         |         |            | \$4.93     |                             |        |                                   |            |            |         |         |         |         |
| Yield on LP + GP         | 10.1%        |         |         |         |            | 14.1%      |                             |        | Declared LP dist / unit           | \$2.80     | \$2.93     | \$3.05  | \$3.17  | \$3.30  | \$3.44  |
| Terminal growth rate     |              |         |         |         |            | 1.5%       |                             |        | Y/Y dist growth (%)               |            | 5%         | 4%      | 4%      | 4%      | 4%      |
| Cost of equity           | (10.1%)      |         |         |         |            | 15.6%      |                             |        | Base case dist / unit             | \$2.80     | \$2.92     | \$3.06  | \$3.19  | \$3.34  | \$3.49  |
| Conve                    | entional def | inition |         | Crec    | dit Suisse | definition |                             |        | GP dist / unit                    | \$0.75     | \$0.88     | \$1.00  | \$1.13  | \$1.26  | \$1.39  |
|                          |              |         |         |         |            |            |                             |        | GP % take of dist                 | 21%        | 23%        | 25%     | 26%     | 28%     | 29%     |
|                          |              |         |         |         |            |            |                             |        |                                   |            |            |         |         |         |         |
| Distribution 5-yr CAGR:  |              |         |         |         |            | 4.5%       |                             |        | Distribution 5-yr CAGR:           |            |            |         |         |         | 4.2%    |

Source: Credit Suisse example





# **A Brief History**

Source (National Association of Publicly Traded Partnerships and Credit Suisse).

Master Limited Partnerships have been around for almost 30 years. Apache Petroleum Company, the predecessor to Apache Corp. (APA) was formed as the country's first MLP in 1981. Other oil and gas companies followed suit as did real estate MLPs. By 1987 the number of MLPs grew to well over 100, as other industries began to use the MLP structure. These industries included hotel and motel operators, restaurants, cable TV, investment advisors, and even the Boston Celtics. Primarily to prevent revenue loss from corporate conversions to limited partnerships, the tax code was subsequently tightened in the Omnibus Budget Reconciliation Act of 1987. Section 7704 of the Internal Revenue Code placed restrictions on which entities could operate as MLPs. Specifically, an MLP must generate at least 90% of its income from qualifying sources. Those MLPs that could not meet the test were grandfathered, but most gradually went private, were acquired or converted to other structures. Although income generated from oil and gas and real estate assets is considered qualified income, many of the original oil and gas MLPs left the market because they could not sustain their distributions. They were hurt by low oil and gas prices and too much financial leverage. Similarly, many of the real estate MLPs converted to REITS or succumbed to the weak real estate market.

## The Evolution of MLPs

#### "Boring Is Good"

The successful MLPs formed subsequent to the 1987 change in the tax code were primarily pipeline entities characterized by stable, slow growth cash flows with minimal commodity price risk. There were also a handful of failures of those MLPs that did not fit this mold. These were over leveraged entities engaged in refining, crude gathering and propane distribution.

The pipeline MLPs typically were spun-out of larger companies that were seeking to monetize mature assets and redeploy the proceeds into faster growing, higher return investments. Because investors expected only modest distribution growth, these MLPs were thought of as primarily bond substitutes and valued accordingly. As noted, the cash flow stream was steady and predictable. And to borrow a line from Peter Lynch, "boring is good" as it pertained to these assets.

#### Kinder Morgan—The Growth MLP Is Born

From our perspective, the nature of MLPs permanently changed when in February 1997 Rich Kinder and his partner Bill Morgan acquired the general partner of a small publicly traded pipeline limited partnership (Enron Liquids Pipeline, LP) and subsequently renamed it to Kinder Morgan Energy Partners (KMP). They saw the MLP as a potential growth vehicle because its tax advantaged structure resulted in a lower cost of capital. (More on this later in the report). KMP grew quickly via a formula of acquiring mature assets, improving the utilization of those assets and financing the acquisition equally with debt and equity. The MLP was no longer just a bond substitute, it was more like a hybrid security as it now also had an equity type growth component.

#### **MLPs Proliferate**

The number of energy related MLPs began to proliferate during the last decade from 18 at the end of 1999 to a peak of 76 in 2008. Over this period, the aggregate market capitalization grew from about \$10 billion to a peak of about \$150 billion. The newer MLPs were envisioned to be growth vehicles and took on more commodity risk (price and volume) than their pipeline MLP predecessors. During this decade, we witnessed the formation of MLPs in gathering and processing, marine transportation and, beginning in

MLPs have been around for almost 30 years

Kinder Morgan was the first "growth" MLP

The number of energy related MLPs began to proliferate during the last decade from 18 at the end of 1999 to a peak of 76 in 2008



2006, exploration and production. Additionally, a number of general partners of MLPs went public as MLPs themselves in 2005 and 2006.

And finally a number of MLPs were formed to enable sponsor companies to gradually sell or "dropdown" assets into the MLP. These MLPs have been characterized as "dropdown" stories. There are several benefits to the sponsor: (1) they still manage and control the asset, (2) cash is freed that can be reinvested in the sponsor's other businesses or used to repay debt, (3) the sponsor will participate disproportionately in the growth of the MLP because of its ownership of IDRs, (4) the sponsor (if a public company) may get an uplift in its share price if the formation of the MLP highlights the value of its mature assets that may not be reflected in its share price, and (5) the MLP itself may get a premium valuation because of visible growth tied to future dropdowns.

#### **MLPs Contract**

The credit crisis of 2008 led to some contraction in the energy MLP space. The following are some reasons for MLP contraction:

- Bankruptcy. U.S. Shipping Partners, LP (formerly USS) filed for bankruptcy.
- Consolidation. TEPPCO Partners, LP (TPP) and Enterprise Products Partners, LP (EPD) agreed to merge, forming the largest publicly traded energy MLP.
- Going private transactions. An affiliate of Harold Hamm, majority owner of the Hiland companies, offered to take Hiland Partners, LP (HLND) and Hiland Holdings GP, LP (HPGP) private.
- Simplification. Magellan Midstream Partners, L.P. (MMP) and Magellan Midstream Holdings, L.P. (MGG) agreed to "simplify" their capital structure by essentially having MMP buy MGG.
- Restructuring. Atlas Energy Resources, LLC (ATN) and Atlas America, Inc. (ATLS) agreed to merge and eliminate the MLP structure. Quest Energy Partners, LP (QELP) agreed to merge with Quest Resource Corporation (QRCP) and Quest Midstream Partners, LP to form a new, publicly-traded corporation and eliminate the MLP structure. On September 24, 2009, OSG America, L.P. (OSP) received an increased offer price of \$10.25 per unit in cash (from \$8.00) from Overseas Shipholding Group, Inc. (OSG), which owned a 77.1% interest in OSP.

#### Not Your Daddy's MLP - Moving out on the Risk Spectrum

2010 brought the resurgence of MLP IPOs. Since the beginning of 2010, 14 MLPs have IPO'ed raising a total of \$3.2 billion. However, the majority of these MLP IPOs would not be classified as "your daddy's MLP." These IPOs have included businesses such as coal, tankers, oil field services and even nitrogen fertilizer. Furthermore, we have seen a departure from the MLP mantra, "never, ever cut your distribution" with the introduction of the variable-rate distribution. We view this evolution as a sign of maturity of the structure. Investors and companies alike observed the success of the structure over the past two decades and are now more comfortable converting or entering the public eye via the MLP vehicle. That said, we do watch with an eye of caution given that these new MLPs are moving out on the risk spectrum.

The credit crisis of 2008 led to some contraction in the energy MLP space





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CREDIT SUISSE

MLPs Contract

# CREDIT SUISSE

#### Exhibit 26: MLP IPOs since 2010

|                                  |        |                |           |        | Annual       | Indicated    |               | Current | Units   | Units       | Current Market | Public |                  |          |                  |
|----------------------------------|--------|----------------|-----------|--------|--------------|--------------|---------------|---------|---------|-------------|----------------|--------|------------------|----------|------------------|
| MLP                              | Ticker | Date Completed | IPO Price | MQD    | distribution | Yield at IPO | Current Price | Yield   | Offered | Outstanding | Сар            | Float  | Size of Offering | Debt     | Enterprise Value |
| Rentech Nitrogen Partners LP     | RNF    | November 2011  | \$20.00   | NA     | \$2.34       | 11.7%        | \$19.55       | 12.0%   | 15.00   | 38.25       | \$176.97       | 39.2%  | \$300.00         | \$60.88  | \$876.34         |
| American Midstream Partners LP   | AMID   | July 2011      | \$21.00   | \$0.41 | \$1.65       | 7.9%         | \$19.07       | 8.7%    | 3.75    | 9.05        | \$172.62       | 41.4%  | \$78.75          | \$56.99  | \$261.22         |
| Oiltanking Partners LP           | OILT   | July 2011      | \$21.50   | \$0.34 | \$1.35       | 6.3%         | \$25.90       | 5.2%    | 10.00   | 38.90       | \$1,007.50     | 25.7%  | \$215.00         | \$148.26 | \$1,167.18       |
| Compressco Partners LP           | GSJK   | June 2011      | \$20.00   | \$0.39 | \$1.55       | 7.8%         | \$14.96       | 10.4%   | 2.67    | 15.53       | \$232.38       | 17.2%  | \$53.40          | \$145.09 | \$210.64         |
| NGL Energy Partners LP           | NGL    | May 2011       | \$21.00   | \$0.34 | \$1.35       | 6.4%         | \$20.96       | 6.4%    | 3.50    | 27.72       | \$309.86       | 12.6%  | \$73.50          | \$66.81  | \$313.36         |
| Tesoro Logistics LP              | TLLP   | April 2011     | \$21.00   | \$0.34 | \$1.35       | 6.4%         | \$27.85       | 4.8%    | 13.00   | 30.20       | \$841.21       | 43.0%  | \$273.00         | \$0.00   | \$889.74         |
| Golar LNG Partners LP            | GMLP   | April 2011     | \$22.50   | \$0.39 | \$1.54       | 6.8%         | \$28.20       | 5.5%    | 12.00   | 39.08       | \$1,099.80     | 30.7%  | \$270.00         | \$601.31 | \$1,691.89       |
| CVR Partners LP                  | UAN    | April 2011     | \$16.00   | NA     | \$1.92       | 12.0%        | \$22.23       | 8.6%    | 19.20   | 73.02       | \$1,622.86     | 26.3%  | \$307.20         | \$0.00   | \$1,494.12       |
| QR Energy LP                     | QRE    | December 2010  | \$20.00   | \$0.41 | \$1.65       | 8.3%         | \$19.62       | 8.4%    | 15.00   | 52.38       | \$706.32       | 28.6%  | \$300.00         | \$225.00 | \$968.34         |
| Rhino Resource Partners LP       | RNO    | September 2010 | \$20.50   | \$0.45 | \$1.78       | 8.7%         | \$18.63       | 9.6%    | 3.24    | 15.31       | \$515.89       | 21.2%  | \$66.42          | \$36.53  | \$641.79         |
| Oxford Resource Partners LP      | OXF    | July 2010      | \$18.50   | \$0.44 | \$1.75       | 9.5%         | \$15.98       | 11.0%   | 8.75    | 20.63       | \$329.75       | 42.4%  | \$161.88         | \$102.99 | \$449.36         |
| Chesapeake Midstream Partners LP | CHKM   | July 2010      | \$21.00   | \$0.34 | \$1.35       | 6.4%         | \$26.47       | 5.1%    | 21.25   | 138.16      | \$3,657.13     | 15.4%  | \$446.25         | \$249.10 | \$4,081.65       |
| Niska Gas Storage Partners LLC   | NKA    | May 2010       | \$20.50   | \$0.35 | \$1.40       | 6.8%         | \$9.02        | 15.5%   | 17.50   | 68.30       | \$609.84       | 25.6%  | \$358.75         | \$800.00 | \$1,354.72       |
| PAA Natural Gas Storage LP       | PNG    | April 2010     | \$21.50   | \$0.34 | \$1.35       | 6.3%         | \$17.53       | 7.7%    | 11.72   | 84.63       | \$1,483.37     | 13.8%  | \$251.98         | \$259.90 | \$1,699.57       |
|                                  |        |                |           |        |              |              |               |         |         |             |                |        |                  | As of:   | 11/21/11         |

As shown on Exhibit 26, 14 IPOs have been completed since 2010 with mixed performance: 5 are above and 9 are below their IPO price. A total of \$3.2b was raised.

| Company Type       | Total Number |
|--------------------|--------------|
| Coal               | 2            |
| Midstream          | 2            |
| Storage            | 2            |
| Tankers            | 2            |
| Crude Logistics    | 1            |
| E&P                | 1            |
| Nitrogen           | 2            |
| Oil Field Services | 1            |
| Propane            | 1            |

Source: Company data, Credit Suisse estimates, Price as of 10/03/2011.



# Industry Overview: MLPs, A Diverse Group

The MLPs participate in nearly all pieces of the energy value chain from exploration & production all the way through crude oil refining. Contrary to the common perception, MLPs are more than just pipelines. Exhibit 27 depicts the oil & gas value chain. We will review the primary links of the value chain in which the MLPs participate.





Source: Spectra Energy



# **The Energy Value Chain**

## **Upstream Oil & Gas Production**

It all starts at the well. Upstream oil & gas production encompasses several steps and processes from the initial exploration for economically recoverable oil & gas formations, development of those discoveries and finally to the production of the oil & gas reserves. The process includes various degrees of risk at each step in the process with exploration representing the highest degree of risk and production representing the lowest degree of risk.

Upstream MLPs generally focus on the production of mature oil & gas properties in an effort to minimize risk and maximize cash flow visibility and sustainability. Mature oil & gas properties typically have annual production decline rates in the single-digits, where as newly drilled wells may have annual production declines anywhere from 30% to 70%. To further reduce risk, upstream MLPs typically employ extensive hedging programs (generally 5 years of forward production) in an effort to "lock-in" a cash flow margin. These techniques give the upstream MLP a high degree of cash flow visibility enabling the company to maintain and meet a distribution target.

Primary risks associated with this business model include: declining nature of oil & gas production, organic exploration & development and volatility of commodity prices.

Current Upstream MLPs: BBEP, CEP, DMLP, ENP, EVEP, LGCY, LINE, PSE, VNR

## **Natural Gas Value Chain**

As we move from the well head, we follow the separate hydrocarbons (natural gas & crude oil) throughout their respective value chains.

#### **Gathering & Processing**

Natural gas gathering and processing refers to the operations required to move natural gas from the wellhead to intrastate and interstate pipelines.

Natural gas at the wellhead (raw natural gas), unless it is coalbed methane, is normally not pipeline quality, as it typically contains NGLs, carbon dioxide (CO2), hydrogen sulfide (H2S), and water, which can corrode pipelines. Raw gas with a fairly large amount of NGLs is referred to as rich or wet gas. Before it can be transported over larger trunk lines, the gas must first be gathered through small diameter (4-12 inch), low-pressure pipelines, and transported to treating/processing facilities to remove impurities. Gathering pipelines are typically more capital-intensive than large, intrastate and interstate pipelines since incremental connections to new wells must continuously be made to maintain volumes on the system. Gathering systems may connect to two basic types of gas processing plants: field plants, near the production source, and straddle plants, near gas pipelines.

Largely unregulated, revenue generation in the gathering and processing business may or may not be directly affected by commodity price changes, depending on the type of contract. Gathering contracts are usually fee based (sensitive to volumes gathered), but may be percent-of-index based (sensitive to volumes and the absolute price of natural gas). Although fee-based contracts have no direct commodity price exposure, they are indirectly affected by commodity prices to the extent price affects production volumes.

In a similar manner, processing contracts have varying degrees of commodity sensitivity, and processors typically generate revenues under three main types of contracts.

 Fee based. The processor earns fees per unit of natural gas processed and bears no direct commodity price risk. Commodity prices can indirectly influence production volumes and thus overall revenues. However, we suspect that processors may look to restructure contracts such that per unit fees increase as production volumes decrease Fee based: no direct commodity exposure



(especially in mature areas) so that the assets can continue to generate acceptable returns.

- Percent of proceeds (POP) / percent of liquids (POL). The processor sells the natural gas and NGLs for the producer (POP) or sells just the liquids (POL) and keeps an agreed upon amount, or POP, from the commodities sold. These contracts are directly tied to commodity prices as the processor is long gas and long NGLs, and has greatest upside potential to earnings from rising natural gas and NGL prices.
- 3. Keep whole. The processor sells the NGLs it removes from the gas stream. In exchange, the processor must return an equivalent heat content amount of natural gas to the producer. The processor can buy natural gas in the market or pay the producer cash. These contracts are directly tied to commodity prices as the processor is long NGLs and short natural gas, or exposed to the fractionation (frac) spread (price of NGLs minus the price of natural gas). The processor benefits when NGL prices increase and natural gas prices decrease.

Natural gas processors, like producers, may choose to hedge natural gas and NGL price exposure depending on contract mix and structure. The market for hedging natural gas prices is more liquid than that for hedging the various NGLs. Some processors may use "dirty" hedges, i.e., hedge the NGL price exposure with the more liquid crude oil contracts given the historical relationship between NGL prices and crude oil prices of 60- 65%. However, dirty hedges may become less effective if the relationship between NGL and crude prices loosens. Note, in a negative frac spread environment, processors can reject ethane (that is, keep it in the natural gas stream). The rejection of ethane increases the availability of natural gas.

After leaving the gas processing plant, NGLs are taken to fractionators to be separated (or "fractionated") into their base components (ethane, propane, iso butane, normal butane, and natural gasoline). Fractionation contracts are generally fee-based and may include "frack or pay" clauses, which protects the operator in the case of volume shortfalls.

A good rule of thumb to follow is: the greater the crude oil to natural gas price ratio, the more profitable natural gas processing and fractionation will be. Natural gas fundamentally is the feedstock and the natural gas liquids produced is the end product. The gross processing spread is the difference between the price of the composite NGLs and the price of natural gas. The frac spread can be thought of as the comparison of the individual NGL components to the price of natural gas. For example, when ethane prices are lower than natural gas prices, the ethane margin, or frac spread, is negative. Therefore, producers will opt, when possible, to leave the ethane in the natural gas stream. When ethane prices are higher than natural gas prices, the ethane margin, or frac spread, is positive.

Current Gathering & Processing Focused MLPs: AMID, APL, CHKM, CPNO, CMLP, XTEX, DPM, EROC, MWE, RGP, NGLS, WES

POP and POL: long natural gas / long NGLs

Keep whole: long NGLs / short natural gas



#### Exhibit 28: Natural Gas Value Chain



Source: Company data, Credit Suisse estimates

#### **Natural Gas Pipelines**

After the natural gas has been processed and stripped of impurities, it can be transported through the vast network of interstate and intrastate natural gas pipelines. Transmission represents the next leg of the natural gas value chain and are regulated activities. The goal of transmission is to connect areas of supply (e.g. natural gas production basins) with areas of demand (e.g. local distribution companies (LDCs) and customers) Interstate natural gas pipeline operators do not take ownership of the natural gas, rather, these operators provide fee based transportation and services including:

- Firm Service: Customer reserves the right to transport a specified quantity of gas on a no-notice basis and *pay reservation fees* regardless of whether the gas is actually transported. Customers also pay usage charges based on the amount of gas actually transported. Operators guarantee the customers the specified level of capacity.
- Interruptible Service: Customers pay fees on the actual amount of natural gas transported when capacity is available. Operators can suspend interruptible service if firm service customers use their entire reserved capacity.
- Park and Loan: Similar to interruptible service on the pipelines, but rather than flowing gas, customers "park" or store gas for a specified period of time. Operator fees may be based on spreads between current and future natural gas prices.

Interstate natural gas pipelines typically enter into long term contracts (ten-plus years) with customers. As such, interstate natural gas pipelines facilities have no direct commodity price exposure, although interruptible and park and loan service can generate incremental earnings depending on gas price and gas price volatility.

The Federal Energy Regulatory Commission (FERC) regulates interstate natural gas pipelines. Before construction of a natural gas pipeline can begin, the operator must receive FERC approval for the project. Prior to filing at FERC, an operator gauges interest for a particular project through an open season and undertakes a series of steps in the planning process highlighted in the following exhibit. Upon completion of the planning process, an operator files at FERC. The FERC conducts its reviews specifically the determination of public need and an environment impact review. Following its exhaustive process, the FERC issues an order either approving or denying the project. After receiving FERC approval and acquiring the requisite permits, the operator can commence construction. Depending on the size of the project, the FERC approval process can take from six to 18 months.



#### Exhibit 29: Natural Gas Pipeline Approval Process



Source: Federal Energy Regulatory Commission, Credit Suisse estimates.



Operators can also request the use of pre-filing as shown in the following exhibit.

#### **Exhibit 30: Natural Gas Pipeline Pre-Filing Process**



Source: Federal Energy Regulatory Commission.



The FERC also regulates interstate pipeline rates. Initial rates for new pipelines or expansion projects are set under Section 7 of the Natural Gas Act, and represent maximum tariffs a pipeline may charge. Under the Natural Gas Act, a pipeline must charge rates deemed to be "just and reasonable" generally based on the cost of providing the service. The basic Cost of Service Formula employed by the FERC is as follows and generally normalizes expenses over a one year test period:

#### Exhibit 31: FERC Cost of Service Calculation

| Total Cost of Service              |                                                                                                                                                                                                                                                    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rate Base x Overall Rate of Return | <ul> <li>Return (After Tax)</li> <li>Operation &amp; Maintenance Expenses</li> <li>Administrative &amp; General Expenses</li> <li>Depreciation Expense</li> <li>Non-Income Taxes</li> <li>Income Taxes</li> <li>Revenue Costs</li> </ul>           |
|                                    | Total Cost of Service         Rate Base Calculation         Gross Plant (Original Cost of Facility & Capitalized Items)         - Accumulated Depreciation         Net Plant         - Accumulated Deferred Income Taxes         + Working Capital |
|                                    | Rate Base                                                                                                                                                                                                                                          |

Source: FERC Cost-of-Service Rates Manual, June 1999.

The allowed rate of return should be set so that pipelines continue to attract investment capital and should be equal to what an investor can earn by investing in other businesses with similar risk profiles. FERC establishes the proxy group of firms with similar risk profiles. On April 17, 2008, FERC adopted a policy allowing MLPs to be included in that proxy group. Moreover, even though MLPs pay no tax, FERC allows the tax cost to be included in the cost of service calculation since the partners are subject to taxes. Previously, MLPs had been excluded from the proxy group given that as pass-through entities, MLP distributions would be higher than corporate dividends and thus skew returns higher as calculated by FERC.

The allowed rate of return incorporates the project's capital structure, the actual cost of debt and an assumed cost of equity. FERC derives the cost of equity by examining the range of equity returns of a representative group of publicly traded natural gas companies. FERC favors a two-stage discounted cash flow method using different growth rates for expected dividend cash flows in the short term (2/3rds weighting given higher degree of predictability) and long term (1/3rd weighting given lower degree of predictability). In addition, under Order 636 FERC established the Straight Fixed Variable (SFV) rate design that allocates all the pipeline's fixed costs including return on equity and related taxes to the demand charge or reservation charge and all variable costs to the usage charge, thus lowering an operator's earnings volatility relative to the previously employed Modified Fixed Variable (MFV) rate design that allocated return on equity and related taxes to the usage charge.

Rates can be disputed by pipeline operators or FERC. If a pipeline operator believes tariffs are too low relative to its cost of service, the operator can file a Section 4 rate case with FERC to propose new rates. The onus is on the operator to prove that the new rates are "just and reasonable". If the operator and shippers are unable to reach settlement of the

MLPs were included in the proxy group in April 2008.



case, it proceeds to a hearing in which FERC will rule. Alternatively, should rates no longer be deemed "just and reasonable" FERC can undertake a Section 5 proceeding. In this instance, the onus is on FERC to prove the rates are no longer "just and reasonable".

The ultimate goal in rate-making is to establish rates that are "just and reasonable". Therefore, although cost of service represents the basic methodology FERC uses in setting rates, other ratemaking methods that achieve the same goal have been allowed including: (1) selective discounting in which the operator is allowed to charge rates ranging from the average variable cost of providing service to the maximum tariff established by the cost of service so long as discounts are non-discriminatory, (2) market based rates in areas of substantial competition which would prohibit the operator from unduly high, "unjust" or "unreasonable" tariffs, and (3) negotiated rates between an operator and shipper, so long as the shipper can also choose a cost based rate.

Intrastate pipeline systems are regulated by states in which they operate. However, FERC can set rates on intrastate pipelines under Section 311 of the Natural Gas Policy Act, which states that intrastate pipelines can move gas for interstate pipelines and natural gas utilities without falling under the Natural Gas Act. For intrastate pipelines, rates must be deemed "fair and equitable" and rates can be set either under the same cost of service method used for interstate pipelines or under an approved method used in the state in which the intrastate pipeline is regulated.

Primary risks include construction cost overruns, FERC rate cases, additional regulation, and capacity re-contracting.

Current Natural Gas Pipeline Focused MLPs: BWP, EPB, ETP, EPD, OKS, SEP, TCLP, WPZ

#### **Natural Gas Storage**

Natural gas storage serves two main purposes: (1) it enhances the reliability of natural gas supply during periods of heavy demand; and (2) it balances the mismatch between relatively steady supply and seasonal demand. Producers can inject excess production during periods of low demand (summer months) and withdraw in periods of high demand (winter months).

Users of Storage:

- End users of natural gas, such as local distribution companies (LDCs), which serve residential and commercial customers, industrial users, and gas-fired electric power plants, use natural gas storage to manage fluctuations in their consumption of natural gas.
- Pipelines use natural gas storage to manage imbalances and/or to maintain the operational integrity of their system.
- Marketers use natural gas storage to execute natural gas trading strategies.

#### Exhibit 32: Three Main Types of Underground Natural Gas Storage—Depleted Reservoirs, Aquifers, and Salt Caverns

| Type of Storage     | Description                                                                                                                                | % of Total<br>North American<br>Storage Capacity | Cost to Develop/<br>Operate/<br>Maintain | Cushion Gas<br>Requirement                 | Cycling Capability                                                     |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------------------------|------------------------------------------------------------------------|
| Depleted Reservoirs | An underground formation that had originally contained and produced oil or natural gas                                                     | 86%                                              | Least Expensive                          | ~50% of total volume                       | Varies: Typically 1.0-2.0<br>times / yr, but can be up to<br>5.0 times |
| Acquifers           | Underground porous, permeable rock formations<br>that act as natural water reservoirs but may be<br>reconditioned and used for gas storage | 9%                                               | Most Expensive                           | High: can be<br>90% of total gas<br>volume | Low: 1.0 time / yr                                                     |
| Salt Caverns        | Reservoirs that are leached or mined out of<br>underground salt deposits                                                                   | 5%                                               | Expensive to Develop                     | Low: ~25% of total volume                  | High: Up to 12.0 times / yr                                            |

Source: Company data, Credit Suisse estimates



#### Exhibit 33: Depleted Reservoirs, Aquifers, and Salt Caverns



Source: Company data, Credit Suisse estimates

Value Drivers of Natural Gas Storage:

- Natural gas spreads between periods. At the most basic level, storage assets allow natural gas owners to store gas in periods of low demand and depressed prices (during the summer) and sell gas in periods of elevated demand and high prices (during the winter). The intrinsic value of natural gas storage is determined by the summer/winter natural gas price spread, less any variable storage costs.
- Natural gas price volatility. A volatile natural gas price environment increases the value of storage in two main ways. First, when near-term prices are volatile, storage capacity holders can often inject and withdraw gas from storage over shorter time periods and earn incremental margins above the seasonal spreads. Second, a volatile price environment can increase the overall demand for storage for supply reliability.
- Natural gas price levels. Higher natural gas prices generally result in greater absolute movements in gas prices, and thus higher potential margins that can be captured through storage. The value of storage increases when the benefit from higher absolute price movements more than offsets the higher variable costs in a high price environment.
- Interest rate levels. A higher interest rate environment is negative for the value of storage. Higher rates increase the carrying cost of the natural gas while it is being held in storage.
- Injection/withdrawal capabilities and location of the storage facilities. Higher injection and withdrawal capabilities increase the value of the storage assets since it allows storage capacity holders to capture more value in a volatile gas market. Storage located closer to market regions or near multiple pipeline interconnects is relatively more valuable.

Types of Storage Contracts:

- Long-term firm (LTF). This contract is the least risky, as the operator simply leases out its storage capacity to third parties at negotiated, market-based demand fees. These contracts are typically for one to five years in duration. Customers may inject and withdraw natural gas at their discretion and pay variable fees for the use of this service.
- Short-term firm (STF). STF contracts are also with third parties, but are for durations of less than one year. The customer must define injection and withdrawal rates as well as specific dates.



Proprietary optimization. Under this scenario, the operator buys natural gas and simultaneously sells it forward to lock in a margin. Storage operators are able to capture incremental value by re-optimizing its forward positions. Operators may also optimize unutilized customer capacity. The gas is owned by the operator while it is in storage, so proprietary optimization requires working capital.

Primary risks include: Lower seasonal natural gas price spreads, lower natural gas volatility, higher interest rates and capacity re-contracting.

Current Natural Gas Storage Focused MLPs: NKA, PNG

## **Crude Oil Value Chain**

#### Lease Gathering & Marketing

Gathering and marketing of crude entails purchasing crude from producers at or near the wellhead (lease) and selling that crude to refiners or third party marketers. Typically the crude is gathered by trucks or small diameter pipelines. Profitability is based on the margin earned between the purchase and sale. To mitigate commodity price risks, the purchase and sales are entered into nearly simultaneously. Although lease gathering contracts are usually for short periods of 30 days, producers tend not to switch and remain loyal because the crude gatherer also provides field and administrative services to the producer.

Margins generally expand in backwardated markets. Backwardation is defined as when the current price of crude exceeds the price of crude oil for future deliveries. This is indicative of a tight market and suggests that current demand is outstripping current supply. In contrast, lease gathering margins will normally contract in a contango market that is defined as the current price being less than the price for future delivery. In such a soft crude environment, current supply is outstripping current demand.

Lease gatherers also enter into exchange agreements to augment profits. The purpose of these agreements is to capture crude oil grade and regional price dislocations and/or lower total transportation costs by exchanging crude oil at one location for another location closer to the intended delivery point.

Primary risks include: changes in the crude oil market structure (e.g. contago vs. backwardation), declining crude oil production volumes and increasing lease gathering competition.

Current Lease Gathering & Marketing Focused MLPs: BKEP, GEL, PAA, SXL, TLLP

#### **Crude Oil Pipelines**

Petroleum pipelines are the most efficient way to transport crude oil to refineries and refined products to market. There are about 200,000 miles of pipelines in the United States that transport about two-thirds of the petroleum consumed here. The balance is transported via water carriers (28%), trucks (4%), and rail (2%).

According to a study released by the Association of Oil Pipelines, 2007 Report on Shifts in Petroleum Transportation, pipelines accounted for about 80% of the crude and 58% of the refined products transported in the United States. Pipelines must be dedicated to either crude or refined product, but not both. Refined petroleum products include liquid petroleum gases or LPGs (propane and butane; light distillates (gasoline and naptha), and middle distillates (diesel fuel, jet fuel, and heating oil).



#### Exhibit 34: Major Crude Oil Pipelines





**Exhibit 35: Major Refined Products Pipelines** 

Source: Allegro Energy Group.

Source: Allegro Energy Group.

Oil moves through pipelines at speeds of 3 to 8 miles per hour and generally are propelled by centrifugal pumps. Products that meet certain specifications can be mixed (batched) and transported together in sequence. A batch is a quantity of one product or grade that will be transported before the injection of a second product or grade. Transmix is created at the interface point where two batches meet. This new mixture must be moved to a separate storage facility and reprocessed.

#### **Exhibit 36: Petroleum Products Batching**



Source: www.pipeline101.com.

#### Pipeline Regulation: Rates Adjust for Inflation

Liquids pipelines are generally considered common carriers under the Interstate Commerce Act. They do not take title to the commodities transported; hence, there is no commodity risk. As such they cannot discriminate among shippers, in other words, they must charge the same rates to everyone. Further, if requests for space on the pipeline exceed its capacity, the space is allocated on a pro rata basis.

The tariffs that interstate pipelines charge are regulated by the Federal Energy Regulatory Commission (FERC). There are four methodologies used. The most common allows pipelines to adjust tariffs each July based on the producer price index for finished goods for the prior calendar year plus 2.65%. This index methodology is reviewed every five years and the factor added to the PPI may change.



The other three methods include (1) market based rates as long as the pipeline can demonstrate that it does not have monopolistic power, (2) traditional utility rate making cost of service that allows the pipeline to earn a reasonable rate of return on its equity investment, and (3) negotiated rates with shippers.

Pipelines are paid a tariff on the volumes actually shipped, unlike interstate natural gas pipelines that receive a reservation fee regardless of the amount actually shipped.

Primary risks include: construction cost overruns, additional regulation and volume shortfalls.

Current Liquids Pipeline Focused MLPs: BKEP, BPL, EEP, GEL, HEP, KMP, MMP, MMLP, NS, PAA, SXL, TLP

#### Alternative Forms of Transportation (Trucking / Rail)

In addition to pipelines, crude oil and petroleum products are transported by trucks and rail. Truck and rail transportation of crude oil is generally only used if pipeline capacity is not available as these forms of transportation usually cost several dollars more per barrel than traditional pipelines. That said, truck and rail can play a meaningful role for shippers in less mature areas of production with limited infrastructure development or in times of pipeline service interruption.

#### Storage & Terminaling

Storage and terminaling represents a valuable link in the value chain between producers and refiners (crude oil) and refiners and consumers (petroleum products). The services provided by storage and terminaling include physical storage of products (crude oil & refined products), throughput routing, blending as well as truck, rail and barge loading. Storage & terminaling services are utilized by refiners, marketers and traders. Important to note, storage and terminal operators generally do not take title to the commodities, thereby limiting their exposure to commodity prices.

Storage and terminaling assets typically generate revenue via three forms of service fees:

- Storage service fees: Are typically fixed monthly fees to reserve capacity in a storage tank. The fixed fees are generally paid regardless of actual utilization and capacity will be contracted out for a period of several years.
- Throughput Fees: Are paid by shippers for the delivery of product on the shippers behalf to pipelines, other storage facilities, barges, etc. These fees are paid based the throughput volumes across the facility.
- Ancillary Service Fees: Included in this category are fees for services such as heating, mixing, and blending customer products. These fees are discretionary and dependent on the amount of customer demand for these services.

Storage assets also have short-term profit opportunities based on the crude oil market structure. In periods of contango, available storage capacity can be used to lock in a spread between the current price and a higher futures price after factoring in the cost of storage and cost of capital.

Primary risks include: capacity re-contracting, changes in the structure of the crude oil market (e.g. contango vs. backwardation) and refinery closures.

Current Storage & Terminaling Focused MLPs: BKEP, BPL, GEL, HEP, KMP, MMP, MMLP, NS, OILT, PAA, SXL, TLP

#### Refining

Refining is the process of turning crude oil into usable petroleum products. Unlike the majority of the energy value chain, refining is not a fee-based business. Refiners are subject to both volumetric and commodity price risk on both the input and output end of



the process. As a result, refining cash flows tend to be volatile and cyclical as demand for refined products tends to be correlated to general economic activity.

Refineries utilize various grades of crude oil as a feedstock for the refining process. The prices of these feedstock crudes can vary significantly driven by quality of the crude oil as well as location-based supply/demand fundamentals. Refiners seek to obtain the cheapest, most efficient crude oil to supply their operations.

Once processed, the refiner produces and sells the petroleum products (gasoline, diesel, heating oil, jet fuel, liquid petroleum products) ultimately produced as a result of the process. The refiner's profitability will be determined by the difference between the input cost of its crude oil feedslate and the output prices received for the petroleum products. This spread is referred to as a "crack spread" (e.g. the value created by cracking open a barrel of crude oil). Refiners can further enhance their profitability by increasing complexity (ability to process various grades of crude), flexibility (ability to shift output petroleum products.

Given the volatility of the refining cash flow stream, there are few refining MLPs. Unlike upstream oil & gas production, hedging the cash flow stream for refineries is a more difficult and complex task given the multiple product streams and limited liquidity for those products in the futures market. However, with the growing prevalence of the variable distribution MLP, a greater number of refiners could utilize the MLP structure.

## **Propane Distribution**

Propane is a natural gas liquid that is obtained through natural gas processing and petroleum refining. It is a clean burning fuel that is primarily used for heating purposes and as a feedstock by petrochemical companies. It is compressed and transported in liquid state since as a gas it occupies more than 270 times the space than its liquid form. At normal pressure propane can be used as a gas by the end-users. Propane is transported through pipelines from processing plants to distribution terminals that store propane in large storage caverns. Retail propane sales are at their peak during the heating season from October through March. It competes with other energy sources that include natural gas, fuel oil and electricity. Retail propane marketers price propane on a per gallon margin above wholesale costs.

#### Fundamental Supply Interaction Frances Frances

**Exhibit 37: Propane Value Chain** 

Source: Company data, Credit Suisse estimates

There are five MLPs that distribute propane to primarily retail customers. There MLPs typically charge their customers a margin over the wholesale price of propane. In recent years, propane consumption has declined due primarily to conservation. Because the industry is highly fragmented, MLPs can grow cash flow through consolidation of smaller ("mom and pop") propane companies.

#### Users of Propane

- Residential space and water heating
- Industrial Fuel for forklifts and stationery engines. Mining and other processing operations.



- Commercial Restaurants, motels, laundries, commercial buildings.
- Agricultural Tobacco curing, crop drying, poultry brooding.

## **Other MLP Business Models**

While the majority of current public MLPs operate within the oil & gas value chain, a number of other businesses qualify for MLP status and are represented in the marketplace. These business include: (1) energy services, (2) energy shipping, (3) coal production, (4) and nitrogen fertilizer production.

## **Cash Flow by Segment**

For our coverage universe, we've reviewed the cash flow contribution by major segment across the energy value chain. Pipelines are the biggest driver of profitability for our coverage universe with 59% of cash flow coming from this piece of the value chain. Midstream comes in second at 16% of cash flow followed by storage at 9% of cash flow. While MLPs represent more than "just pipes," pipelines do remain the key drivers for the sector and are often strategic assets, which enable expansion both up and dowsntream in the value chain.

| Exhibit 38: CS MLP | Coverage Cash | Flow by Segme | nt (2011E) |
|--------------------|---------------|---------------|------------|
|--------------------|---------------|---------------|------------|

|                                   |                 |             | Pip       | elines       |          | St          | orage           | Midstr        | ream      |          |       |
|-----------------------------------|-----------------|-------------|-----------|--------------|----------|-------------|-----------------|---------------|-----------|----------|-------|
|                                   |                 |             |           |              | Refined  |             |                 | Gathering     |           |          |       |
|                                   |                 | Natural Gas | Crude Oil |              | Products | Natural Gas |                 | Processing &  |           |          |       |
| Name                              | Ticker          | Pipelines   | Pipeline  | NGL Pipeline | Pipeline | Storage     | Liquids Storage | Fractionation | Logistics | Upstream | Other |
| Boardwalk Pipeline Partners, LP   | BWP             | 94%         | 0%        | 0%           | 0%       | 4%          | 0%              | 0%            | 0%        | 0%       | 2%    |
| Chesapeake Midstream Partners     | CHKM            | 0%          | 0%        | 0%           | 0%       | 0%          | 0%              | 100%          | 0%        | 0%       | 0%    |
| DCP Midstream Partners            | DPM             | 63%         | 0%        | 0%           | 0%       | 0%          | 0%              | 0%            | 37%       | 0%       | 0%    |
| Energy Transfer Partners, LP      | ETP             | 60%         | 0%        | 0%           | 0%       | 40%         | 0%              | 0%            | 0%        | 0%       | 0%    |
| El Paso Pipeline Partners, LP     | EPB             | 100%        | 0%        | 0%           | 0%       | 0%          | 0%              | 0%            | 0%        | 0%       | 0%    |
| Enterprise Products Partners, LP  | EPD             | 27%         | 6%        | 54%          | 0%       | 0%          | 0%              | 0%            | 0%        | 0%       | 13%   |
| Kinder Morgan Energy Partners, LP | KMP             | 26%         | 6%        | 0%           | 20%      | 0%          | 0%              | 0%            | 19%       | 30%      | 0%    |
| Linn Energy                       | LINE            | 0%          | 0%        | 0%           | 0%       | 0%          | 0%              | 0%            | 0%        | 100%     | 0%    |
| Magellan Midstream Partners , LP  | MMP             | 0%          | 0%        | 0%           | 76%      | 0%          | 0%              | 0%            | 23%       | 0%       | 1%    |
| Targa Resources Partners, LP      | NGLS            | 0%          | 0%        | 0%           | 0%       | 0%          | 0%              | 67%           | 19%       | 0%       | 14%   |
| Niska Gas Storage Partners        | NKA             | 0%          | 0%        | 0%           | 0%       | 100%        | 0%              | 0%            | 0%        | 0%       | 0%    |
| NuStar Energy, LP                 | NS              | 0%          | 0%        | 0%           | 33%      | 0%          | 48%             | 0%            | 0%        | 0%       | 19%   |
| ONEOK Partners, LP                | OKS             | 17%         | 0%        | 58%          | 0%       | 0%          | 0%              | 25%           | 0%        | 0%       | 0%    |
| Plains All American Pipeline, LP  | PAA             | 0%          | 41%       | 0%           | 0%       | 0%          | 25%             | 0%            | 34%       | 0%       | 0%    |
| Spectra Energy Partners, LP       | SEP             | 100%        | 0%        | 0%           | 0%       | 0%          | 0%              | 0%            | 0%        | 0%       | 0%    |
| Sunoco Logistics Partners, LP     | SXL             | 0%          | 62%       | 0%           | 8%       | 0%          | 0%              | 0%            | 31%       | 0%       | 0%    |
| Tesoro Logistics LP               | TLLP            | 0%          | 0%        | 0%           | 0%       | 0%          | 69%             | 31%           | 0%        | 0%       | 0%    |
| Western Gas Partners              | WES             | 0%          | 0%        | 0%           | 0%       | 0%          | 0%              | 98%           | 0%        | 0%       | 2%    |
|                                   |                 |             |           |              |          |             |                 |               |           |          |       |
|                                   | AGGREGATE       | 29%         | 8%        | 15%          | 8%       | 5%          | 4%              | 7%            | 9%        | 12%      | 4%    |
|                                   | GROUP SUB-TOTAL |             | 5         | i9%          |          |             | 9%              | 169           | %         | 12%      | 4%    |

Source: Company data, Credit Suisse estimates



# Appendix

## Glossary

Abbreviations:

**Exhibit 39: Abbreviations Used** 

| Abbrevia | tions                      |                                    |
|----------|----------------------------|------------------------------------|
| Bbls     | Barrels                    | 1 bbls = 42 gallons                |
| Bcf      | Billion cubic feet         | 1 Bcf = 1,000,000,000 cf           |
| Bcf/d    | Billion cubic feet per day |                                    |
| Btu      | British thermal units      |                                    |
| М        | Thousands                  | eg: 1 MBbls = one thousand barrels |
| ММ       | Millions                   | eg: 1 MMBbls = one million barrels |
| Tcf      | Trillion cubic feet        | 1 Tcf = 1,000,000,000,000 cf       |
|          |                            |                                    |

Source: Company data, Credit Suisse estimates

- Alerian: The Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships that is widely used as a benchmark for MLP investments. The index, is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis (NYSE: AMZ) and on a total-return basis (NYSE: AMZX) (Source: www.alerian.com).
- Basis Differential: The NYMEX natural gas price (Henry Hub, Louisiana) is not necessarily what producers receive for their gas. The actual price received (*well-head price*) is different throughout the country. The difference relative to NYMEX is called the basis differential. This term also applies to crude oil and natural gas liquids.
- Backwardation: When the current price of a commodity exceeds the price of that same commodity for future delivery. This is indicative of a tight market and suggests that current demand is outstripping current supply.

Exhibit 40: Backwardation Market Example



Source: Company data, Credit Suisse estimates

**Bbls**: barrels, where 1 bbls = 42 gallons.





- Bcf: billion cubic feet
- Bottleneck: Not enough takeaway capacity to handle increasing volumes.
- Butane (C<sub>4</sub>H<sub>10</sub>): Butane is primarily used for refinery blending (~66%), and petrochemical feedstock (~26%).
- CAGR: Compounded Annual Growth Rate. It is the year over year growth of an investment over a given period of time if it had grown at a steady growth rate.
- Common Units: Represents equity ownership in a MLP. Common unitholders are paid after creditors and preferred unitholders.
- Contango: When the current price of a commodity is less than the price of that same commodity for future delivery. Generally, indicative of an over-supplied market.

\$80 \$72.49 \$73.04 \$73.61 <sup>\$74.11</sup> \$74.62 <sup>\$75.10</sup> \$75.60 <sup>\$76.10</sup> \$76.47 \$76.77 \$77.09 \$75 Price per barrel \$72.04 \$70 \$65 Jun-10 Oct09 Nov 09 Jan 10 Feb10 Mar-10 Apr-10 May-10 Jul-10 Aug-10 Sep-10 Dec09

#### Exhibit 41: Contango Market Example

Source: Company data, Credit Suisse estimates

- Coverage Ratio: The ratio of distributable cash flow divided by distributions declared is commonly referred to as the distribution coverage ratio. A coverage ratio above one means that there is surplus cash flow generated and a coverage ratio below one means that not enough cash is generated to support the distribution.
- Distribution: Similar to dividends, distributions are paid quarterly and a large portion (typically 70% to 100%) is tax deferred
- Distribution Coverage Ratio: See coverage ratio
- Distributable Cash Flow (DCF): The maximum amount of cash flow available to pay limited partners after taking into account maintenance capital requirements and the general partner entitlement
- EIA: The Energy Information Administration. An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and analyzes and models energy issues. The Agency must meet the requests of Congress, other elements within the Department of Energy, Federal Energy Regulatory Commission, the Executive Branch, its own independent needs, and assist the general public, or other interest groups, without taking a policy position (Source: www.eia.gov).
- Electrical Power: Gas used by power plants to generate electricity.
- Exploration & Production: Also known as the Upstream is a global venture and encompasses the production of hydrocarbons. Producers operate in both *onshore* and *offshore* environments.



- ETF: Exchange-Traded Fund. ETFs trade on an exchange like a stock but may consist of an index.
- Ethane (C<sub>2</sub>H<sub>6</sub>): Ethane is primarily used as a petrochemical feedstock for ethylene production.
- **ETN:** Exchange-Traded Notes.
- FERC: Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects (*Source: www.ferc.gov*).
- General Partner (GP): Manages the partnership, 2% equity ownership, owns incentive distribution rights (IDRs)
- Incentive Distribution Rights (IDRs): Entitle the GP to an increasing portion of distributions (up to 50%) as target distribution levels are attained.
- Interstate Pipelines: Pipeline which operates in multiple states. Interstate pipelines are regulated by the Federal Energy Regulatory Commission (FERC)
- Intrastate Pipelines: Pipelines which operates only within a state's boundaries. Intrastate pipelines are regulated at the state level (and FERC in certain instances)
- **I-Shares:** I-Shares provides a tax-friendly MLP ownership option which pays distributions in the form of units rather than cash.
- **Iso-butane:** Iso-butane is primarily used for refinery blending.
- Limited Partner (LP): Provides capital, receives distributions, has no role in managing the partnership.
- Liquefied Natural Gas (LNG): Is natural gas (methane) that is chilled to liquid form.
- Maintenance Capex: Capital required to maintain operation of assets.
- Master limited partnerships (MLPs): are limited partnerships that are publicly traded on US stock exchanges. They trade just like common stock. However, unlike corporations, these are pass-through entities that pay no corporate taxes. A high proportion of distributions are tax-deferred.
- Mcf (Thousand cubic feet): Natural Gas is measured on a unit basis in thousands of cubic feet (*Mcf*). The benchmark spot price is *Henry Hub*, which is quoted on a \$ per Millions of British Thermal Units basis (*MMBtu*). An Mcf is a volume unit, while MMBtu is an energy measurement.
- Midstream: Refers to all activities between the production of natural gas and oil and the end-use markets. Processing natural gas involves the removal of oil, water, hydrogen sulfide, carbon dioxide and NGLs (*ethane, butane and propane*).
- Minimum Quarterly Distribution (MQD): Is the initial distribution established when the MLP is formed.
- MMBtu (One Million British Thermal Units): An energy measurement. See Mcf.
- Natural Gas: is a combustible, colorless and odorless gas that is made up of a mixture of hydrocarbons.



#### Natural Gas Demand:

- Commercial: Gas used by non-manufacturing establishments in the sale of goods or services
- Industrial: Gas used for heat, power or chemical feedstock for manufacturing. End products include petrochemicals, fertilizers, plastics, etc.
- Residential: gas used in private dwellings for space and water heating, air conditioning, cooking and other household uses.
- Natural gasoline: Natural gasoline is a mixture of heavier hydrocarbons, primarily used for refinery blending.
- Normal Butane: See Butane
- PADD: In the U.S., refinery locations are divided into five separate *Petroleum* Administration for Defense Districts (PADDs). Each region has different benchmark margins and legal specifications.
- Propane: Propane is used as a petrochemical feedstock (~36% of demand), but has residential and commercial uses as well. It can be used for home heating and as a vehicle fuel (~54% of demand).
- Proved Reserves (1P): Estimated quantities of oil and gas that are reasonably certain (80%-90% confidence) to be recoverable under today's technology and prices. 1P can be broken down into:
  - <u>Proved Developed (PDP)</u>: Reserves expected to be recovered from existing wells, existing equipment and/or improved recovery techniques.
  - <u>Proved Undeveloped (PUD)</u>: Reserves that will require further development and that are expected to be recovered from undrilled acreage or existing wells that require recompletion work.
- Refining: is the process of turning crude oil into usable petroleum products. A refinery is the factory where this process takes place.
- Shale: is a fine-grained sedimentary rock that may contain high concentrations of natural gas and/or crude oil.
- Schedule K-1: Investors receive Schedule K-1s instead of Form 1099s
- Subordinated Units: Are entitled to minimum quarterly distributions (MQDs) only after common unit holders are paid the MQD for a set number of consecutive quarters. Thereafter, the subordinated units convert to common units.
- **Tcf:** Trillion cubic feet
- UBTI: MLPs generate unrelated business taxable income (UBTI)



## **MLP** Tables

#### Exhibit 42: MLP-Closed-End Funds, ETNs and ETFs

|                                            | ,      | Price    | NAV/    | Price/ | Current |       |         |           |     | Total I | Returns   |          |
|--------------------------------------------|--------|----------|---------|--------|---------|-------|---------|-----------|-----|---------|-----------|----------|
| Name                                       | Ticker | 11/18/11 | Share   | NAV    | Dist    | Yield | Mkt Cap | Inception | YTD | 1-Yr    | 3-Yr      | 5-Yr     |
| Closed-End Funds                           |        |          |         |        |         |       |         |           |     |         |           |          |
| Tortoise Energy Infrastructure Corp.       | TYG    | \$38.27  | \$34.01 | 1.13x  | \$2.21  | 5.8%  | \$1,054 | 2/25/04   | 6%  | 9%      | 204%      | 62%      |
| Tortoise Energy Capital Corp.              | TYY    | \$26.30  | \$25.96 | 1.01x  | \$1.62  | 6.2%  | \$512   | 5/25/05   | 1%  | 2%      | 156%      | 46%      |
| Kayne Anderson MLP Investment Co.          | KYN    | \$28.40  | \$26.86 | 1.06x  | \$2.01  | 7.1%  | \$2,126 | 9/28/04   | -4% | 8%      | 124%      | 37%      |
| Fiduciary/Claymore MLP Oppty Fund          | FMO    | \$21.21  | \$20.13 | 1.05x  | \$1.42  | 6.7%  | \$518   | 12/22/04  | 5%  | 9%      | 122%      | 45%      |
| Energy Income and Growth Fund              | FEN    | \$27.50  | \$27.27 | 1.01x  | \$1.90  | 6.9%  | \$310   | 6/24/04   | 9%  | 5%      | 139%      | 66%      |
| Cushing MLP Total Return Fund              | SRV    | \$9.17   | \$7.85  | 1.17x  | \$0.90  | 9.8%  | \$302   | 5/23/07   | -7% | 3%      | 23%       | NA       |
| ClearBridge Energy MLP Fund                | CEM    | \$21.69  | \$21.40 | 1.01x  | \$1.42  | 6.5%  | \$1,389 | 6/24/10   | 5%  | 12%     | NA        | NA       |
| Tortoise MLP Fund                          | NTG    | \$24.47  | \$25.17 | 0.97x  | \$1.64  | 6.7%  | \$1,116 | 7/28/10   | 8%  | 7%      | NA        | NA       |
| Total                                      |        |          |         |        |         |       | \$7,327 |           |     |         |           |          |
|                                            |        |          |         |        |         |       |         |           |     |         |           |          |
| Exchange Traded Notes                      |        |          |         |        |         |       |         |           |     |         |           |          |
| Credit Suisse Cushing 30 MLP Index ETN     | MLPN   | \$23.80  | \$24.09 | 0.99x  |         |       | \$119   | 4/13/10   | 3%  | 8%      | NA        | NA       |
| JP Morgan Alerian MLP Index ETN            | AMJ    | \$37.37  | \$37.47 | 1.00x  |         |       | \$1,775 | 4/2/09    | 7%  | 9%      | NA        | NA       |
| UBS E-TRACS Alerian MLP Infrastructure ETN | MLPI   | \$31.13  | \$29.50 | 1.06x  |         |       | \$185   | 3/31/10   | 9%  | 11%     | NA        | NA       |
| UBS E-TRACS 2x Leveraged Alerian MLP ETN   | MLPL   | \$36.03  | \$36.03 | 1.00x  |         |       | \$144   | 7/6/10    | 17% | 23%     | NA        | NA       |
| UBS E-TRACS Alerian Natural Gas MLP ETN    | MLPG   | \$28.61  | \$29.02 | 0.99x  |         |       | \$14    | 7/13/10   | 4%  | 8%      | NA        | NA       |
| Total                                      |        |          |         |        |         |       | \$2,238 |           |     |         |           |          |
|                                            |        |          |         |        |         |       |         |           |     |         |           |          |
| Exchange Traded Fund                       |        |          |         |        |         |       |         |           |     |         |           |          |
| Alerian MLP ETF                            | AMLP   | \$15.93  | \$16.13 | 0.99x  | \$0.99  | 6.2%  | \$1,650 | 8/25/10   | 6%  | 7%      | NA        | NA       |
|                                            |        |          |         |        |         |       |         |           |     |         | NAV as of | 10/31/11 |

Source: FactSet, Bloomberg, Credit Suisse estimates

#### Exhibit 43: E&P Upstream and Corps

|                                   |         |          | Current Stock Information |         |         |          |         |            | Ratings / Price Targets |          |          |      |        |              | Total Returns |      |       |      |              |
|-----------------------------------|---------|----------|---------------------------|---------|---------|----------|---------|------------|-------------------------|----------|----------|------|--------|--------------|---------------|------|-------|------|--------------|
|                                   |         |          |                           |         |         |          |         |            |                         | Upside/  | Expected | 3-Yr |        |              |               |      |       |      |              |
|                                   | Tisless | Price    | Market                    | Current | Current | 52-Wk    | 52-Wk   | Detine     | Price                   | Downside | Total    | Dist | Ad     | j. EV/EBITDA | 00105         | VTD  | 4 1/- | 0 V. | <b>5</b> V., |
| E&D Unstroam                      | licker  | 11/18/11 | Cap (m)                   | Dist.   | rieia   | High     | LOW     | Hating     | Target                  | to P1    | Return   | CAGR | 2010   | 2011E        | 2012E         | TID  | 1-Yr  | 3-¥r | 5-¥r         |
| Breithum Energy Partners          | RREP    | \$17.07  | \$1.008                   | \$1.60  | 9.9%    | \$23.07  | \$15.00 | NB         | NR                      | NB       | NR       | NB   | 6 7x   | 7 1 v        | 5 7x          | -7%  | -7%   | 211% | 2/1%         |
| Constellation Energy Partners     | CEP     | \$2.33   | \$57                      | \$0.00  | 0.0%    | \$3.59   | \$2.13  | NR         | NB                      | NB       | NR       | NB   | 2.9x   | NΔ           | NA NA         | -16% | -20%  | -44% | -87%         |
| Dorchester Minerals I.P.          | DMLP    | \$23.83  | \$731                     | \$1.82  | 7.6%    | \$29.30  | \$22.70 | NR         | NR                      | NB       | NR       | NB   | 13.6x  | NA           | NA            | -8%  | -6%   | 53%  | 50%          |
| Encore Energy Partners            | ENP     | \$19.90  | \$905                     | \$1.88  | 9.4%    | \$25.29  | \$15.59 | NR         | NR                      | NB       | NR       | NR   | 9.1x   | 9.1x         | 8.5x          | -3%  | 7%    | 123% | NA           |
| EV Energy Partners                | EVEP    | \$65.27  | \$2.231                   | \$3.04  | 4.7%    | \$77.15  | \$37.85 | NR         | NR                      | NB       | NR       | NB   | 18.4x  | 12.6x        | 10.0x         | 75%  | 79%   | 474% | 361%         |
| Legacy Reserves                   | LGCY    | \$27.21  | \$1.188                   | \$2.18  | 8.0%    | \$33.61  | \$22.48 | NR         | NR                      | NR       | NR       | NR   | 11.3x  | 7.9x         | 7.4x          | 2%   | 11%   | 319% | NA           |
| Linn Energy LLC                   | LINE    | \$36.91  | \$6,522                   | \$2.76  | 7.5%    | \$40.90  | \$31.91 | Neutral    | \$42                    | 14%      | 22%      | 4.1% | 13.4x  | 10.0x        | 9.0x          | 6%   | 8%    | 234% | 135%         |
| Pioneer Southwest Energy Partners | PSE     | \$29.61  | \$981                     | \$2.04  | 6.9%    | \$35.59  | \$22.56 | NR         | NR                      | NR       | NR       | NR   | 8.4x   | 8.6x         | 9.4x          | 5%   | 11%   | 205% | NA           |
| Vanguard Natural Resources        | VNR     | \$26.92  | \$814                     | \$2.30  | 8.5%    | \$33.09  | \$23.29 | NR         | NR                      | NR       | NR       | NR   | 17.4x  | 9.4x         | 7.8x          | -2%  | 12%   | 381% | NA           |
| Average                           |         |          |                           |         | 7.0%    |          |         |            |                         |          |          |      | 11.2x  | 9.2x         | 8.3x          | 6%   | 11%   | 217% | 97%          |
| Median                            |         |          |                           |         | 7.6%    |          |         |            |                         |          |          |      | 11.3x  | 9.1x         | 8.5x          | -2%  | 8%    | 211% | 50%          |
|                                   |         |          |                           |         |         |          |         |            |                         |          |          |      |        |              |               |      |       |      |              |
| E&P Corps                         |         |          |                           |         |         |          |         |            |                         |          |          |      |        |              |               |      |       |      |              |
| Devon Energy Corporation          | DVN     | \$63.72  | \$25,947                  | \$0.68  | 1.1%    | \$93.10  | \$53.34 | NR         | NR                      | NR       | NR       | NR   | 4.8x   | 4.5x         | 4.0x          | -18% | -11%  | -8%  | -5%          |
| EOG Resources Inc.                | EOG     | \$97.84  | \$26,304                  | \$0.64  | 0.7%    | \$119.67 | \$68.41 | NR         | NR                      | NR       | NR       | NR   | 10.3x  | 6.3x         | 5.5x          | 8%   | 7%    | 21%  | 48%          |
| Chesapeake Energy Corporation     | CHK     | \$24.33  | \$16,046                  | \$0.35  | 1.4%    | \$35.61  | \$21.12 | NR         | NR                      | NR       | NR       | NR   | 5.5x   | 5.1x         | 4.9x          | -5%  | 11%   | 20%  | -21%         |
| Marathon Oil Corporation          | MRO     | \$26.13  | \$18,396                  | \$0.60  | 2.3%    | \$54.17  | \$20.27 | Neutral    | \$36                    | 38%      | 38%      | NA   | 3.2x   | 2.9x         | 3.0x          | 19%  | 29%   | 85%  | 10%          |
| Southwestern Energy Company       | SWN     | \$38.62  | \$13,445                  | \$0.00  | 0.0%    | \$49.00  | \$32.30 | NR         | NR                      | NR       | NR       | NR   | 9.1x   | 8.2x         | 6.9x          | 3%   | 1%    | 19%  | 102%         |
| Range Resources Corp.             | RRC     | \$69.76  | \$11,228                  | \$0.16  | 0.2%    | \$74.40  | \$41.87 | Outperform | \$81                    | 16%      | 16%      | NA   | 100.5x | 16.4x        | 12.1x         | 55%  | 67%   | 69%  | 157%         |
| Pioneer Natural Resources         | PXD     | \$89.82  | \$10,451                  | \$0.08  | 0.1%    | \$104.66 | \$61.82 | NR         | NR                      | NR       | NR       | NR   | 11.0x  | 7.8x         | 6.3x          | 4%   | 14%   | 303% | 122%         |
| Cabot Oil & Gas Corporation       | COG     | \$82.14  | \$8,566                   | \$0.12  | 0.1%    | \$88.06  | \$34.42 | NR         | NR                      | NR       | NR       | NR   | 16.5x  | 14.3x        | 8.9x          | 117% | 139%  | 210% | 183%         |
| Newfield Exploration Co.          | NFX     | \$40.87  | \$5,501                   | \$0.00  | 0.0%    | \$76.45  | \$35.81 | NR         | NR                      | NR       | NR       | NR   | 6.2x   | 5.2x         | 4.5x          | -43% | -38%  | 104% | -12%         |
| Ultra Petroleum Corp.             | UPL     | \$33.82  | \$5,165                   | \$0.00  | 0.0%    | \$50.79  | \$25.70 | NR         | NR                      | NR       | NR       | NR   | 9.8x   | 7.0x         | 6.3x          | -29% | -28%  | -23% | -33%         |
| SM Energy Co.                     | SM      | \$78.26  | \$5,009                   | \$0.10  | 0.1%    | \$86.85  | \$48.95 | NR         | NR                      | NR       | NR       | NR   | 11.2x  | 6.5x         | 4.6x          | 33%  | 59%   | 277% | 103%         |
| Forest Oil Corporation            | FST     | \$14.70  | \$1,682                   | \$0.00  | 0.0%    | \$39.71  | \$8.89  | Outperform | \$21                    | 43%      | 43%      | NA   | 4.7x   | 5.4x         | 5.5x          | -46% | -41%  | 8%   | -39%         |
| Average                           |         |          |                           |         | 0.5%    |          |         |            |                         |          |          |      | 17.1x  | 7.6x         | 6.1x          | 13%  | 23%   | 98%  | 59%          |
| Median                            |         |          |                           |         | 0.1%    |          |         |            |                         |          |          |      | 9.8x   | 6.5x         | 5.5x          | 4%   | 11%   | 69%  | 48%          |

Source: FactSet, Bloomberg, Company data, Credit Suisse estimates



#### Exhibit 44: MLP Comp Table

|        |                                                             | Ticker      | Price<br>11/18/11            | Market<br>Cap (m)   | Current<br>Dist. | Current<br>Yield | 52-Wk<br>High      | 52-Wk<br>Low       | 4Q12         | Distribution Yield<br>2010 2011E | 2012E        | 3-Yr<br>CAGR* |
|--------|-------------------------------------------------------------|-------------|------------------------------|---------------------|------------------|------------------|--------------------|--------------------|--------------|----------------------------------|--------------|---------------|
|        | <u>Natural Gas Pipelines</u><br>Boardwalk Pipeline Partners | BWP         | \$27.29                      | \$5.420             | \$2.10           | 7.7%             | \$33.47            | \$23.86            | 8.1%         | 7.5% 7.7%                        | 8.0%         | 3.2%          |
|        | El Paso Pipeline Partners                                   | EPB         | \$32.57                      | \$6,699             | \$1.96           | 6.0%             | \$38.01            | \$31.69            | 6.8%         | 5.0% 5.9%                        | 6.5%         | 12.5%         |
|        | Energy Transfer Partners                                    | ETP         | \$44.09                      | \$9,240             | \$3.58           | 8.1%             | \$55.08            | \$39.90            | 8.7%         | 8.1% 8.1%                        | 8.5%         | 3.4%          |
|        | Enterprise Products Partners                                | EPD         | \$45.72                      | \$40,013            | \$2.45           | 5.4%             | \$45.72            | \$37.50            | 5.7%         | 5.1% 5.3%                        | 5.6%         | 5.2%          |
|        | Niska Gas Storage Partners                                  | NKA         | \$9.15                       | \$619               | \$1.40           | 15.3%            | \$22.09            | \$9.06             | 15.3%        | 15.3% 15.3%                      | 15.3%        | 0.0%          |
|        | ONEOK Partners                                              | OKS         | \$50.09                      | \$10,209            | \$2.34           | 4.7%             | \$50.41            | \$37.74            | 5.5%         | 4.5% 4.7%                        | 5.2%         | 9.9%          |
|        | PAA Natural Gas Storage LP                                  | PNG         | \$17.75                      | \$1,022             | \$1.35           | 7.6%             | \$25.35            | \$15.91            | 8.3%         | 7.6% 7.9%                        | 8.1%         | 3.3%          |
|        | Spectra Energy Partners                                     | SEP<br>TOLD | \$29.97<br>¢47.14            | \$2,888<br>\$3,500  | \$1.80<br>¢2.00  | 0.2%             | \$34.83<br>\$54.45 | \$25.68            | 0.0%         | 5.8% 0.2%                        | 0.5%         | 5.3%          |
|        | Williams Partners                                           | WD7         | \$47.14<br>\$57.28           | \$2,522<br>\$16,630 | \$0.00<br>\$2.03 | 0.0%<br>5.1%     | \$50.65            | \$40.17<br>\$45.72 | 0.0%<br>5.8% | 0.2% 0.3%                        | 0.0%<br>5.6% | 4.0%          |
|        | Liquids Pipelines                                           | VVFZ        | <i>401.20</i>                | φ10,039             | ąz.90            | 0.1/0            | <b>409.00</b>      | φ4 <u>0</u> .72    | 5.0 %        | 4.7 /0 0.2 /0                    | 5.0 %        | 0.0 /0        |
|        | Blueknight Energy Partners                                  | BKEP        | \$6.75                       | \$233               | \$0.00           | 0.0%             | \$9.00             | \$5.40             | 1.9%         | NA 1.6%                          | 6.9%         | NA            |
| es     | Buckeye Partners                                            | BPL         | \$63.81                      | \$5,483             | \$4.05           | 6.3%             | \$68.92            | \$57.61            | 6.8%         | 6.0% 6.4%                        | 6.7%         | 5.3%          |
| e      | Enbridge Energy Partners                                    | EEP         | \$30.38                      | \$8,298             | \$2.13           | 7.0%             | \$34.30            | \$25.28            | 7.3%         | 6.8% 7.0%                        | 7.2%         | 3.7%          |
| ě.     | Enbridge Energy Management LLC                              | EEQ         | \$30.95                      | \$1,147             | \$2.13           | 6.9%             | \$32.45            | \$25.56            | 7.3%         | 6.6% 6.8%                        | 7.1%         | 5.6%          |
|        | Genesis Energy                                              | GEL         | \$26.28                      | \$1,891             | \$1.66           | 6.3%             | \$29.31            | \$20.94            | 7.3%         | 5.7% 6.4%                        | 7.1%         | 10.9%         |
|        | Holly Energy Partners                                       | HEP         | \$56.65                      | \$1,251             | \$3.46           | 6.1%             | \$60.30            | \$46.83            | 6.6%         | 5.8% 6.3%                        | 6.7%         | 5.3%          |
|        | Kinder Morgan Energy Partners                               | KMP         | \$76.94                      | \$25,618            | \$4.64           | 6.0%             | \$77.83            | \$64.58            | 6.5%<br>7.1% | 5.7% 6.0%                        | 5.3%         | 5.7%          |
|        | Magellan Midstream Partners                                 | MMD         | \$00.90<br>\$65.01           | \$0,070<br>\$7,320  | \$4.04<br>\$3.20 | 0.7%             | \$65.01            | 000.71<br>\$53.18  | 7.1%<br>5.4% | 0.3% 0.0%                        | 7.0%         | 5.7%<br>7.0%  |
|        | Martin Midstream Partners                                   | MMI P       | \$35.52                      | \$727               | \$3.05           | 8.6%             | \$42.35            | \$28.43            | J.4 /8       | 8.4% 8.6%                        | 8.8%         | 3.1%          |
|        | NuStar Energy                                               | NS          | \$55.64                      | \$3,598             | \$4.38           | 7.9%             | \$71.69            | \$51.31            | 7.9%         | 7.7% 7.8%                        | 7.9%         | 1.5%          |
|        | Oiltanking Partners                                         | OILT        | \$25.40                      | \$988               | \$0.00           | 0.0%             | \$27.20            | \$22.00            | 5.7%         | 0.0% 2.0%                        | 5.6%         | NA            |
|        | Plains All American Pipeline                                | PAA         | \$64.15                      | \$9,583             | \$3.93           | 6.1%             | \$66.57            | \$57.04            | 6.7%         | 5.9% 6.2%                        | 6.6%         | 5.6%          |
|        | Sunoco Logistics Partners                                   | SXL         | \$105.77                     | \$3,643             | \$4.86           | 4.6%             | \$106.11           | \$75.72            | 5.2%         | 4.4% 4.6%                        | 5.0%         | 7.4%          |
| Ĩ      | Tesoro Logistics LP                                         | TLLP        | \$27.26                      | \$832               | \$1.40           | 5.1%             | \$27.58            | \$21.34            | 5.8%         | 0.0% 3.8%                        | 5.6%         | NA            |
|        | Transmontaigne Partners                                     | TLP         | \$32.14                      | \$465               | \$2.48           | 7.7%             | \$40.00            | \$30.73            | 8.1%         | 7.5% 7.7%                        | 7.9%         | 3.7%          |
|        | Pipeline MLPs Median                                        |             |                              |                     |                  | 6.3%             |                    |                    | 6.8%         | 5.9% 6.4%                        | 6.7%         | 5.3%          |
|        | American Midstream Partners                                 | AMID        | \$19.20                      | \$213               | \$0.00           | 0.0%             | \$20.95            | \$16.26            | 9.2%         | 0.0% 6.5%                        | 9.0%         | NA            |
|        | Atlas Pipeline Partners                                     | APL         | \$35.30                      | \$1,893             | \$1.88           | 5.3%             | \$37.13            | \$23.76            | 7.0%         | 4.5% 5.5%                        | 6.8%         | 19.7%         |
| gu     | Conano Energy LLC                                           | CRNC        | \$25.45                      | \$3,654<br>\$2,101  | \$1.45<br>\$2.20 | 5.5%<br>7.0%     | \$28.95<br>\$26.0F | \$24.17<br>\$27.07 | 0.0%<br>7.0% | 2.0% 5.6%                        | 0.3%         | 40.6%         |
| ess    | Creatwood Midstroom Partners                                | CMIP        | \$33.00<br>\$28.56           | \$2,191<br>\$042    | \$2.30<br>\$1.02 | 6.7%             | \$30.90<br>\$30.34 | \$22.97<br>\$22.03 | 7.3%<br>NA   | 7.0% 7.0%                        | 7.2%         | 3.0%          |
| ö      | Crosstey Energy                                             | XTEX        | \$20.00                      | \$785               | \$1.92           | 8.0%             | \$10.76            | \$13.53            | 8.9%         | 7.2% 7.8%                        | 8.7%         | 9.9%          |
| Ë.     | DCP Midstream Partners                                      | DPM         | \$45.01                      | \$2,000             | \$2.53           | 5.6%             | \$45.01            | \$34.61            | 6.1%         | 5.4% 5.7%                        | 6.0%         | 6.1%          |
| ∞<br>D | Eagle Rock Energy Partners                                  | EROC        | \$10.08                      | \$1,263             | \$0.75           | 7.4%             | \$12.75            | \$7.53             | 9.9%         | 1.0% 7.4%                        | 9.2%         | 119.0%        |
| i E    | Markwest Energy Partners                                    | MWE         | \$52.26                      | \$4,138             | \$2.80           | 5.4%             | \$52.26            | \$40.85            | 6.6%         | 4.9% 5.5%                        | 6.2%         | 12.0%         |
| Ę.     | Regency Energy Partners                                     | RGP         | \$22.77                      | \$3,321             | \$1.80           | 7.9%             | \$27.99            | \$20.28            | 8.4%         | 7.8% 7.9%                        | 8.3%         | 3.9%          |
| ຮື     | Targa Resources Partners, LP                                | NGLS        | \$35.97                      | \$3,049             | \$2.33           | 6.5%             | \$36.35            | \$29.92            | 7.3%         | 5.9% 6.4%                        | 7.0%         | 8.8%          |
|        | Western Gas Partners                                        | WES         | \$36.38                      | \$3,279             | \$1.68           | 4.6%             | \$37.06            | \$29.39            | 5.4%         | 4.0% 4.5%                        | 5.2%         | 13.9%         |
|        | Gathering and Processing Median                             |             |                              |                     |                  | 6.0%             |                    |                    | 7.3%         | 5.2% 6.4%                        | 7.0%         | 10.9%         |
|        | Breitburn Energy Partners                                   | BBEP        | \$17.07                      | \$1,008             | \$1.69           | 9.9%             | \$23.07            | \$15.00            | 11.0%        | 9.0% 10.0%                       | 10.6%        | 7.4%          |
|        | Constellation Energy Partners                               |             | \$2.33                       | \$5/<br>\$721       | \$0.00           | 0.0%             | \$3.59             | \$2.13             | NA           | 0.0% NA                          | NA           | NA            |
| -      | Encore Energy Partners                                      | ENP         | \$23.65                      | \$905               | \$1.02<br>\$1.88 | 7.0%             | \$25.20            | \$15.59            | 9.3%         | 10.1% 9.5%                       | 9.2%         | -2.4%         |
| ean    | EV Energy Partners                                          | EVEP        | \$65.27                      | \$2 231             | \$3.04           | 4.7%             | \$77.15            | \$37.85            | 5.0%         | 4 6% 4 7%                        | 4.9%         | 3.4%          |
| ŝ      | Legacy Reserves                                             | LGCY        | \$27.21                      | \$1,188             | \$2.18           | 8.0%             | \$33.61            | \$22.48            | 8.6%         | 7.6% 8.0%                        | 8.4%         | 5.4%          |
| 5      | Linn Energy LLC                                             | LINE        | \$36.91                      | \$6,522             | \$2.76           | 7.5%             | \$40.90            | \$31.91            | 7.8%         | 6.9% 7.4%                        | 7.7%         | 5.2%          |
|        | Pioneer Southwest Energy Partners                           | PSE         | \$29.61                      | \$981               | \$2.04           | 6.9%             | \$35.59            | \$22.56            | 7.1%         | 6.8% 6.9%                        | 7.0%         | 2.1%          |
|        | Vanguard Natural Resources                                  | VNR         | \$26.92                      | \$814               | \$2.30           | 8.5%             | \$33.09            | \$23.29            | 9.2%         | 8.2% 8.9%                        | 9.0%         | 4.9%          |
|        | Upstream Median                                             |             |                              |                     |                  | 7.6%             |                    |                    | 8.6%         | 6.9% 8.2%                        | 8.7%         | 4.9%          |
|        | Amerigas Partners                                           | APU         | \$43.68                      | \$2,495             | \$2.96           | 6.8%             | \$51.41            | \$38.06            | 7.2%         | 6.5% NA                          | 7.1%         | 4.4%          |
|        | Global Partners                                             | CLP         | \$22.30<br>\$10.80           | \$1,709             | \$2.00           | 0.9%             | \$20.90<br>\$20.83 | \$17.94<br>\$14.86 | 0.9%         | 0.9% INA                         | 0.9%         | 0.0%          |
| ane    | NGL Energy Partners                                         | NGI         | \$21.66                      | \$320               | \$1.35           | 6.2%             | \$22.00            | \$18.40            | Q 1%         | 0.0% 6.2%                        | 8 1%         | NΔ            |
| ď      | Inergy, LP                                                  | NRGY        | \$23.82                      | \$3,128             | \$2.82           | 11.8%            | \$42.03            | \$23 17            | 11.9%        | 5.5% NA                          | 11.8%        | 29.6%         |
| ę.     | Star Gas Partners                                           | SGU         | \$4.92                       | \$330               | \$0.31           | 6.3%             | \$5.96             | \$4.66             | NA           | 5.9% NA                          | NA           | NA            |
|        | Suburban Propane Partners                                   | SPH         | \$47.57                      | \$1,685             | \$3.41           | 7.2%             | \$58.75            | \$41.04            | 7.3%         | 7.1% NA                          | 7.2%         | 1.3%          |
|        | Propane Median                                              |             |                              |                     |                  | 7.2%             |                    |                    | 9.0%         | 6.5% 8.1%                        | 8.5%         | 1.8%          |
|        | Alliance Resource Partners                                  | ARLP        | \$71.90                      | \$2,644             | \$3.69           | 5.1%             | \$83.25            | \$60.25            | 6.1%         | 4.5% 5.1%                        | 5.8%         | 12.6%         |
|        | Natural Resource Partners                                   | NRP         | \$28.18                      | \$2,988             | \$2.16           | 7.7%             | \$37.48            | \$24.27            | 8.5%         | 7.7% 7.7%                        | 8.1%         | 3.6%          |
| 8<br>S | Oxford Resource Partners                                    | OXF         | \$16.50                      | \$341               | \$1.75           | 10.6%            | \$28.34            | \$14.90            | 10.8%        | 0.0% 10.6%                       | 10.8%        | NA            |
|        | Penn Virginia Resource Partners                             | PVR         | \$24.18                      | \$1,716             | \$1.96           | 8.1%             | \$29.00            | \$21.27            | 2.2%         | 6.5% 8.1%                        | 8.6%         | 11.9%         |
|        | Coal Median                                                 |             | 00.10                        | 0.70                | <b>0.00</b>      | 7.9%             | 044.00             | 0.1.00             | 7.3%         | 5.5% 7.9%                        | 8.4%         | 11.9%         |
|        | Capital Product Partners                                    | CPLP        | \$6.18                       | \$278               | \$0.93           | 15.0%            | \$11.32            | \$4.89             | 15.1%        | 14.6% 15.1%                      | 15.0%        | 1.1%          |
| g      | Golar LNG Partners                                          | GMLP        | \$28.42                      | \$1,111             | \$1.60           | 5.6%             | \$29.10            | \$23.20            | NA           | 0.0% 4.6%                        | b.1%         | NA<br>0.00/   |
| g      | Teekay I NG Partners                                        | TGP         | \$10.00                      | \$0000<br>\$1 QE2   | \$1.70<br>\$2.50 | 7 7%             | \$41 20            | \$20.75            | R 19%        | 7.3% 7.7%                        | 8.2%         | 2.3%<br>5.1%  |
| Sh     | Teekay Offshore Partners                                    | TOO         | \$27.40                      | \$1,352             | \$2.02           | 7.3%             | \$31.19            | \$22.70            | 7.8%         | 6.9% 7.3%                        | 7.7%         | 5.6%          |
|        | Shipping Median                                             | 100         | Ψ <b>Ε</b> 1. <del>1</del> 0 | ψ1,740              | φ2.00            | 7.7%             |                    | ψ                  | 10.1%        | 7.3% 7.7%                        | 8.2%         | 3.7%          |
|        | Cheniere Energy Partners                                    | COP         | \$16.82                      | \$2,799             | \$1.70           | 10.1%            | \$24 29            | \$12.07            | NA           | 10.1% 10.1%                      | 10.1%        | 0.0%          |
|        | Calumet Specialty Products                                  | CLMT        | \$18.87                      | \$958               | \$1.98           | 10.5%            | \$24.72            | \$16.08            | 11.6%        | 9.6% 10.5%                       | 11.0%        | 4.6%          |
| the    | Exterran Partners                                           | EXLP        | \$23.40                      | \$872               | \$1.93           | 8.2%             | \$31.07            | \$18.21            | 8.9%         | 7.9% 8.3%                        | 8.6%         | 4.9%          |
| 0      | Compressco Partners                                         | GSJK        | \$15.00                      | \$225               | \$1.55           | 10.3%            | \$19.33            | \$14.24            | 10.7%        | 0.0% 5.5%                        | 10.5%        | NA            |
|        | Other Median                                                |             |                              |                     |                  | 10.2%            |                    |                    | 10.7%        | 8.8% 9.2%                        | 10.3%        | 4.6%          |
|        | Alliance Holdings GP                                        | AHGP        | \$49.78                      | \$2,980             | \$2.33           | 4.7%             | \$57.68            | \$41.99            | NA           | 3.9% 4.7%                        | 5.5%         | 17.6%         |
| ers    | Atlas Pipeline Holdings                                     | ATLS        | \$23.83                      | \$1,222             | \$0.88           | 3.7%             | \$26.66            | \$13.00            | 5.0%         | 0.0% 3.5%                        | 5.8%         | NA            |
| E      | Crosstex Energy Inc.                                        | XTXI        | \$12.36                      | \$583               | \$0.40           | 3.2%             | \$15.14            | \$8.41             | 4.4%         | 0.0% 3.2%                        | 3.9%         | NA            |
| å      | Energy Transfer Equity                                      | EIE         | \$37.56                      | \$8,375             | \$2.50           | 6.7%             | \$46.23            | \$32.07            | /.1%         | 5.8% 6.1%                        | 6.8%         | 9.4%          |
| era    | Ninger Morgan Inc.                                          |             | \$28.25                      | \$19,973            | \$1.20           | 4.2%             | \$31.37            | \$23.66            | 5.0%         | 4.1% 4.2%                        | 4.7%         | 8.9%          |
| ene    |                                                             | TRGP        | \$33.34                      | φ1,200<br>\$1,414   | φ1.90<br>\$1.23  | 3.7%             | \$36.25            | ¢∠0.00<br>\$24.70  | 4 7%         | NA 3.6%                          | 4.4%         | 0.9%<br>ΝΔ    |
| ප      | General Partners Median                                     | mur         | ψ00.04                       | ψ1,414              | ψ1.20            | 4.2%             | ψ00.20             | ψ24.70             | 5.0%         | 4.0% 4.5%                        | 5.6%         | 9.2%          |
|        | MLP Median                                                  |             |                              |                     |                  | 6.7%             |                    |                    | 7.3%         | 6.0% 6.5%                        | 7.1%         | 5.3%          |
|        | MLP Average                                                 |             |                              |                     |                  | 6.7%             |                    |                    | 7.6%         | 5.8% 6.9%                        | 7.7%         | 8.8%          |

Source: Credit Suisse estimates; FactSet consensus estimates for names not under coverage; 3-Yr CAGR based on full-yr dists from 2008-11



#### Exhibit 45: Debt and EV / EBITDA

|      |                                 | Ticker  | 2010     | 2011F    | 2012F      | Net<br>Debt | Mkt<br>Cap      | Net Debt/<br>Mkt Can | 2010           | EV/EBITDA<br>2011F | 2012E         | Adjusted<br>Mkt Can | Adju<br>2010   | 2011F         | 1TDA<br>2012F  | GP<br>% Take |                | Net Debt/    |
|------|---------------------------------|---------|----------|----------|------------|-------------|-----------------|----------------------|----------------|--------------------|---------------|---------------------|----------------|---------------|----------------|--------------|----------------|--------------|
|      | Natural Gas Pipelines           | Tiencer |          |          |            | 2000        | eup             | inter oup            |                |                    |               | inter oup           | 2010           |               |                | 70 T alto    |                |              |
|      | Boardwalk Pipeline Partners     | BWP     | 653      | 667      | 712        | 3,158       | 5,420           | 58%                  | 13.1x          | 12.9x              | 12.1x         | 5,846               | 13.8x          | 13.5x         | 12.7x          | 7%           | 654.8          | 4.8x         |
|      | El Paso Pipeline Partners       | EPB     | 695      | 952      | 1,050      | 3,812       | 6,699           | 5/%                  | 15.1X          | 11.0X              | 10.0X         | 7,879               | 16.8X          | 12.3X         | 11.1X          | 15%          | 902.8          | 4.2X         |
|      | Enterprise Products Partners    | FPD     | 3 216    | 3 724    | 3,942      | 0,470       | 40 013          | 92%<br>40%           | 17.5x          | 15.0x              | 0.0X<br>14.2x | 40.013              | 17.0x          | 15.0x         | 14.2x          | 0%           | 3 551 0        | 5.2X<br>4.5x |
|      | Niska Gas Storage Partners      | NKA     | 195      | 151      | 140        | 754         | 619             | 122%                 | 7.0x           | 9.1x               | 9.8x          | 631                 | 7.1x           | 9.2x          | 9.9x           | 2%           | 204.0          | 3.7x         |
|      | ONEOK Partners                  | OKS     | 865      | 1,174    | 1,324      | 4,062       | 10,209          | 40%                  | 16.5x          | 12.2x              | 10.8x         | 13,177              | 19.9x          | 14.7x         | 13.0x          | 23%          | 1,077.0        | 3.8x         |
|      | PAA Natural Gas Storage LP      | PNG     | 51       | 103      | 126        | 453         | 1,022           | 44%                  | 28.7x          | 14.3x              | 11.7x         | 1,047               | 29.1x          | 14.6x         | 11.9x          | 2%           | 84.9           | 5.3x         |
|      | Spectra Energy Partners         | SEP     | 206      | 248      | 275        | 708         | 2,888           | 25%                  | 17.5X          | 14.5x              | 13.1x         | 3,213               | 19.1x          | 15.8x         | 14.2x          | 10%          | 239.0          | 3.0x         |
|      | Williams Partners               | WP7     | 2 055    | 209      | 251        | 740         | 2,522           | 29%                  | 21.4x<br>11.5x | 10.1x              | 9.3y          | 2,573               | 21.7X<br>14.2y | 10.9X         | 14.5X<br>11.4y | 2%           | 2 330 0        | 4.5x<br>3.0x |
|      | Liauids Pipelines               |         | 2,000    | 2,044    | 2,040      | 7,000       | 10,000          | 42.70                | 11.04          | 10.11              | 0.0X          | 22,070              | 14.24          | 12.44         | 11.44          | 2070         | 2,000.0        | 0.04         |
| les  | Blueknight Energy Partners      | BKEP    | 54       | 65       | 69         | 276         | 233             | 119%                 | 9.3x           | 7.9x               | 7.4x          | 233                 | 9.3x           | 7.9x          | 7.4x           | 0%           | 51.5           | 5.4x         |
| elir | Buckeye Partners                | BPL     | 374      | 511      | 602        | 2,646       | 5,483           | 48%                  | 21.7x          | 15.9x              | 13.5x         | 5,483               | 21.7x          | 15.9x         | 13.5x          | 0%           | 462.7          | 5.7x         |
| Pip  | Enbridge Energy Partners        | EEP     | 496      | 1,160    | 1,312      | 4,945       | 8,298           | 60%                  | 26.7x          | 11.4x              | 10.1X         | 9,882               | 29.9x          | 12.8x         | 11.3X          | 16%          | 897.3          | 5.5X         |
|      | Holly Energy Partners           | HEP     | 38       | 104      | 195        | 533         | 1,891           | 32%                  | 00.4X          | 15.3X<br>13.0v     | 12.8X         | 1,891               | 16 /y          | 15.3X         | 12.8X          | 0%           | 136.0          | 10.9X        |
|      | Kinder Morgan Energy Partners   | KMP     | 3.312    | 3.668    | 4.278      | 11.997      | 25.618          | 47%                  | 11.4x          | 10.3x              | 8.8x          | 46.019              | 17.5x          | 15.8x         | 13.6x          | 44%          | 3.554.2        | 3.4x         |
|      | Magellan Midstream Partners     | MMP     | 511      | 634      | 661        | 2,122       | 7,329           | 29%                  | 18.5x          | 14.9x              | 14.3x         | 7,329               | 18.5x          | 14.9x         | 14.3x          | 0%           | 611.6          | 3.5x         |
|      | Martin Midstream Partners       | MMLP    | 96       | 100      | 119        | 430         | 727             | 59%                  | 12.1x          | 11.5x              | 9.7x          | 806                 | 12.9x          | 12.3x         | 10.4x          | 10%          | 96.4           | 4.5x         |
|      | NuStar Energy                   | NS      | 465      | 487      | 558        | 2,260       | 3,598           | 63%                  | 12.6x          | 12.0x              | 10.5x         | 4,137               | 13.7x          | 13.1x         | 11.5x          | 13%          | 505.3          | 4.5x         |
|      | Oiltanking Partners             | OILT    | 69       | NA       | 74         | 139         | 988             | 14%                  | 16.4x          | NA                 | 15.2x         | 988                 | 16.4x          | NA            | 15.2x          | 0%           | 71.5           | 1.9x         |
|      | Sunoco Logistics Partners       | SXI     | 365      | 523      | 580        | 1,809       | 3,503           | 50%                  | 13.5X<br>14.9y | 9.0X               | 9.4y          | 5 382               | 10.7X          | 13.8x         | 12.7X<br>12.4x | 32%          | 483.1          | 3.7x         |
|      | Tesoro Logistics LP             | TLLP    | 53       | 40       | 71         | 60          | 832             | 7%                   | 16.9x          | 22.3x              | 12.7x         | 849                 | 17.2x          | 22.7x         | 12.9x          | 2%           | 23.5           | 2.6x         |
|      | Transmontaigne Partners         | TLP     | 70       | 73       | 69         | 115         | 465             | 25%                  | 8.3x           | 8.0x               | 8.4x          | 512                 | 9.0x           | 8.6x          | 9.1x           | 9%           | 66.0           | 1.7x         |
|      | Pipeline MLPs Median            |         | 365      | 511      | 569        |             |                 | 46%                  | 15.0x          | 12.0x              | 10.4x         |                     | 17.0x          | 13.8x         | 12.5x          | 10%          |                | 3.8x         |
|      | American Midstream Partners     | AMID    | 17       | 21       | 25         | 61          | 213             | 29%                  | 16.0x          | 12.9x              | 10.9x         | 217                 | 16.3x          | 13.1x         | 11.1x          | 2%           | 15.1           | 4.0x         |
|      | Atlas Pipeline Partners         | APL     | 148      | 310      | 235        | 417         | 1,893           | 22%                  | 15.6x          | 7.4x               | 9.8x          | 1,931               | 15.9x          | 7.6x          | 10.0x          | 2%           | 186.8          | 2.2x         |
| sing | Copano Energy LLC               | CPNO    | 293      | 185      | 278        | 734         | 2 101           | 20%                  | 27 1v          | 16.4 v             | 10 Qv         | 2 101               | 27 1v          | 16 4v         | 10 Qy          | 2%           | (9.1)          | 4.4X<br>NA   |
| ess  | Crestwood Midstream Partners    | CMLP    | 70       | 111      | 139        | 445         | 942             | 47%                  | 19.8x          | 12.5x              | 10.0x         | 1.019               | 20.8x          | 13.2x         | 10.5x          | 8%           | 95.5           | 4.7x         |
| roc  | Crosstex Energy                 | XTEX    | 197      | 214      | 228        | 811         | 785             | 103%                 | 8.1x           | 7.5x               | 7.0x          | 827                 | 8.3x           | 7.7x          | 7.2x           | 5%           | 207.0          | 3.9x         |
| & P  | DCP Midstream Partners          | DPM     | 166      | 132      | 230        | 717         | 2,000           | 36%                  | 16.4x          | 20.5x              | 11.8x         | 2,478               | 19.2x          | 24.2x         | 13.9x          | 19%          | 170.3          | 4.2x         |
| bu   | Eagle Rock Energy Partners      | EROC    | 75       | 208      | 276        | 723         | 1,263           | 57%                  | 26.4x          | 9.5x               | 7.2x          | 1,263               | 26.4x          | 9.5x          | 7.2x           | 0%           | 184.7          | 3.9x         |
| heri | Markwest Energy Partners        | MWE     | 370      | 443      | 569        | 1,294       | 4,138           | 31%                  | 14./X          | 12.3X              | 9.5X          | 4,138               | 14./X          | 12.3X         | 9.5X           | 0%           | 544.4<br>221.1 | 2.4x         |
| Gat  | Targa Resources Partners I P    | NGLS    | 394      | 500      | 493<br>529 | 1,795       | 3 049           | 50%                  | 11.6x          | 9.1x               | 8.6x          | 3,442               | 13.0x          | 10.3x         | 9.7x           | 16%          | 490.1          | 3.1x         |
|      | Western Gas Partners            | WES     | 186      | 256      | 301        | 570         | 3,279           | 17%                  | 20.7x          | 15.0x              | 12.8x         | 3,460               | 21.7x          | 15.8x         | 13.4x          | 5%           | 244.4          | 2.3x         |
|      | Gathering and Processing Median |         | 176      | 214      | 276        |             |                 | 37%                  | 16.4x          | 12.5x              | 10.0x         |                     | 19.2x          | 13.1x         | 10.5x          | 3%           |                | 3.9x         |
|      | Breitburn Energy Partners       | BBEP    | 164      | 214      | 264        | 507         | 1,008           | 50%                  | 9.2x           | 7.1x               | 5.7x          | 1,008               | 9.2x           | 7.1x          | 5.7x           | 0%           | 220.8          | 2.3x         |
|      | Constellation Energy Partners   | CEP     | NA<br>52 | NA       | NA         | 102         | 57              | 180%                 | NA             | NA                 | NA            | 57                  | NA             | NA            | NA             | 0%           | 34.9           | 2.9x         |
| e    | Encore Energy Partners          | FNP     | 93       | 124      | 133        | 227         | 905             | -2%                  | 12.2x          | 9 1x               | 8.5x          | 915                 | 12.3x          | 9.2x          | 8.6x           | 1%           | 147 4          | 1.5x         |
| ean  | EV Energy Partners              | EVEP    | 177      | 216      | 273        | 488         | 2,231           | 22%                  | 15.3x          | 12.6x              | 10.0x         | 2,533               | 17.0x          | 14.0x         | 11.1x          | 12%          | 179.4          | 2.7x         |
| psti | Legacy Reserves                 | LGCY    | 104      | 200      | 215        | 397         | 1,188           | 33%                  | NA             | 7.9x               | 7.4x          | 1,188               | NA             | 7.9x          | 7.4x           | 0%           | 213.8          | 1.9x         |
| 'n   | Linn Energy LLC                 | LINE    | 732      | 980      | 1,093      | 3,293       | 6,522           | 50%                  | NA<br>0.0v     | 10.0x              | 9.0x          | 6,522               | NA             | 10.0x         | 9.0x           | 0%           | 506.9          | 6.5x         |
|      | Vancuard Natural Besources      | VNR     | 61       | 125      | 178        | 585         | 90 I<br>814     | 9%<br>72%            | 0.0X           | 0.0X<br>9.4y       | 9.4x<br>7.8y  | 901<br>814          | 0.0X           | 0.0X          | 9.4x           | 0%           | 222.8          | 2.6x         |
|      | Upstream Median                 |         | 113      | 200      | 215        | 000         |                 | 33%                  | 10.7x          | 9.1x               | 8.5x          | 011                 | 10.8x          | 9.2x          | 8.6x           | 070          | LLLIO          | 2.5x         |
|      | Amerigas Partners               | APU     | 323      | 297      | 380        | 1,004       | 2,495           | NA                   | 10.8x          | 11.8x              | 9.2x          | 2,614               | 11.2x          | 12.2x         | 9.5x           | 5%           | 331.8          | 3.0x         |
|      | Ferrellgas Partners             | FGP     | 240      | NA       | 237        | 1,172       | 1,709           | 69%                  | 12.0x          | NA                 | 12.2x         | 1,727               | 12.1x          | NA            | 12.2x          | 1%           | 200.9          | 5.8x         |
| ne   | Global Partners                 | GLP     | 75       | 83       | 94         | 723         | 429             | 169%                 | 15.4x          | 13.8x              | 12.3x         | 438                 | 15.6x          | 14.0x         | 12.4x          | 2%           | 80.9           | 8.9x         |
| opa  | Inergy LP                       | NGL     | 314      | 372      | 431        | 1 628       | 3 1 2 8         | 52%                  | 19.8X          | 12.8x              | 3.9X          | 323                 | 20.0X          | 12.8v         | 4.0X           | 1%           | 364.0          | 0.3X         |
| P    | Star Gas Partners               | SGU     | 81       | NA       | NA         | 74          | 330             | 22%                  | 5.0x           | NA                 | NA            | 334                 | 5.1x           | NA            | NA             | 1%           | 99.6           | 0.7x         |
|      | Suburban Propane Partners       | SPH     | 189      | 179      | 182        | 187         | 1,685           | 11%                  | 9.9x           | 10.5x              | 10.3x         | 1,685               | 9.9x           | 10.5x         | 10.3x          | 0%           | 180.9          | 1.0x         |
|      | Propane Median                  | 101-    | 189      | 238      | 209        |             |                 | 37%                  | 12.0x          | 12.3x              | 10.7x         |                     | 12.1x          | 12.5x         | 10.7x          |              |                | 3.0x         |
|      | Alliance Hesource Partners      | ARLP    | 502      | 582      | 629        | 400         | 2,644           | 15%                  | NA<br>14.0v    | 5.2x               | 4.8X          | 4,539               | 9.8x           | 8.5X          | 7.9X           | 42%          | 574.8          | 0.7x         |
| bal  | Oxford Resource Partners        | OXE     | 53       | 61       | 91         | 118         | 341             | 35%                  | 8.6x           | 7.5x               | 5 0x          | 347                 | 8.8x           | 7.6x          | 5.1x           | 2%           | 57.3           | 2.1x         |
| õ    | Penn Virginia Resource Partners | PVR     | 176      | 246      | 271        | 921         | 1,716           | 54%                  | 15.0x          | 10.7x              | 9.7x          | 1,716               | 15.0x          | 10.7x         | 9.7x           | 0%           | 230.0          | 4.0x         |
|      | Coal Median                     |         | 216      | 284      | 305        |             |                 | 28%                  | 14.3x          | 9.1x               | 7.4x          |                     | 12.2x          | 9.6x          | 8.8x           |              |                | 2.1x         |
|      | Capital Product Partners        | CPLP    | 85       | 83       | 105        | 461         | 278             | 166%                 | 8.7x           | 8.9x               | 7.1x          | 283                 | 8.7x           | 8.9x          | 7.1x           | 2%           | 81.5           | 5.7x         |
| bu   | Golar LNG Partners              | GMLP    | 106      | 122      | 166        | 531         | 1,111           | 48%                  | 15.5X          | 13.5x              | 9.9x          | 1,111               | 15.5x          | 13.5x         | 9.9x           | 0%           | 111.6          | 4.8x         |
| iqqi | Teekay I NG Partners            | TGP     | 229      | 274      | 311        | 200         | 1 952           | 97%                  | 16.8v          | 0.0X               | 12 4y         | 2 118               | 17.5v          | 0.1X<br>14.6y | 12 9y          | 8%           | 275.4          | 2.1X<br>6.9x |
| Sh   | Teekay Offshore Partners        | TOO     | 306      | 391      | 431        | 1,758       | 1,740           | 101%                 | 11.4x          | 8.9x               | 8.1x          | 1,863               | 11.8x          | 9.3x          | 8.4x           | 7%           | 316.1          | 5.6x         |
|      | Shipping Median                 |         | 108      | 140      | 166        |             |                 | 97%                  | 13.4x          | 8.9x               | 9.0x          |                     | 13.6x          | 9.3x          | 9.2x           |              |                | 5.6x         |
|      | Cheniere Energy Partners        | CQP     | 329      | NA       | NA         | 2,042       | 2,799           | 73%                  | 14.7x          | NA                 | NA            | 2,855               | 14.9x          | NA            | NA             | 2%           | 194.6          | 10.5x        |
| ler  | Calumet Specialty Products      | CLMT    | 112      | NA       | 237        | 429         | 958             | 45%                  | 12.4x          | NA                 | 5.9x          | 978                 | 12.6x          | NA<br>10.4    | 5.9x           | 2%           | 134.2          | 3.2x         |
| đ    | Exterran Partners               | GSIK    | 79       | 27       | 33         | (10)        | 225             | -0%                  | 7 1v           | 7.6x               | 8./X<br>6.3x  | 925                 | 18.5X          | 10.4X         | 9.0X           | 0%           | 97.8<br>NA     | 5.6X         |
|      | Other Median                    | GOON    | 96       | 84       | 162        | (13)        | 220             | 54%                  | 1 <u>3.6x</u>  | 8. <u>8x</u>       | 6. <u>3x</u>  | 225                 | 13.7x          | 9.0x          | 6. <u>3x</u>   | 0 /0         | 11/1           | 5. <u>6x</u> |
|      | Alliance Holdings GP            | AHGP    | NA       | NA       | NA         | NA          | 2,980           | NA                   | NA             | NA                 | NA            | NA                  | NA             | NA            | NA             | NA           | NA             | NA           |
| ers  | Atlas Pipeline Holdings         | ATLS    | NA       | NA       | NA         | NA          | 1,222           | NA                   | NA             | NA                 | NA            | NA                  | NA             | NA            | NA             | NA           | NA             | NA           |
| artn | Crosstex Energy Inc.            | XTXI    | NA       | NA       | NA         | NA          | 583             | NA<br>450/           | NA             | NA                 | NA            | NA                  | NA             | NA            | NA             | NA           | NA             | NA           |
| I P  | Kinder Morgan Inc               | KMI     | NA<br>NA | NA<br>NA | NA<br>NA   | 3,745       | 8,375<br>19,973 | 45%                  | NA<br>NA       | NA<br>NA           | NA<br>NA      | NA<br>NA            | NA<br>NA       | NA<br>NA      | NA<br>NA       | NA<br>NA     | NA<br>NA       | NA<br>NA     |
| lera | NuStar GP Holdings              | NSH     | NA       | NA       | NA         | NA          | 1,288           | NA                   | NA             | NA                 | NA            | NA                  | NA             | NA            | NA             | NA           | NA             | NA           |
| Ger  | Targa Resources Corp.           | TRGP    | NA       | NA       | NA         | NA          | 1,414           | NA                   | NA             | NA                 | NA            | NA                  | NA             | NA            | NA             | NA           | NA             | NA           |
|      | General Partners Median         |         |          |          |            |             |                 | 33%                  |                |                    |               |                     |                |               |                |              |                |              |
|      | MLP Median                      |         | 176      | 215      | 250        | 712         | 1,713           | 44%                  | 14.9x          | 11.2x              | 9.8x          |                     | 15.5x          | 12.3x         | 10.9x          |              |                | 3.8x         |
|      | MEL Average                     |         | 411      | 300      | 341        | 1,710       | 3,000           | 43%                  | 10.0X          | 11.0X              | J.0X          |                     | 10.5X          | 12.3X         | 10.5X          |              |                | 3.0X         |

Source: Partnership data, FactSet, Credit Suisse estimates



#### Exhibit 46: Debt Maturity Schedule

| _          |                                   | TICKET  | Current Debt | 2011     | 2012  | 2013    | 2014+   |
|------------|-----------------------------------|---------|--------------|----------|-------|---------|---------|
|            | <u>Natural Gas Pipelines</u>      |         |              |          |       |         |         |
|            | Boardwalk Pipeline Partners       | BWP     | 3,198        | 0        | 1,175 | 0       | 2,425   |
|            | El Paso Pipeline Partners         | EPB     | 3.930        | 0        | 0     | 0       | 4.471   |
|            | Energy Transfer Partners          | FTP     | 8.076        | 0        | 404   | 350     | 9 170   |
|            | Energy Hansler Fathers            |         | 15,070       | 0        | 404   | 1 000   | 3,170   |
|            | Enterprise Products Partners      | EPD     | 15,109       | 0        | 1,000 | 1,200   | 14,100  |
|            | Niska Gas Storage Partners        | NKA     | 810          | 0        | 0     | 0       | 1,169   |
|            | ONEOK Partners                    | OKS     | 3.879        | 0        | 350   | 0       | 4.650   |
|            | PAA Natural Gas Storage I P       | PNG     | 453          | 0        | 0     | 0       | 450     |
|            | Casatra Francis Darta are         |         | 400          | 0        | 0     | 0       | 400     |
|            | Spectra Energy Partners           | SEP     | 688          | 0        | 0     | 0       | 1,200   |
|            | TC Pipeline                       | TCLP    | 747          | 300      | 0     | 0       | 850     |
|            | Williams Partners                 | WPZ     | 7,148        | 0        | 325   | 0       | 8,928   |
|            | Liquids Pipelines                 |         | ,            |          |       |         | ,       |
| 8          | Blueknight Energy Partners        | BKEP    | 282          | 25       | 25    | 0       | 295     |
| <u> </u>   | Buckeye Partnere                  | DDI     | 2 662        | 0        |       | 200     | 2 0 2 5 |
| e          | Buckeye Partners                  | DPL     | 2,002        | 0        | 0     | 300     | 3,025   |
| Ξ.         | Enbridge Energy Partners          | EEP     | 5,389        | 0        | 100   | 200     | 6,350   |
| -          | Genesis Energy                    | GEL     | 618          | 0        | 0     | 0       | 1,025   |
|            | Holly Energy Partners             | HEP     | 535          | 0        | 0     | 0       | 610     |
|            | Kinder Morgan Energy Partners     | KMP     | 12 507       | 0        | 950   | 500     | 12 800  |
|            | Rinder worgan Energy Farmers      |         | 12,307       | 0        | 300   | 500     | 12,000  |
|            | Magellan Midstream Partners       | IVIIVIP | 2,153        | 0        | U     | U       | 2,900   |
|            | Martin Midstream Partners         | MMLP    | 430          | 0        | 0     | 0       | 550     |
|            | NuStar Energy                     | NS      | 2.526        | 0        | 1.562 | 480     | 800     |
|            | Oiltanking Partners               | OILT    | 142          | 0        | 0     | 50      | 0       |
|            | Dising All American Disaling      | DAA     | 5 110        | 0        | 500   | 1 1 0 0 | 0.075   |
|            | Plains All American Pipeline      | PAA     | 5,119        | 0        | 500   | 1,100   | 6,075   |
|            | Sunoco Logistics Partners         | SXL     | 1,798        | 0        | 450   | 0       | 1,800   |
|            | Tesoro Logistics LP               | TLLP    | 50           | 0        | 0     | 0       | 150     |
|            | Transmontaigne Partners           | TLP     | 120          | 0        | 0     | 0       | 250     |
|            | Pipeline MI Be Total              |         | 78 368       | 325      | 6.8/1 | / 180   | 84 043  |
|            | Fipeline MEFS Total               |         | 70,000       | 020      | 0,041 | 4,100   | 04,040  |
|            | American Midstream Partners       | AMID    | 61           | 0        | 0     | 0       | 100     |
|            | Atlas Pipeline Partners           | APL     | 426          | 0        | 0     | 0       | 816     |
| 5          | Chesapeake Midstream Partners     | CHKM    | 417          | 0        | 0     | 0       | 1 150   |
| <u>, </u>  | Copano Energy LLC                 | CPNIO   | 905          | 0        | 0     | 0       | 1 310   |
| ŝŝ         |                                   | OFINO   | 903          | 0        | 0     | 0       | 1,310   |
| ö          | Crestwood Midstream Partners      | CMLP    | 445          | 0        | 0     | 0       | 700     |
| 문          | Crosstex Energy                   | XTEX    | 817          | 0        | 0     | 0       | 1,210   |
| <u>т</u>   | DCP Midstream Partners            | DPM     | 726          | 0        | 0     | 0       | 1.250   |
| 30         | Eagle Bock Energy Partners        | FROC    | 741          | Õ        | Ő     | Ő       | 975     |
| . <u> </u> | Marline at Frances Darts are      |         | 1 470        | 0        | 0     | 0       | 0 704   |
| e          | Markwest Energy Partners          | IVIVE   | 1,478        | 0        | 0     | 0       | 2,784   |
| 뒢          | Regency Energy Partners           | RGP     | 1,800        | 0        | 0     | 0       | 2,250   |
| Ğ          | Targa Resources Partners, LP      | NGLS    | 1,514        | 0        | 0     | 0       | 2,116   |
|            | Western Gas Partners              | WES     | 669          | 0        | 0     | 175     | 1,300   |
|            | Cothering and Dressesing Total    | TTEO    | 0.000        | <u> </u> | 0     | 175     | 15.061  |
|            | Gattlering and Processing Total   |         | 9,999        | 0        | 0     | 175     | 15,901  |
|            | Breitburn Energy Partners         | BBEP    | 511          | 0        | 0     | 0       | 1,805   |
|            | Constellation Energy Partners     | CEP     | 116          | 0        | 0     | 350     | 0       |
|            | Dorchester Minerals J. P.         | DMI P   | 0            | 0        | 0     | 0       | 0       |
|            | Encore Energy Partners            | ENID    | 230          | Õ        | 475   | 0       | Ő       |
| ε          | Encore Energy Faithers            |         | 230          | 0        | 4/5   | 0       | 0       |
| g          | EV Energy Partners                | EVEP    | 505          | 0        | 0     | 0       | 1,300   |
| ÷          | Legacy Reserves                   | LGCY    | 405          | 0        | 0     | 0       | 1,000   |
| ă          | Linn Energy LLC                   | LINE    | 3,119        | 0        | 0     | 0       | 4,607   |
|            | Pioneer Southwest Energy Partners | PSF     | 87           | 0        | 0     | 300     | 0       |
|            | OD Energy                         | ODE     | 066          | 0        | 0     | 000     | 750     |
|            | QR Ellergy                        | UNE     | 200          | 0        | 0     | 0       | 750     |
|            | Vanguard Natural Resources        | VNR     | 590          | 1/5      | 0     | 0       | 1,500   |
|            | Upstream Total                    |         | 5,829        | 175      | 475   | 650     | 10,962  |
|            | Amerigas Partners                 | APU     | 1.010        | 0        | 0     | 0       | 1.245   |
|            | Ferrellas Partners                | FGP     | 1 179        | 0        | 0     | 0       | 1 382   |
|            | Clobal Bartnera                   | CLD     | 770          | 0        | 0     | 0       | 1,002   |
| e          | Giobal Farmers                    | GLP     | 112          | 0        | 0     | 0       | 1,250   |
| 0al        | NGL Energy Partners               | NGL     | 12           | 0        | 0     | 0       | 330     |
| ē          | Inergy, LP                        | NRGY    | 1,786        | 0        | 0     | 0       | 2,466   |
| Δ.         | Star Gas Partners                 | SGU     | 124          | 0        | 0     | 0       | 425     |
|            | Suburban Pronane Partners         | SPH     | 348          | 0        | 0     | 250     | 250     |
|            | Dremene Tetel                     | 0/11    | 5 000        |          | 0     | 250     | 7 0 4 9 |
|            |                                   |         | 3,232        | 0        | 0     | 200     | 7,348   |
|            | Alliance Resource Partners        | ARLP    | 707          | 0        | 142   | 0       | 704     |
|            | Natural Resource Partners         | NRP     | 817          | 0        | 0     | 35      | 1.130   |
| 8          | Oxford Resource Partners          | OXF     | 119          | Ő        | Ō     | 115     | .52     |
| ŭ          | Bonn Virginia Bosouroo Bartnara   | DV/D    | 025          | Õ        | 0     | 0       | 1 200   |
|            | Cool Total                        | רוא ו   | 900          | 0        | 140   | 150-    | 0.400   |
|            | Coal Total                        |         | 2,578        | 0        | 142   | 150     | 3,180   |
|            | Capital Product Partners          | CPLP    | 499          | 0        | 0     | 0       | 533     |
| 5          | Golar LNG Partners                | GMLP    | 591          | 0        | 0     | 0       | 0       |
| . <u> </u> | Navios Maritime Partners          | NMM     | 342          | Õ        | Ő     | Ő       | 264     |
| 8          | Tackey INC Partners               | TOD     | 0.060        | 0        | 0     | 0       | 1 417   |
| ۶.         | Techay LING Faillels              | TOP     | 2,003        | U        | 0     | 0       | 1,417   |
| 0)         | Teekay Offshore Partners          | 100     | 1,917        | 0        | 0     | 364     | 1,326   |
|            | Shipping Total                    |         | 5,412        | 0        | 0     | 364     | 3,540   |
|            | Cheniere Energy Partners          | COP     | 2 191        | 0        | 0     | 550     | 1 665   |
|            | Calumet Specialty Products        | CLMT    | /20          | 0        | 0     | 0       | 1 / 50  |
| e          | Calumet Specially Products        | CLIVIT  | 429          | 0        | 0     | 0       | 1,450   |
| 复          | Exterran Partners                 | EXLP    | 544          | 0        | 0     | 0       | 700     |
| 0          | Compressco Partners               | GSJK    | 0            | 0        | 0     | 0       | 20      |
|            | Other Total                       |         | 3,165        | 0        | 0     | 550     | 3,835   |
|            | Alliance Holdings GP              | AHGP    | 0            | 0        | 0     | 0       | 0       |
| ŝ          | Atlas Dipolino Holdings           | ATLS    | 0            | 0        | 0     | 0       | 200     |
| ē          | Auas ripeline noidings            | AILS    | U            | U        | U     | U       | 300     |
| ŧ          | Crosstex Energy Inc.              | XIXI    | 0            | 0        | 0     | 0       | 0       |
| R          | Energy Transfer Equity            | ETE     | 3,915        | 0        | 3,700 | 0       | 1,800   |
| 77         | Kinder Morgan Inc.                | KMI     | 4.406        | 0        | 839   | 1,000   | 1.952   |
| ē          | NuStar GP Holdings                | NSH     | 0            | 0        | 30    | 0       | ,       |
| ē          | Targa Resources Corp              | TRGP    | 80           | ñ        | 0     | Ő       | 164     |
| ଞ          | Conorol Portnore Total            | mai     | 0.411        | 0        | 4 560 | 1 000   | 104     |
|            |                                   |         | 0,411        | 0        | 4,009 | 1,000   | 4,210   |
|            |                                   |         |              |          |       |         |         |
|            | MLP Median                        |         | 669          |          |       |         |         |

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Source: FactSet, Bloomberg, Partnership data, Credit Suisse estimates; Note: Debt Maturity Schedule includes total revolver capacity



## Exhibit 47: MLP Spreads

|              |                                                             | Ticker | Yield        | Current    | 3-vr Avg   | Since IPO  | Date              | Ava Spd (bps)    | Trailing 3-Yr | Fwd 3-Yr      |
|--------------|-------------------------------------------------------------|--------|--------------|------------|------------|------------|-------------------|------------------|---------------|---------------|
| e.           | Natural Gas Pipelines                                       |        |              |            |            |            |                   |                  | j             |               |
|              | Boardwalk Pipeline Partners                                 | BWP    | 7.7%         | 568        | 437        | 306        | 11/9/05           | 131              | 4.8%          | 3.2%          |
|              | El Paso Pipeline Partners<br>Energy Transfer Partners       | FTP    | 6.0%<br>8.1% | 401<br>610 | 258        | 250        | 6/25/96           | 143              | 78.3%         | 3.4%          |
|              | Enterprise Products Partners                                | EPD    | 5.4%         | 335        | 382        | 252        | 7/28/98           | (47)             | 5.9%          | 5.2%          |
|              | Niska Gas Storage Partners                                  | NKA    | 15.3%        | 1,329      | 530        | 530        | 5/11/10           | 799 <sup>′</sup> | NA            | NA            |
|              | ONEOK Partners                                              | OKS    | 4.7%         | 266        | 398        | 278        | 9/24/93           | (132)            | 3.8%          | 9.9%          |
|              | PAA Natural Gas Storage LP<br>Spectra Epergy Partners       | SEP    | 7.6%         | 5/6<br>/10 | 323        | 323        | 4/30/10           | 254              | NA<br>41.1%   | NA<br>6.4%    |
|              | TC Pipeline                                                 | TCLP   | 6.5%         | 452        | 456        | 309        | 5/25/99           | (4)              | 4.0%          | 3.9%          |
|              | Williams Partners                                           | WPZ    | 5.1%         | 310        | 608        | 294        | 8/18/05           | (298)            | 8.2%          | 8.1%          |
|              | Liquids Pipelines                                           |        |              |            |            |            |                   |                  |               |               |
|              | Blueknight Energy Partners                                  | BKEP   | 0.0%         | (201)      | 906        | 841        | 7/18/07           | NA               | NA            | NA            |
| les          | Buckeye Partners                                            | BPL    | 6.3%         | 433        | 396        | 213        | 12/16/86          | 38               | 5.8%          | NA<br>2.7%    |
| e            | Enbridge Energy Management LLC                              | FFQ    | 6.9%         | 487        | 435        | 390        | 10/11/02          | (42)             | 2.9%          | 3.7%<br>4.2%  |
| ä            | Genesis Energy                                              | GEL    | 6.3%         | 430        | 494        | 702        | 11/26/96          | (63)             | 15.0%         | 10.2%         |
|              | Holly Energy Partners                                       | HEP    | 6.1%         | 410        | 502        | 341        | 7/8/04            | (93)             | 5.4%          | 4.9%          |
|              | Kinder Morgan Energy Partners                               | KMP    | 6.0%         | 402        | 393        | 211        | 7/30/92           | 9                | 8.1%          | 5.5%          |
|              | Kinder Morgan Management LLC<br>Magellan Midstream Partners | MMP    | 0.7%         | 472<br>201 | 488        | 320        | 5/15/01<br>2/6/01 | (16)             | 8.1%<br>5.1%  | 5.5%<br>7.0%  |
|              | Magenan Midstream Partners                                  | MMLP   | 8.6%         | 657        | 776        | 424        | 11/1/02           | (119)            | 3.9%          | 2.5%          |
|              | NuStar Energy                                               | NS     | 7.9%         | 586        | 446        | 288        | 4/10/01           | 140              | 3.7%          | 1.3%          |
|              | Oiltanking Partners                                         | OILT   | 0.0%         | NA         | NA         | NA         | 7/13/11           | NA               | NA            | NA            |
|              | Plains All American Pipeline                                | PAA    | 6.1%         | 411        | 400        | 314        | 11/18/98          | 11               | 4.3%          | 4.6%          |
|              | Tesoro Logistics LP                                         | TILP   | 4.0%         | 200        | 481        | 200        | 2/5/02            | (05)             | 10.6%<br>NA   | 7.2%<br>NA    |
|              | Transmontaigne Partners                                     | TLP    | 7.7%         | 570        | 589        | 336        | 5/25/05           | (19)             | 6.6%          | 4.1%          |
|              | Pipeline MLPs Median                                        |        | 6.3%         | 433        | 446        | 312        |                   | 3                | 5.4%          | 4.9%          |
|              | American Midstream Partners                                 | AMID   | 0.0%         | NA         | NA         | NA         | 7/26/11           | NA               | NA            | NA            |
| _            | Atlas Pipeline Partners                                     | APL    | 5.3%         | 331        | 1,222      | 620        | 01/28/00          | (891)            | -41.4%        | 56.8%         |
| ing.         | Consapeake Midstream Partners                               | CHKM   | 5.5%         | 309        | 58         | 58<br>340  | 07/29/10          | NA<br>(246)      | NA<br>7.7%    | 38.6%         |
| ŝŝ           | Crestwood Midstream Partners                                | CMLP   | 6.7%         | 471        | 520        | 363        | 8/8/07            | (49)             | 40.4%         | 9.6%          |
| ğ            | Crosstex Energy                                             | XTEX   | 8.0%         | 599        | 1,032      | 453        | 12/12/02          | NA               | -39.7%        | 44.9%         |
| Å.           | DCP Midstream Partners                                      | DPM    | 5.6%         | 361        | 677        | 468        | 12/02/05          | (316)            | 4.8%          | 5.6%          |
| <u>ng</u>    | Eagle Rock Energy Partners                                  | EROC   | 7.4%         | 543        | 730        | 538        | 10/25/06          | NA               | -46.7%        | 66.0%         |
| her          | Begency Energy Partners                                     | BGP    | 5.4%         | 589        | 665        | 420<br>348 | 5/21/02           | (405)            | 6.0%          | 10.2%         |
| Gat          | Targa Resources Partners, LP                                | NGLS   | 6.5%         | 447        | 782        | 600        | 02/09/07          | (336)            | 14.7%         | 8.8%          |
|              | Western Gas Partners                                        | WES    | 4.6%         | 261        | 294        | 312        | 5/9/08            | (33)             | NA            | 12.3%         |
|              | Gathering and Processing Median                             |        | 6.0%         | 447        | 730        | 420        |                   | (281)            | 4.8%          | 10.2%         |
|              | Breitburn Energy Partners                                   | BBEP   | 9.9%         | 789        | 641        | 474        | 10/5/06           | 148              | -3.4%         | 6.0%          |
|              | Dorchester Minerals L P                                     |        | 0.0%         | (201)      | 522        | 880<br>108 | 8/26/82           | (1,410)          | -5.7%         | NΑ            |
| F            | Encore Energy Partners                                      | ENP    | 9.4%         | 744        | 888        | 695        | 9/12/07           | (145)            | 39.5%         | -1.6%         |
| rea          | EV Energy Partners                                          | EVEP   | 4.7%         | 265        | 748        | 526        | 9/27/06           | (483)            | 12.6%         | 3.2%          |
| pst          | Legacy Reserves                                             | LGCY   | 8.0%         | 600        | 818        | 685        | 1/12/07           | (218)            | 6.8%          | 5.7%          |
|              | Linn Energy LLC<br>Piopoor Southwest Energy Partners        |        | 7.5%         | 547<br>610 | /05<br>81  | 4/9<br>81  | 1/13/06           | (159)            | 4.1%          | 6.8%<br>2.4%  |
|              | Vanguard Natural Resources                                  | VNR    | 8.5%         | 653        | 857        | 724        | 10/24/07          | (204)            | 70.0%         | 5.7%          |
|              | Upstream Median                                             |        | 7.8%         | 582        | 727        | 502        |                   | (159)            | 6.8%          | 5.7%          |
|              | Amerigas Partners                                           | APU    | 6.8%         | 476        | 403        | 364        | 4/12/95           | 74               | 1.5%          | 4.5%          |
|              | Ferrellgas Partners                                         | FGP    | 8.9%         | 688        | 670        | 525        | 6/28/94           | 17               | 0.0%          | 0.1%          |
| ne           | Global Partners                                             | GLP    | 10.1%        | 804<br>422 | 6/6<br>NA  | 464<br>NA  | 9/29/05           | 128<br>NA        | 1.1%          | 0.8%          |
| do           | Ineray, LP                                                  | NRGY   | 11.8%        | 983        | 444        | 300        | 7/26/01           | 539              | 6.3%          | 1.3%          |
| ۲,           | Star Gas Partners                                           | SGU    | 6.3%         | 429        | 239        | 379        | 12/15/95          | 190              | NA            | NA            |
|              | Suburban Propane Partners                                   | SPH    | 7.2%         | 516        | 421        | 353        | 2/29/96           | 95               | 5.7%          | 1.7%          |
|              | Propane Median                                              |        | 7.2%         | 516        | 432        | 372        | 0/17/00           | 112              | 1.5%          | 1.3%          |
|              | Alliance Resource Partners                                  |        | 5.1%         | 312        | 363        | 234        | 8/1//99           | (51)             | 13.6%         | 11.9%         |
| oal          | Oxford Resource Partners                                    | OXF    | 10.6%        | 859        | 285        | 285        | 10/11/02          | NA               | 4.7 %         | 27.7%         |
| 0            | Penn Virginia Resource Partners                             | PVR    | 8.1%         | 609        | 601        | 288        | 10/25/01          | 8                | 3.4%          | 3.1%          |
|              | Coal Median                                                 |        | 7.9%         | 587        | 454        | 280        |                   | 8                | 4.7%          | 7.5%          |
|              | Capital Product Partners                                    | CPLP   | 15.0%        | 1,304      | 1,292      | 931        | 3/29/07           | 12               | -7.1%         | -1.3%         |
| <u>ing</u>   | Golar LING Partners                                         | MMM    | 5.6%         | 362        | 026        | INA<br>770 | 4/7/11            | NA<br>46         | NA<br>68.9%   | NΑ            |
| <u>b</u> .   | Teekav LNG Partners                                         | TGP    | 7.7%         | 565        | 587        | 328        | 5/5/05            | (22)             | 8.6%          | 12.4%         |
| Ϋ́           | Teekay Offshore Partners                                    | TOO    | 7.3%         | 529        | 650        | 427        | 12/14/06          | (121)            | 8.6%          | 6.0%          |
|              | Shipping Median                                             |        | 7.7%         | 565        | 788        | 598        |                   | (5)              | NA            | 6.0%          |
|              | Cheniere Energy Partners                                    | CQP    | 10.1%        | 810        | 1,211      | 1,142      | 3/21/07           | (402)            | 0.0%          | 0.0%          |
| ler          | Exterrap Partners                                           |        | 10.5%        | 848<br>624 | 795        | 304        | 1/26/06           | 53               | 6.9%          | 3.5%          |
| ð            | Compressco Partners                                         | GSJK   | 10.3%        | 832        | NA         | NA         | 6/15/11           | NA               | -100.0%       | NA            |
|              | Other Median                                                |        | 10.2%        | 821        | 795        | 562        |                   | (36)             | NA            | 3.5%          |
| 6            | Alliance Holdings GP                                        | AHGP   | 4.7%         | 267        | 306        | 143        | 5/10/06           | (39)             | 9.1%          | 31.3%         |
| Jer          | Atlas Pipeline Holdings                                     | ATLS   | 3.7%         | 168        | 1,190      | 661        | 7/21/06           | (1,022)          | -53.2%        | 160.4%        |
| art          | Energy Transfer Equity                                      | FTE    | 3.2%<br>6.7% | 464        | 383        | 234        | 2/3/06            | (538)            | NA<br>10.1%   | NA<br>NA      |
| аIР          | Kinder Morgan Inc.                                          | KMI    | 4.2%         | 224        | (199)      | (518)      | 02/11/11          | 422              | NA            | NA            |
| Jer.         | NuStar GP Holdings                                          | NSH    | 6.5%         | 453        | 328        | 245        | 7/14/06           | 125              | -42.9%        | 89.9%         |
| පී           | Targa Resources Corp.                                       | TRGP   | 3.7%         | 408        | 75         | 75         | 12/07/10          | 332              | NA            | 89.9%         |
|              | General Partners Median                                     |        | 4.2%         | 267        | 328        | 1/1        |                   | 82               | NA<br>F. CO/  | 89.9%         |
|              | MIP Average                                                 |        | 6.7%<br>6.8% | 487        | 526<br>567 | 341<br>392 |                   | (17)             | 5.6%<br>4.7%  | 5.5%<br>13.9% |
| ŝ            | 10-Yr Treasurv                                              |        | 2.0%         | - 500      | - 307      | 0.02       |                   | (31)             | 4.770         | 10.0 %        |
| i <u>i</u> č | CS Investment Grade Index                                   |        | 4.6%         | 258        | 271        |            |                   | (13)             |               |               |
| Ĕ            | CS High Yield Index                                         |        | 8.5%         | 646        | 698        |            |                   | (51)             |               |               |

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Source: Partnership data, FactSet, CS HY Index, Credit Suisse estimates



Companies Mentioned (Price as of 18 Nov 11)

Please see Exhibits 6, 43, and 44 for all companies mentioned

## **Disclosure Appendix**

#### Important Global Disclosures

I, Yves Siegel, CFA, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities.

#### Analysts' stock ratings are defined as follows:

**Outperform (O):** The stock's total return is expected to outperform the relevant benchmark\* by at least 10-15% (or more, depending on perceived risk) over the next 12 months.

Neutral (N): The stock's total return is expected to be in line with the relevant benchmark\* (range of ±10-15%) over the next 12 months.

Underperform (U): The stock's total return is expected to underperform the relevant benchmark\* by 10-15% or more over the next 12 months.

\*Relevant benchmark by region: As of 29<sup>th</sup> May 2009, Australia, New Zealand, U.S. and Canadian ratings are based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe<sup>\*\*</sup>, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. Some U.S. and Canadian ratings may fall outside the absolute total return ranges defined above, depending on market conditions and industry factors. For Latin American, Japanese, and non-Japan Asia stocks, ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark; for European stocks, ratings are based on a stock's total return relative to the analyst's coverage universe<sup>\*\*</sup>. For Australian and New Zealand stocks, 12-month rolling yield is incorporated in the absolute total return calculation and a 15% and a 7.5% threshold replace the 10-15% level in the Outperform and Underperform stock rating definitions, respectively. The 15% and 7.5% thresholds replace the +10-15% levels in the Neutral stock rating definition, respectively.

\*\*An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.

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Volatility Indicator [V]: A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

## Analysts' coverage universe weightings are distinct from analysts' stock ratings and are based on the expected performance of an analyst's coverage universe\* versus the relevant broad market benchmark\*\*:

Overweight: Industry expected to outperform the relevant broad market benchmark over the next 12 months.

Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.

Underweight: Industry expected to underperform the relevant broad market benchmark over the next 12 months.

\*An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.

\*\*The broad market benchmark is based on the expected return of the local market index (e.g., the S&P 500 in the U.S.) over the next 12 months.

#### Credit Suisse's distribution of stock ratings (and banking clients) is:

|                    | Glob | al Ratings Distribution |
|--------------------|------|-------------------------|
| Outperform/Buy*    | 48%  | (61% banking clients)   |
| Neutral/Hold*      | 40%  | (56% banking clients)   |
| Underperform/Sell* | 10%  | (55% banking clients)   |
| Restricted         | 2%   |                         |

\*For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.

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