Rutgers Business School

North America | United States
Oil, Gas, Consumable Fuels & Logistics | Energy, Refiners
May 8, 2015

Executive Summary: Phillips 66 has a strong competitive position and positive financial outlook. Management remains focused on value creation and shareholder distributions with surplus capital (Since August 2012, PSX has repurchased 73 MM Shares for $4.9 B, as part of $7 B in share repurchase authorizations). Phillips 66 has a healthy portfolio of projects to enhance performances across the company. I like Phillips 66 for its diversified earnings potential across the refining, chemicals and midstream spaces. However, I see significant embedded midstream value at Phillips 66 and expect this to grow substantially going forward, and I think that PSX's ability to monetize this through drop-downs will be limited until Phillips 66 Partners LP (PSXP) achieves a much larger scale. In my opinion, Phillips 66 is one of the best-run companies in this universe, but the payoff is longer-dated and I think investors can wait to get involved.

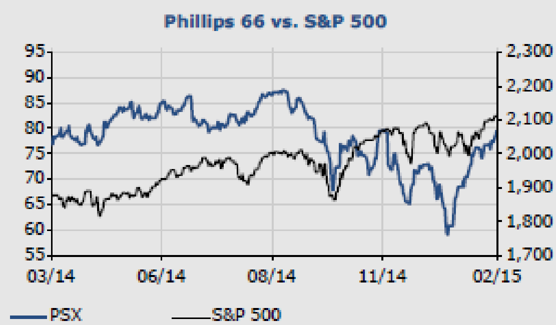
Valuation: Phillips 66 currently trades at 12.5% discount compared to its normalized P/E, and also it is trading at lower multiple levels compared to its primary competitors, energy sector. PSX is also undervalued with a trailing PE ratio of 9.77, a forward PE ratio of 12.57, and a price-to-book ratio of 2.09.

Moat: Phillips 66 has the economies of scale and the technical capability to compete effectively in the global marketplace. It is one of the largest domestic producers of NGL and is a leading refiner with significant marketing and transportation assets. It is also one of the top producers of petrochemicals. The company is also geographically diverse, allowing it to participate in the market opportunities in every U.S. geographic region. It also has operations in Europe and Asia. The high barriers to entry for such businesses keep the moat wide for Phillips 66.

Company Statistics

Market Capitalization (M):	$39,012
Book Value:	$39.29
EV/ CE:	1.6x
ROCE:	16.14%
Price/Normalized Earnings:	11.0x
Dividend Yield:	2.7%
Debt/Capital:	22%
Net Debt/Total Cap:	3%
Fiscal Year End	Dec
Average Daily Volume:	3,556,000
Beta:	1.74
Shares Outstanding (Diluted):	571M
Enterprise Value (EV):	46bn
52 Week Price Range:	57.33 - 87.98

1 Year Price History



Recommendation: BUY

Current Price:	81.23
1-YR Target Price:	89.32
5-YR Price Target:	129.04
Forward P/E:	11.52
EV/EBITDA:	8.70
Operating Margin (3-Yr Avg):	3.68%
ROA (3-Yr Avg):	9.67%
ROE (3-Yr Avg):	21.87%
ROIC (3-Yr Avg):	16.07%

Recommendation and Price Target: I have a buy recommendation for PSX with a 1-year price target of $89.32, (using DCF approach with 7% WACC, and 3.5% terminal growth rate for the firm) which is based on projected 2015 EPS of $4.61 (LOW). The EPS estimate of $4.61 is conservative with a revenue drop of -3.0% for 2015 considering the oil price slump that will affect at least the first half of 2015.

Company Overview:

Phillips 66 is an energy manufacturing and logistics company with midstream, chemicals, refining, and marketing and specialties businesses. The company is headquartered in Houston, Texas and was incorporated in Delaware in 2011, in connection with, and in anticipation of, a restructuring of ConocoPhillips resulting in the separation of its downstream businesses onto an independent, publically traded company named Phillips 66. The two companies were separated by ConocoPhillips distributing to its stockholders all the shares of common stock of Phillips 66 after the market closed on April 30, 2012 (the separation). Each ConocoPhillips stockholder received one share of Phillips66 stock for every two shares of ConocoPhillips stock held at the close of business on the record date of April 16, 2012. On May 1, 2012, Phillips 66 stock began trading on the NYSE under the ticket: PSX.

PSX's business is organized into four operating segments:

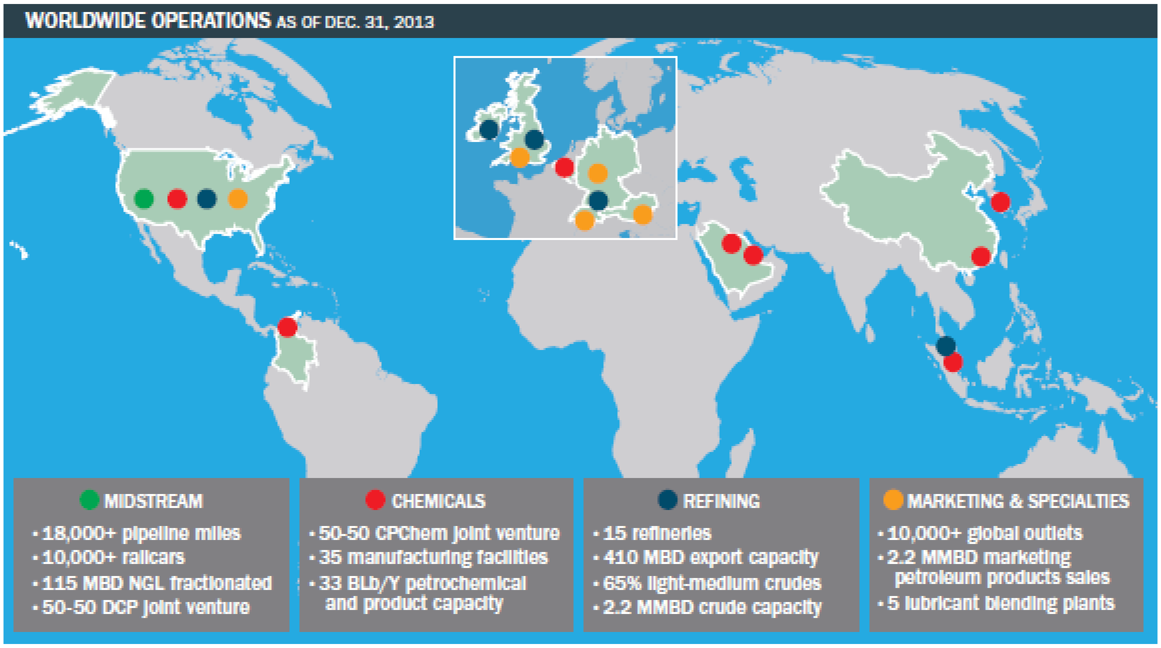
1. **Midstream** – Gathers, processes, transports and markets natural gas; and transports, fractionates, and markets natural gas liquid (NGL) in the United States. In addition, this segment transports crude oil and other feedstocks to its refineries and other locations, delivers refined and specialty products to market, and provides storage services for crude oil and petroleum products. The midstream segment includes, among other businesses, Phillips 66's 50 percent equity investment in DCP Midstream, LLC (DCP Midstream) and its own investment in master limited partnership (MLP) Phillips 66 Partners LP (PSXP).

2. **Chemicals** – Manufacturers and markets petrochemicals, polymers and plastics on a worldwide basis. The chemicals segment consists of its 50 percent equity investment in Chevron Phillips Chemical Company LLC (CPChem). CPChem is North America's largest producer of high-density polyethylene and the fourth-largest North American ethylene producer. CPChem has a large global presence with 35 manufacturing sites and 33 billion pounds (BLb) of net annual processing capacity.

3. **Refining** – PSX's refining segment transforms crude oil into petroleum products such as gasoline, diesel and aviation fuel. Phillips 66 is one of the largest refiners in the United States and worldwide, with 15 refineries and a net crude oil processing capacity of 2.2 million barrels per day (MMBD).

4. **Marketing and Specialties (M&S)** – The Marketing and Specialties segment includes its global fuel marketing and lubricants businesses. Phillips 66's U.S. Marketing business markets fuels under the brands Phillips 66®, Conoco® and 76®. In Europe, it sells primarily under the JET® brand in the United Kingdom, Austria and Germany, and the Coop® brand in Switzerland. The company also markets lubricants in 65 countries, and has several other specialty businesses, including base oil, petroleum coke, waxes, solvents and polypropylene. In addition, this segment includes the manufacturing and marketing of specialty products, as well as power generation operations.

Segments & Geographic Information:



Midstream

The midstream segment consists of three business lines: Transportation, Midstream and NGL.

- **Transportation** – Transports crude oil and other feedstocks to its refineries and other locations, delivers refined and specialty products to market and provides storage services for crude oil and petroleum products. The operations of its master limited partnership (MLP), Phillips 66 Partners LP are included in this business line. Phillips 66 owns and leases various assets including pipeline systems, petroleum product, and crude oil and liquefied petroleum gas (LPG) terminals, a petroleum coke handling facility, marine vessels, railcars and trucks to facilitate its transportation operations efficiently.

  At December 31, 2014, Phillips' transportation business managed over 18,000 miles of crude oil, natural gas, NGL and petroleum products pipeline systems in the United States, including those partially owned or operated by affiliates. Phillips owns or operates 39 finished product terminals, 37 storage locations, 5 LPG terminals, 15 crude oil terminals and 1 petroleum coke exporting facility.

  In 2014, PSX acquired a 7.1 million-barrel-storage-capacity crude-oil and petroleum products terminal located near Beaumont, Texas and purchased an additional 5.7 percent interest in Explorer Pipeline Company, which transports refined petroleum products. The Beaumont terminal is the largest terminal in the Phillips 66 portfolio and is strategically located in the U.S. Gulf coast. It provides deep-water access and multiple interconnections with major crude oil and refined product pipelines serving 3.6 million barrels per day of refining capacity.

Phillips also has 25 percent interest in REX. The REX natural gas pipeline runs 1,698 miles from Meeker, CO to Clarington, OH and has a natural gas transmission capacity of 1.8 billion cubic feet per day (BCFD), with most of its system having a pipeline diameter of 42 inches. The REX pipeline is designed to enable natural gas producers in the Rocky Mountain region to deliver natural gas supplies to the Midwest and eastern regions of the United States.

In 2013, Phillips formed Phillips 66 Partners (PSXP), a master limited partnership (MLP), to own, operate, develop and acquire primarily fee-based crude oil, refined petroleum product and NGL pipelines and terminals as well as other transportation and midstream assets. As of December 31, 2014 PSX owns a 73 percent limited partner interest and a 2 percent general partner interest in Phillips 66 Partners, while the public owned a 25 percent limited partner interest. Headquartered in Houston, TX, Phillips 66 Partners' assets consist of crude oil and refined petroleum product pipeline, terminal, rail rack and storage systems in the Central, Gulf Coast, Atlantic Basin and Western regions of the United States, each of which is integral to a Phillips 66 operated refinery.

- **DCP Midstream** – The midstream segment includes PSX's 50 percent equity investment in DCP Midstream, which is headquartered in Denver, CO. As of December 31, 2014, DCP Midstream owns and/or operates 64 natural gas processing facilities, with a net processing capacity of approximately 7.8 BCFD. DCP Midstream's owned or operated natural gas pipeline systems included gathering services for these facilities, as well as natural gas transmission, and totaled approximately 67,900 miles of pipeline. DCP Midstream also owned or operated 12 NGL fractionation plants, along with natural gas and NGL storage facilities, a propane wholesale marketing business and NGL pipeline assets.

  In 2014, DCP Midstream gathered, processed and or transported an average of 7.3 Trillion British Thermal Units (TBTU) per day of natural gas, and produced approximately 454,000 barrels per day of NGL, compared with 7.1 TBTU per day and 426,000 barrels per day in 2013.

  The residual natural gas, primarily methane, which results from processing raw natural gas, is sold by DCP Midstream at market-based prices to marketers and end users, including large industrial companies, natural gas distribution companies and electric utilities. DCP Midstream purchases or takes custody of substantially all of its raw natural gas from producers, principally under contractual arrangements that expose DCP Midstream to the prices of NGL, natural gas and condensate. DCP Midstream also has fee-based arrangements with producers to provide midstream services such as gathering and processing.

- **NGL** – Phillips 66 holds direct interests in three NGL fractionators and gathering systems at strategic NGL hubs in the United States. It owns 22.5 percent of the Gulf Coast Fractionators partnership in Mont Belvieu, Texas. The company also owns 12.5 percent of the Enterprise Mont Belvieu Fractionator and 40 percent of the Conway Fractionator, located at the Conway hub in Kansas. In addition to fractionators, Phillips 66 own interests in several NGL gathering and interstate transmission pipeline systems. These systems gather and deliver raw or mixed NGL, also referred to as Y-Grade, to supply the company's facilities at its joint-venture Borger Refinery in Texas and the fractionators in Mont Belvieu and Conway.

Chemicals

The Chemicals segment consists of Phillips 66's 50 percent equity investment in CPChem, which is headquartered in the Woodlands, TX. At the end of 2014, CPChem owned or had joint-venture interests in 34 manufacturing facilities and two research and development centers located around the world.

CPChem's business is structured around two primary operating segments: <u>Olefins and Polyolefins</u> (O&P) and <u>Specialties, Aromatics and Styrenics</u> (SA&S). The O&P segment produces and markets ethylene and other olefin products; the ethylene produced is primarily consumed within CPChem for the production of polyethylene, normal alpha olefins and polyethylene pipe. The SA&S segment manufactures and markets aromatics products, such as benzene, styrene, paraxylene and cyclohexane, as well as polystyrene and styrene-butadiene copolymers. SA&S also manufactures and/or markets a variety of specialty chemical products including organosulfur chemicals, solvents, catalysts, drilling chemicals and mining chemicals.

The manufacturing of petrochemicals and plastics involves the conversion of hydrocarbon-based raw material feedstock into higher-value products, often through a thermal process referred to in the industry as "cracking." For example, ethylene can be produced from cracking the feedstocks ethane, propane, butane, natural gasoline or certain refinery liquids, such as naphtha and gas oil. The produced ethylene has a number of uses, primarily as a raw material for the production of plastics, such as polyethylene and polyvinyl chloride. Plastic resins, such as polyethylene, are manufactured in a thermal/catalyst process, and the produced output is used as a further raw material for various applications, such as packaging and plastic pipe.

CPChem, including through its subsidiaries and equity affiliates, has manufacturing facilities located in Belgium, China, Colombia, Qatar, Saudi Arabia, Singapore, South Korea and the United States.

Refining

	Characteristics				Sources				
	Sweet	Medium Sour	Heavy Sour	High TAN*	United States	Canada	South America	Europe	Middle East & Africa
Bayway	●				●	●			●
Humber	●	●		●				●	●
Whitegate	●							●	●
MiRO	●	●							●
Alliance	●				●				
Lake Charles	●	●	●	●	●		●		●
Sweeny	●		●	●	●		●		
Wood River	●		●	●	●	●			
Borger		●	●		●	●			
Ponca City	●	●	●		●	●			
Billings		●	●			●			
Ferndale	●	●			●	●			
Los Angeles		●	●	●	●	●	●		●
San Francisco	●	●	●	●	●				●

**High TAN (Total Acid Number): acid content greater than or equal to 1.0 milligram of potassium hydroxide (KOH) per gram.*

Phillips 66's refining segment buys, sells, and refines crude oil and other feedstocks into petroleum products (such as gasolines, distillates and aviation fuels) at 14 refineries, mainly in the United States and Europe.

In the <u>Atlantic Basin/Europe region</u>, PSX owns and operates four refineries including Bayway in Linden, NJ, Humber in N. Lincolnshire, UK, Whitegate in Cork, Ireland and

MiRO in Karlsruhe, Germany. In the Gulf Coast region, PSX owns and operates three refineries: Alliance in Belle Chasse, LA, and Lake Charles in Westlake, LA and Sweeny in Old Ocean, TX. In the Central Corridor Region, the company owns and operates four refineries including Wood River in Roxana, Illinois, Borger in Texas, Ponca City in Oklahoma and in Billings, MT. In the Western/Pacific region, the company owns and operates three refineries: Ferndale in WA, Carson/Wilmington, CA and Arroyo Grande/SFO in California.

Marketing and Specialties

As of December 31, 2014, Phillips 66 marketed gasoline, diesel and aviation fuel through approximately 8,600 marketer-owned or -supplied outlets in 48 states. These sites utilize the *Phillips 66*, *Conoco* or *76* brands. PSX has placed strong emphasis on the wholesale channel of trade because of its lower capital requirements. In addition, the company held brand-licensing agreements with approximately 700 sites. Its refined products are marketed on both a branded and unbranded basis. A high percentage of PSX's branded marketing sales are made in the Midcontinent, Rockies and West Coast regions, where its wholesale marketing operations provide efficient off-take from our refineries.

In addition to automotive gasoline and diesel, the company also produces and markets jet fuel and aviation gasoline, which is used by smaller piston-engine aircraft. At December 31, 2014, aviation gasoline and jet fuel were sold through dealers and independent marketers at approximately 900 Phillips 66-branded locations in the United States.

PSX has marketing operations in five European countries. The company's European marketing strategy is to sell primarily through owned, leased or joint venture retail sites using a low-cost, high-volume approach. PSX uses the *JET* brand name to market retail and wholesale products in Austria, Germany and the United Kingdom. In addition, a joint venture in which the company has an equity interest markets products in Switzerland under the *Coop* brand name.

Specialties

Phillips 66 manufactures and sells a variety of specialty products, including petroleum coke products, waxes, solvents, and polypropylene. Certain manufacturing operations are included in the Refining segment, while the marketing function for these products is included in the Specialties business.

Premium Coke & Polypropylene

It markets high-quality graphite and anode-grade petroleum cokes in the United States and Europe for use in the global steel and aluminum industries. The company also market polypropylene in North America under the *COPYLENE* brand name.

Excel Paralubes

PSX owns a 50 percent interest in Excel Paralubes, a joint venture which owns a hydrocracked lubricant base oil manufacturing plant located adjacent to the Lake Charles Refinery. The facility produces approximately 22,000 barrels per day of high-quality, clear hydrocracked base oils.

Lubricants
It manufactures and sells automotive, commercial and industrial lubricants which are marketed worldwide under the *Phillips 66, Conoco, 76* and *Kendall* brands, as well as other private label brands. The company also market Group II *Pure Performance* base oils globally as well as import and market Group III *Ultra-S* base oils through an agreement with Korea's S-Oil corporation. In July 2014, PSX acquired Spectrum Corporation, a private label and specialty lubricants business headquartered in Memphis, Tennessee.

Other
Power Generation
In 2014, PSX acquired its co-venturer's interest in Sweeny Cogeneration, L.P., which owns a cogeneration power plant located adjacent to the Sweeny Refinery. The plant generates electricity and provides process steam to the refinery, as well as merchant power into the Texas market. The plant has a net electrical output of 440 megawatts and is capable of generating up to 3.6 million pounds per hour of process steam.

Industry/Sector:

The oil and gas industry can be broken down into two or three sections: Upstream, Downstream and Midstream. Integrated oil companies are involved in all 3 sections of the industry while refining companies are only engaged in midstream/downstream. Although many modern refiners are part of integrated energy companies such as Exxon Mobil, Shell or BP; many have also spun off/formed to become independent entities such as Phillips 66, Valero and Marathon Petroleum Corporation.

These companies buy crude oil and process it to extract everything including but not limited to: plastics, lubricants, asphalt, sulfur and gasoline for a profit. While large integrated energy companies are heavily exposed to low oil prices, independent refineries are not. These companies are tied to the price of crude oil and more tired to the price differential between crude oil and refined products such as gas, diesel and plastic. American refiners such as Phillips 66, Valero and Marathon Petroleum Corp. are poised to survive or even thrive in a low price environment. To understand how the Crude oil prices and their benchmark spreads, crack spreads affect the profitability of these refiners, let's see what drives the crude oil prices, their demand/supply and what are the major benchmarks for crude oil.

Crude Oil

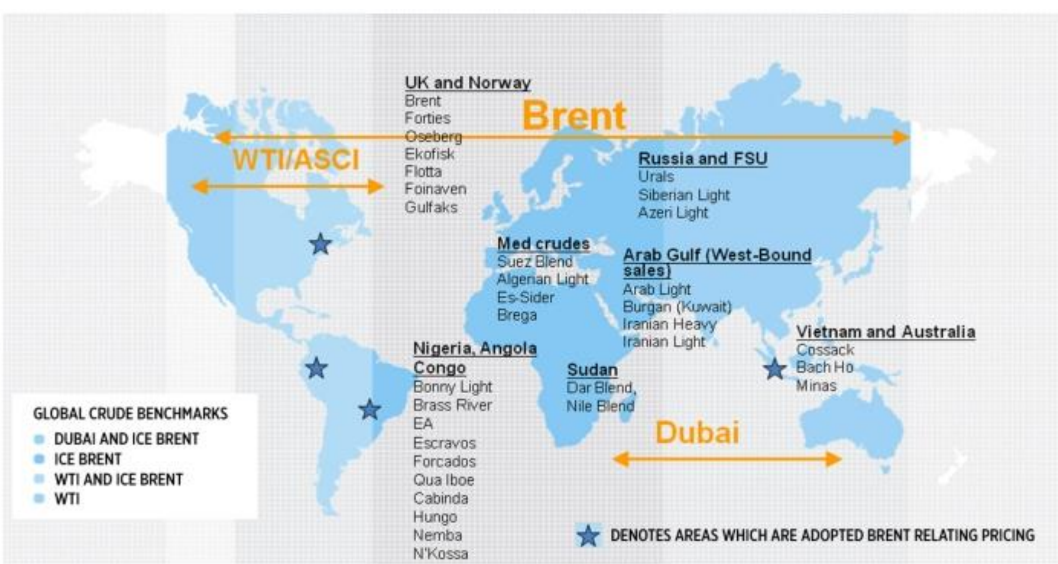
Crude oil is one of the most important sources of energy for the world. Its refined products range from gasoline to asphalt. The applications of these projects range from powering the cars we drive to helping build the roads we drive them on. There are different types of crude oil – the thick, unprocessed liquid that drillers extract below the earth – and some are more desirable than the others. For instance, it's easier to for refiners like PSX to make gasoline and diesel fuel out of low-sulfur, or "sweet", crude than oil with high sulfur concentrations. Low-density, or "light," crude is generally favorable to the high-density variety for the same reason. Where the oil comes from also makes a difference if you're a buyer. The less expensive it is to take delivery of the product, the more you're willing to pay for it. From a transportation standpoint, oil extracted at sea has certain advantages over land-based supplies, which depends on the capacity of the pipelines.

The main benchmarks

There are literally dozens of different oil benchmarks, with each one representing crude oil from a particular part of the globe. However, the price of most of them are pegged to one of three primary benchmarks:

- **Brent Blend** – Roughly two-thirds of all crude contracts around the world reference Brent Blend, making it the most widely used marker of all. These days, "Brent" actually refers to oil from four different fields in the North Sea: *Brent*, *Forties, Oseberg and Ekofisk.* Crude from this region is light and sweet, making them ideal for the refining of diesel fuel, gasoline and other high-demand products. And because the supply is water-borne, it's easy to transport to a distant locations.
- **West Texas Intermediate (WTI)** – WTI refers to oil extracted from wells in the U.S. and sent via pipeline to Cushing, Oklahoma. The fact that supplies are land-locked is one of the drawbacks to West Texas crude – it's relatively expensive to ship to certain parts of the globe. The product itself is very light and very sweet, making it ideal for gasoline refining, in particular. WTI continues to be the main benchmark for oil consumed in the United States.
- **Dubai/Oman** – This Middle Eastern crude is a useful reference for oil of a slightly lower grade than WTI or Brent. A "basket" product consisting of crude from Dubai, Oman or Abu Dhabi, it's somewhat heavier and has higher sulfur content, putting it in the "sour" category. Dubai/Oman is the main reference for Persian Gulf oil delivered to the Asian market.

Brent is the reference for about two-thirds of the oil traded around the world, with WTI the dominant benchmark in the U.S. and Dubai/Oman influential in the Asian market.



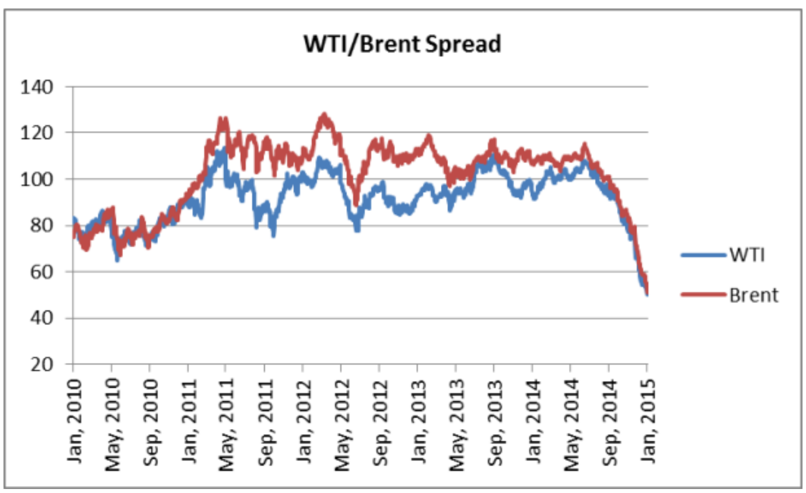
The Brent price is often a benchmark for European, African and Middle Eastern crude oil production. The pricing mechanism for Brent crude values more than half of the world's oil supplies. Brent is a "sweet" crude, which means it has sulfur content below 0.5%. Brent's exact sulfur content is around 0.37%. The lower the sulfur content, the easier and cheaper crude is to refine into products, like gasoline.

WTI, the benchmark crude for North America, is sweeter than Brent is; it has a lower sulfur content of around 0.24%. While WTI is a better grade of oil for the production of gasoline, Brent oil favors the products of heavier fuels, like diesel. Asian countries use a combination of Brent and WTI benchmarks to price their crude oil.

As a result of world events, the spread between these two low-sulfur crudes can move violently and for long periods. Recently, the premium for Brent crude over WTI has been decreasing. In early 2014, the premium was at $15, last week it traded briefly flat - the two crude oils traded at the same price. $15 might seem like a steep premium for Brent, but actually it was much higher a few short years ago.

Brent vs WTI Spread

WTI has an API gravity of about 39.6, making it quite light (having an API gravity over 10 means the petroleum is lighter and floats on water). It also has a sulfur content around 0.24%, making it very sweet. But, WTI's reign as the global oil benchmark was recently overthrown by Brent crude.



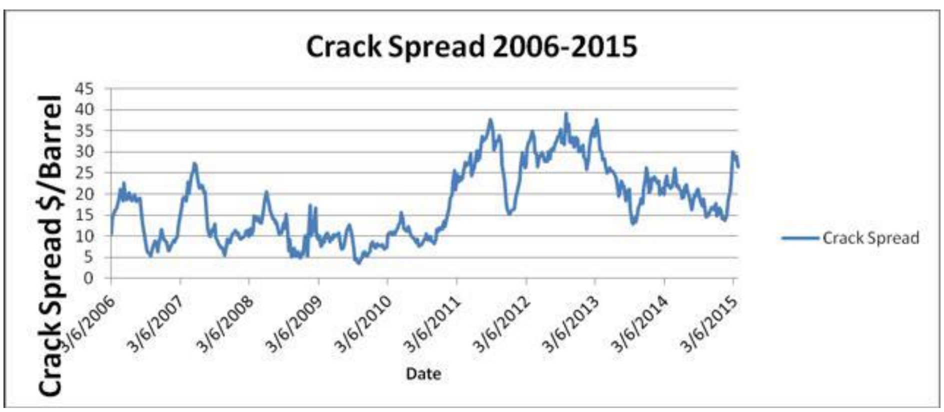
For years, the price differential between the two has only been a few dollars. Every now and then, a shortage could push the price spread wider, but the divergence has been more drastic since 2010. After a brief period earlier this year in which the spread between WTI and Brent had vanished, the difference between the two oil benchmark prices has widened once again. After the oil bust that began last year, the markets have been closely watching drilling activity in U.S. shale. Rig counts have dropped precipitously, tens of billions of dollars have been slashed from corporate spending budgets, and even some small oil players have missed debt payments. That had oil markets betting that the U.S. would see a relatively swift drop in production, which would push up WTI. As a result, by January 2015, the spread between the two benchmarks narrowed. Since then, the two have diverged once again, opening up a $10 per barrel difference. There are several reasons for this.

The lag between the drop in rig counts in the U.S. and actual levels of production. Rigs have fallen by almost 50 percent since October 2014, but total U.S. oil production has yet to see any declines. This is weighing on WTI. The problem for WTI has been the flood of oil flowing into Cushing from areas like North Dakota and Canada. Due to the contango seen in the oil markets – a phenomenon in which delivery for oil now is much cheaper than delivery in the future – has pushed many producers to put oil in storage for sale at a later date. But months of diverting oil into storage without any let up in production levels has raised concerns that storage is starting to fill up. Storage levels at the key oil hub of Cushing, Oklahoma have doubled in the last three months. Cushing has about 71 million barrels of crude storage. Current storage is at ~83% of the storage capacity. The fact that inventories have been continuously raising for the past 5 months increases the possibility that Cushing will soon approach full capacity. Across the country, oil storage has reached about 60 percent of capacity on average, according to the EIA. As a result, investors are betting that prices are about to dive once again.

The narrower WTI-Brent spread is a positive for US producers, but a negative for US refiners. Refiners such as Valero Energy (VLO), Phillips 66 (PSX), and Marathon Petroleum (MPC) benefit from a wide spread, which we start to see again, as they have access to cheaper crude versus refiners elsewhere. These companies also get international prices that are benchmarked to Brent crude for their refined products, which don't have export impositions. So, a wider spreader enhances their profitability.

Crack Spread

While upstream companies generate revenue by selling oil, downstream companies generate revenue by buying oil and selling refined petroleum products. The approximate difference between the price of oil and the price of refined petroleum products (gas and diesel) is called the CRACK SPREAD. Prior to the North American shale oil boom, refiners struggled to stay profitable due to tight crack spreads and fierce competition. However, when U.S. shale oil production really started to kick off in 2010, the crude export ban from the 1970s forced producers to discount prices and refine oil within the United States. This caused the spread to widened leading to higher refinery profitability. The following chart shows the crack spread for U.S. refiners over the past 9 years.



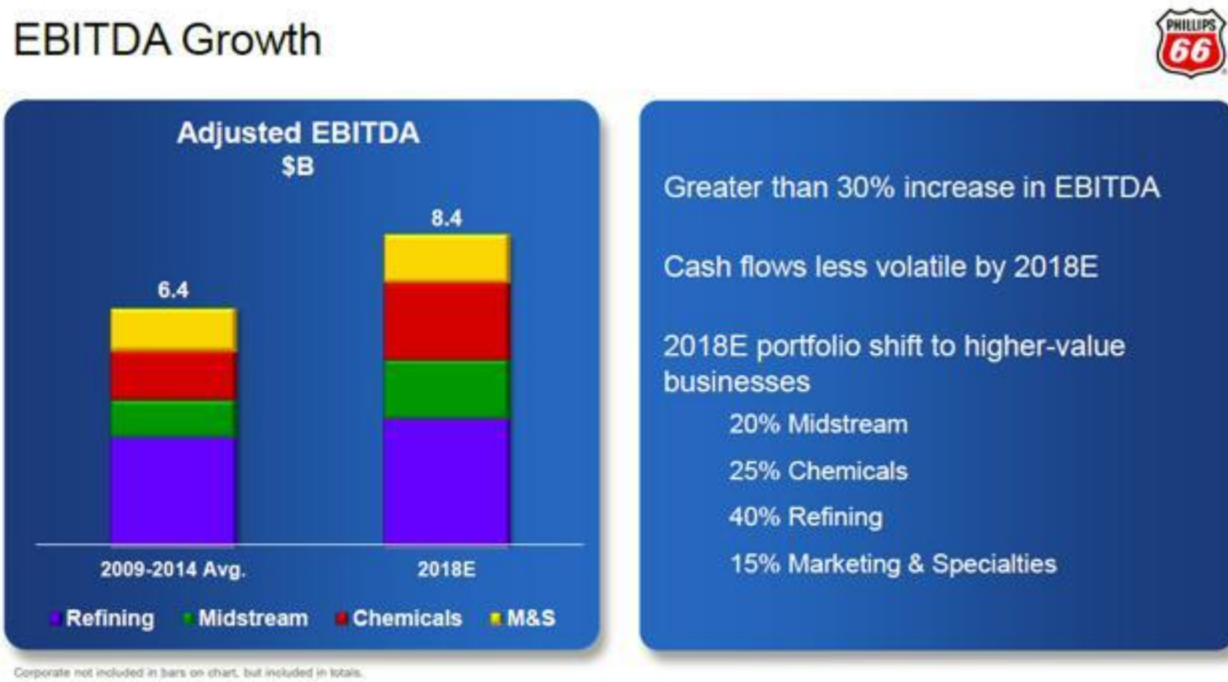
It can be seen from the adjacent graph that the crack spreads were relatively small from 2006-2010. This reduced crack spread had a negative effect on refiner earnings as seen in the table below.

There is a correlation between crack spread and refinery profitability.

Year	2014	2013	2012	2011	2010
PSX Earnings (million USD)	4,755	3,721	4,122	4,775	735
MPC Earnings (million USD)	2,520	2,108	3,383	2,385	623
VLO Earnings (million USD)	3,630	2,720	2,083	2,090	324

Moat:

- **Well diversified portfolio** – Phillips 66 is not purely a refining company. In addition to refining, PSX is engaged in Midstream, chemicals and Marketing/Specialties.



As seen from the chart above, PSX gets ~50% of revenue from non-refinery related lines of business. The strength of earnings in Q4 despite lower crack spread is due to reduced feedstock costs for the downstream chemical business (CPChem) and increased margins from the oil storage contango business (7 million additional barrels in Beaumont, TX as explained above on page 3). In Q1, 2015, crack spreads went up while chemical costs went down and the contango market continued to offer impressive returns for the midstream and marketing businesses. Furthermore, while the price for feedstock chemicals such as propylene, and benzene have crashed, the price of CPChem chemical products have not decreased that much. As an example, the cost of Polyethylene (a major CPChem product) has only decreased 18% while the price of ethylene (the feedstock) decreased by 33% during the same period. This increased price differential would help PSX chemicals business by increasing margins as shown here.

Chemical	Propylene	Benzene	Toluene	Ethylene	Polyethylene
~Discount from Oct 2014	35%	47%	44%	33%	18%

Source: Platts Global Petrochemical Index

- **High Barriers to Entry** – With a diversified portfolio of Refineries, Midstream, Chemicals and Marketing/Specialties, it is hard for new entrants to break into this industry except for the drive from

Upstream companies to bow to investor pressure and create pure play midstream/downstream companies similar to PSX. To analyze the prospect of barriers to entry, let's look at Porter's 5 forces Analysis:

- <u>Thread of New Entrants</u>: There are thousands of oil and oil services companies throughout the world, but the barriers to enter this industry are enough to scare away all but the serious companies. Barriers can vary depending on the area of the market in which the company is situated. For example, some types of pumping trucks needed at well sites cost more than $1 million each. Other areas of the oil business require highly specialized workers to operate the equipment and to make key drilling decisions. Companies in industries such as these have higher barriers to entry than ones that are simply offering drilling services or support services. Having ample cash is another barrier - a company had better have deep pockets to take on the existing oil companies. PSX has the biggest market cap amongst its peers and certainly has ample cash at hand and generates free cash flow due to refiner's cost advantage and lower feedstock prices.
- <u>Power of Suppliers</u>: While there are plenty of oil companies in the world, much of the oil and gas business is dominated by a small handful of powerful companies. The large amounts of capital investment tend to weed out a lot of the suppliers of rigs, pipeline, refining, etc. There isn't a lot of cut-throat competition between them, but they do have significant power over smaller drilling and support companies.
- <u>Power of Buyers</u>: The balance of power is shifting toward buyers. Oil is a commodity and one company's oil or oil drilling services are not that much different from other. This leads buyers to seek lower prices and better contract terms.
- <u>Availability of substitutes</u>: Substitutes for the oil industry in general include alternative fuels such as coal, gas, solar power, wind power, hydroelectricity and even nuclear energy. Remember, oil is used for more than just running our vehicles, it is also used in plastics and other materials. PSX is well positioned with its diversified portfolio which includes a thermal electric plant that's operated under its Specialties/other segment.
- <u>Competitive Rivalry</u>: low industry growth rates and high exit barriers are a particularly troublesome situation facing some firms. Until quite recently, oil refineries were a particularly good example. For a period of almost 20 years, no new refineries were built in the U.S. Refinery capacity exceeded the product demands as a result of conservation efforts following the oil shocks of the 1970s. At the same time, exit barriers in the refinery business are quite high. Besides the scrap value of the equipment, a refinery that does not operate has no value-adding capability.

- **Economies of Scale** – PSX is the largest company in the group by market capitalization and enterprise value (or EV). Market cap for PSX is $45bn and EV is $47bn. Phillips 66 is also one of the largest producer of Petrochemicals, NGL and a leading refiner with operations in Europe and Asia. Even though VLO has a higher throughput capacity of three billion barrels per day (or bpd) compared to PSX's two billion bpd, and a lower P/E ratio compared to PSX, PSX's efficient utilization of Asset (ROA), Invested Capital (ROIC) and Equity (ROE) widens the moat significantly.

Financial Statement Analysis:

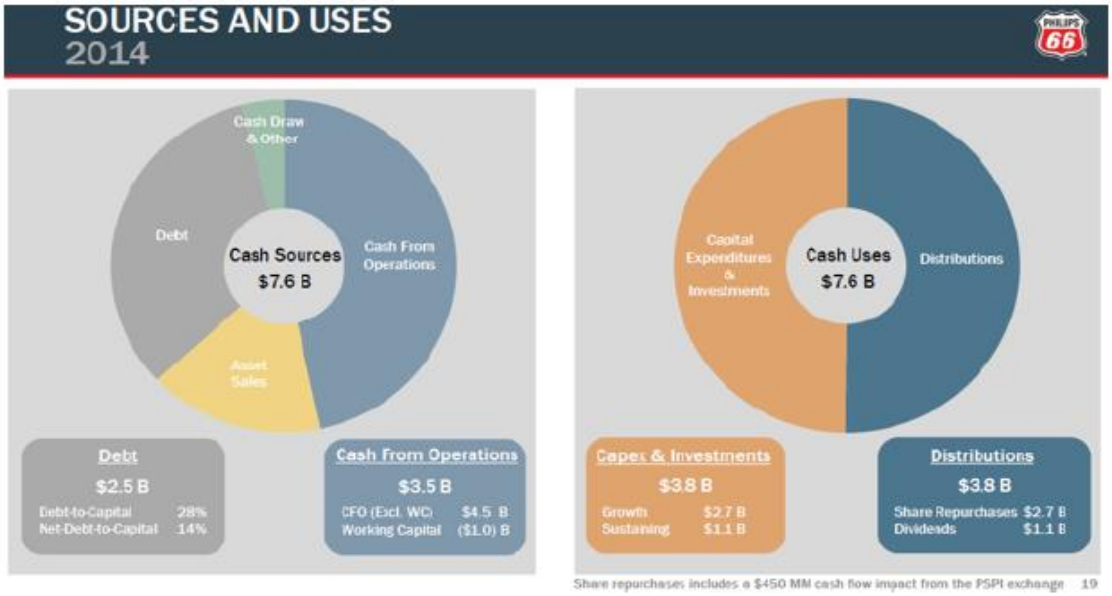
- Phillips 66 posted another solid quarter in Q4, 2014 ($1.1 billion in Net Income or $2.05/share) and expected to do so again in Q1, 2015.
- PSX's 50% ownership in DCP midstream resulted in a $12 million loss, but future opportunities abound.
- The Marketing & Specialties segment posted another strong quarter. The refining-advantaged crude slate grew 20% YOY.
- The long-term story for owning Phillips 66 remains intact and stronger than ever.

Earnings

	Millions of Dollars				
	2014			2013	
	Third Quarter	Fourth Quarter	Twelve Months	Fourth Quarter	Twelve Months
Midstream	$ 115	96	507	121	469
Chemicals	230	267	1,137	261	986
Refining	558	517	1,771	418	1,747
Marketing and Specialties	368	367	1,034	105	894
Corporate and Other	(91)	(100)	(393)	(97)	(431)
Discontinued Operations	—	—	706	18	61
Phillips 66	**$ 1,180**	**1,147**	**4,762**	**826**	**3,726**

Phillips 66 earnings report has dismissed all notions that sharply lower crude oil prices would negatively affect the company's long-term growth story. While DCP did report a loss of $12 million for the quarter, considering the decline in NGL prices and the fact that DCP Midstream is the No. 1 producer of NGLs in the U.S., the loss was much less than expected. By looking down the road a bit (mid-2016), we could see that lower NGL prices will mean excellent profit potential for PSX's Freeport LPG Export Terminal. Meantime, the Refining, Midstream, and Chemicals Segments all reported very solid results.

The Q4 and full-year EPS report announced net income of $4.7bn or $8.33/share, up 28% YOY. While earnings from the refining segment were relatively flat, chemicals were up 15%, midstream was up by 8%, and M&S was up by 16%, corporate expenses were down, and discontinued operations – in part due to drop-down assets sales to Phillips 66 Partners (PSXP).



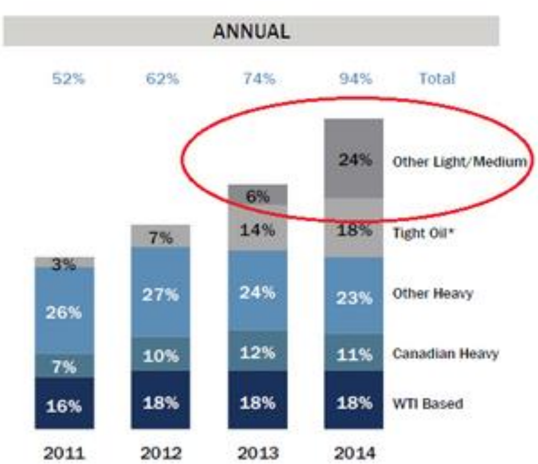
Source: Phillips 66 Q4 Presentation

Financials

Phillips 66 continues to be shareholder friendly and retuned $4.7bn of capital to shareholders in 2014:

- $1.1bn in dividends
- $2.3bn in share repurchases (29.1 million shares)
- $1.35bn from the 17.4 million shares exchanged for the flow improver business.

Phillips 66 ended last year with $8.7bn of debt and $5.2bn of cash and cash equivalents. The company's debt-to-capital ratio was 28% and net-debt-to-capital ratio was a very low 14%. Phillips 66 has an extraordinarily strong balance sheet.



Refining & NGLs

Phillips 66 increased the run-rate of "advantaged crude" throughout its Refining Segment by 20% in 2014. Surprisingly, almost the entire YOY increase came in the Light/Medium component, which had held steady in the previous two years. Which indicates that PSX has configured its refining capacity to accept more light-sweet crude considering growing domestic supply. This bodes well for 2015 regardless of the relative movement in crude oil and gasoline prices. Accepting more light-sweet crude simply takes advantage of the abundant and low-cost domestic supply.

PSX's portion of DCP Midstream earnings led to a $12 million loss in Q4, largely due to lower NGL prices. During the quarter, both NGL and WTI prices decreased by about 25%. More than 70% of the volumes of gas DCP gathers and processes are under percentage of proceeds ("POP") contracts, which exposes DCP to falling commodity prices. At the same time, note PSX's NGL business - separate from DCP - had higher earnings ($55 million) related to improved margins on seasonal propane and butane storage activities. Net-net, PSX had an overall **gain** of $43 million for its aggregated NGL business. This is remarkable considering the 25% decrease in NGL prices during the quarter. So while some analysts on the conference call expressed some concern about DCP's results, I believe in totality the EPS report was a testament to the strength of the PSX's midstream business model.

Looking toward the future, the 4.4 million bbl/month Freeport LPG Export Terminal on the U.S. Gulf Coast will come into operation in 2H of 2016. Low domestic NGL prices mean the Freeport LPG Export Terminal will be a cash cow for Phillips 66. In the Q4 release, this project was reported to be on-schedule and on-budget.

Bottom-line

PSX shares underperformed the sector late last year on the oil sensitivity of its mid-stream (and possibly chemicals business. Relative underperformance vs pure-play refiner peers could continue in 1H15 given refining fundaments are going to drive earnings upgrades this year. PSX is less levered to refining. However, management has come out fighting which is realized from these three simple messages in its management outlook: 1) Management is going to be assertive with an implied $2bn per annum of MLP drops. 2) EBITDA will grow substantially, excluding drops. 3) If one uses reasonable multiples of PSX of 7-8x, then EV could grow to over $60bn. The growth story that is Phillips 66, what I call possibly the best long-term investment in "Shale USA," is still firmly in place.

Why is Phillips 66 better than Valero?

I think PSX's midstream and chemicals operations give it the more diversified portfolio going forward, and is a long-term advantage over VLO. Note that in PSX's Q4 presentation, both the Midstream (13%) and Chemicals (27%) Segments had a higher adjusted return on equity ("ROE") than the Refining Segment (12%). In particular, PSX's Chemicals earnings were up 23% YOY, and PSX has several very large organic growth projects in progress. In addition, Phillips 66's LPG Export Terminal also is a differentiator in PSX's favor. In the big picture, PSX views its refining business as being in "maintenance mode." That means the company allocates enough capital to keep the business running and to increase efficiencies. But future growth is clearly in Midstream and Chemicals Segments, and PSX wins that comparison with VLO hands down.

In addition, Phillips 66's MLP, PSXP, was the best performing MLP in the entire peer group in 2014, and I expect PSXP to continue to outperform for many years to come.

Valuation:

	Phillips 66	Valero Energy Corporation	Marathon Petroleum Corporation	Ultrapar Holdings Inc. (Brazil)	Tesoro Corporation
	PSX	VLO	MPC	UGP	TSO
Price	81.32	60.07	102.84	22.68	89.95
P/E (TTM)	9.77	8.76	11.62	23.59	13.92
Normalized P/E	11.16	8.61	11.69	25.05	14.02
Forward P/E	12.57	8.69	9.64	23.85	11.24
Price to Normalized Earnings - less Cash (TTM)	10.01	7.45	10.85	21.17	11.72
EPS (Diluted TTM)	8.32	6.85	8.85	0.96	6.46
EPS (next year)	8.14%	-8.05%	-9.18%	3.09%	-6.99%
EPS (next 5 years)	7.85%	4.63%	9.00%	12.25%	11.60%
Market Cap (in bn)	44.05	30.45	27.76	12.64	10.88
Revenue (in bn)	164.09	130.84	98.1	28.88	40.63
Net Income (in bn)	4.76	3.63	2.52	0.528	0.843
Earnings Yield	10.22%	11.36%	8.61%	4.24%	7.20%
Dividend Yield	2.46%	2.65%	1.95%	1.92%	1.90%
PEG (5-Year)	1.46	1.83	1.27	2.5	1.11
P/S	0.27	0.23	0.28	0.57	0.27
P/B	2.09	1.48	2.61	4.93	2.44
Institution Owned	72.50%	85.10%	86.00%	3.90%	95.80%
Insider Owned	0.05%	0.40%	0.30%		0.70%
Target Price	89.32	70.77	116.19	26.02	102.58
Return %	9.84	17.81	12.98	14.73	14.04
Moat Valuation Metrics					
EBITDA Margin (3-Yr Avg)	4.63%	5.80%	5.47%	5.22%	5.39%
EBITDA Margin (TTM)	4.27%	5.82%	5.47%	5.28%	5.40%
Operating Margin (3-Yr Avg)	3.68%	4.51%	4.13%	3.38%	4.02%
Operating Margin (TTM)	3.68%	4.51%	4.13%	3.36%	4.02%
ROA (3-Yr Avg)	9.67%	6.13%	9.17%	7.33%	5.25%
ROA (TTM)	9.50%	7.70%	9%	6.80%	5.80%
ROE (3-Yr Avg)	21.87%	15.09%	24.45%	17.88%	14.75%
ROE (TTM)	22.10%	17.80%	25.60%	16.50%	19.10%
ROCE (3-Yr Avg)	16.14%	12.96%	22.21%	18.60%	14.99%
ROIC (3-Yr Avg)	16.07%	11.73%	17.47%	8.81%	8.97%
ROI (TTM)	5%	15.20%	15.90%	10.70%	12.50%

While many businesses in the refining sector have lowered earnings expectations for this year and next year, Phillips 66 has raised theirs. Original EPS estimates for 2015 and for next year 2016E EPS has been increased. These positive earnings revisions typically lead to earnings beats which leads to higher stock prices. Even though the company is expected to grow earnings annually at 6% for the next 5 years, the DCF valuation used by my model considers a conservative approach considering the uncertainties surrounding crude oil prices and the reduced/delayed Capex investment projects that could potentially lead to cost over-runs, -3% slowdown in the earnings for 2015E and increase steadily to a terminal growth rate of 4%.

Earnings Projection Model:

Summary Financial Results

	Historical			Projected				
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Revenue	$182,752	$174,809	$164,093	$159,207	$160,803	$164,035	$168,993	$174,959
Growth		*(4.3%)*	*(6.1%)*	*(3.0%)*	*1.0%*	*2.0%*	*3.0%*	*3.5%*
EBITDA	7,462	6,473	6,740	5,436	6,339	7,047	7,733	8,862
Margin	*4.1%*	*3.7%*	*4.1%*	*3.4%*	*3.9%*	*4.3%*	*4.6%*	*5.1%*
Growth		*(13.3%)*	*4.1%*	*(19.3%)*	*16.6%*	*11.2%*	*9.7%*	*14.6%*
Capex			3,773	2,000	2,500	2,500	3,000	3,000
Interest Expense			267	549	471	392	314	235
EPS				$4.61	$5.74	$6.66	$7.57	$8.98
Net Debt			$7,483	$5,691	$3,976	$1,785	($369)	($3,296)
Total Debt			$7,842	$6,722	$5,601	$4,481	$3,361	$2,241

The EPS project model was constructed using a combination of investment analysis, management guidance and consensus information from Wall Street Analysts. My projections for 2015 and 2016 are conservative w.r.to Wall Street consensus and management expectations. Factoring in 2015 bottom, 2016 recovery and 2017 project ramp, the revenue growth in my base case scenario uses the growth projections of negative 3% for 2015, 1% for 2016, 2% for 2017 and so on. From 2017 to 2019, I expect Phillips 66's revenues to increase irrespective of the outcome of the lifting of export ban. I anticipate margins will increase in 2015 through 2017 because of the stabilizing crude prices and increased demand for chemicals around the globe.

To be conservative, I kept the amount of outstanding diluted shares constant from 2015 through 2019 despite Phillips 66's recent announcement of new share repurchase program.

Recommendation and Price Target:

I have a buy recommendation, with a 1-year price target of $89.32. The blended one-year price target implies a 2015 P/E of 8.57 and a share price appreciation of 9%. The implied P/E also adds a margin of safety because it is less than Phillips 66's normalized P/E and the current P/E of Phillips' core competitors, Energy sector and S&P 1500.

DCF Assumptions:

- Growth in revenue is shown in a conservative model for base case scenario on page 18.
- Capital Expenditures are not held constant for consecutive years
- Tax rate is 35%
- WACC is 7% (see appendix for calculations)
- Terminal growth rate for 1-year is 3.5%

		2014	2015
		0	*1*
Free Cash Flow Calculation			
EBIT			$4,441
Plus: Depreciation			$995
Plus: Amortization			$0
EBITDA			**5,436**
Less: Capex			(2,000)
EBITDA Less Capex			**3,436**
Less: Taxes on EBIT	35.0%		(1,554)
Less: Changes in Working Capital			165
Unlevered Free Cash Flow			**2,047**
DCF Enterprise Value Calculation			
Terminal Value Calculation			
Terminal Value Growth Rate			3.5%
Projected Free Cash Flow			2,119
Discount Rate (WACC)			7.0%
Terminal Enterprise Value			60,532
Implied Term. Value EBITDA Multiple			11.1x
Discounted Cash Flows at WACC			
Unlevered Free Cash Flow			1,913
Terminal Value			56,572
Total Discounted Cash Flows		**137,738**	58,485

Summary DCF Valuation			
DCF Enterprise Value	$58,485	*8.7x*	
Less: Net Debt	($7,483)		
Equity Value	$51,002		
Shares	571		
DCF Value per Share	$89.32	*19.4x*	Forward

Margin of Safety

As the table on Page 16 and financial analysis on Page 14 shows, Phillips 66 offers a substantial margin of safety through dividends and share repurchases. Since its inception in 2012, PSX has returned over $8bn to shareholders. PSX's current dividend yield is 2.46% which is relatively close to its peer Valero and higher than both Energy sector and the S&P 1500, which have a 2.14% and 1.92% dividend yield respectively. In 2013 and 2014, the annual growth in dividend was 195% and 42.4% respectively and its payout ratio has room to grow, as it currently stands at 25%.

Despite its relatively recent inception (in 2012), PSX's Return on Assets (ROA) of 9.67%, Return on Equity (ROE) of 21.87%, Return on Capital Employed (ROCE) of 16.14% - which gauges efficiency from a business operation point of view (and thus more operation focus), and Return on Invested Capital (ROIC) of 16.07% - which measures the efficiency of total capital deployed (and thus more investment focus) has been much superior to its peers. Due to PSX's cash flow, its ability to continue to offer investors a margin of safety through dividends, share repurchases, higher return on investment/assets combined with a higher dividend and earnings yield, relatively lower P/E and forward P/E comparative to its peers.

Based on the trough P/E of 5.5x (downside valuation), the potential downside for Phillips 66's share price is $51.85. This downside would represent a 36% decline in share price and including its current yield, a total return of -33%. However, I believe it is unlikely that PSX's P/E would fall to its trough level given its consistently growing dividend, share repurchase program and its commitment to continue to drop assets into its MLP partner PSXP.

	PSX	VLO	MPC
Market Cap (in billions)	44.05	30.45	27.76
P/E	9.77	8.76	11.62
PEG	1.46	1.83	1.27
Dividend	2.46%	2.65%	1.95%
Discount from 52 week High	~7.5%	~6.8%	~4.75%

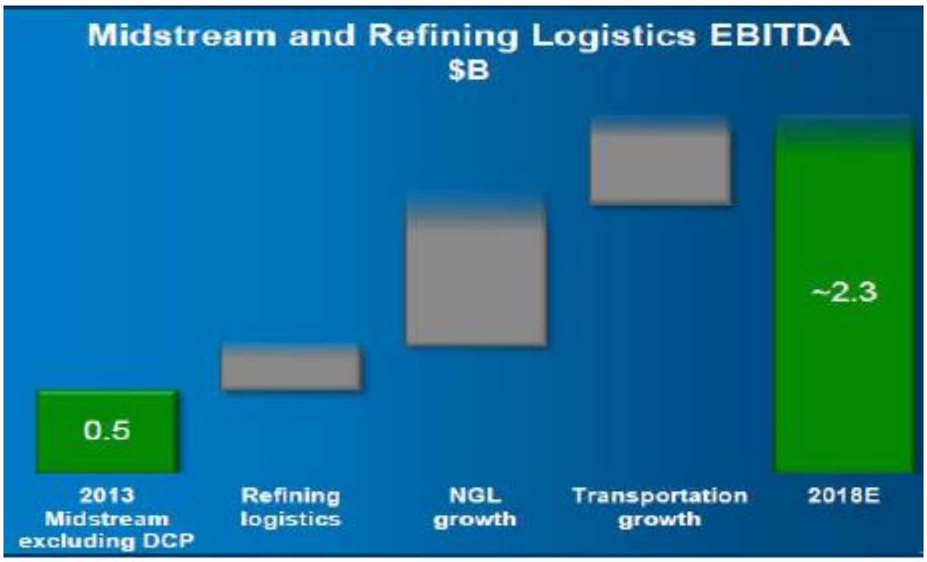
Phillips 66's competitors include well-known names such as Valero and Marathon Petroleum and all 3 companies have maintained their stock value very well in light of the recent crash in oil prices. Based on overall fundamental analysis, all 3 companies appear to be very similar P/E ratios, dividends and PEG ratios.

To determine which company is the best investment, it is advisable to dig into the facts of insider trading. Research suggests that executives who brought shares in their own companies tended to see their stock outperform the market by 8.9% over the following 12 months. If an executive is buying his own company stock, it probably signals that the company's stock is undervalued. In 2015, both PSX and MPC have experienced some insider acquisitions/buying. The Phillips 66's CFO and CEO have both acquired about $745.9K worth of stock off the closed market while Executive Vice President has acquired ~$1M worth of stock also off market. While PSX and MPC have experienced slightly bullish insider transactions, VLO has seen dispositions and insider selling on the order of ~4M. These recent insider sentiment should been seen as a good sign and a catalyst to Margin of Safety.

Outlook and Future Strategies:

Under Appreciated Logistics

Last fall, management outlined how their logistics EBITDA, excluding DCP, could rise to $2.3bn over time. This is mainly driven by two NGL fracs, a large NGL export terminal, the Beaumont terminal and a low cost brownfield pipeline for Bakken down to the Gulf that should be intra-marginal versus other routes. Much of this EBITA is net growth to PSX overall corporate EBITA as opposed to financial engineering.



Source: PSX Sept 2014

PSX suggests an $800mn+ EBITDA growth by 2018 at PSXP. This represents an $8bn drop downs over 4 years or $2bn per year (a source of funds for PSX from the LP and GP). Like other managements, PSX illustrated the value of this income stream at $15-20bn. While I think the yields chosen in the illustration are aggressive, this still represent $7.4bn, plus the $8bn of drops - $15bn so far. Importantly, PSX will still retain >$1bn of EBITDA at the PSX level – another $10bn of value. Finally, there is the EBITDA at DCP, which should recover as commodity prices normalize. All in it is easy to see $30+bn of value for PSX logistics.

Big drop brings in some much-needed Cash

PSX is dropping $1.0 billion in assets to PSXP, with most of the proceeds coming back in cash rather than units. It is unclear if PSX is planning to speed up its drop pace from its previously indicated $1-2bn/year, but getting the cash in the door is important right now given a 2015E cash flow deficit of at least $2bn. Some key points are:

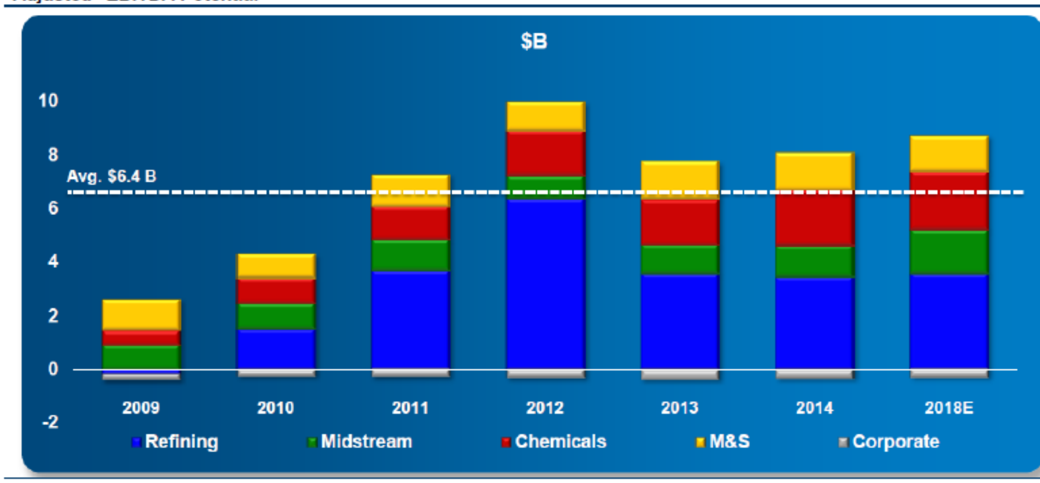
- PSX announced it is selling its interests in three pipeline systems (Sand Hills, Southern Hills and Explorer) to its sponsored MLP, PSXP. The total consideration is $1.01 billion, consisting of $880 million in cash and 1.7 million PSXP units.
- PSX completed the bigger of its two 2014 drops ($700 million) in mid-February and is on track to accommodate $1-2bn drops per year. If PSX pursues the same strategy in 2015, with one large drop early and a smaller drop in 4Q, this would put the company on track to drop around $1.5bn in 2015.

- Drop helps funding situation in 2015, especially with DCP looming – PSX would have a free cash flow deficit of $1.1bn in 2015, with another $1.2bn in dividends to be covered as well. So, the cash drop is good to get in the door.
- PSX's major projects appear to have good economics, with an expectation that the related Capex would cause meaningful free cash flow deficits for the next few years. PSX is also spending significant midstream Capex at the corporate level, but the growth projects are being added to an already-extensive drop queue that likely ends in 2020s. A faster drop pace would allow PSX to realize the value of these investment closer to the investment horizon.

EBITDA Potential

In the "mid-cycle" projection of EBITDA, PSX outlined how they could deliver $8.4bn of EBITDA by 2018 given their growth investments. Several points about this chart below: 1) It excludes PSXP minority EBITA – you can see logistics EBITDA is <$2bn i.e. EBITDA would be above $9bn on a 100% basis (pre-dropdowns). 2) We can observe that chemicals EBITDA is flattish i.e. management have assumed some degradation in the environment (2014 was very strong), which is offset by the new cracker capacity. 3) Refining is a plausible mid-cycle estimate (though my own estimate is more conservative). It is very easy to justify an EV>$60bn based on this chart and mid-cycle multiples for the future business mix. The shale revolution, rising global chemical demand show allow management to capture further growth beyond.

"Adjusted" EBITDA Potential



Source: PSX Feb 2015 Presentation

Refining and Marketing Strategy

Phillips 66 has been successful in increasing its access to advantaged crude oil (those at a discount to Brent). PSX has increased advantaged crude oil throughput from 62% in 2012 to 74% in 2013 and 94% in 2014. Several initiatives are in place to increase throughput of advantaged feedstock further. Progress on the rail car program has been significant with Phillips 66 having taken delivery of 2,000 cars with capacity of 100 MBPD in 2013, and 1,200 cars in 2014. By 2015, 500 additional rail cars will bring capacity to 185 MBPD.

PSX currently has ~1000 MBPD of crude and product export capacity after the acquisition of Beaumont terminal, with most on the Gulf Coast. Because PSX currently operates near full capacity on the Gulf Coast, growth in export capability in this area will be beneficial. Management believes export capacity is critically important as the US continues to have high crude runs relatively flat product demand.

Midstream Strategy

PSX continues to advance development of a 100 MBPD NGL fractionator in Old Ocean, TX (Sweeny Fractionator One). Completion is expected in 2015 with LPG export terminal to follow in 2016. Accordingly, Phillips 66 has signed a related sales contract for delivery of LPG to China. Combined, the assets are expected to generate $400-$500 MM in EBITDA on investment near $3B. Phillips 66 is likely to follow this project with additional 100 MBPD NGL fractionator (Sweeny Fractionator Two), which will bring the combined EBITDA to $700-900 MM.

Phillips 66 announced to form two joint ventures to develop Dakota Access Pipeline (DAPL) and Energy Transfer Crude Oil Pipeline (ETCOP). With 25% interest in both projects, Phillips 66' share of investment is $1.2bn. DAPL will deliver 450 MBPD of crude oil from Bakken to the Midwest, and ETCOP will transport crude oil from the Midwest to the Gulf Coast, connecting the recently acquired Beaumont Terminal. Both projects are expected to be online in 4Q16.

Incubation of such projects for eventual deployment to PSXP appears likely. While PSXP is performing well and has increased in value by 2.2x since the IPO, the outlook remains positive. PSX plans to grow distributions through additional drop-downs over time. In 2014, PSXP completed $1bn acquisition from PSX: 1) a refined products pipeline system and two refinery grade propylene spheres for $700 MM; and 2) crude oil rail-unloading facilities for $340 MM.

Phillips 66 has plenty of drop-downs in inventory. Phillips 66' midstream EBITDA is around $1.1bn EBITDA in 2013 and about $2.3 B EBITDA growth is expected in next several years, if major products are brought online. Phillips 66 holds 73% of the limited partner units as well as 2% of the general partner units but is likely to reduce its LP position over time.

Chemicals Strategy

In Chemicals, Phillips 66 will continue to benefit from its strong competitive position which allows it considerable access to low-cost feedstocks (natural gas, NGL's). Strong growth and returns are expected to continue as PSX invests in multiple growth projects including 1) 1-hexene plant at Cedar Bayou (2Q14) and 2) Gulf Coast Ethane cracker and two polyethylene facilities (2017). The 3.3 billion-pounds-per-year ethane cracker will be built at CPChem's Cedar Bayou Plant in Baytown, TX, and the two polyethylene units, each with 1.1 billion-pounds capacity, will be built near the Sweeny Facility.

Risks Involved:

- **Lifting the Crude Export Ban**: While the past 5 years have seen crack spreads within a range of $15-$30/barrel, new legislation within congress could soon bring American refining crack spreads down to the pre-2011 level of $5-$20/barrel. Recently, the CEO of ConocoPhillips as well as representatives from 12 major oil producing companies have been lobbying Washington to remove the Nixon-era ban on crude exports. This legislation, if passed, would help U.S. producers but hurt downstream refineries such as PSX, VLO and MPC. If the export ban is lifted, refinery earnings will likely return to the 2010 levels. This will reduce profitability by a whopping 85%. However, the proponents of this bill, such as the CEO of ConocoPhillips don't expect the bill to make it through congress until at least 2017.
- **Cost overruns on Gulf Projects**: Phillips 66 is currently constructing $6-6.5bn in capital projects in the Gulf coast. There is a large amount of construction currently happening in the area, which I think could cause labor tightness. Any cost creep on the projects could have a meaningful impact on economics.
- **Changes in MLP cost of capital**: A lot of the major drop-downs that Phillips 66 will complete will not occur until 2020 or beyond. Meaningful increases in interest rates or changes in tax laws could affect the attractiveness of these long-term drops.
- **A turn in the chemicals or refining cycles**: Phillips 66 is being highly exposed to both the chemicals and refining cycles. There is no turn in either of these on the horizon, each would substantially impact Phillips 66's earnings.
- **Refining: Possible near-term refining upside benefits PSX less than peers:** Brent/WTI spreads has widened in 1Q, 2015, which should benefit the refining sector, particularly if product cracks hold in through maintenance season. That said, PSX has the lowest relative exposure to refining between its peers (43% on 2015E EBITA, 21% of target enterprise value).
- **2015 FCF a challenge, leverage near high-end of target:** All in, there is a negative ~2.4bn in 2015E FCF. While ~0.9bn drops to PSXP should help and could be conservative, we have gross debt to capital hitting ~30%, limiting flexibility to buy back more than $1.2bn.
- Potential increase in environmental/regulatory costs and increase in Crude related Taxes.
- A global economic downturn
- Current and potential litigation
- Narrowing of PSX's Moat.

Conclusion:

Higher crack spreads, lower chemical costs and a strong contango market should lead to good refinery profits for the next few quarters. Although VLO and MLP seem like decent investments, I think Phillips 66 is the best for the reasons outlined in the moat and margin of safety sections above. Also, VLO and MLP does not have a specialty chemical business. Therefore, they won't be in as good a position to take advantage of lower feedstock prices. I'd like to conclude with re-emphasizing my bottom-line above: *The growth story that is Phillips 66, what I call possibly the best long-term investment in "Shale USA," is still firmly in place*.

Appendix:

Appendix #1:

VALUATION ANALYSIS

		2014	2015	2016	2017	2018	2019
			Projected				
		0	*1*	*2*	*3*	*4*	*5*
Free Cash Flow Calculation							
EBIT			$4,441	$5,344	$6,052	$6,738	$7,867
Plus: Depreciation			$995	$995	$995	$995	$995
Plus: Amortization			$0	$0	$0	$0	$0
EBITDA			**5,436**	**6,339**	**7,047**	**7,733**	**8,862**
Less: Capex			(2,000)	(2,500)	(2,500)	(3,000)	(3,000)
EBITDA Less Capex			**3,436**	**3,839**	**4,547**	**4,733**	**5,862**
Less: Taxes on EBIT	35.0%		(1,554)	(1,870)	(2,118)	(2,358)	(2,753)
Less: Changes in Working Capital			165	(60)	(108)	(163)	(198)
Unlevered Free Cash Flow			**2,047**	**1,909**	**2,321**	**2,211**	**2,910**
DCF Enterprise Value Calculation							
Terminal Value Calculation							
Terminal Value Growth Rate							4.0%
Projected Free Cash Flow							3,027
Discount Rate (WACC)							7.0%
Terminal Enterprise Value							100,885
Implied Term. Value EBITDA Multiple							11.4x
Discounted Cash Flows at WACC							
Unlevered Free Cash Flow			1,913	1,667	1,895	1,687	2,075
Terminal Value							71,930
Total Discounted Cash Flows		**81,167**	1,913	1,667	1,895	1,687	74,005

Summary DCF Valuation

DCF Enterprise Value	$81,167	*12.0x*	
Less: Net Debt	($7,483)		
Equity Value	$73,684		
Shares	571		
DCF Value per Share	$129.04	*28.0x*	Forward

DCF Equity Sensitivity Analysis

	WACC		
Growth	6.0%	7.0%	8.0%
2.0%	$ 100.66	77.20	61.59
3.0%	134.30	96.64	74.08
4.0%	201.58	129.04	92.81

Appendix #2:

OPERATING ASSUMPTIONS

	Historical			Projected				
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Revenue	$182,752	$174,809	$164,093	$159,207	$160,803	$164,035	$168,993	$174,959
Growth		*(4.3%)*	*(6.1%)*	*(3.0%)*	*1.0%*	*2.0%*	*3.0%*	*3.5%*
Cost of Goods Sold:								
COGS (Excl. Depn.)	169,554	162,652	151,255	147,426	148,261	150,913	155,136	160,087
% Sales	*92.8%*	*93.0%*	*92.2%*	*92.6%*	*92.2%*	*92.0%*	*91.8%*	*91.5%*
Depreciation	906	947	995	995	995	995	995	995
% Sales	*0.5%*	*0.5%*	*0.6%*	*0.6%*	*0.6%*	*0.6%*	*0.6%*	*0.6%*
Total COGS	170,460	163,599	152,250	148,421	149,256	151,908	156,131	161,082
% Sales	*93.3%*	*93.6%*	*92.8%*	*93.2%*	*92.8%*	*92.6%*	*92.4%*	*92.1%*
SG&A Expense:								
SG&A Expense (Excl. Amt.)	1,703	1,478	1,663	1,910	1,769	1,640	1,690	1,575
% Sales	*0.9%*	*0.8%*	*1.0%*	*1.2%*	*1.1%*	*1.0%*	*1.0%*	*0.9%*
Operating Expenses	4,033	4,206	4,435	4,435	4,435	4,435	4,435	4,435
% Sales	*2.2%*	*2.4%*	*2.7%*	*2.8%*	*2.8%*	*2.7%*	*2.6%*	*2.5%*
Total SG&A Expense	5,736	5,684	6,098	6,345	6,204	6,075	6,125	6,010
% Sales	*3.1%*	*3.3%*	*3.7%*	*4.0%*	*3.9%*	*3.7%*	*3.6%*	*3.4%*
EBITDA	7,462	6,473	6,740	5,436	6,339	7,047	7,733	8,862
Margin	*4.1%*	*3.7%*	*4.1%*	*3.4%*	*3.9%*	*4.3%*	*4.6%*	*5.1%*
Growth		*(13.3%)*	*4.1%*	*(19.3%)*	*16.6%*	*11.2%*	*9.7%*	*14.6%*
Operating Profit (EBIT)	6,556	5,526	5,745	4,441	5,344	6,052	6,738	7,867
Margin	*3.6%*	*3.2%*	*3.5%*	*2.8%*	*3.3%*	*3.7%*	*4.0%*	*4.5%*
Total Capital Expenditures	1,701	1,779	3,773	2,000	2,500	2,500	3,000	3,000
% of Sales	*0.9%*	*1.0%*	*2.3%*	*1.3%*	*1.6%*	*1.5%*	*1.8%*	*1.7%*

Appendix #3:

WORKING CAPITAL ASSUMPTIONS

	Historical	Projected				
	2014	**2015**	**2016**	**2017**	**2018**	**2019**
Sales	$164,093	$159,207	$160,803	$164,035	$168,993	$174,959
Total COGS	152,250	148,421	149,256	151,908	156,131	161,082
Current Assets						
Required Cash	4,848	4,726	4,753	4,837	4,972	5,129
Accounts Receivable	7,255	7,039	7,110	7,252	7,472	7,735
Inventory	3,397	3,312	3,330	3,389	3,484	3,594
Prepaid Expenses	837	816	821	835	858	886
Current Assets	16,337	15,893	16,013	16,314	16,785	17,344
Current Liabilities						
Accounts Payable	8,064	7,861	7,905	8,046	8,270	8,532
Accrued Expenses	3,030	2,954	2,970	3,023	3,107	3,206
Current Liabilities	11,094	10,815	10,876	11,069	11,377	11,738
Net Cash Impact						
Net Working Capital	*5243*	*5078*	*5137*	*5245*	*5408*	*5607*
Cash (Used by) / Generated from Work. Cap.		*165*	*-60*	*-108*	*-163*	*-198*
Ratios						
Required Cash % of COGS	*3.2%*	*3.2%*	*3.2%*	*3.2%*	*3.2%*	*3.2%*
A/R % of Sales	*4.4%*	*4.4%*	*4.4%*	*4.4%*	*4.4%*	*4.4%*
Days Receivable	*16.1 d*	*16.1 d*	*16.1 d*	*16.1 d*	*16.1 d*	*16.1 d*
Inventory % of COGS	*2.2%*	*2.2%*	*2.2%*	*2.2%*	*2.2%*	*2.2%*
Inventory Turns	*44.8x*	*44.8x*	*44.8x*	*44.8x*	*44.8x*	*44.8x*
Prepaid % of COGS	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*
Accts Payable % of COGS	*5.3%*	*5.3%*	*5.3%*	*5.3%*	*5.3%*	*5.3%*
Accrued % of COGS	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*

Appendix #4:

INCOME STATEMENTS

	Rate	Historical	Projected				
		2014	**2015**	**2016**	**2017**	**2018**	**2019**
Revenue		164,093	159,207	160,803	164,035	168,993	174,959
Less: Total COGS		(152,250)	(148,421)	(149,256)	(151,908)	(156,131)	(161,082)
Gross Profit		11,843	10,786	11,548	12,128	12,862	13,876
Less: Total SG&A		(6,098)	(6,345)	(6,204)	(6,075)	(6,125)	(6,010)
EBIT		5,745	4,441	5,344	6,052	6,738	7,867
Interest & Other Expense / (Income):	*Rate*						
Revolver	*6.00%*		0	0	0	0	0
Term Loan	*7.00%*		549	471	392	314	235
Sr. Sub. Notes	*10.00%*		0	0	0	0	0
Total Interest Expense			549	471	392	314	235
Less: Interest Income	**3.0%**		(156)	(173)	(191)	(226)	(261)
Financing Costs Amortization	**7.0 y**		0	0	0	0	0
Pretax Income			4,048	5,046	5,852	6,650	7,893
Less: Income Taxes	*35.00%*		(1,417)	(1,766)	(2,048)	(2,327)	(2,762)
Net Income			2,631	3,280	3,804	4,322	5,130
Shares Outstanding			571	571	571	571	571
Earnings per Share (EPS)			$4.61	$5.74	$6.66	$7.57	$8.98
EBITDA Reconciliation:							
EBIT			4,441	5,344	6,052	6,738	7,867
Plus: Depreciation			995	995	995	995	995
Plus: Amortization			0	0	0	0	0
EBITDA			5,436	6,339	7,047	7,733	8,862

Appendix #5:

Operating Assumptions

REVENUE BUILD UP

Volume Growth			2015	2016	2017	2018	2019
	1	Management Case	(1.2%)	1.0%	2.0%	3.0%	3.5%
	2	Base Case	(1.5%)	0.5%	1.0%	1.5%	2.0%
	3	Downside Case	(2.0%)	0.0%	0.5%	1.0%	1.5%
Active Case		**Base Case**	**(1.5%)**	**0.5%**	**1.0%**	**1.5%**	**2.0%**

Price Growth			2015	2016	2017	2018	2019
	1	Management Case	(1.2%)	1.0%	2.0%	2.5%	3.0%
	2	Base Case	(1.5%)	0.5%	1.0%	1.5%	1.5%
	3	Downside Case	(2.0%)	0.0%	0.5%	1.0%	1.2%
Active Case		**Base Case**	**(1.5%)**	**0.5%**	**1.0%**	**1.5%**	**1.5%**

Revenue Growth			2015	2016	2017	2018	2019
Active Case		**Base Case**	**(3.0%)**	**1.0%**	**2.0%**	**3.0%**	**3.5%**

COGS %			2015	2016	2017	2018	2019
	1	Management Case	92.2%	92.0%	91.8%	91.5%	91.2%
	2	Base Case	*92.6%*	*92.2%*	*92.0%*	*91.8%*	*91.5%*
	3	Downside Case	93.0%	92.6%	92.3%	92.0%	91.8%
Active Case		**Base Case**	**92.6%**	**92.2%**	**92.0%**	**91.8%**	**91.5%**

SG&A %			2015	2016	2017	2018	2019
	1	Management Case	1.1%	1.0%	0.9%	0.9%	0.8%
	2	Base Case	1.2%	1.1%	1.0%	1.0%	0.9%
	3	Downside Case	1.4%	1.3%	1.1%	1.1%	1.0%
Active Case		**Base Case**	**1.2%**	**1.1%**	**1.0%**	**1.0%**	**0.9%**

Capex			2015	2016	2017	2018	2019
	1	Management Case	1,500	2,000	2,000	2,500	2,500
	2	Base Case	2,000	2,500	2,500	3,000	3,000
	3	Downside Case	2,500	2,750	2,750	3,250	3,250
Active Case		**Base Case**	**2,000**	**2,500**	**2,500**	**3,000**	**3,000**

Appendix #6:

Phillips 66
Weighted Average Cost of Capital

			Current Rating	BBB+		
Debt	**Coupon**	**Amount ($ million)**	**% share**	**Rating**		
Note 1	1.95%	$800.00	8%	BBB+		
Note 2	2.95%	$1,500.00	16%	BBB+		
Note 3	4.30%	2000.00	21%	BBB+		
Note 4	4.65%	1000.00	10%	BBB+	ST Debt to Total Debt:	0.09
Note 5	4.875%	1500.00	16%	BBB+	Note Rate:	0.36
Note 6	5.875%	1500.00	16%	BBB+		
Bonds due 2018-2012	0.05%	50.00	1%		LT Debt to Total Debt:	0.91
Note 8 due 2020	7.54%	53.00	1%		Bond Rate:	2.62
Note 9 Payable 2020	7.00%	97.00	1%			
Revolver	1.33%	18.00	0%			
Short Term Debt		842.00	9%			
Total Notes & Debentures		**$9,360.00**				
Net unamort prems & disc		-$45.00	0%			
Capital Leases		$210.00	2%			
Total Debt		**$9,525.00**				
Marginal tax rate		35%				
After-tax cost of debt		**2.49%**				

Equity	**Amount ($ million)**
Common Stock	$19,046.00
Retained Earnings	9309
Treasury Stock	-6234
Accumulated OCI	-531
Total	$21,590.00

Treasury yield	1.95%	2.4%	
Beta (levered)		1.74	
Mkt Risk Premium		4.05%	(Historical 1926 to 2007) range is 4% to 8%
Size Premium			Ibbotson estimates a 1.65% size premium for Low-Cap Decile
Cost of Equity		**9.47%**	

		Amount	Weights
After-tax cost of debt	2.49%	$9,525.00	40%
Cost of Pfd Stock	0.00%	$0.00	0%
Cost of Equity	9.47%	$21,590.00	60%
		$31,115.00	
WACC	**7.33%**		6.68%

Appendix #7:

figures as of 04/23/2015

Phillips 66
Comparable Companies Analysis
($ in millions, except per share data)

Company[1,2]	Ticker	Current Share Price	% of 52-wk. High	Equity Value[5]	Enterprise Value[6]	Enterprise Value / LTM Sales	2015E Sales	2016E Sales	LTM EBITDA	2015E EBITDA	2016E EBITDA	LTM EBIT	2015E EBIT	2016E EBIT	LTM EBITDA Margin	Total Debt / EBITDA	Price / LTM EPS	2015E EPS	2016E EPS	LT EPS Growth
Valero Energy Corp	VLO	16.73	26%	8,614.3	17,251.9	0.1x	0.2x	0.2x	2.3x	2.4x	2.1x	2.9x	3.7x	3.3x	6%	0.8x	2.4x	2.4x	2.5x	0%
Marathon Petroleum	MPC	122.36	113%	33,416.5	47,576.5	0.5x	0.7x	0.6x	8.9x	8.0x	8.3x	11.8x	15.6x	16.2x	6%	1.2x	13.8x	11.5x	12.6x	5%
Ultrapar Holdings Inc.	UGP	75.59	293%	42,058.3	59,793.3	2.7x	2.3x	2.4x	39.2x	42.1x	39.0x	52.5x	70.1x	64.9x	7%	1.8x	78.7x	79.6x	74.1x	3%
Tesoro Corporation	TSO	61.47	65%	7,726.8	11,506.9	0.3x	0.4x	0.4x	5.3x	4.3x	4.2x	7.1x	9.5x	9.3x	5%	1.9x	9.5x	7.7x	8.0x	9%
Mean						**0.9x**	**0.9x**	**0.9x**	**13.9x**	**14.2x**	**13.4x**	**18.6x**	**24.8x**	**23.4x**	**6%**	**1.5x**	**26.1x**	**25.3x**	**24.3x**	**4%**
Median						**0.4x**	**0.5x**	**0.5x**	**7.1x**	**6.1x**	**6.3x**	**9.4x**	**12.6x**	**12.8x**	**6%**	**1.5x**	**11.7x**	**9.6x**	**10.3x**	**4%**
High						**2.7x**	**2.3x**	**2.4x**	**39.2x**	**42.1x**	**39.0x**	**52.5x**	**70.1x**	**64.9x**	**7%**	**1.9x**	**78.7x**	**79.6x**	**74.1x**	**9%**
Low						**0.1x**	**0.2x**	**0.2x**	**2.3x**	**2.4x**	**2.1x**	**2.9x**	**3.7x**	**3.3x**	**5%**	**0.8x**	**2.4x**	**2.4x**	**2.5x**	**0%**

LTM EV/EBITDA	
VLO	2.26
MPC	8.87
UGP	39.23
TSO	5.25
Exit Multiple Range	**7.35 - 11.27**
Mid Level	**13.90**

Appendix #8:

Formulas:

ROCE = EBIT / (Net WC + Net FA)
ROIC = NOPAT / (Total Assets - Excess Cash - Non Interest bearing Liabilities)

(Note: with ROCE there are implications around non-cash charges and impairments)

Resources:

1. "The Intelligent Investor, the Definitive Book on Value Investing"; Benjamin Graham, Harper; First Collins Business Essentials Edition, 2006.
2. Berkshire Hathaway. (2012-2013-2014) Shareholder Letters.
3. Phillips 66 (2014). Form 10-K 2014. Retrieved from EDGAR.gov.
4. Phillips 66 (2013). Form 10-K 2013. Retrieved from EDGAR.gov.
5. Phillips 66 (2012). Form 10-K 2012. Retrieved from EDGAR.gov.
6. Phillips 66 2014 Annual Report
7. Phillips 66 2014 Fact Book (Investing – Building – Growing)
8. Phillips 66 2013 Company Overview
9. Phillips 66 2013 Company Profile
10. Phillips 66 2013 Annual Report
11. Phillips 66 Key Assets, Operations and Locations
12. PSX September 2014 Presentation
13. PSX February 2015 Presentation
14. Valero (2014). Form 10-K 2014.
15. Marathon Petroleum (2014). Form 10-K 2014.
16. Phillips 66 (2014) Financials. Retrieved from Mergent Online database.
17. https://ycharts.com/companies/VLO/chart/#/?securities=id:PSX,include:true,,id:VLO,include:true,,id:MPC,include:true&calcs=include:true,id:price
18. http://www.finviz.com/screener.ashx?v=161&f=ind_oilgasrefiningmarketing&ft=3&t=PSX,VLO,MPC,UGP,TSO&o=pe
19. http://www.investopedia.com/features/industryhandbook/oil_services.asp; "The Industry Handbook: The Oil Services Industry"
20. http://oilprice.com/Energy/Crude-Oil/The-Vanishing-WTIBrent-Spread.html; "The Vanishing WTI/Brent Spread"
21. http://oilprice.com/Energy/Oil-Prices/The-Reemergence-Of-The-WTIBrent-Spread.html; "The Reemergence of the WTI/Brent Spread"
22. http://seekingalpha.com/article/2834576-crude-oil-what-is-going-on-in-brent-versus-wti; "Crude Oil: What is going on in Brent versus WTI?"

23. http://www.dividend.com/dividend-stocks/basic-materials/oil-and-gas-refining-and-marketing/psx-phillips-66/
24. http://www.fool.com/investing/general/2014/06/05/the-1-refiner-in-all-the-right-places.aspx; "The 1 Refiner in All the Right Places"
25. http://finance.yahoo.com/news/distillate-inventories-last-week-fall-210701128.html; "Distillate Inventories Last Week Fall Short of Expectations"
26. http://www.investopedia.com/articles/active-trading/042215/4-quality-dividend-stocks.asp; "4 Quality Dividend Stocks"
27. http://online.barrons.com/articles/SB50001424053111903935304577382233024275626?mod=BOL_hpp_mag; "The Right Spin on Phillips"
28. http://www.nasdaq.com/article/why-phillips-66-psx-is-such-a-great-value-stock-pick-right-now-tale-of-the-tape-cm461526; "Why Phillips 66 (PSX) is Such a Great Value Stock Pick Right Now - Tale of the Tape"
29. http://marketrealist.com/2014/08/must-know-highlights-of-valero-energys-2q-earnings/; "Must-Know: Comparing Valero to its peers – Market Realist"
30. http://seekingalpha.com/article/912041-what-attracted-warren-buffett-to-phillips-66; "What Attracted Warren Buffet to Phillips 66?"
31. http://seekingalpha.com/article/2878876-phillips-66-the-beat-goes-on-despite-exposure-to-ngl-pricing; "Phillips 66: The Beat Goes on Despite Exposure to NGL Pricing"
32. http://seekingalpha.com/article/3076696-phillips-66-and-co-poised-to-profit-from-cheap-oil-and-higher-crack-spreads-until-2017; "Phillips 66 & Co. Poised to Profit from Cheap Oil and Higher Crack Spreads Until 2017"
33. http://www.businessinsider.com/phillips-66-on-oil-crash-2015-2; "One energy company is loving the oil crash"
34. http://seekingalpha.com/article/2868226-5-reasons-why-phillips-66-had-a-blowout-quarter; "5 Reasons Why Phillips 66 had a Blowout Quarter"
35. http://www.stockmarketsdaily.com/buy-year-phillips-66-nysepsx/7403/; "Buy of the Year? Phillips 66"