Investment Overview

Liquefied natural gas (LNG) is a fast-growing part of the global energy market, with global volumes having roughly doubled since 2004 (see Figure 1) and with strong growth generally forecasted in the longer term. The nearer-term outlook is for tight markets with new supplies coming online, but we recommend owning through the cycle.

LNG is a way to use natural gas found in remote locations where it is needed for industrial uses and power generation. Exporters include Qatar, Malaysia, Australia, and Nigeria, while users include South Korea, Japan, China and Western Europe.

North America has had import terminals for several years, but low natural gas prices have resulted in these facilities not being used. Now, we are at the start of what could be a switch to exporting LNG out of the U.S. Canadian exports are also expected in the future.

We believe there are several companies well-positioned to benefit from future growth in LNG, both here in North America and around the globe. Companies that we follow with a Buy rating and that have a strategic focus on growing their LNG business are Baker Hughes, Chevron, Shell, and Total. LNG is expected to be a growth driver for these stocks. We recommend these stocks as the best way to invest in LNG.

Figure 1

LNG Global Trade Volumes (million metric tonnes)
Source: International Gas Union, World LNG Report, 2018

Last updated: 03/06/2019
What Is LNG?

LNG is natural gas chilled to -160 degrees Celsius. At that point, the gas changes to a liquid and condenses to 1/600th its size as a gas. Thus, 1,000 cubic feet of natural gas (a 10-foot cube) shrinks to about a 14-inch cube. This allows significant quantities of gas to be shipped across oceans from areas where natural gas cannot otherwise be efficiently, safely and cost-effectively shipped via pipeline. Liquefying it fixes such problems. Another reason to convert the natural gas to LNG is that it allows producers to get natural gas to international markets from remote locations where it otherwise would never be used.

Figure 2

Source: Reuters

Natural gas is first sent via pipeline from production fields to an export terminal that performs the liquefaction process. It is then put on specially designed ships (see Figure 2) that maintain the low temperature and stabilize it. Once the ships arrive at the import terminal at the destination, the LNG is warmed so that it converts back to a gas form. It can then go into the local natural gas pipeline network.

Why Do Energy Companies Invest in LNG?

LNG can be very lucrative for energy companies because it is typically priced relative to oil and is sold under long-term contracts. On a Btu (British thermal unit) basis, oil prices are well above North American natural gas prices. As a result, returns have been relatively strong.

In addition, LNG projects tend to operate and generate cash flow at a consistent rate for several years, thus supporting long-term production. Most LNG contracts are for between 10 and 25 years at consistent levels. This helps support production growth because it does not decline over time like normal oil and natural gas production does.

Finally, LNG allows companies to find a market for their natural gas resources in remote locations. There are significant natural gas reserves around the world that are in isolated areas. If not for LNG, much of these reserves would never be marketable.

What Is the History of LNG?

The first shipment of LNG was in 1964. It went from Algeria to France and the U.K. Until the early 1990s, global volumes remained relatively small. Investment then began to accelerate with demand increasing given the benefits of natural gas including lower carbon emissions than coal and plentiful global supply. Global volumes have roughly doubled since 2004 (see Figure 1).

About 25 countries can export natural gas, with the largest exporters being Qatar, Malaysia, Indonesia, Australia and Nigeria. In the western hemisphere, Trinidad and Peru are the largest exporters. Australia may be the largest exporting nation by 2020 with several projects coming online in coming years to serve demand in Asia. The U.S. and Canada could join this group of large exporters if some of the currently proposed terminals receive approvals and are built in coming years.

The number of countries that have the facilities to import natural gas is also about 25. Countries in Asia and Europe are the most common destinations for shipments, with Japan, South Korea, United Kingdom, Spain and China being the largest importers. These countries have limited natural gas production of their own. Asia, with growing economies, will likely continue to see the fastest import growth, with Australia serving much of it in coming years. These are also the most likely markets for potential exports from the U.S. and Canada.

Will the U.S. and/or Canada Soon Begin Exporting LNG in Larger Quantities?

While both countries already currently have some exporting capabilities, it remains relatively small compared to other countries. However, this should change dramatically in coming years because there are several recently completed or proposed facilities (see Figure 3) to export natural gas so as to benefit from higher prices elsewhere. Regulatory and local approvals will likely remain a challenge, but we see some of the proposed terminals being built. Lining up buyers ahead of time is generally a requirement given the size and cost (in the billions of dollars) of any export facility. Unfortunately, buyers are currently slow to sign contracts given nearer term uncertainty on pricing and demand. We see this easing as we move forward.
Investment Recommendations for Our Clients

There are several stocks that we follow that can potentially benefit from growing LNG production, including Integrated Oil, Exploration & Production, and Energy Equipment & Services companies. These are commented on here along with our rating on the stock.

**Anadarko Petroleum (Hold)**

Anadarko owns a 26.5% interest in Area 1 offshore Mozambique which is planned to be developed through a LNG project. If approved, the project would have two trains and would be expected to come into production by 2024. The project is currently backed by 7.5 million tons per year of long-term contracts.

**Baker Hughes (Buy)**

Baker Hughes builds and maintains gasification and regasification plants for LNG. We expect a new round of plants to be announced in coming months, and Baker Hughes should help construct many of them.

**Chevron (Buy)**

Chevron owns and operates LNG projects in Angola and Australia. It gets sizeable cash flow from these projects, and we expect further investment in coming years to grow its portfolio.

**ExxonMobil (Hold)**

ExxonMobil owns and operates LNG assets in the U.S., Qatar, Indonesia, and Papua New Guinea. We expect further investment to continue to grow its portfolio.

**Royal Dutch Shell (Buy)**

Shell is the largest LNG producer in the world with interests in the Middle East, North America, Australia and Asia. It has announced plans to complete the LNG Canada project in British Columbia. LNG is a key growth driver for the company.

**Total (Buy)**

Total has LNG interests in Angola, Russia and Australia, and is pursuing projects elsewhere. We expect it will be a key area of investment in the longer term.

**Valuation** - We believe the current valuation of the energy stocks that we recommend with a Buy rating remain attractive relative to our longer-term commodity-price expectations. We use mid-cycle commodity prices to value energy stocks. Methods used to evaluate the attractiveness of energy stocks include price-to-operating cash flow (P/CF); enterprise value to earnings before interest, taxes,
depreciation and amortization (EV/EBITDA); and net asset value (NAV). Price-to-earning (P/E) and PE to Growth plus Yield (PEGY) are not used to value energy stocks.

**Risks** - Risks common to most of the stocks listed in this report: 1) The prices for natural gas and oil are volatile, and changes can impact earnings and the share price; 2) Changes in regulation could impact earnings and the share price; and 3) Special risks are inherent to international investing including those related to currency fluctuations, foreign political and economic events.

Please see the full opinions of the individual companies mentioned in this report for additional information, including valuation and risks.

**Summary**

We believe there are opportunities to own energy companies with a strategic focus on LNG that have solid financial footings, strong growth prospects, rising dividend potential, and above-average track records of increasing shareholder value. The companies we mention in this report mostly have these characteristics, in our view.

**Required Research Disclosures**

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Jennifer Rowland, CFA

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