

General Title:

CASE STUDY ON THE ACQUISITION OF BG GROUP BY ROYAL DUTCH SHELL

Individual Subtitle:

COMPENSATION OUTLINE AND EFFECT OVER SHAREHOLDERS' POWER
DISTRIBUTION

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Abstract (General)

A landmark \$70 billion acquisition in the energy sector shaken by falling oil prices and increasing pressure for energy transition: Royal Dutch Shell's acquisition of BG Group in 2016. The acquisition allows for analysis of industry-specific dynamics, the role of regulatory frameworks in large-scale transactions, the strategic and financial rationale behind the deal, the alternative investments to the deal, and the challenges of valuation amidst market volatility. Engaging with this deal is to gain insight into corporate decision-making and the broader implications of strategic M&A in the energy sector and prepare the next generation of corporate leaders.

Keywords

Mergers and Acquisitions, Oil & Gas, Royal Dutch Shell, BG Group, Oil Price Downturn, Confidence, Merger Arbitrage, Hubris Theory, Termination, Antitrust Clearance.

Abstract (Individual)

With the stock component of the deal compensation, BG shareholders gained influence in the newly merged entity, retaining exposure to Shell's future growth and long-term strategy. That allowed for a further analysis of the strategic implications of the cash-and-stock compensation offered and how shareholder power was redistributed, affecting both Shell and BG shareholders in terms of control and financial exposure.

The discussion also covers the financial motivations behind the premium paid, Shell's strategic focus on LNG assets, and the impact on long-term value creation for both sets of shareholders. Thus, this section aims to encourage reflection on how shareholder governance, market dynamics, and broader corporate strategy intertwine in the context of mergers and acquisitions.

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PART A: Case Study

Royal Dutch Shell announced on the 8th of April 2015 that it had reached an agreement for the acquisition of BG Group for around \$70 billion. On the day of the announcement, this meant that a hefty 52% premium over the market value of BG Group was to be paid by Shell through a mixed consideration of both cash and shares, by shareholders' election. The deal, envisaged to be completed by early 2016, had to overcome regulatory approvals from many jurisdictions, especially in Australia and Brazil, where BG had most of its ongoing projects, and required approval from a majority of shareholders from both firms. Shell viewed the acquisition as an important strategic move, not only in terms of expanding its market share, as it would become the world's second-largest public oil and gas company by market value, but especially in terms of strengthening the firm's position in deep water and liquefied natural gas (LNG). These were two of Shell's growth priorities, given the long-term growth in demand for less carbon intensive fuels. In the prior six months of the announcement date, the oil price had fallen by about 50%, putting the Oil & Gas industry under pressure. At the time, many analysts and some shareholders were concerned that Shell might have been overpaying on its offer for the British firm. In this context, you are put in the shoes of a major Shell shareholder to take what you see as the best course of action for Shell.

PART I: The Intriguing 2015 Energy Deal Announcement

Shell

Royal Dutch Shell PLC, based in The Hague, Netherlands and referred as "Shell", is one of the worldwide largest independent petroleum companies, carrying out exploration, production, refining and marketing processes of crude oil and natural gas in more than 70 countries globally (Figure 1). Shell explores oil and gas, both from conventional resources and from unconventional reservoirs, such as tight rock, shale, and coal formation. It develops new oil and gas supplies from major fields, and its reporting segments are organized in Upstream,

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Downstream and Corporate. Upstream includes all the exploration, extraction, manufacturing and transportation processes of crude oil and gas. All these operations are heavily dependent on crude oil and natural gas prices and quantities produced, and projects are capital intensive and generate revenues in a long-term horizon. Downstream focuses on turning crude oil into a range of refined products, which are then marketed around the world and traded. It also markets gas and power and explores Shell's interests in alternative energy (excluding wind) and CO2 management. Downstream businesses in Oil Products and Chemicals are highly cash-generative with high returns. Corporate refers to the support functions, comprising Shell's holdings and treasury organization (central functions and headquarters) (Shell Global 2024).

Shell's Background

The Royal Dutch Shell Group was created in February 1907 through the amalgamation (the combination of two or more companies into an entirely new entity), of two rival companies: Royal Dutch Petroleum Company and the "Shell" Transport and Trading Company Ltd, of the United Kingdom. The main motivation for the amalgamation was to compete globally with Standard Oil, an American industrial empire, controlling almost all oil production, processing, marketing, and transportation in the US (The Editors of Encyclopaedia Britannica 2024). In 2005, it came to light that the Group had overstated its oil and gas reserves, leading to a reduction in its stock value, followed by a demand from shareholders to have in place a more responsive and corporate structure. The two parent companies transformed the Group into a single capital structure and got delisted from their respective exchanges, creating a new parent company to be named as "Royal Dutch Shell plc". The new entity would be primary listed on the London Stock Exchange, secondarily listed on Amsterdam Stock Exchange, headquartered and with fiscal residency in The Hague (Netherlands), but with its registered office in London, United Kingdom. Right after, an ambitious investment program in exploration and production

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in order to rebuild its oil and gas reserves was reported (Chcom 2013). Ten years later, the BG announcement acquisition became one of its main maneuvers.

Shell's Strategy

As any other enterprise wishing to grow and succeed, Shell had been attentive to market developments and has put in place at the beginning of 2014, an improvement programme in which it would refocus its efforts and investment on only selected growth investments, including the exit and divestment of some projects that had been underperforming according to expectations. Shareholders, and Shell's iconic competitive dividend, had always been at its core. It seemed then to be the moment to implement a balance sheet restructuring, to balance risk, drive profitability and guarantee a strong financial performance by enhancing capital efficiency to ensure that strong project delivery would be enjoyed by shareholders. As an example, Shell had earlier in 2015, exited the Bab sour gas project in Abu Dhabi and has ceased further exploration activity offshore Alaska for the upcoming future. One of the "selective" investments include developments in new LNG capacity and deepwater positions, in which Shell already had some presence and experience (Figures 2 – 4). These two industry segments are not only exciting because of their growth potential, but also because Shell aims to lead by example in the energy transition panorama: a long-term trend in demand growth for lower-carbon energy is becoming evident. Shell wants to be ahead of these long-term growth demand for cleaner-burning fuel. "We intend to make investments in large-scale of lower-carbon technology such as in natural gas, carbon capture and storage, biofuels, wind and solar energy. We have evolved over the last few decades from a company focused almost entirely on oil to one of the world's leading suppliers of gas, the cleanest-burning hydrocarbon. We want to continue to research and develop technologies that increase efficiency and reduce emissions from liquids and natural gas production helping to meet global energy demand in a responsible way. Switching from coal to gas for power generation, is one way to reduce emissions of CO₂"

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(Shell Annual Report 2015, n.d.). The strategic objective was clear: creating a simpler and more focused company, in line with global energy demand and environmental pressures.

BG Group

BG Group is a British multinational Oil & Gas company that resulted from the 1997 demerger of British Gas into BG Group and Centrica. It is headquartered in Reading, UK, and it is composed of two segments: Upstream & LNG shipping and Marketing. It currently holds operations in more than 20 countries on 5 continents (Figures 5a & 5b) and it is the largest LNG supplier to the United States. In terms of business expansions, BG Group has acquired other companies in order to enter new geographic markets, as is the case of the acquisition of Queensland Curtis LNG for \$3.4 billion in 2008, to operate in Asia's LNG market; BG Group has also been partnering with other companies, like Cheniere Energy, in 2011, to export LNG from the United States. Currently, BG Group is focused on maximizing its assets in high-growth (and high-margin) areas such as LNG and deepwater ventures. Regarding LNG, BG Group is focused on solidifying its position as a leading player in this market, with a strong portfolio of extensive production and export operations, especially in Australia and the US. As demand for LNG particularly in Asia is rising, this allows for an interesting level of price flexibility, constituting a lucrative business vertical. As for deepwater exploration, it occurs mainly in Brazil, however, projects in East Africa and Australia had also been developed. From the operational standpoint, BG Group had streamlined its operations and maintained a focus on its core assets, allowing it to allocate capital to higher-return projects. As a reflection of its policies and strategy, it has maintained a strong balance sheet, which is essential when operating in volatile industries such as energy (gas).

Market Context

Both Shell and BG operate in the energy market, an industry which at the time of the announcement was experiencing some complications. Oil and gas prices had started to abruptly

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fall since mid-2014 (Exhibit A) due to both demand and supply shocks. Oil prices specifically, were central as a couple of global disruptions were occurring and Shell's segment performance heavily depended on oil prices. These are mainly tracked with the WTI¹ and Brent Crude benchmarks and they were affected mostly by a rapid supply increase from major oil producers, which was not in line with the demand's behavior (Figure 6).

The resilience of the shale oil industry to lower oil prices and Saudi Arabia's response

The US was experiencing great efficiency gains with their advancements in the fracking technology for shale oil extraction. Production costs fell so considerably (approx. 25%) that even with a selling price of \$30/bbl, economic viability would still be maintained (Smith and Lee 2017). However, the boom in shale oil production by the US was not the sole friction that the market was observing. Saudi Arabia, which is the largest producer member of the OPEC², deviated from its forecasted behavior and did not step back. It kept injecting oil supply into the market in order to secure its market share against the US, a non-OPEC producer. This decision was totally the opposite to what they had previously done in the early 1980s, when attempting to protect and stabilize oil prices. But as prices were not rising, Saudi ended up losing output share which translated into lower revenue, falling by more than 80% from January 1981 (Cristiana Belu Mănescu and Nuño 2015). OPEC decisions have a major impact on oil prices, and the Saudi Arabia decision in November 2014 to abandon price controls, only amplified the market sentiment of a supply surplus (Stocker et al. 2018).

The disappointing demand for oil growth and other factors

In addition, demand for oil, especially from China and Europe, was not matching IEA³ expectations, due to an economic slowdown after the 2008 financial crisis. The disappointing global growth was felt particularly from mid-2015 to early 2016. Moreover, Iran sanctions were

¹ West Texas Intermediate

² Organization of Petroleum Exporting Countries

³ International Energy Agency

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being lifted and the US currency was appreciating against other currencies, translating into lower geopolitical risks and even lower oil prices. This is because producers tend to make up for this foreign currency exchange gain with lower quoted prices, instead of passing the entire price increase to foreigner buyers (once oil is mostly quoted in US dollars). From June 2014 to January 2015, the dollar's value rose 14.3% compared to an average of currencies from major US trading partners (Stiger and Mead 2015).

The transition to an energy-efficient world

The world was praising less energy-intensive activities and investing in efficiency schemes, whether applied to households or industrial production. Not only the fuel used began to be more efficiently consumed, but also alternative fuels such as natural gas started to gain popularity. The world was turning to less polluting energy sources and something was brewing at a worldwide level, resulting in the Geneva negotiating text published in February 2015, a draft document for an international agreement to limit GHG⁴ emissions worldwide. This was showing a clear intention for the achievement of a deep regulatory landscape situation with impact on all industries. However, with a special space in the limelight reserved for the energy (both production and consumption) industry – what will happen to the energy industry if the emission of an unavoidable by-product of their operations is capped? In addition, all eyes are on the 2015 UN⁵ climate conference to happen in Paris at the end of the same year. (Lee 2015).

Deal Consideration

These signals appeared to be the beginning of another historical oil price collapse and Shell's shareholders were facing an unavoidable question: whether they should vote for Shell to move forward with the deal in a world where oil and gas prices could remain lower for some time, just as the CEO, Ben Van Beurden, had expressed in December 2015 in a public announcement

⁴ Greenhouse Gas

⁵ United Nations

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(Farrell 2015). The BG deal was agreed and predicated on the assumption that oil prices would strongly recover to \$90 a barrel by 2020. As of 8th of April 2015, WTI and Brent benchmarks were quoting \$50.4 and \$56.4 per barrel, respectively. Then, they seemed in fact to be recovering (Exhibit A), but they have since slipped back, augmenting expectations that they will remain lower for longer than expected. However, Shell's CEO still stated that the acquisition still offered a "strategic transformation" (Crooks 2015). Moreover, although the industry was experiencing one of its worse downturns in decades, the ISS⁶ mentioned in a report "the current low oil price may be of very little value in assessing the strategic opportunity of a transaction whose benefits will be realized over decades" (Bousso 2016).

The Deal Motives

Shell aimed to solidify its LNG and deepwater oil production, which were key growth markets. BG had built a strong foothold and substantial LNG portfolio in Australia and deepwater assets in offshore fields in Brazil, and, with the acquisition, Shell would become the world's second-largest public oil and gas company by market value, only behind Exxon Mobil Corp. In addition, it would make the firm the world's largest LNG firm and would also potentially surpass Exxon as the largest publicly traded oil and gas producer by 2020, according to Simmons and Company analysts (Bousso 2016). From 2014 to 2015, Shell had decreased its proved developed and undeveloped oil and gas reserves by around 10% ("Shell's Oil and Gas Reserves," n.d.). But more importantly, in 2015, the company achieved its worst performance since the accounting scandal in 2004: Shell had depleted its reserves much faster than replaced them, achieving a RRR⁷ of -20%. BG reached a RRR of 61% on the same year (Blas 2016). Despite many uncertainties around the deal, Shell's "iconic" dividend was something that had always been a "core value proposition" and hence, something that Shell had seen as a

⁶ Institutional Shareholders Services

⁷ Reserve Replacement Ratio. The amount added to reserves divided by amount extracted

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commitment to be met. While some analysts such as Matthew Beesley (head of global equities at Henderson), were defending that the acquisition was to “potentially strain on the dividend”, others such as Credit Suisse and ISS analysts, defended that the acquisition would protect it (Shubber 2015). What was certain was Shell’s investors regarding its impact in the first year or two. In addition, while BG shareholders were expecting to receive only \$0.14 in 2015 (BBC News 2015), Shell confirmed its commitment to pay existing shareholders \$1.88 per share, and again at least the same amount for 2016. Moreover, with the acquisition, BG shareholders would also receive Shell’s “iconic dividend”. Shell estimated about \$2.5 billion in synergies annually by 2018, stemming from cost reductions, operational overlaps, and asset optimizations (Table 1). The company also intended to divest \$30 billion in assets from both Shell and BG between 2016 and 2018 to streamline operations and enhance financial flexibility. For BG, the acquisition came at a time of vulnerability. The company had been hit hard by the fall in oil prices, which had dropped from over \$100 per barrel in mid-2014 to below \$40 by the time the deal closed in 2016 (Exhibit A). BG’s share price had suffered a significant decline, and the company was also dealing with asset write-downs and operational challenges. If these operational challenges persisted, they could leave BG in “deep water”. In addition, according to the new BG’s chief executive Helge Lund, “BG had struggled to shake off the perception that in developing Brazil and Australia it bit off more than it could chew” (Shubber 2015). And Shell has been recognized for a long time for its financial strength, whose debt was rated AA by Moody’s (Eley 2015). However, not all reactions were positive to the deal announcement. Some analysts and Shell shareholders expressed concerns about the timing of the acquisition, tense about the possible not recovery of oil prices to around \$90 per barrel by 2020. Critics argued that the high premium Shell paid was predicated on an optimistic view of future oil prices and that Shell might have overpaid given the risks involved in the volatile oil market.

PART II: Should Shell Shareholders Vote for BG Acquisition On 27th of January 2016?

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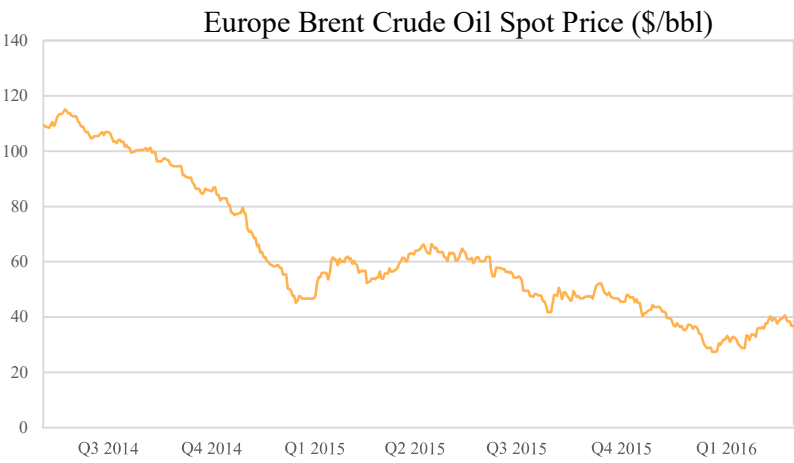
With the acquisition, BG would become a wholly owned subsidiary of Shell. Shell structured the deal as a cash-and-shares offer, where BG shareholders would receive a value of £13.50 per share held, reflecting a premium of approximately 52% over BG's share price the day before the announcement, considering both cash and stock. While Beurden stated that it was not "outlandish" in the energy sector, many analysts pointed that it could be high (Shubber 2015). However, it is important to recall that the deal was to also be paid in shares, which could make the "real premium" paid to decrease. The initial blend consisted of 3.83 pounds in cash and the remaining amount in Shell shares (preferably B shares but could also be A shares at the request of the shareholder), with BG shareholders also having the option of using a "Mix & Match" facility to adjust the proportion of cash and shares they received, to a limited extent (Shell. "Recommended Cash and Share Offer for BG Group Plc by Royal Dutch Shell Plc," 2015).

Beurden had also expressed that there existed a "modest risk" that the deal could fail to fulfill all the key regulatory approvals (Crooks 2015). Given all the deal motives, together with the approximately 50% offered premium, questions arose whether this deal announcement had been a good move for Shell: "For Shell shareholders, we are less convinced of the merits. The deal is predicated on a strong recovery in oil prices" said Neill Morton, an analyst at Investec Bank. All Pre-Conditions were accepted as of 14th of December 2015. The show must go on.

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Exhibit A. Graph of the evolution of Brent crude oil prices between Q3 2014 and Q1 2016

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Source: U.S. Energy Information Administration (EIA) 2024

Part B: Teaching Note

SYNOPSIS

On the 8th of April 2015, Royal Dutch Shell plc (Acquirer), one of the largest independent petroleum companies, announced that it had agreed to buy the oil and gas exploration firm BG Group (Target). “This is a compelling offer”, Shell’s CEO had said several times, due to the clear strategic and balance sheet fit between the two companies. The deal value was around \$70 billion (or £47 billion), yielding a total of \$3.5 bn of pre-tax synergies, and transacted in the form of cash and stock, with an associated high premium of approximately 52%. A Mix & Match facility was offered, in which BG shareholders could choose how much they could receive in cash and new Shell shares to be issued. The most remarkable aspect of the deal is that it came at a time of uncertainty for the oil and gas industry. In the prior six months of the announcement date, the oil price had fallen by about 50% (BBC News 2015), reaching its minimum in January 2016 at \$29.4 per barrel (Trading Economics 2024), the lowest level in a little over a decade. Both Shell and BG were highly reliant on oil and gas prices. Meanwhile, analysts warned that investment in North Sea oil exploration had all but dried up, threatening the entire industry (BBC News 2015). The deal (as well as the valuation) was predicated on an oil price recovery of \$90 per barrel by 2020. Despite the unfavorable pressures for the industry, and acknowledging “there was a modest risk”, Shell’s CEO, Ben van Beurden, however, had always demonstrated confidence and great optimism that the deal would go through. The sole doubt Beurden manifested was getting all the several anti-trust clearances from the many jurisdictions in which Shell had an important presence, and the increased higher presence that the new combination would have. The deal represented the 14th largest M&A transaction in history at the time, and Shell became the second-largest energy company by market capitalization, surpassing Chevron Corp. The strategic fit behind the deal rationale seemed

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clear, but, from the financial point of view, there was some opacity due to the development of oil prices and the justification of the apparent high premium offered.

PEDAGOGICAL POSITIONING

This case study was designed for students pursuing a master's degree either in Management or Finance, ideally to be taught in a Strategy or Mergers & Acquisitions course. Prior to the reading and analysis of the case, students should have a solid general understanding of M&A and Corporate Finance topics, such as deal terms and structure, corporate governance, some law terms, capital structure, and valuation methods, namely the Discount Cash Flow (DCF) analysis and the Comparable Companies' analysis. If needed, the chapter "Value and Capital Budgeting" of the academic book Corporate Finance (3rd edition) by David Hiller provides solid guidance for the valuation. To facilitate an easy discussion among students, the specific technical terms will have information that helps to define them, however, due to the specificity of the industry in which the deal takes place, it is considered valuable for the student to already hold a cultivated general understanding of the uniqueness of the energy market and prices. The purpose of this case study is to challenge students to think outside of the typical flow of M&A cases, presenting them with structures and topics they might not fully know before. To help the instructor guide the students, this teaching note serves as a basis for discussion, providing already some possible questions to be posed to students.

LEARNING OBJECTIVES

This case aims to increase and improve students' sensitivity to several topics, which should be presented, explained, and challenged by the instructor. These are:

- The formulation of a sound recommendation based on the given data. Students will be asked to deduce the strategic and financial deal rationale, both for the acquirer and the target. It is expected that students will cultivate a greater understanding of corporate decision-making.

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- The understanding of synergy sources, which is one of the principal motives in M&A deals. Students will understand the implications of considering a deal that achieves synergies by revenue increase and/or cost savings.
- The understanding of the movements in share prices during the timeline, by gaining a perception of how market expectations react to public announcements and public data, as expectations highly influence valuations.
- Getting familiarized with the M&A practice and concepts applied to a real-world example, with the aim of incentivizing future paper and news readings in an effortless manner.
- Getting first contact with certain aspects of the legal landscape of the deal, by exploring the complexity of a real-life merger deal. Students will gain an awareness and understanding of the antitrust regulatory implications of a big deal.
- Gain knowledge on several components of M&A, from the classic strategic and financial fit to more dynamic concepts such as market trends and government policy changes, and how factors like these can condition the future success of the deal.

SUBSTANTIVE ANALYSIS AND TEACHING PROCESS

The case is expected to be taught in three separate classes (Sessions) of two hours each, and ideally with at least one day in between (and up to one week), for valuation purposes. The case is divided into three parts: Part I, Part II, and Part III. The class dedicated to Part I is intended to provide students with the most possible facts about the deal, from the pre-case questions to one of the most important parts of the case, the deal structure. It is recommended that students form groups of 3 to 4 people, to come up with their financial valuation. While Part I should be dedicated to getting students acquainted with the deal and for the teacher to explain pertinent topics in connection with it, Part II will mostly be dedicated to discussions from the strategic and financial points of view. Students are also expected to present their valuation results. Lastly, Part III will be dedicated to the post-deal and epilogue, approaching the strong and less strong

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points of Shell's acquisition strategy, what could have been done differently, and the final sentiment about the case and the knowledge acquired.

◁ Session 1 ▷

Pre-case distribution questions

Before distributing Part I of the case, it is recommended to pose some pre-case questions about the industry and the companies involved, to capture students' initial attention, and so that the instructor can assess their pre-case knowledge. The instructor could divide the classroom into two groups, and the one with the most accurate answers would gain some reward at the end, acting as an incentive. The instructor is free to modify and come up with more questions as preferred. Examples can be found below:

- Explore the knowledge and awareness of some terminology, such as the Reserve-Replacement Ratio (RRR)⁸.
- Highlight the energy market specificities, namely its importance and relevance in global markets, its inherent price volatility, its competition, and regulation. For example, Shell is an independent petroleum company. This might lead to questions on the differences between dependent and independent energy producer companies and their implications. The instructor could ask the difference between the West Texas Intermediate (WTI) and Brent Crude indexes, mentioned in Part I.
- Instructors should also induce students to think about aspects that can affect income and expenses, such as the quoted oil prices, R&D, refining, drilling, and exploration costs.
- The possible integration challenges of M&A energy deals. For instance, the risk of overpayment due to the inherent energy price volatility, the potential lack of regulation with

⁸Amount added to reserves divided by amount extracted. The definition can be consulted at <https://www.investopedia.com/terms/r/reserve-replacement-ratio.asp>

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the abrupt rise of renewables, and the possible different infrastructures and technology used in the parties' operations.

- The different existent energy sources in the market, their uses, and some characteristics that differentiate one from another. For example, for what do we use oil and for what do we use gas? What is the difference between “natural gas” and “liquefied natural gas” (LNG)?
- The current shifts in the energy mix of countries and long-term strategy changes, such as the 2022 Inflation Reduction Act in the US, or the 2020 European Green Deal.
- The role of the oil industry and how it has evolved over the past century, its historical context, economic importance, and the challenges to oil industry dominance.

Guide for The Case – Post-Case Part I Distribution

Now that Part I of the case has been distributed and students have had time to do a first reading session, the actual analysis will take place, starting with the deal pressures.

i. Pre-existent Industry pressures

It is relevant to identify pre-existent pressures both in terms of time horizon (short and long-term) and industry-level factors vs. firm-specific factors. With the help of a whiteboard, the instructor should start by collecting students' first insights and recording them visually on a matrix, with the short-term and long-term horizons acting as columns, and the industry and firms on the left acting as rows (Figure 7). The firm-specific pressures will be further discussed in section “*ii*.” It is also important to mention that this section presents points both for and against a merger in this sector. The goal is to discuss the topics presented below. The instructor should then start with the industry ones, by asking:

- Based on the information available in the case study, what could be the short-term pressures acting on the industry around the time of the deal announcement? And long-term ones?

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- If you were a US shale oil producer, would you step back to “protect” oil prices, or would continue to produce?

Students are expected to come up with the following (or similar) answers:

Short-Term Industry Pressures

- *Volatile Oil and Gas Prices:* At this time, oil prices were at a severe low. The industry was experiencing a historical oil price downturn (Figure 8). The fact that it was happening when the deal was being considered (from the announcement date until the date that the deal was closed) represented an important pressure for companies to consolidate and stabilize revenue streams. M&A deals are key in these situations as companies that do not hold strong financial positions tend to struggle to survive, eventually being acquired as a last resort.
- *Shale Boom Competition:* The rise of U.S. shale production largely caused by efficiency gains in shale technology, threatened the traditional dominance of big oil companies in global energy markets, increasing even more the competition between them. The big supply surplus made oil prices fall abruptly.
- *Demand-Supply Dynamics:* Immediate market oversupply causing lower prices forced companies to seek efficiency through mergers and cost synergies.

To go slightly beyond, the instructor can also ask students about the relationship between geopolitical tensions and deal activity, as political instability in oil-producing regions heightens the need for energy companies to diversify geographically.

Long-Term Industry Pressures

- *Energy Transition:* There was a growing global momentum toward decarbonization, and renewable energy sources were arising to challenge the traditional oil & gas business model.
- *Market Saturation:* Increasing competition from oil companies led to long-term consolidation trends.

Other relevant industry pressures that students can mention are:

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- *LNG Demand Growth*: Growth in LNG demand increased pressure to build stronger LNG portfolios. Being LNG obtained by a liquefaction process that converts natural gas into a liquid state, its volume is reduced by about 600 times compared to natural gas, facilitating its storage and transportation.
- *Climate Change Regulations*: International agreements like the 2015 Paris Accord pushed for innovation and cleaner energy investments.
- *Technology Disruption (and the consequent rise of renewables)*: The advances in renewable energy and energy storage posed a long-term existential challenge to fossil fuel reliance.

ii. Deal motives

This section allows for a wide range of topic discussions. Hence, it is expected that the instructor will allocate more time to this section. Some questions to be asked could be:

- Recalling and considering the previously mentioned industry pressures, what were the key motivations behind Shell's acquisition of BG Group?

The instructor could let students originate their first ideas on their minds while, at the same time, direct them by asking additional questions such as:

- How did this acquisition position Shell in the natural gas market compared to its competitors?
- Based on the case information and by looking at the maps (Figures 2-5), in what were Shell and BG strong? Do they have similar operations and geographic presence?

After these initial questions, the instructor should come back to the matrix initiated on the whiteboard and complete it as students' suggestions and ideas arise. After the brainstorming, the instructor should develop these motives from both parties' perspectives and fill in the firm-specific pressures into the matrix. The main motives are closely interconnected as they are rooted in both strategic and financial factors. These are developed as follows:

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From Shell's perspective: Increase diversification, conquer the market, and synergies

For Shell, the deal was a long-term strategic move to solidify its leadership in LNG and deepwater oil production—promising areas seen as crucial for Shell in its long-term transition to less carbon-intensive fuels. BG's substantial portfolio in both areas, especially its deepwater assets in offshore fields in Brazil and its LNG projects in Australia, were key in attracting Shell, as it would become the world's second-largest public oil and gas company by market value, only behind Exxon Mobil Corp and potentially also surpassing it by 2020 as well, according to Simmons and Company analysts (Bousso 2016b). Also, by integrating BG's operations, Shell would become the world's largest LNG firm, as would gain access to key growth markets such as Brazil, where BG had a strong foothold and reserves (Shubber 2015). Students may be assisted in arriving at such conclusions by looking at Figures 2 - 5, if presented by the instructor. Shell's future hydrocarbon production and, consequently, earnings and cash flows, depended largely on its ability to replace proved and oil reserves. The acquisition of a new company also implies the acquisition of all its assets, meaning that Shell would gain access to BG's reserves, something especially important, with Shell's recent poor performance of reserves replacement, measured by the RRR. The replacement of new reserves can either be done by finding new ones or acquiring existing ones, the latter being considerably much easier.

Regarding the dividend, there were different views from analysts. On the one hand, the acquisition could put a strain on Shell's financials as they were to redirect cash flows to pay down debt. On the other hand, the argument was that it would reduce Shell's risk and make it more efficient, providing protection (Shubber 2015). The instructor could take advantage here to ask students with what view from analysts they would support more and what was their line of thinking. Lastly, Shell estimated synergies stemming from cost reductions, operational overlaps, and asset optimizations (Table 1). Hence, the instructor is expected to provide the

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above information, and at the end, specifically indicate that these main motives from Shell's perspective are the following:

1) Diversification, which is one of the main reasons why mergers occur. By definition, a firm is diversified if it operates multiple divisions with imperfectly correlated cash flows. As already understood, BG was strong in LNG, while Shell was in oil extraction. The instructor, if perceived that students are into the energy sector, can also ask students about the relationship between crude oil and natural gas prices and what factors can affect them. Evidence suggests that Natural Gas prices and oil prices are linked in a long-run relationship and equilibrium, due to competition and substitution forces and that they have moved in tandem until 2008 (McHich 2018). Nevertheless, this relationship has been decoupled since 2008 due to several factors such as the shale revolution, innovation in technology, and investment in infrastructure. The more this linkage is dissociated, the more diversification effects a producer could get, as prices of natural gas and crude oil are less connected. In addition, it is relevant to know that while Natural Gas prices are affected by short-run shocks such as weather conditions, natural disasters (hurricanes), and storage dynamics, crude oil prices respond more to geopolitical events.

2) Market presence increase. Just as the Royal Dutch Petroleum Company and the "Shell" Transport and Trading Company Ltd, merged back in 1907 to compete against the American giant of Standard Oil and from Royal Dutch Shell plc ("Shell"), Shell decided to acquire a company with an important presence in the market to face competition.

3) Synergies realization. Synergies are also one of the main reasons of why mergers occur. By definition, they are the additional value as a result of a transaction, when the combined value of the new entity is greater than the sum of its individual parts. These can come from several sources: cost savings and revenue growth (referred to as "operational synergies"), and capital structure improvement (referred to as "financial synergies"). When explaining the concept of synergies, the instructor can also sketch on the whiteboard, showing other synergies sources

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with other examples. In the case of Shell, the instructor can pose the open question of whether students think that the identified and quantified cost synergies were “real synergies” or not. Real synergies are the ones that can only be obtained by way of a merger. Students could also point out that there could also be other synergies that were real ones, but that they have not been quantified. For example, the fact that Shell would share with BG its capabilities to extract their rich reserves (which is a much easier process than finding new ones) and give BG access to projects that could not have been possible by the British company otherwise. Cost synergies are the easiest to quantify, communicate, and convince the market, as they do not depend on uncontrollable external factors as it occurs in the case of revenue synergies. Leaving this point open for discussion regarding whether the identified and non-identified synergies of this deal are “real” or not, can be an interesting exercise to be made in the classroom.

From BG Group’s perspective: Shell as a savior and leverage for operations

For BG Group, the acquisition came at a time of vulnerability. The company had been hit hard by the fall in oil prices, which had dropped from over \$100 per barrel in mid-2014 to below \$40 by the time the deal closed in 2016 (Exhibit A). BG’s share price had suffered a significant decline, and the company was also dealing with \$9 billion asset write-downs and operational challenges. The acquisition by Shell was seen as a lifeline, providing BG shareholders with a substantial premium and a chance to exit amid challenging market conditions. The deal also ensured that BG’s significant LNG and deepwater assets would be developed by a company with “deeper pockets” and a stronger financial position. And Shell has been recognized for a long time for its financial strength, whose debt was excellently rated by Moody’s (AA), which is better than many sovereign countries (Shubber 2015). The fact that BG shareholders would, certainly, start to receive the “iconic dividend” from Shell, was another big plus from the transaction in favor of the BG Group. Once again, the instructor after the delivery of the suggested insights, should write the specific motives on the matrix, which are:

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- 1) BG's survival, as the company had a share price down 30% over the past year and facing operational challenges in a shaky market environment at the time, being acquired could have probably been its last resort versus shutting operations (Shubber 2015).
- 2) The acquisition by a strong financial player in the market. BG had struggled to show that it could develop its operations in Brazil and Australia, and with Shell acquiring it, this perception would come to an end, taking into account Shell's experience and dimension.
- 3) Better dividend compensation, as Shell was surely to pay \$1.88 on the 2016 financial year, and at least maintain it for the next one (BBC News 2015).
- 4) Synergies once again, as they are enjoyed by all shareholders of the new combination.

Following the presentation of the motives, this section also allows the instructor to introduce several M&A concepts and link them with the case. To do that, several questions can be posed:

- Could you think of any effect, derived from the attempt of diversification, that could impact negatively the merger and how could we perceive it? **(a)**
- Is this a vertical or horizontal merger? Discuss its purpose and benefits. **(b)**
- The estimated pre-tax synergies of this case were considerable. However, generally speaking, can a deal still make sense even though there are no synergies? Why? **(c)**

a. The downside: conglomerate discount

With the acquisition of BG, Shell was attempting to diversify its balance sheet and hence its operations and this was one of the main valuable motives for Shell to acquire BG, according to analysts. For diversification to add economic value, benefits that shareholders cannot obtain on their own must exist, recalling that by definition, a firm is diversified if it operates multiple divisions with imperfectly correlated cash flows. It is important to remember that Shell had been struggling with replacing its reserves, and it was much easier to acquire new reserves (from BG) than to find new ones. However, some sort of “conglomerate discount” could have occurred, in the sense that the market could have thought that Shell did not have the means and

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capacity to manage BG's assets and operations, hence, resulting in a lower value for the new combination, worthing less than the sum of the stand-alone value of the companies. The conglomerate discount effect is an economic concept in which the market values a diversified group of businesses and assets at less than the sum of its parts. Typically, it results in a 10% to 15% discount in valuation for the conglomerate ("Conglomerate Discount," n.d.). Nevertheless, there is a lot of debate about whether diversification causes this phenomenon, becoming unclear if the market punishes conglomerates through discounts.

b. Vertical vs. Horizontal Merger

Students are expected to identify that this is a case of a horizontal merger since it was an acquisition of a competing company in the same industry (often at the same stage of production or service delivery in which they expanded operations), but that did not engage in different operational processes. By contrast, a merger that is said "vertical", occurs when the merger refers to companies operating at different stages of the production process within the same industry, allowing them to maximize joint profits and increase output. The instructor can also mention that the type of merger also has implications on antitrust matters. While vertical mergers involve the integration of complements (not reducing competition *a priori*), horizontal mergers involve the combination of businesses that are either actual or potential competitors (resulting in at least some loss of rivalry) (Wong-Ervin 2018). Antitrust matters will be further developed.

c. Synergies: a plus or a must?

Although synergies are one of the main motives and driving force of why mergers occur which appear reflected in the premium paid, they are not a requisite. A deal can be valued with zero synergies and still provide benefits for the merger to happen. This can happen when the company that is merged does not share common operations with the buyer and runs its

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operations independently from it after the deal, not getting consequently any synergy potential as a result of the merger. Obtaining a synergy means a situation in which both parties benefit as a result of the share of their forces and fragilities, and whose benefits could not have been obtained on their own. The deal between Heinz (target) and 3G Capital and Berkshire Hathaway (buyers) initiated in 2013, is an example of a deal with zero synergies.

iii. A Merger also depends on mathematics: the valuation

After the qualitative aspects of the deal are explored, it is time to introduce the part that moves the world around, mathematics. Some questions on this subject:

- What valuation methods do you think are appropriate for analyzing this deal? **(a)**
- What are the potential synergies that Shell anticipates from the deal? (Qualitatively) **(b)**

a. Valuation Methods

For reasons of in-class time constraints, preference was given to simplicity and substance over complicated and overly complex assumptions, in valuing the deal. It is useful to briefly review the choice for the discounted cash flow analysis (DCF analysis) and the comparable peers' analysis. The DCF analysis discounts future cash flow streams at the weighted average cost of capital (WACC) and is "especially useful when applied to a multi-business company" (Koller, Goedhart, Wessels 2015, p.139). "WACC-based valuation models work best when a company maintains a relatively stable debt-to-value ratio" (Koller, Goedhart, Wessels 2015, p.137), which was the case of BG Group (D/EV ranged between 27% and 38% between 2010 and 2014). Besides, despite its less diversified operations comparatively to Shell, BG Group operated in different business segments within the oil and gas industry, with a special focus on Upstream and LNG Shipping and Marketing (BG Group 2015).

The DCF analysis is a form of intrinsic valuation, which means it "is independent of the market, so the current trading price should be neglected and not impact the ending valuation". Despite

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the flaws in market pricing, it is important to also take an opposite perspective to the self-sufficient DCF approach, to grasp some of the market sentiment at the time and to create a more holistic view of a firm's true value. Therefore, the employment of a form of relative valuation was made useful, and the market approach was also considered, through comparable peers' analysis. This comparable analysis was done with 16 industry peers, and based on commonly used metrics in relative valuations, namely Enterprise Value/EBITDA (EV/EBITDA), Price/Earnings (P/E), and Price/Book Value (Price/Book).

Discounted cash flow (DCF) analysis

Valuing BG Group

The DCF analysis (Table 2) was divided into two steps. The first step was the valuation of BG Group by itself, not yet considering the predicted effects (synergies) from the combination with Shell. The necessary assumptions for this valuation were based on market research and data from previous annual reports of both firms and from Shell's specific documents concerning the deal. The firm's financial statements are attached in the Appendix (Tables 3 – 8). The assumptions made were the following:

1. As expenses as a percentage of revenues are relatively constant for the five precedent years (never more than five percentage points), we applied the growth rate directly to the EBIT for simplification purposes;
2. The assumed growth rate for the EBIT was 3%, deduced from the average of 2-4% annual growth, in line with the average GDP growth rate, considering 2-3% inflation; (Vipond 2023) (Royal Dutch Shell plc 2014);
3. As aforementioned, the DCF is a WACC-based valuation model that works "best when a company maintains a relatively stable debt-to-value ratio" (Koller, Goedhart, Wessels, 2015, p.137) (Tables 9-12). Since there is not much variance in the levels of the debt-to-

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value ratio for the five precedent years, the capital structure was kept constant at the average value of the ratio from 2010 to 2014;

4. The cost of debt was calculated as: $rd = Rate + Spread$, with *Rate* as the 10-year US market interest rate, represented by USD Swap 10-years as of April 2015 (Financial Times 2024), and *Spread*, as a measure of the risk of BG Group's credit financing based on the CDS US 10-years (credit default swap) for ConocoPhillips, which had the same credit rating of BG Group at the time (Urmal 2017);
5. The cost of equity was obtained using the CAPM formula: $re = rf + \beta L(E(rm) + rf)$, in which: rf is the 10-year US Treasury yield as of April 2015 (St. Louis FRED 2024), rm is the market risk premium, based on the total equity risk premium for the UK (since BG is a British company) as of July 2015 (Damodaran 2014), and βL is the levered Beta, obtained as the raw beta for a 5-year linear regression analysis with monthly data (Bloomberg 2024).
6. The taxes from 2015 onward were assumed to be the average of the effective tax rate of BG Group from 2011 to 2014; (S&P Capital IQ Pro 2024).
7. Capital Expenditures (CAPEX) were taken directly from the cash flow statement. For valuation purposes, we have assumed a reduction of CAPEX between 2015 to 2020. A reduction of 30% in capital expenditures in 2015, in relation to 2014, was assumed, and this reduction would progressively decrease each year. The reasons for that were two: first, the high levels of capital expenditure at the time, mainly due to projects acquired in Brazil and Australia, were unsustainable; secondly, these same projects, namely the Queensland Curtis Liquefied Natural Gas (QCLNG) facility, would be completed, further reducing capital expenditure ("BG Group expects capital expenditure on a cash basis in 2015 to be significantly lower than 2014, as projects complete and the Group reacts to a lower oil price environment by setting a higher hurdle rate for investment") (BG Group 2014).

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8. The change in Net Working Capital (NWC) was deduced from the difference between the change in current assets and the change in current liabilities from the balance sheet.
9. For forecasting current assets and current liabilities, the forecasted revenues for 2015 onwards were multiplied by the average ratio of current assets/current liabilities to revenues from 2011 to 2014.
10. Total assets from 2015 onward were assumed to be the average ratio of total assets to revenue from 2011 to 2014 multiplied by the forecasted revenue.
11. Depreciation from 2015 onward was assumed to be the average ratio of depreciation to total assets from 2011 to 2014 multiplied by the forecasted value of total assets.
12. To determine the terminal value, a perpetuity was assumed after 2020, with the aforementioned growth rate of 3%.

Given these assumptions, BG's Enterprise Value (the minimum offer price) is obtained in this first step. The second step is the quantification of the synergies resulting from the acquisition.

b. Valuing Synergies

Shell initially estimated “pre-tax synergies to reach \$2.5 billion per annum in 2018, comprising \$1 billion of operating cost savings and a \$1.5 billion reduction in exploration expenditure” (Royal Dutch Shell plc 2015a). “The implementation of the operating cost savings would also give rise to one-off costs of approximately \$980 million incurred in the first three years post-completion to the end of 2018, of which approximately 65% would be incurred in 2016 and 30% in 2017.” (Royal Dutch Shell plc 2015a) However, “Shell was also confident of realizing additional synergies that could not be quantified for reporting under the City Code” (Royal Dutch Shell plc 2015a) at the time. Thus, by the end of 2015, Shell was able to increase its earlier estimates for pre-tax synergies by 40%, from \$2.5 billion to \$3.5 billion in 2018. According to the Dutch firm, “this increase was attributable to a doubling of expected operating cost savings from \$1 billion to \$2 billion and underscored the attractiveness of the

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recommended combination for both sets of shareholders” (Royal Dutch Shell plc 2015b). Therefore, the revised expected level of pre-tax synergies comprised \$2 billion of operating cost savings and a \$1.5 billion reduction in exploration expenditure by 2018. Shell directors expected these synergies to be delivered progressively, with 50% achieved by the end of 2016, 80% by the end of 2017, and the full amount in 2018. Additionally, the one-off costs as a result of the implementation of the operating cost savings would be “approximately \$1,230 million, to be incurred in the first two years post completion to the end of 2017, of which approximately 70% would be incurred in 2016 and 30% in 2017” (Royal Dutch Shell plc 2015b).

The basis of belief for Shell’s estimates of synergies can be broken down into three components for further understanding of the concept of synergies (Table 1):

“Corporate, administrative, organizational and IT operational efficiencies: \$1,400 million from the de-duplication of overlapping back office and business support functions, the elimination of overlapping support costs, office consolidation, the migration of BG onto Shell IT systems, and removal of duplicative corporate costs.

Efficiencies in procurement spend (\$520 million), and marketing and shipping costs (\$50 million): \$570 million from economies of scale, specification, standardization, and operating efficiencies across operating, capital, and raw material cost areas and optimization of shipping and marketing.

Reduction in exploration expenditure: \$1.5 billion from the reduction in exploration expenditure enabled by high-grading and optimization of the combined exploration portfolio”. (Royal Dutch Shell plc 2015b). Thus, the value of synergies is obtained by subtracting taxes (tax rate equal to the weighted average of the tax rates of each firm based on their market caps) from the pre-tax cash flows from the synergies and the one-off costs and then discounting these values by the weighted average of the unlevered cost of equity based on the firms’ market caps. Finally, by adding the values obtained by the first and second steps, EV and synergies, respectively, the

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maximum price for an offer to acquire BG Group is obtained. With the value obtained, the maximum premium to be paid would be 89.03%, substantially larger than the 52% paid to BG.

Comparable peers' analysis

With the comparable peers' analysis (much simpler than the DCF analysis), it is also interesting to identify possible mismatches between market perception and firm fundamentals. The analysis was performed for three financial ratios, namely EV/EBITDA, P/E, and P/Book. Based on EV/EBITDA and P/Book, BG Group was overvalued, even if slightly, based both on the median and the average of peers' values. The opposite is true when P/E is taken as the basis of comparison. By adjusting to size and narrowing our comparison to the four peers with the closest EVs/Market caps, the results of such analysis better match the results from the DCF. Notably, now both P/E and P/Book show BG Group as undervalued, while EV/EBITDA still shows the firm as slightly overvalued. To conclude, the valuation section of the class instructors may question students over why BG Group may have had a relatively high EV/EBITDA and a relatively low P/E. The answer to that question is that the amount of debt may cause this disconnection between the two ratios, since more long-term debt increases EV, while it may also decrease the price of shares, if deemed to be unsustainable by analysts, thus reflecting a heightened risk of investing in the company.

End of Part I

Students should now form groups of 3 to 4 people and perform their valuation of the deal with the information obtained in the case, along with the topics discussed in Part I.

Valuation is to be performed in between sessions.

◇ Session 2 ◇

Session 2 begins with a discussion of the valuation and fair acquisition price obtained by students between sessions 1 and 2. The instructor should resort to the above section “*iii.*” to

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discuss specific points of tension/disagreement/errors in the students' presented valuation that they have observed. The valuation discussion should be followed by a first impression discussion on their thoughts on whether to acquire the BG Group. The instructor should ask students the question of whether to vote "Yes" or "No" in a non-binding manner at this stage.

Guide for The Case – Post-Case Part II Distribution

Now, Part II of the case works in detail through the final conditions of the deal presented to the Shareholders of both companies for approval. This is the stage at which they will have to decide to cast their final vote for or against, now in a binding manner. However, there was a major setback shortly before the Shell shareholder's meeting: oil prices have been falling since mid-2014 with the Brent barrel of oil trading at less than \$35 on January 2016. The strategic rationale of the business was challenged by a few analysts, but the further fall in the oil price raised shareholders' concerns over Shell's debt burden, considering the premium being offered.

Deal structure: Final Offer Terms

First, it is important that the instructor deep dives into the deal structure and its implications, explaining them in greater detail than in the case study. Some appropriate questions would be:

- How was the deal structured (e.g., cash vs. stock)? **(a)**
- What does the premium reflect? Was the premium paid for BG Group justified, given the market conditions at the time? If not, would you think of any reason for such premium? **(b)**

a. Compensation Structure

The acquisition of BG Group by Royal Dutch Shell was structured as a cash-and-stock (or cash-and-share) deal, where the payment to BG Group Shareholders would come as a combination of cash and Shell B shares. More specifically, shareholders would receive 3.83 pounds in cash and 0.4454 Shell B shares for each BG share held. Based on the 90-trading day volume weighted average price of Shell B shares and BG shares, the deal would be valued at around

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\$70 billion on the announcement day, 7th of April 2015, which implied a significant premium, of approximately 52%. As a multinational firm, incorporated in England and Wales and tax-resident in the Netherlands, Shell segmented its stock for tax purposes. And, as an alternative to receiving the equity component of the offer in the form of Shell B Shares, BG Shareholders would be able to instead opt to receive Shell A Shares at the same exchange ratio. Through A shares, dividends paid had a Dutch source for tax purposes and were subject to Dutch withholding tax, while for B shares, dividends paid were treated as UK-sourced for tax purposes.

b. Premium

The high premium of the deal, of approximately 52%, was meant to encourage shareholders of the target company to approve the sale, compensating them for the opportunity cost of holding their shares versus selling. For reference, in a Bloomberg interview with Shell's CEO, on the 8th of April 2015, the average premium of the industry for deals over \$10 billion was 40% (Bloomberg Originals 2015). The premium reflected Shell's strong commitment to acquiring BG's valuable LNG assets and deepwater oil capabilities. Though this level of premium was substantial, it wasn't entirely uncommon for major deals where strategic alignment and asset complementarity were strong (Vignaroli 2023). Moreover, high premiums are often justified by synergies expected from the merger—cost savings, operational efficiencies, or growth potential—which Shell expected through expanded LNG capabilities and greater access to high-quality resources.

The persistent oil price downturn

Once their results are presented, the instructor should now position students further in time, at the time of the General Meeting of Shell shareholders, which took place on the 27th of January 2016. The instructor could project on the whiteboard the graph showing the price of crude oil at the time (Exhibit A). The reasonable question to be asked now to students should be:

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- Would you support that the assumption of a recovery in oil prices to 90\$/bbl by 2020 is a probable statement?

◁ Session 3 ▷

Once students are more aware of the implications of the deal, regarding the further decrease and uncertainty of the oil price recovery, coupled with the systematic overconfidence that Shell's CEO placed in the deal since the beginning, the instructor should challenge now the groups of students that answered "Yes" to defend whether they would still maintain their decision.

EPILOGUE

On 15th of February 2016, Shell completed its acquisition of BG Group, cementing its position as a global leader in LNG and deepwater oil exploration. However, the time passed has shown that volatile oil prices and growing momentum for green energy added complexity to the strategic fit of the deal. The merger brought significant synergies but also highlighted the challenges of strategic decision-making in a rapidly changing industry. While Shell achieved short-term financial gains and operational efficiencies, critics argued that the high premium and continued reliance on fossil fuels delayed its transition to a more sustainable energy portfolio. This is a story on corporate resilience, the risks of overconfidence in volatile industries, and the long-term impact of M&A on strategic positioning in a dynamic global market.

Compensation outline and effect over shareholders' power distribution

Mix & Match Facility

Besides the implied premium in the acquisition offer, Shell's willingness to close the deal was also expressed through the facilitations concerning compensation for BG's shareholders. In addition to the A-share alternative for the equity component of the offer, Shell also offered a Mix & Match facility, a mechanism to enhance the flexibility and attractiveness of terms for the shareholders of an acquired firm. Under this facility, BG Shareholders would be able to choose to vary the proportions of newly issued Shell shares and cash relative to their holdings of BG Shares. However, the total number of new shares issued and the maximum amount of cash to be paid under the terms of the combination would remain unchanged. Thus, "elections made by BG Shareholders under the Mix & Match Facility would be satisfied only to the extent that other BG Shareholders make off-setting elections" (Royal Dutch Shell plc 2015a). In other words, BG shareholders could adjust how much cash or Shell equity they would like to receive for their BG Group's holdings, as long as other BG shareholders counter-balanced their demands, thus providing more flexibility, though to a limited extent.

Thus, BG shareholders who did not elect any changes under the Mix & Match facility would not be affected. Not only that, but shareholders who took advantage of the facility would not know the exact number of newly issued shares nor the amount of cash they would receive until an announcement made prior to the settlement stated the approximate extent to which elections under the Mix & Match Facility would be satisfied. As a result, the increased appeal for BG Group's shareholders this facility allowed for was based on clearly limited flexibility, since the total number of new shares issued and the maximum amount of cash to be paid under the terms of the combination would not be affected by the Mix & Match facility. This "limit" to flexibility was indicative that Shell was not willing to settle the deal at all costs, and highlighted Shell's commitment to minimizing dilution while managing cash outflows. This was extremely

important not only to keep Shell shareholders on board with the deal, but also to protect the firm's dividend. This safeguarding of dividend policy was further underscored through the planned asset sales of \$30 billion between 2016 to 2018, and Shell's priorities post-deal completion, namely, to reduce debt ("Shell plans to pay down debt from 2016 in order to maintain a strong balance sheet and credit rating to underpin its business model"), streamline dividends ("Shell expects to withdraw the Shell Scrip Dividend Programme in 2017") and buyback shares coupled with capital investment ("Shell expects to (...) undertake a share buyback programme of at least \$25 billion in the period 2017 to 2020. Shell expects this buyback programme to offset the shares issued under the Shell Scrip Dividend Programme, and to significantly reduce the equity issued in connection with the Combination") (Royal Dutch Shell plc 2015b).

Cash vs Stock-Based Compensation: A Comparative Analysis

With this section, it is important that students fully understand and be able to elaborate on the financial and strategic motivations for both the acquirer and the target company when structuring compensation in a deal. In acquisitions, the consideration paid to sellers is a decisive factor given its influence on risk bearing, taxation, and control of the business. How the deal is paid determines the roles of both parties in the deal. In a cash deal, the roles are clearer, as the exchange of money for shares completes a simple transfer of ownership. Since the seller (i.e., target shareholders) is left with no stakes in the business, acquiring shareholders take on the entire risk that the expected synergy value embedded in the acquisition premium will not materialize. On the other hand, in a stock deal, both the added value and the risks are shared with selling shareholders, with the synergy risk being shared in proportion to the percentage of the combined company the acquiring and selling shareholders each will own. In the context of the Shell-BG deal, the cash component of the proposed consideration would provide immediate liquidity for BG shareholders, but also limit the exposure to Shell's future upside and synergy

realization. In contrast, the equity component would allow for long-term participation in Shell's future growth, a potential deferral of tax liabilities and a stake in the merged entity. Additionally, by having its own shares as part payment in its consideration, Shell managed to hedge, to some extent, against the risk of overpaying for the deal for two reasons: firstly, because it is usual in acquisitions that shares from the buyer should decrease in value (reflecting the risk of overpaying) and shares from the target should increase in value (reflecting shareholders wanting to cash in under the proposed consideration), and, secondly, because the falling oil price was reflected in the value of the deal, which dropped to \$52 billion by the time the deal received its last approval, from BG shareholders in the 28th of January 2016. Bearing in mind that BG shareholders largely opted to receive shares rather than cash under the proposed Mix & Match deal (Bousso 2016b), it is interesting to explore in class why stock-based compensation was particularly attractive for BG shareholders. Some of the factors which made this form of compensation more appealing than cash were:

1. BG's Financial Vulnerability

The steep decline in oil prices at the time of the acquisition posed significant challenges to BG Group, and the firm was under pressure on different fronts: from revenue decline, asset write-downs (asset impairments and operational challenges due to the reduced profitability of its projects, particularly in exploration and production) to its declining share price, which eventually made it vulnerable as a target to acquisition (BG Group 2014) (BG Group 2015). In this context, stock-based compensation offered BG shareholders who believed in the firm's projects, even if it "bit more than it could chew" (Shubber 2015), a chance to maintain their Commitment to BG's strategy, with the added belief that the support of Shell, a much larger and more financially stable entity, would allow that strategy to come through.

2. Participation in Shell's Future Growth - Strategic Long-Term Thinking

Not only would BG shareholders who believed in BG's strategy be able to maintain their Commitment to the firm by accepting shares in Shell, but in doing so, they also effectively traded their exposure to a mid-sized oil company's troubled financial situation for a stake in a stronger, more diversified firm - one of the world's largest integrated energy companies with a larger market presence and better financial health. In effect, from a strategic standpoint, stock-based compensation indicated confidence in Shell's ability to execute its long-term plan post-merger. In taking part in the combined firm, BG shareholders would be poised to benefit from the approximately \$3.5 billion in synergies Shell projected by 2018, which were expected to drive further long-term growth. They would also be allowed to leverage Shell's dividend, which had a long-standing reputation for its consistency. Furthermore, in terms of risk, Shell, as one of the largest global oil companies, had a more diversified portfolio of assets and operations, reducing the risk exposure of BG shareholders to concentration in fewer business segments.

3. Deferred Taxation Benefits

For some shareholders, particularly institutional and long-term investors, opting for stock-based compensation also provided the added benefit of deferring capital gains taxes until they sold the shares, instead of receiving an immediately taxable cash compensation (Rappaport and Sirower 1999).

Ownership changes and implications on power distribution

The final deal composition was \$19,036 million in cash, 218.7 million A shares, and 1,305.1 million B shares. Shell financed the deal through both equity and debt (Royal Dutch Shell plc 2016). For the equity portion, BG shareholders received newly issued Shell shares, providing them with partial ownership of the combined entity: more precisely, a 19.2 % stake (ra15b). In addition to equity, Shell raised a substantial amount of debt to support cash payments to BG shareholders (Bouso 2016a). This financing mix was intended to give Shell flexibility in

meeting the acquisition cost while aiming to preserve its credit rating, although the addition of new debt raised Shell's gearing ratio and temporarily affected its balance sheet. The issuance of new shares implied some level of share dilution, which had effects on shareholder power. However, as previously mentioned in the Mix & Match Facility section, Shell was committed to "minimizing dilution while managing cash outflows" (Royal Dutch Shell plc 2015b). It is relevant to propose a discussion of the effects of the combination on shareholder power. In other words, how BG shareholders, by accepting stock, retained influence in the post-merger entity, and how Shell shareholders may have lost influence through dilution:

- **BG Shareholders.** BG shareholders gained a stake in Shell and thus influence over the post-merger governance structure and Shell's future strategy. The instructor could discuss whether BG Group was overrepresented in the new entity, based on the market cap and enterprise values of both companies (Table 13), and what that would entail. As a consequence of greater involvement in Shell business, BG Group's shareholder's had exposure to Shell's broader operations in oil, gas, and renewables projects. The instructor could stimulate reflection over whether this meant being more exposed (in the long term) to risks inherent in traditional oil operations especially amid fluctuating oil prices, or if Shell's diversified portfolio and sizeable market share counter-balanced that.
- **Shell Shareholders.** Students can be asked about what the most important commitment from Shell to its shareholders was, in order to counterbalance their loss of control over the firm. In addition, the instructor could highlight (if not already done) how Shell shareholders faced dilution but also stood to benefit from the increased LNG capacity and other synergies from the combined businesses (thus, increasing share price), and how the firm made efforts to carefully manage cash flow to meet their commitments with their policy of high dividend distribution (central to its appeal to investors).

By the end of this discussion, students should be able to better understand the financial and strategic motivations for both Shell, as the acquirer, and BG Group, as the target firm, when structuring compensation in a deal, and extrapolate the results from their analysis to deals within the Oil & Gas industry at large. Some of the questions instructors can make use of to guide students are the following:

- What are the implications of this deal compensation structure for both companies' shareholders? What are the implications of the fact that shares are widely owned by individual investors?
- Why was safeguarding the dividend policy such an important aspect of securing by Shell?
- Why did BG shareholders largely opt for shares over cash under the Mix & Match facility? How did this influence the distribution of power between Shell and BG shareholders?

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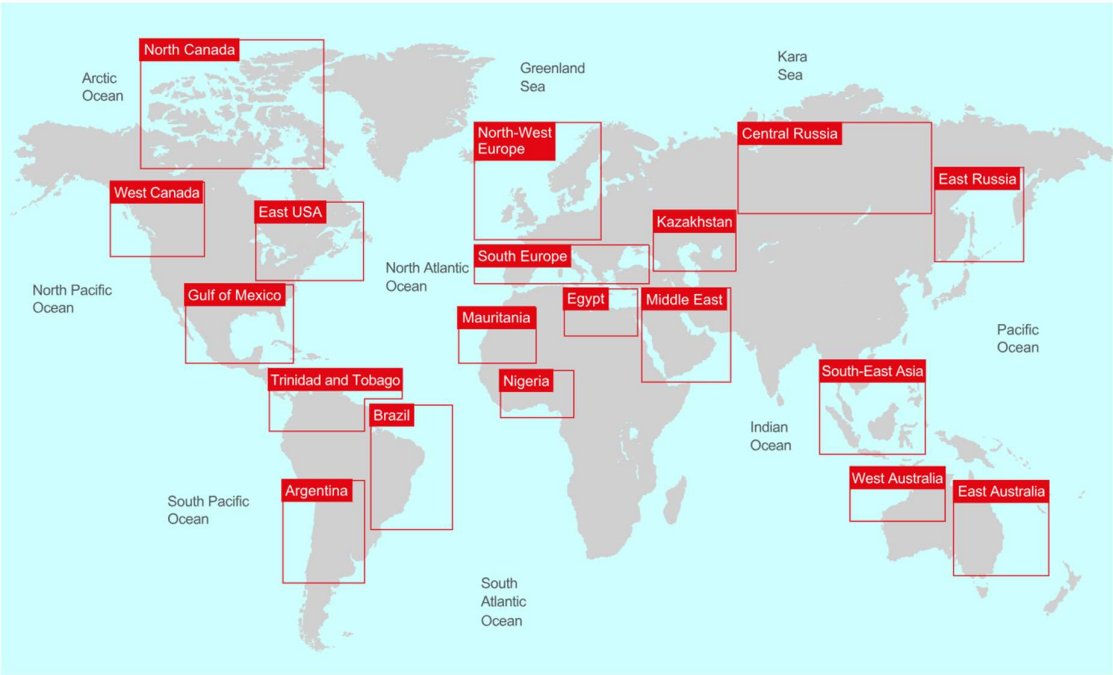
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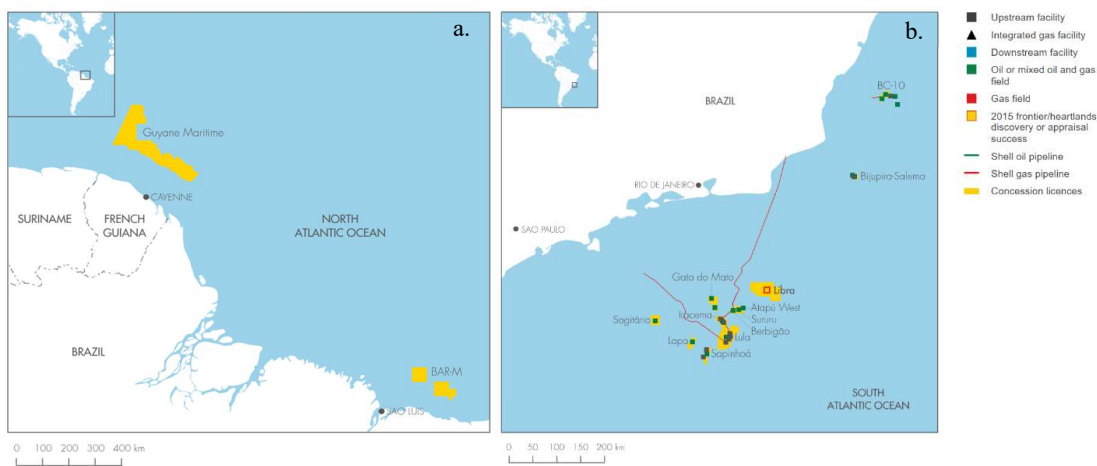
APPENDIX

Figure 1. Shell’s presence and activities globally



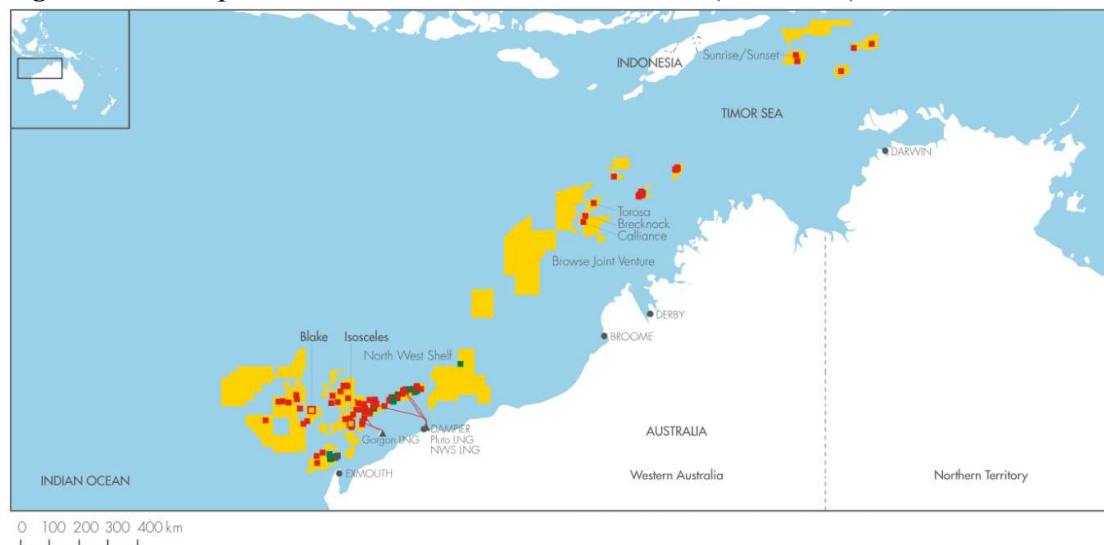
Source: Maps Shell Investor’s Handbook 2015-2019

Figure 2a and 2b. Shell’s presence and activities in Brazil (zoomed-in)



Source: Maps Shell Investor’s Handbook 2015-2019

Figure 3. Shell's presence and activities in West Australia (zoomed-in)

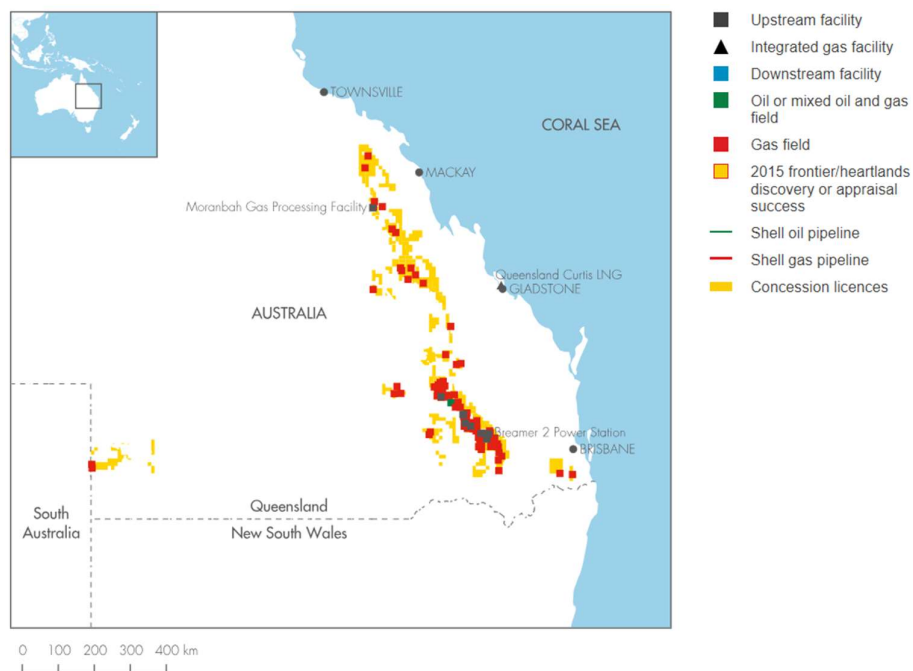


[View on the interactive world map](#)

- | | | |
|---------------------------|---|-----------------------|
| ■ Upstream facility | ■ Oil or mixed oil and gas field | — Shell oil pipeline |
| ▲ Integrated gas facility | ■ Gas field | — Shell gas pipeline |
| ■ Downstream facility | ■ 2015 frontier/heartlands discovery or appraisal success | ■ Concession licences |

Source: Maps Shell Investor's Handbook 2015-2019

Figure 4. Shell's presence and activities in East Australia (zoomed-in)



Source: Maps Shell Investor's Handbook 2015-2019

Figure 5a and 5b. BG Group's global production by business segment in 2014, in thousand barrels of oil equivalent (kboed)

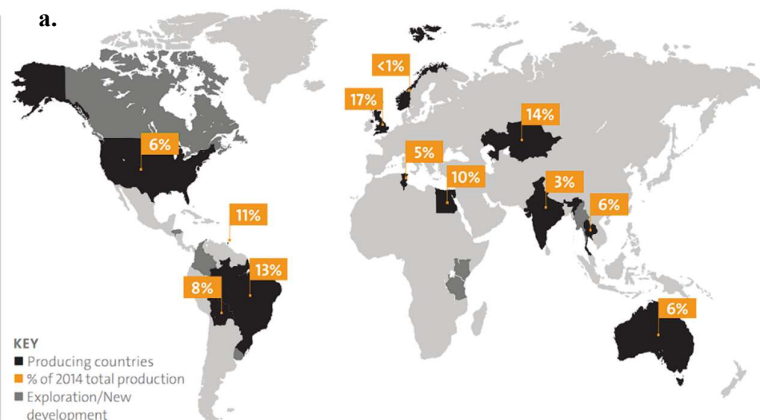
UPSTREAM

PRODUCTION BY COUNTRY (kboed)

	2013	2014
UK	100	105
Kazakhstan	92	85
Brazil	39	78
Trinidad and Tobago	70	65
Egypt	112	62
Bolivia	36	48
USA	58	39
Thailand	41	39
Australia	25	34
Tunisia	38	32
India	20	18
Norway	2	1

EXPLORATION AND NEW DEVELOPMENT LOCATIONS

Aruba, Canada, Colombia, Honduras, Kenya, Myanmar, Tanzania and Uruguay.



Source: BG Group | Annual Report and Accounts 2014

LNG SUPPLY SOURCES AND DESTINATIONS 2014

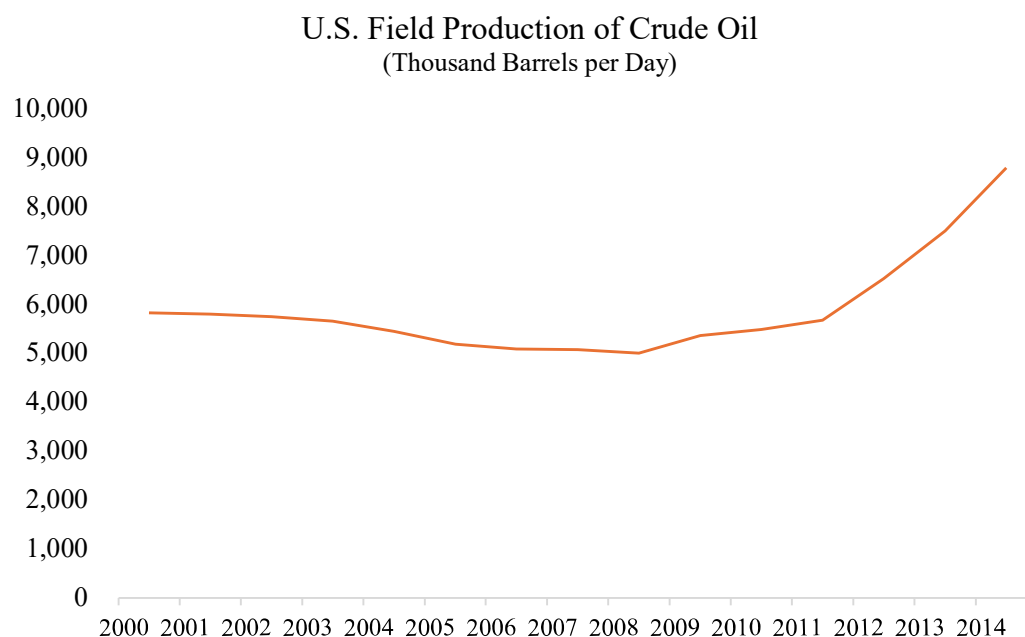
SOURCE	2013	2014
Trinidad and Tobago	56	56
Egypt	25	1
Nigeria	30	38
Equatorial Guinea	58	55
Spot purchases	9	28
Total	178	178

DESTINATION	2013	2014
Asia	127	121
Europe	2	6
Central America	1	2
North America	6	4
South America	41	44
Middle East	1	1
Total	178	178



Source: BG Group | Annual Report and Accounts 2014

Figure 6. Production of U.S Field Production



Source: Eia.gov

Table 1. Deal Synergies breakdown and one-off costs

	2016 FY	2017 FY	2018 FY	2019 FY	2020 FY
Corporate, administrative, organisational and IT operational efficiencies	1,400	1,400	1,400	1,400	1,400
Efficiencies in procurement spend	520	520	520	520	520
Marketing and shipping costs	50	50	50	50	50
Reduction in exploration expenditure	1,500	1,500	1,500	1,500	1,500
One-off costs	-861	-369			
Pre-tax synergies	874	2,407	3,470	3,470	3,470
Taxes	78	214	308	308	308
After-tax synergies	796	2,193	3,162	3,162	3,162

Source: 8 Apr 2015 - Recommended Cash and Share Offer Announcement

Figure 7. Short-Term and Long-Term Firm and Industry specific pressures

	Short-Term	Long-Term
Firm specific for Shell	- Synergies' achievement - Market share increase achievement	- LNG exposure increase - Business focus and simplicity
Firm specific for BG	- Synergies' achievement - Higher dividend payment achievement	- Company survival - Being acquired by a strong financial player - Improved reserves exploitation
Industry specific	- Volatile Oil and Gas Prices (necessity to stabilize revenues) - Boom in Shale oil from the U.S. (supply surplus)	- Energy transition demands - Market saturation - LNG demand growth - Climate change and new regulations (2015 Paris Agreement) - Technology disruption

Source: own elaboration

Figure 8. Historical evolution of Brent crude oil prices



Source: U.S. Energy Information Administration (EIA) 2024

Table 2. DCF Valuation

(\$000)	2011	2012	2013	2014	1 2015E	2 2016E	3 2017E	4 2018E	5 2019E	6 2020E
WACC	6.85%	6.94%	6.74%	6.43%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%
Terminal Growth Rate	3%									
EBIT	7,035	7,760	6,939	5,872	6,048	6,230	6,416	6,609	6,807	7,011
Taxes (*EBIT)	3,025	3,725	2,984	3,230	2,858	2,943	3,032	3,123	3,216	3,313
NOPLAT	4,010	4,035	3,955	2,642	3,190	3,286	3,385	3,486	3,591	3,699
Depreciation and amortisation	2,115	2,510	2,954	2,799	2,745	2,827	2,912	2,999	3,089	3,182
OCF	6,125	6,545	6,909	5,441	5,935	6,113	6,297	6,486	6,680	6,881
CAPEX	(10,300)	(9,974)	(10,605)	(8,510)	(5,957)	(4,766)	(4,051)	(3,646)	(3,463)	(3,377)
Δ Current Assets	2,269	(326)	1,995	(125)	(55)	418	431	444	457	471
Δ Current Liabilities	194	(861)	(89)	(277)	1,119	272	280	289	298	306
Δ NWC	2,075	535	2,084	152	(1,174)	146	151	155	160	165
ICF	(12,375)	(10,509)	(12,689)	(8,662)	(4,783)	(4,912)	(4,201)	(3,801)	(3,623)	(3,541)
FCF	(6,250)	(3,964)	(5,780)	(3,221)	1,152	1,202	2,095	2,685	3,057	3,339
Discounted FCF (WACC)					1,078	1,052	1,717	2,059	2,194	2,242
Sum of DFCF	7,022									
Terminal Value	59,803									
Enterprise Value	66,825									

Table 3. Shell Income Statement

<i>Shell plc Income Statement</i>	<i>2011 FY</i>	<i>2012 FY</i>	<i>2013 FY</i>	<i>2014 FY</i>
(\$000)				
Revenue				
Upstream	42,260	43,431	47,357	45,240
Downstream	427,864	423,638	403,725	375,752
Corporate	47	84	153	113
Total Revenue	470,171	467,153	451,235	421,105
Cost Of Goods Sold	396,597	395,940	381,585	357,316
Gross Profit	73,574	71,213	69,650	63,789
Selling General & Admin Expenses	14,359	14,465	14,675	13,965
Exploration/Drilling Expenses	2,266	3,104	5,278	2,343
R&D Expenses	1,123	1,307	1,318	1,222
Depreciation & Amortization	11,745	13,518	16,099	17,867
Impairments of Oil, Gas & Mineral Prop.	317	940	4,511	5,366
Total Other Operating Expenses	29,810	33,334	41,881	40,763
EBIT	43,764	37,879	27,769	23,026
Interest Expense	(1,373)	(1,757)	(1,642)	(1,804)
Interest and Investment Income	1,039	1,013	809	1,094
Net Interest Expenses	(334)	(744)	(833)	(710)
Income from Affiliates	8,737	8,948	7,275	6,116
Currency Exchange Gains (Losses)	63	194	(184)	(195)
Other Non-Operating Income	(6)	164	82	12
EBT Excluding Unusual Items	52,224	46,441	34,109	28,249
Gain (Loss) On Sale Of Assets	4,485	4,228	382	3,212
Asset Writedown	(1,166)	(157)	(899)	(3,147)
EBT Including Unusual Items	55,543	50,512	33,592	28,314
Effective Tax Rate (%)	44	47	51	48
Income Tax Expense	24,450	23,552	17,066	13,584
Net Income to Company	31,093	26,960	16,526	14,730
Minority Interests in Earnings	(267)	(248)	(155)	144
Net Income	31,093	26,960	16,526	14,730

Source: S&P Capital IQ - Standard 2024

Table 4. Shell Balance Sheet

<i>Shell plc Balance Sheet</i>	<i>2010 FY</i>	<i>2011 FY</i>	<i>2012 FY</i>	<i>2013 FY</i>	<i>2014 FY</i>
(\$000)					
Current Assets					
Cash and Cash Equivalents	13,444	11,292	18,550	9,696	21,607
Trade and Other Receivables	70,102	79,509	65,403	63,638	58,470
Inventories	29,348	28,976	30,781	30,009	19,701
Total Current Assets	112,894	119,777	114,734	103,343	99,778
Noncurrent Assets					
Property, Plant and Equipment	142,705	152,081	172,293	191,897	192,472
Joint Venture Associates	NA	37,990	38,350	34,613	31,558
Investment in Securities	3,809	5,492	4,867	4,715	4,115
Equity Accounted Investments	33,414	NA	NA	NA	NA
Deferred Taxation	5,361	4,943	4,288	5,785	8,131
Intangible Assets	5,039	4,521	4,470	4,394	7,076
Trade and Other Receivables	8,970	9,256	8,991	9,191	8,304
Retirement Benefits	10,368	3,414	2,301	3,574	1,682
Total Assets	322,560	337,474	350,294	357,512	353,116
Current Liabilities					
Trade and Other Payables	76,550	81,846	72,839	70,112	64,864
Retirement Benefit Obligations	377	387	402	382	377
Debts	9,951	6,712	7,833	8,344	7,208
Income Taxes Payable	10,306	10,606	12,684	11,173	9,797
Decommissioning and Other Provisions	3,368	3,108	3,221	3,247	3,966
Total Current Liabilities	100,552	102,659	96,979	93,258	86,212
Noncurrent Liabilities					
Long-term Debt	34,381	30,463	29,921	36,218	38,332
Retirement Benefit Obligations	5,924	13,738	15,290	11,182	16,318
Deferred Taxation	13,388	10,096	10,312	11,943	12,052
Minority Interest	1,767	1,486	1,433	1,101	820
Trade and Other Payables	4,250	4,921	4,175	4,065	3,582
Decommissioning and Other Provisions	14,285	15,631	17,435	19,698	23,834
Shareholders' Equity					
Common Stock - Par Value	529	536	542	542	540
Retained Earnings	140,179	162,895	180,246	183,474	186,981
Other Reserves	10,094	(1,961)	(3,752)	(2,037)	(14,365)
Shares Held in Trust	(2,789)	(2,990)	(2,287)	(1,932)	(1,190)
Total Shareholders Equity	148,013	158,480	174,749	180,047	171,966
Total Liabilities & Shareholders Equity	322,560	337,474	350,294	357,512	353,116

Source: S&P Capital IQ – Standard 2024

Table 5. Shell Cash Flow Statement

<i>Shell plc Cash Flow Statement</i>	<i>2010 FY</i>	<i>2011 FY</i>	<i>2012 FY</i>	<i>2013 FY</i>	<i>2014 FY</i>
(\$000)					
Operating Activities					
Net Income - CF	20,127	30,826	26,712	16,371	14,874
Depreciation & Amort.	12,688	11,713	13,518	16,099	17,867
Impair. of Oil, Gas & Mineral Prop.	1,580	317	940	4,511	3,485
Depreciation & Amort., Total	14,268	12,030	14,458	20,610	21,352
(Gain) Loss From Sale Of Assets	(3,276)	(4,485)	(4,228)	(382)	(3,212)
Asset Writedown & Restructuring Costs	1,327	1,198	157	899	3,147
Loss on Equity Investment	(5,953)	(8,737)	(8,948)	(7,275)	(6,116)
Other Operating Activities	6,786	12,410	14,598	7,229	8,594
Change in Acc. Receivable	(11,931)	(10,109)	14,145	5,648	(1,541)
Change In Inventories	(2,888)	(1,930)	(1,746)	608	7,958
Change in Acc. Payable	8,890	5,568	(9,008)	(3,268)	(12)
Cash from Ops.	27,350	36,771	46,140	40,440	45,044
Investing Activity					
Capital Expenditure	(26,940)	(26,301)	(32,576)	(39,975)	(31,676)
Sale of Property, Plant and Equipment	3,325	6,990	6,346	1,212	9,873
Invest. in Marketable & Equity Securt.	1,507	(1,328)	(2,416)	(1,000)	2,737
Other Investing Activities	136	196	193	(383)	(591)
Cash from Investing	(21,972)	(20,443)	(28,453)	(40,146)	(19,657)
Financing Activity					
Short Term Debt Issued	4,647	NA	NA	3,126	NA
Long-Term Debt Issued	7,849	1,249	5,108	9,146	7,778
Total Debt Issued	12,496	1,249	5,108	12,272	7,778
Short Term Debt Repaid	NA	(3,724)	(165)	NA	(3,332)
Long-Term Debt Repaid	(3,240)	(4,649)	(4,960)	(6,877)	(4,089)
Total Debt Repaid	(3,240)	(8,373)	(5,125)	(6,877)	(7,421)
Issuance of Common Stock	187	NA	NA	NA	232
Repurchase of Common Stock	NA	(2,035)	(1,526)	(5,565)	(3,328)
Common Dividends Paid	(9,584)	(6,877)	(7,390)	(7,198)	(9,444)
Total Dividends Paid	(9,584)	(6,877)	(7,390)	(7,198)	(9,444)
Other Financing Activities	(1,326)	(2,095)	(1,697)	(1,610)	(607)
Cash from Financing	(1,467)	(18,131)	(10,630)	(8,978)	(12,790)
Other Cash Flow					
Foreign Exchange Rate Adj.	(186)	(349)	201	(170)	(686)
Net Change in Cash	3,725	(2,152)	7,258	(8,854)	11,911

Source: S&P Capital IQ – Standard 2024

Table 6. BG Group Income Statement

	2011 FY	2012 FY	2013 FY	2014 FY
(\$000)				
Revenue				
Upstream	10,125	11,161	11,455	11,161
LNG Shipping & Marketing	7,523	7,760	7,730	8,121
Other activities	19	12	7	7
Total Revenue	17,667	18,933	19,192	19,289
Cost Of Goods Sold	3,700	3,479	3,062	3,608
Gross Profit	13,967	15,454	16,130	15,681
Selling General & Admin Expenses	1,128	1,467	1,447	1,571
Exploration/Drilling Expenses	647	365	711	751
R&D Expenses	38	52	76	90
Depreciation & Amortization	2,115	2,510	2,954	2,799
Impairments of Oil, Gas & Mineral Prop.	293	319	394	237
Other Operating Expenses	2,711	2,981	3,609	4,361
Total Other Operating Expenses	6,932	7,694	9,191	9,809
EBIT	7,035	7,760	6,939	5,872
Interest Expense	(108)	(97)	(119)	(108)
Interest and Investment Income	76	125	104	104
Net Interest Expenses	(32)	28	(15)	(4)
Income from Affiliates	269	289	336	166
Currency Exchange Gains (Losses)	111	41	(13)	(323)
Other Non-Operating Income	(25)	(122)	65	(264)
EBT Excluding Unusual Items	7,358	7,996	7,312	5,447
Gain (Loss) On Sale Of Assets	(414)	(1,651)	242	836
Asset Writedown	(312)	(2,161)	(4,059)	(8,956)
Other Unusual Items	NA	NA	NA	106
EBT Including Unusual Items	6,632	4,184	3,495	(2,673)
Effective Tax Rate (%)	43	48	43	55
Earnings from Discontinued Operations	219	1,324	245	7
Net Income to Company	5,525	4,671	3,041	(2,131)
Minority Interests in Earnings	(81)	(94)	(9)	NA
Net Income	5,525	4,671	3,041	(2,131)

Source: S&P Capital IQ – Standard 2024

Table 7. BG Group Balance Sheet

	2010 FY	2011 FY	2012 FY	2013 FY	2014 FY
(\$000)					
Current Assets					
Cash and Cash Equivalents	2,533	3,601	4,434	6,208	5,295
Trade and Other Receivables	5,994	7,375	6,369	6,900	5,042
Current Tax Receivable	233	141	25	77	151
Inventories	655	768	792	838	1,194
Commodity Contracts and Other Derivative Financial Instruments	550	331	129	107	235
Assets Classified as Held for Sale	227	245	386	NA	2,088
Total Current Assets	10,192	12,461	12,135	14,130	14,005
Noncurrent Assets					
Tangible Assets, Net	28,263	37,316	43,925	42,225	35,855
Investments	2,824	3,044	2,488	2,933	3,547
Deferred Tax Assets	518	647	821	1,397	3,949
Commodity Contracts and Other Derivative Financial Instruments	283	366	532	623	287
Goodwill	820	752	24	25	NA
Other Intangible Assets	7,193	6,159	4,469	3,864	3,135
Intangible Assets	NA	NA	NA	NA	NA
Trade and Other Receivables	206	695	896	777	1,068
Retirement Benefit Surplus	NA	NA	NA	NA	NA
Total Assets	50,299	61,440	65,290	65,974	61,846
Current Liabilities					
Trade and Other Payables	4,388	5,342	5,301	5,631	4,768
Borrowings	1,258	1,160	1,064	475	1,586
Current Tax Liabilities	1,814	1,238	1,377	1,831	1,412
Liabilities Associated With Assets Classified as Held for Sale	104	99	158	NA	63
Commodity Contracts and Other Derivative Financial Instruments	1,426	1,345	423	297	128
Total Current Liabilities	8,990	9,184	8,323	8,234	7,957
Noncurrent Liabilities					
Borrowings	8,446	13,977	14,443	17,054	15,921
Retirement Benefit Liability	260	436	288	168	258
Deferred Income Tax Liabilities	3,134	3,961	4,636	4,120	2,946
Minority Interest	356	291	57	0	0
Trade and Other Payables	72	72	123	150	136
Provisions for Other Liabilities and Charges	1,812	3,603	4,182	4,115	5,235
Commodity Contracts and Other Derivative Financial Instruments	901	696	347	173	253
Shareholders' Equity					
Common Stock - Par Value	576	577	578	579	579
Retained Earnings	20,085	23,482	27,248	28,772	26,634
Other Reserves	2,710	2,710	2,710	2,710	2,710
Total Shareholders Equity	26,328	29,220	32,891	31,960	29,140
Total Liabilities & Shareholders Equity	50,299	61,440	65,290	65,974	61,846

Source: S&P Capital IQ – Standard 2024

Table 8. BG Group Cash Flow Statement

	2010 FY	2011 FY	2012 FY	2013 FY	2014 FY
(\$000)					
Operating Activities					
Net Income - CF	3,351	4,234	4,523	2,441	(1,044)
Depreciation & Amort.	1,996	2,108	2,505	2,945	2,788
Amort. of Goodwill and Intangibles	129	7	5	9	11
Impair. of Oil, Gas & Mineral Prop.	382	293	339	394	237
Depreciation & Amort., Total	2,507	2,408	2,849	3,348	3,036
(Gain) Loss From Sale Of Assets	336	414	(510)	(242)	(836)
Asset Writedown & Restructuring Costs	NA	NA	2,161	4,059	8,956
Loss on Equity Investment	(313)	(289)	(311)	(335)	(166)
Stock-Based Compensation	60	72	73	74	62
Net Cash From Discontinued Ops.	208	244	(1,069)	18	9
Other Operating Activities	1,009	473	455	(1,133)	(3,597)
Change in Acc. Receivable	(837)	(1,435)	(60)	(618)	993
Change In Inventories	25	(53)	(38)	(29)	(272)
Change in Acc. Payable	40	914	(78)	234	258
Change in Other Net Operating Assets	NA	NA	NA	NA	NA
Cash from Ops.	6,386	6,982	7,995	7,817	7,399
Investing Activity					
Capital Expenditure	(8,397)	(10,300)	(9,974)	(10,605)	(8,510)
Sale of Property, Plant and Equipment	897	116	754	3,827	2
Cash Acquisitions	(529)	(246)	(429)	(610)	(892)
Divestitures	NA	84	(25)	103	800
Invest. in Marketable & Equity Secur.	166	94	878	485	41
Net (Inc.) Dec. in Loans Orig/Sold: Investing	NA	NA	(280)	112	111
Other Investing Activities	592	59	2,181	406	232
Cash from Investing	(7,271)	(10,193)	(6,895)	(6,282)	(8,216)
Financing Activity					
Long-Term Debt Issued	3,559	6,392	2,925	2,713	2,086
Total Debt Issued	3,559	6,392	2,925	2,713	2,086
Long-Term Debt Repaid	(348)	(940)	(1,736)	(1,093)	(625)
Total Debt Repaid	(348)	(940)	(1,736)	(1,093)	(625)
Issuance of Common Stock	95	48	36	45	28
Repurchase of Common Stock	(2)	(23)	(16)	(13)	NA
Common Dividends Paid	(680)	(772)	(859)	(923)	(1,024)
Total Dividends Paid	(680)	(772)	(859)	(923)	(1,024)
Other Financing Activities	(337)	(383)	(559)	(560)	(556)
Cash from Financing	2,287	4,322	(209)	169	(91)
Other Cash Flow					
Foreign Exchange Rate Adj.	30	(61)	28	(16)	(5)
Net Change in Cash	1,432	1,050	919	1,688	(913)

Source: S&P Capital IQ – Standard 2024

Table 9. Betas, Cost of Equity and Cost of Debt for Shell

Rate	2.00%
Spread	1.22%
Cost of Debt	3.22%
Risk Free Rate	1.92%
Market Risk Premium	5.81%
Beta (Levered)	1.08
Cost of Equity	8.18%
Beta (Unlevered)	0.975
Re (Unlevered)	7.584%

Table 10. WACC for Shell

	2010 FY	2011 FY	2012 FY	2013 FY	2014 FY	2015 FY	2016 FY	2017 FY	2018 FY	2019 FY	2020 FY
Capital Structure Data (\$000)											
Total Debt	(2,789)	(2,990)	(2,287)	(1,932)	(1,190)	-	-	-	-	-	-
Total Shareholders Equity	0	0	0	0	0	-	-	-	-	-	-
Total Minority Interest	0	0	0	0	0	-	-	-	-	-	-
Total Capital	(2,789)	(2,990)	(2,287)	(1,932)	(1,190)	-	-	-	-	-	-
D/(D+E)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
E/(D+E)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Tax(\$000)											
Diluted EPS Incl. Extra Items		5	4	3	2	0.00	0	0	0	0	0
Diluted EPS Excl. Extra Items		5	4	3	2	-	-	-	-	-	-
WACC	5.70%	5.62%	5.63%	5.65%	5.67%	5.70%	5.70%	5.70%	5.70%	5.70%	5.70%

Table 11. Betas, Cost of Equity and Cost of Debt for BG Group

Rate	2.00%
Spread	1.43%
Cost of Debt (Rd)	3.43%
Risk Free Rate	1.92%
Market Risk Premium	5.81%
Beta (Levered)	1.28
Cost of Equity (Re)	9.36%
Beta (Unlevered)	1.016
Re (Unlevered)	7.822%

Table 12. WACC for BG Group

	2010 FY	2011 FY	2012 FY	2013 FY	2014 FY	2015 FY	2016 FY	2017 FY	2018 FY	2019 FY	2020 FY
Capital Structure Data (\$M)											
Total Debt	9,704	15,137	15,507	17,529	17,507	-	-	-	-	-	-
Total Shareholders Equity	26,328	29,220	32,891	31,960	29,140	-	-	-	-	-	-
Total Minority Interest	356	291	57	0	0	-	-	-	-	-	-
Total Capital	26,684	29,511	32,948	31,960	29,140	-	-	-	-	-	-
D/(D+E)	27%	34%	32%	35%	38%	33%	33%	33%	33%	33%	33%
E/(D+E)	73%	66%	68%	65%	62%	67%	67%	67%	67%	67%	67%
Tax											
Effective Tax Rate (%)		43	48	43	55	47.25	47.25	47.25	47.25	47.25	47.25
Income Tax Expense		1326.4	836.8	699	-534.6	-	-	-	-	-	-
WACC	7.78%	6.85%	6.94%	6.74%	6.43%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%

Table 13. Industry Peers' comparables

Peers	EV	EV/EBITDA	P/E	P/Book	Market Cap
Exxon Mobil Corporation (NYSE:XOM)	390,865	6.0	12.6	2.1	359,695
Chevron Corporation (NYSE:CVX)	219,841	5.0	12.0	1.3	204,075
BP p.l.c. (LSE:BP.)	124,450	4.8	29.2	1.2	105,151
ConocoPhillips (NYSE:COP)	98,979	4.8	11.6	1.6	81,114
Eni S.p.A. (BIT:ENI)	80,948	4.0	10.3	1.0	63,680
Occidental Petroleum Corporation (NYSE:OXY)	62,167	4.0	19.6	1.7	59,118
Anadarko Petroleum Corporation (NYSE:APC)	55,575	6.1	30.1	2.2	44,042
EOG Resources, Inc. (NYSE:EOG)	55,527	5.9	18.4	2.9	51,704
Devon Energy Corporation (NYSE:DVN)	40,639	4.5	8.4	1.2	26,035
APA Corporation (NASDAQ:APA)	37,335	3.7	9.7	0.9	24,659
Repsol, S.A. (BME:REP)	32,279	11.9	28.2	0.9	26,142
Hess Corporation (NYSE:HES)	24,243	4.2	23.0	0.9	20,585
Marathon Oil Corporation (NYSE:MRO)	23,006	4.6	21.2	0.9	19,013
Woodside Energy Group Ltd (ASX:WDS)	18,490	4.2	11.0	1.5	18,471
PAO NOVATEK (MISX:NVTK)	16,396	14.4	45.6	3.7	14,211
Tullow Oil plc (LSE:TLW)	5,953	4.7	NM	1.1	3,464
Minimum	5,953	3.7	8.4	0.9	3,464
Median	48,083	4.7	18.4	1.3	44,042
Average	80,418	5.8	19.4	1.6	75,972
Maximum	390,865	14.4	45.6	3.7	359,695
Shell Plc	190,053	4.6	11.6	1.2	170,373
BG Group Limited (LSE:BG.)	49,212	6.5	13.6	1.7	39,398

Source: S&P Capital IQ – Standard 2024

Figure 28. Deal Timeline

8/4/2015 Royal-Dutch multinational Shell plc and BG Group plc. Officially declared that Shell director board will acquire BG group and will pay shareholders around £1350 per share, which was around 50% premium on BG Group's share price.

11/4/2015 Both Royal-Dutch multinational Shell plc and BG Group plc. held a meeting to state the transaction call and set up the clause. They also decide the expected date for fulfilling the regulation process and completely acquire the targeted company in 2015 of last quarter.

16/06/2015 BG Group stated it had received anti-trust regulatory clearance from the U.S. Federal Trade Commission for Royal Dutch Shell's proposed \$70 billion acquisition.

8/7/2015 Brazil's competition regulator, CADE, gave preliminary approval "without restrictions" for the deal.

11/6/2015-19/11/2015

Review of the Merger Process Guidelines under the Australian Competition and Consumer Commission (ACCC) commenced.

The Former acquisition on 3rd of September 2015, was delayed by ACCC to analyze the whole structure and regulation.

Finally, on 19th of November 2015 ACCC announced they will not be opposed to the acquisition.

27/1/2016 Shell won shareholder approval for the takeover deal, with 83% of Shell shareholders voting for the acquisition.

28/1/2016 BG Group shareholders overwhelmingly approved Royal Dutch Shell's takeover, with 99.53% of BG shareholders voting in favor of the merger.

15/2/2016 Royal Dutch Shell PLC completed its \$53 billion acquisition of BG Group PLC, to become the world's second largest energy company by market capitalization behind only Exxon Mobil.