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# Chevron and Chad: A Pipeline Dream?

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In June 2013, George Kirkland, vice chairman of Chevron Corporation, was driving to company headquarters in San Ramon, California. He had a meeting with the board of directors in three hours. Kirkland had not slept well the past week due to endless thoughts about Chevron's future in Chad. The board of directors questioned the long-term profitability of Chevron's Chadian assets as the Chad-Cameroon pipeline was carrying just 50% of its daily transport capacity of 250,000 barrels. In addition, Chevron's production in the Doba Basin oil fields had declined.

Kirkland knew that Chevron's involvement in Chad additionally risked the company's reputation, as international NGOs publicly questioned its operation's protection of human rights.[1] Furthermore, the region had become unstable with unrest in the nearby Central African Republic in March 2013.[2]

As Kirkland continued his drive to the board meeting, he reflected on his 40-year-and-counting career with Chevron. Preparing for the many difficult questions to be raised at the board meeting, Kirkland could only retroactively ponder whether or not the company made the right decision in focusing Chevron's corporate strategy toward increasing international exploration and development in the 1990s.

Had this corporate direction been a wise strategy for Chevron? Kirkland frequently questioned whether the opportunity cost associated with the Chadian pipeline venture was too much for the company to bear, leading him to question what the future focus of Chevron should be. Should Chevron remain involved with oil development in Chad? How would Chevron best manage the financial, social, and environmental risks associated with the volatile profits of Chadian oil operations? Were there risks associated with the continued relationship between Chevron and Chad, and did the opportunities that came from this continued relationship outweigh the risks? What if Chevron divested its interest? Not knowing how the oil pipeline partners would react to Chevron's divestment, how could Kirkland fully comprehend the ramifications of each opportunity?

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©2015 Ekaterina Loshakova, Seth Buchsbaum, Shruti Kumar, Ashley Gregory, and Devan Rostorfer. This case was written under the supervision of Andrew Hoffman, the Holcim professor of sustainable enterprise, by graduate students Ekaterina Loshakova, Seth Buchsbaum, Shruti Kumar, Ashley Gregory, and Devan Rostorfer at the University of Michigan. This case was created to be a basis for class discussion rather than to illustrate either the effective or ineffective handling of a business situation.

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## Chevron

Chevron's business operations began in 1879 when a group of explorers and merchants established the Pacific Coast Oil Co.[3] As of 2014, Chevron Corporation was the second-largest integrated energy company in Chad behind ExxonMobil. In 2013, Chevron declared oil equivalent[i] reserves of 11.2 billion barrels and oil equivalent production rates at 2.6 million barrels per day.[4] Besides its upstream and downstream operations, Chevron invested in emerging energy technologies, including acting as a first mover in advanced solar technology to supplement its operations while it expanded into other renewable energy resources[5] to remain environmentally competitive and relevant in the modern energy market. Chevron remained one of the largest global economies, with revenues at $220 billion in 2013[6]—which was larger than the GDPs of 144 nations and most corporations worldwide.[7]

## George L. Kirkland

Kirkland began his career with Chevron as a construction engineer in 1974 and gradually moved through the ranks, becoming the group manager of upstream technology for Chevron Research and Technology Company, a research and technology provider for Chevron's refining and petrochemical businesses,[8] in 1990. From 2002 to 2004, Kirkland acted as the president of Chevron Overseas Petroleum Inc., which increased his knowledge of oil and gas exploration, along with production operations outside the United States.[9]

In 2005, Kirkland was promoted to executive vice president of upstream, based on his strong insight into Chevron's international and upstream business operations.[10] Kirkland had served many functions at Chevron through the years, most notably as the leader of multiple upstream operations. His leadership résumé even included acting as the managing director of Chevron's Nigeria Limited project.[11]

Kirkland's extensive, high-level executive experience in the oil and gas industry, coupled with his accrued knowledge of business strategy, markets, competitors, finances, energy policy, regulation, environmental matters, and international business operations,[12] ultimately led to his promotion as vice chairman of the board of directors in 2010. Outside of Chevron, Kirkland has shown a keen interest in Africa, as a board member to the Corporate Council on Africa and a trustee of the Africa-America Institute.[13]

## Chevron: A Time of Transition

During the 1990s, Chevron faced a period of uncertainty and transition as it attempted to surpass ExxonMobil to become the superior oil company of the United States. This would not be easily accomplished considering ExxonMobil was widely established and enjoyed market penetration in more than 100 countries, specifically with a strong presence in Africa.[14]

One of the key strategies for Chevron to gain market share in the 1990s and surpass the competition was continued international exploration for new oil reserves. Chevron started out as the third-largest US multinational oil company, but it was able to move to second as operations were established in 90 countries.[15] Throughout the 1990s, large international investments within Chevron's portfolio included the Congo, Angola, and Nigeria, to name a few.[16] Chevron found success in stockpiling reserves and securing an oil supply that catered to future demand. Chevron's success in the 1990s was evident by record sales, equating to greater than $3.2 billion in 1997 alone.[17]

i The barrel of oil equivalent (BOE) is a unit of energy based on the approximate energy released by burning one barrel of crude oil. The U.S. Internal Revenue Service defines it as equal to 5.8 × 106 BTU.



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Unfortunately, Chevron's revenue peak was soon followed by a plummeting net income in 1998 as the company generated only $1.3 billion, a 59% decrease from the year before.[18] The severe drop in income stemmed from reduced demand in Asia and an oversupply of oil in the global market that caused oil prices to nosedive.[19] Despite short-term demand drops, Chevron expected demand to surge thereafter; thus, Chevron did not slow its international oil exploration efforts, but rather continued conducting business in a strategic manner. One component of this strategy was Chevron's establishment of a cost-reduction goal in 1999 that simultaneously increased international operations focused heavily on "exploration and production operations."[20]

In order to achieve its established goals, Chevron continued to strive toward becoming the highest-profiting oil and gas company in the United States. Chevron focused on its eight key strategic intents, as follows:[21]

1. Build a devoted employee base to adhere to its corporate mission
2. Reduce costs through all activities
3. Increase international growth through exploration and production activities
4. Accelerate earnings from the Caspian Sea area with continued expansion
5. Generate cash from exploration and production operations in North America
6. Become the top financial performer and generate cash in refining and marketing activities in the North American region
7. Strategically position Caltex[ii] to achieve superior financial performance in the Asian economy
8. Improve the chemical division's financial performance

As anticipated, oil and gas demand returned in 1999, when Chevron saw net income jump to $2.07 billion as a result of the success of its international expansion.[22] This international expansion strategy was the driving factor that led to Chevron's 25% stake in the Chad-Cameroon pipeline consortium with ExxonMobil and PETRONAS.

While Chevron had not been the first choice of company to partner with, ExxonMobil was forced to open the bidding opportunity on the project to new companies once Royal Dutch Shell and Elf Aquitaine backed out after reassessing "the venture's significance within [its] overall corporate business strategy."[23] To handle its newfound involvement in the project, Chevron decided to incorporate Chevron Chad, which was "a wholly-owned subsidiary of Chevron," created for the purpose of "[managing] Chevron's interests in Chad's oil resources on behalf of and with the assistance of the Chevron corporate family."[24]

## Africa's Untapped Resources

Historically, Africa's oil sector depended on the three "Big Gs"—geology, geography, and governance. Unfortunately, in areas where geology was favorable for oil production, the geography or governance tended to be less favorable. For example, the only way to export oil from landlocked countries, such as Uganda and Chad, whose oil reserves were far from a coastal port, was through a costly pipeline. Furthermore, Africa lacked vital oil-refining capacity and, as a result, countries that exported crude oil—such as Nigeria—had to import refined oil at an added cost.[25]

ii Caltex served as a refiner and marketing affiliate that was jointly owned by Chevron and Texaco. In 1998, Caltex operated in more than 60 countries throughout the Asia-Pacific region, the Middle East, and Africa.



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Africa supplied around 12% of global oil in 2013 and was also estimated to hold 8% of the world's proven oil reserves.[26] Through the 2030s, it was expected that Africa's oil and gas potential was going to be attractive to investors because market opportunities were expected to grow significantly over the next two decades due to Africa's population growth, urbanization, and emergence of a wealthier middle class.[27] More than 500 companies already explored African oil deposits in 2013.[28] Additionally, Africa's oil potential was exhibited with six of the top ten oil and gas discoveries for 2013 found on the continent.[29] The global market had its eyes on Africa, wherein numerous multinational corporations were already making investments in the continent's emerging economies, hoping to gain a piece of the impending profit.

## Chad

Chad is Africa's fifth-largest country, located in a landlocked position between Libya, Sudan, the Central African Republic, Cameroon, Nigeria, and Niger. The geographic remoteness of the country, combined with severe drought, lack of infrastructure, and political instability, has negatively affected economic development and investment in Chad. Therefore, the country has remained one of the poorest and least stable and highly corrupt nations in the world. In 2007, the Chadian government spent 4.5 times more on its military than the country's health, education, and other social programs combined.[30] While economic, environmental, and social challenges in Chad have historically dissuaded investor interest, the country had an estimated oil reserve of 1.5 billion barrels—the tenth-largest in Africa.[31]

## Oil & Gas Development in Chad

In the 1970s, Chad sought opportunities to develop an oil and gas industry by attracting a consortium of oil companies, including Chevron, Conoco, ExxonMobil, and Shell. While the industry had shown interest in investing in Chad, oil development activities were ultimately thwarted due to the outbreak of a civil war in 1979. Development efforts were renewed 30 years later; however, many private oil companies were wary of the political and economic risk associated with operating in Chad during the late 1990s. This wariness limited the investment in Chadian oil development to interactions that involved the World Bank, which made leveraged loans to poor countries.[32]

With an official goal to reduce poverty, the World Bank had yet to engage in a project of this type. The World Bank had historically been criticized for funding industries where natural resource extraction lacked a due diligence on the impacts toward the environment and local societies. The World Bank's objective in the pipeline project was to "develop and strengthen the institutional capabilities of the [Chadian] Government" so that it could better maintain the petroleum sector in an environmentally and socially friendly way. Ultimately, the World Bank agreed to invest in the Chadian pipeline project through a mechanism that increased institutional oversight and transparency.[33]

This mechanism lent money to the governments of Chad and Cameroon to use as payment for each country's share of the pipeline. The World Bank covered about 3% of the project costs, contributing US $92.9 million in IBRD[iii] loans, wherein US $39.5 million went to Chad and the remaining US $53.4 million went to Cameroon.[34] To see the complete financing breakdown approved by the World Bank, reference **Appendix A**.

Oil production began in 2003 with the $3.7 billion Chad–Cameroon Petroleum Development and Pipeline project to connect Chad's oil reserves with oil facilities in Cameroon. Once completed, the pipeline spanned the two countries by connecting the oil fields of Chad to the coast for transport, as seen in **Appendix B**. The pipeline project commenced in two parts:

iii The International Bank for Reconstruction and Development (IBRD) was an international financial institution that offered loans to middle-income developing countries.



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- In Chad: Oil was extracted from the ground from three developed oil fields (Miandoum, Kome, and Bolobo) in Chad's Doba Basin. This led to the drilling of about 300 wells that held roughly 900 million barrels of oil, along with the construction of associated facilities and infrastructure.[35]
- In Cameroon: Oil was exported via a 650-mile pipeline that extended from the Doba oilfields to Cameroon's Atlantic Coast at Kribi. The exporting project involved three pumping stations with ancillary facilities, an offshore floating storage and offloading vessel, and an 11 km submarine pipeline from the coastline to the vessel.[36,37]

Oilfield development and production in Chad was conducted by Esso Exploration and Production Chad Inc. (EEPCI) on behalf of a group consisting of ExxonMobil, PETRONAS, and Chevron, while pipeline activities were managed by the Cameroon Oil Transportation Company (COTCO) and the Tchad Oil Transportation Company S.A. (TOTCO).[38] ExxonMobil operated, financed, and managed drilling oil, with a 40% interest in the project. The remaining interest in the project was divided between two stakeholders: the Malaysian national oil company, PETRONAS, at a 35% interest, and Chevron, at a 25% interest.[39] As of 2014, the project had exported over 240 million barrels of crude oil to the global market.[40]

## The Honeymoon Period

Once funding was approved for the Chadian oil project by the World Bank in June 2000, Chevron and all other project parties were confident that the pipeline's progression would flow smoothly. With a 25% stake in the venture, Chevron became part of the Private Sponsors Group with ExxonMobil and PETRONAS. The Private Sponsors Group was responsible for serving as the executing agency that implemented the project. Additional duties prescribed to the Private Sponsors Group included identifying and establishing external companies responsible for directing the project both upstream and downstream.

The responsible parties selected by the Private Sponsors Group to manage upstream tasks were COTCO and TOTCO. Downstream operations within the project were managed by other joint ventures, which were majority-owned by members of the Private Sponsors Group. Overall, project development commenced rapidly and, upon the inauguration of the Chad-Cameroon Oil Project in 2003, Chevron was highly optimistic about the future of the project as major milestones and operational phases were completed a year ahead of schedule. In a press release for the inauguration of the pipeline, Kirkland commented on Chevron's satisfaction with the project, commending its partners and the participating governments for their role in executing as seen in **Exhibit 1**.

**Exhibit 1**

### Chevron Celebrates the Official Chad-Cameroon Oil Project Inauguration

"The Chad Cameroon Development Project is a key component of our long-term growth strategy in Africa. It adds to our already large portfolio of producing assets on the continent, but at the same time we take great pride in the project also representing unprecedented efforts to ensure economic and social benefits flow to the citizens of Chad and Cameroon."

"Accomplishing these goals required innovative thinking and a strong commitment by the governments of Chad and Cameroon, the partners, ExxonMobil, PETRONAS and ChevronTexaco as well as the World Bank Group."

Source: Chevron Texaco Press Release—Chad-Cameroon Oil Project Celebrates Official Project Inauguration. Web. 6. Jan. 2015. <http://www.chevron.com/chevron/pressreleases/article/10102003_chevrontexacochadcameroonoilprojectcelebratesofficialprojectinauguration.news>.



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The Chadian oil project exhibited great promise for the future of Chevron and reaffirmed the company's decision to increase international exploration and operations. Chevron felt that it would be able not only to increase the value of its global oil operations and net profit, but also develop the unique opportunity to elevate the living conditions of those in Chad and Cameroon.[41]

In terms of profit, the upstream consortium's return on investment was based on profits made from the sale of oil. In comparison, Chad received its profit from royalties on the sale of oil, income tax on TOTCO's profits, and income tax on the upstream consortium, while Cameroon's profits were based on the transit fee and income tax on COTCO's profit.[42] In its project appraisal in 2000, the World Bank projected crude oil prices to average $15.54/barrel between 2004 and 2009.[43] Using this projected pricing, the return on equity was expected to be 18.5% for the Private Sponsors Group, for which the return was extremely sensitive to changes in oil price. However, even under worst-case oil price sensitivity scenarios, net present value (NPV) calculations for the Private Sponsors Group were expected to remain positive due to oil reserves in the area exceeding 900 million barrels.[44]

## For the Benefit of Chad

The oil project was expected to generate significant revenue for Chad and Cameroon. Chad alone was expected to gain $2 billion from royalties and taxes over the life of the project, which was expected to span 25 years after construction completed in 2004. However, by the end of 2011, Chad's gains exceeded expectations, with royalties reaching $8.4 billion as seen in **Appendix C**.[45] In addition to boosting the Chadian economy, the project added value to the local community as over 13,000 people were employed during the three-year construction period for the pipeline and its related infrastructure. Many of these local workers were previously unskilled, and the training received from the pipeline project helped prepare them for future employment opportunities. In addition, the project implemented health and education programs to improve the quality of life of civilians in Chad and Cameroon. Local suppliers and vendors received large contracts to manage trucking, catering, and maintenance demands, which further improved the standard of living in Chadian communities.[46]

The mutual value generated was in part due to the World Bank Group. In 2001, the bank launched a small and medium enterprise initiative to help the private sector in Chad reap the benefits from the oil project. The initiative included the establishment of FINADEV, which was the first microfinance institution in Chad. The establishment of FINADEV enabled small businesses to secure supply and service contracts. Furthermore, an agribusiness enterprise partnered with the influential NGO Africare to develop the seven microenterprises that improved food security in Chad as new vegetable, fish, pig, poultry, sheep, and cattle supply contracts were developed.[47]

Food security investments in Chad also included the development of the Improved Agriculture Program, which not only provided farmers with training to manage operations during Chad's dry and rainy seasons, but also taught farmers reading, writing, and math. A few eligible farmers received the opportunity to obtain livestock and farming equipment upon the completion of the program. Overall, the social investments generated in Chad in conjunction with the pipeline project changed the lives of many of its civilians.

Ngalaba villager Mbairamadji Jasson's experience with the Improved Agriculture Program was documented in a pipeline update. "After I took the improved agriculture training with the project in 2004, I moved out from Ngalaba to start this farm with two cows. This was the most important day in my life. When I started here, it's like my mind opened up and I had a vision for the future. It's so important for my family because we have economic power now. I would never have been able to make this farm so successful if I didn't have



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the training. I want to continue to grow and hope that some people in the area will follow my example, which would help feed the area."[48]

## Profitable at a Price

Despite setbacks for Chevron and its partners through the 2000s, business remained successful. One of the greatest contributing factors to success was that the average price per barrel of oil in 2008 was $78.20, which was almost double the original sale price when the pipeline began in 2004. **Appendix D** shows oil prices for the Doba Basin from 2008–11. When oil prices reached their peak at $115 per barrel in April 2011, the consortium then revealed that the pipeline yielded an average of 115,000 crude oil barrels per day.[49] High production, however, came with higher costs.

There were estimates of more than 900 million barrels of oil available in the region, but the Chadian landscape consisted of unconsolidated sand, which produced tiny particles that migrated into oil wells, clogging producing zones. This clogging made the extraction of raw material much more difficult than originally planned. Without additional oil wells and vital water reinjection wells, the daily extraction rate was expected to diminish over time and drop as low as 29,000 barrels per day by 2012, as seen in **Appendix E**. Considering the financial risk associated with decreased production, the project partners decided to invest an additional $425 million into the project in 2011 to reinvigorate its production levels. The additional capital contributed to improved infrastructure, which brought the total investment by the consortium in the Chad pipeline to $3.3 billion.[50]

While investment and operation costs were relatively high, Chevron's profit had reached record highs. Chevron's 2011 net income increased by 41% from the previous year to $26.9 billion, as noted in the 2011 financial statement in **Appendix F**.[51] While Chevron was happy that its financial gains were greater than its investment, Kirkland couldn't help but wonder when the investment in Chad would become too much of a burden for the company.

## Social and Environmental Costs

In addition to the high financial costs associated with the pipeline, the unintended social costs were starting to be questioned. While the partners' original intent was to improve the lives of Chadians and Cameroonians, international NGOs pointed fingers in 2005 at Chevron, PETRONAS, and ExxonMobil, claiming that each was operating in a manner that violated human rights.

Kirkland was familiar with managing these claims, as Chevron had a history of dealing with social and environmental litigation. In 1999, a group of Nigerians in the Niger Delta filed a lawsuit against Chevron that alleged the local community had been subjected to human rights violations as a result of Chevron's Nigeria operations.[52] Furthermore, in a report titled "The True Cost of Chevron: An Alternative Annual Report," Chevron was blamed for deleterious public health issues in Nigeria.[53] Emem Okon, a Niger Delta Women's rights activist, issued a strong statement about Chevron's operations while calling on Chevron to leave the oil in the soil:

> "Women in the communities near the gas flares experience[d] high rates of infertility, early menopause, miscarriages, cancer and skin rashes. Think about the loss of an expected child. Think about young women having difficulty with pregnancies. Think about watching your family members become ill in a place where there are no health facilities. Think about trying to care for them without medicines or knowledge, while they suffer. The women of the Niger Delta call on Chevron to leave the oil in the soil. Stop destroying our environment and our people."[54]



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Kirkland knew that Chevron could not have its operations in Chad under public scrutiny due to potential brand damages. Also, Kirkland worried that these negative claims contradicted a public statement he had made that upon the completion of the pipeline project, Chevron would have made "unprecedented efforts to ensure economic and social benefits flow to the citizens of Chad and Cameroon."[55]

## Human Rights and Chevron

One of the greatest setbacks to Chevron's brand image and public perception of the Chad-Cameroon pipeline started in 2005. Human rights NGO Amnesty International released a document stating that "the ExxonMobil-led consortium that operate[d] the pipeline [was] effectively side-stepping human rights law in Chad and in Cameroon."[56] Amnesty International's claims stemmed from the discovery of a report that indicated legal agreements requiring Chad and Cameroon to pay large financial fines if either country interrupted the operation of the pipeline or oil fields, even in the case of protecting human rights and enforcing laws that apply elsewhere. This legal agreement made it difficult for Chad and Cameroon to file claims of human rights malpractice against the affiliates of the oil project.

The Amnesty International press release directly contradicted Chevron's human rights policy, which claimed that the company was committed to "ensuring that [its] security providers follow international principles when protecting people and assets; evaluating how [its] operations may impact the community; and engaging [its] key suppliers on issues related to human rights."[57]

During the 2005 human rights uproar in Chad, Chevron attempted to diffuse the situation by issuing a public statement in response to Amnesty International's press release. Chevron primarily shifted the blame to its consortium partner, ExxonMobil, in the following statement:

"Thank you for the opportunity to comment on the recently issued report on the Chad-Cameroon pipeline project. As you are aware, ExxonMobil is the operator on the project. However, we want to make clear our support for human rights which is articulated in the Chevron Way."[58]

Kirkland wondered if Chevron could rebuild an image of trust and commitment to human rights in Chad, Cameroon, and throughout Africa after the defamation of its brand. Would these public relations challenges negatively impact the future of Chevron in Africa?

## The Decision

Kirkland pulled into Chevron's parking lot for the board meeting. He reviewed how the company's international expansion strategy in the 1990s landed Chevron in Chad, which had generated significant financial benefits while simultaneously creating significant social and environmental costs. Board members wanted to discuss the future of Chevron and its continuation in Chadian operations.

Kirkland heavily weighed the decision of whether or not Chevron should divest from the Chad pipeline. He considered many things, including not only how Chevron would be impacted, but how the divestment would impact the Chadian government and its citizens. Should Chevron divest from socially risky business operations that had already brought into question Chevron's stance on human rights? Or should it stay involved and become a leader in improving and addressing Chad's social and environmental conditions via its continued support of the pipeline?

Would becoming an environmental and social leader make a statement to other industry players and shareholders that were primarily focused on profits? Could Chevron's exit from Chad give its competitors an



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opportunity to garner clout over Chevron in the market? Kirkland kept in mind the significant investment that Chevron had made in Chad, assessing whether or not it was Chevron's best choice to walk away. Would the benefits of pulling out exceed the costs of its historical investments or result in more losses? No doubt the board of directors would be concerned with how other stakeholders in the consortium might respond to a withdrawal strategy. Kirkland hoped he could use his understanding of Chevron's upstream and international business operations, as well as his experience in Africa, to provide a holistic, unbiased view of the situation in Chad to help the board make a final decision for Chevron's overall strategy moving forward.

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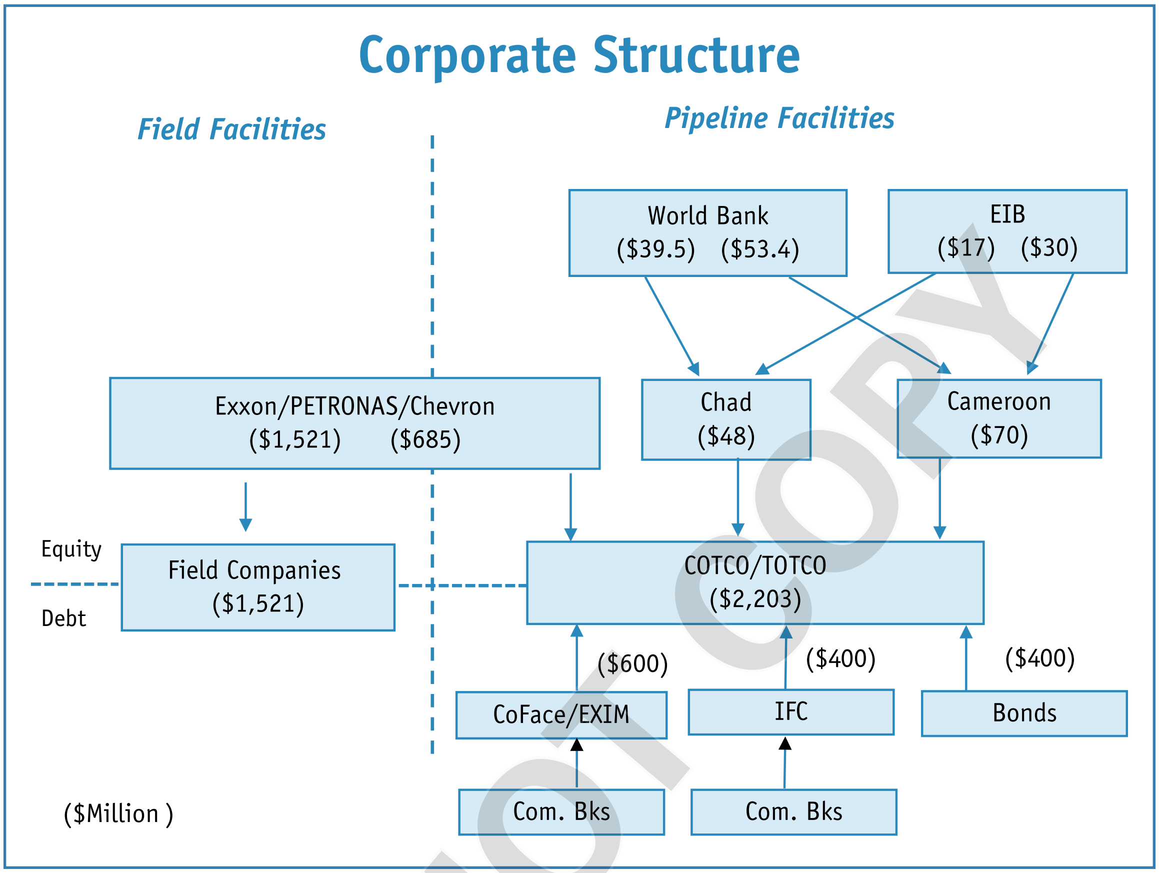
## Appendices

**Appendix A**

### Chad-Cameroon Pipeline Proposed Financing Structure




Source: "The Chad-Cameroon Petroleum Development and Pipeline Project: Project Description." *The World Bank*. The World Bank Group, n.d. Web. 1 Dec. 2014. <http://web.worldbank.org/archive/website01210/WEB/0__CO-15.HTM>.



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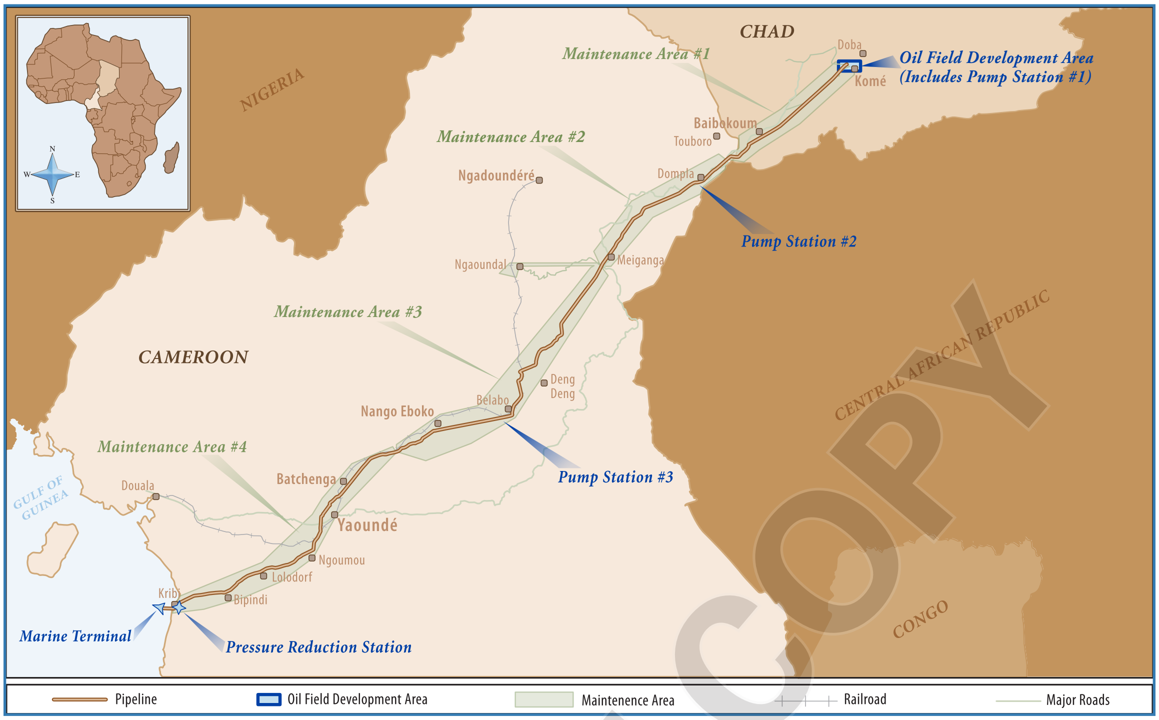
## Appendix B
## Chad-Cameroon Development Project Overview




Source: Esso Exploration and Production Chad Inc. "Chad/Cameroon Development Project: Project Update No. 31, Year-End Report 2011." *Esso Exploration and Production Chad Inc.* Tchad Oil Transportation Company S.A., Cameroon Oil Transportation Company S.A., 2012. Web. 3 Dec. 2014. <http://www.esso.com/Chad-English/PA/Files/31_allchapters_eng.pdf>.

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## Appendix C

### Chad's Oil Revenue, 2011 (in millions USD[1])

| | Q1 2011 | Q2 2011 | Q3 2011 | Q4 2011 | Total 2011 | Project to Date |
|---|---|---|---|---|---|---|
| Royalties on Crude Oil Sales[2] | 86 | 123 | 155 | 115 | 479 | 2,555 |
| Income Related to Pipeline Ownership[3] | 0 | 0 | 6 | 0 | 6 | 69 |
| Corporate Income Tax[4] | 377 | 466 | 377 | 322 | 1,542 | 5,336 |
| Fees, Permits, Duties, Etc. | 17 | 29 | 10 | 16 | 72 | 440 |
| **Project Total** | **480** | **618** | **548** | **453** | **2,099** | **8,400** |

1. Rounded to nearest whole number.
2. Cash payment royalties paid by all Consortium members.
3. Corporate income tax amount includes payments made by Consortium members and TOTCO.
4. Project to Date has been restated to exclude amounts previously reported for services provided by government-run entities, such as utilities, hospitals, and telecommunication services. To date, the project has invested $3.3 billion to maintain the output of crude oil from Chad's Doba Basin oilfields. The production support investments for 2011 totaled $630 million.

Source: Esso Exploration and Production Chad Inc. "Chad/Cameroon Development Project: Project Update No. 31, Year-End Report 2011." Esso Exploration and Production Chad Inc. Tchad Oil Transportation Company S.A., Cameroon Oil Transportation Company S.A., 2012. Web. 3 Dec. 2014. <http://www.esso.com/Chad-English/PA/Files/31_allchapters_eng.pdf>.

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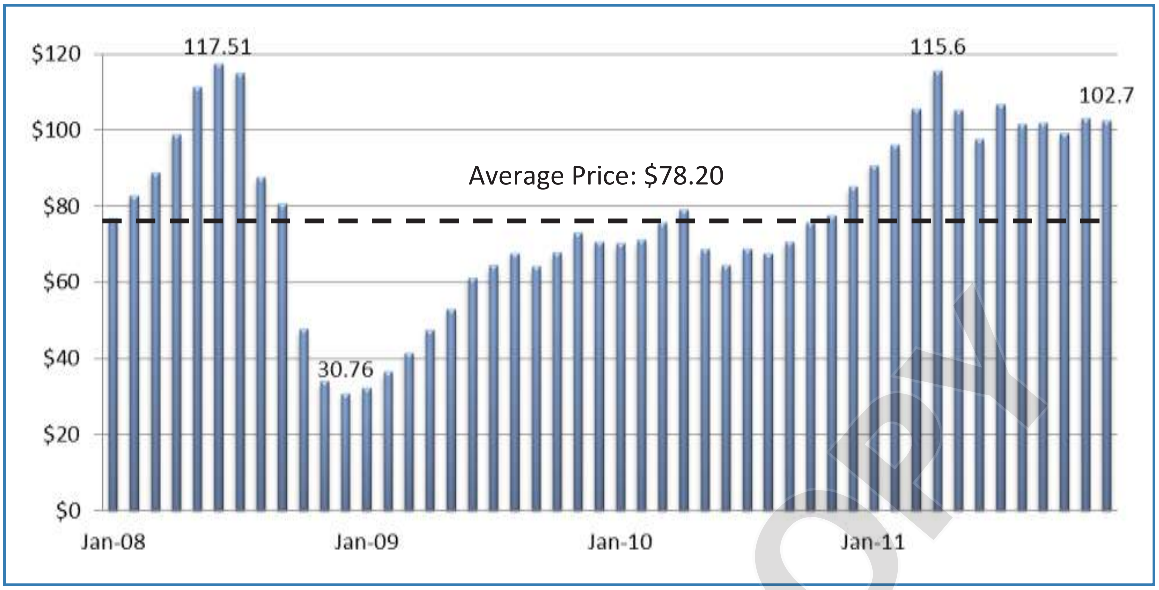
**Appendix D**

## Doba Basin Crude Oil Prices, 2008–2011 (in USD)




Source: Esso Exploration and Production Chad Inc. "Chad/Cameroon Development Project: Project Update No. 31, Year-End Report 2011." *Esso Exploration and Production Chad Inc.* Tchad Oil Transportation Company S.A., Cameroon Oil Transportation Company S.A., 2012. Web. 3 Dec. 2014. <http://www.esso.com/Chad-English/PA/Files/31_allchapters_eng.pdf>.

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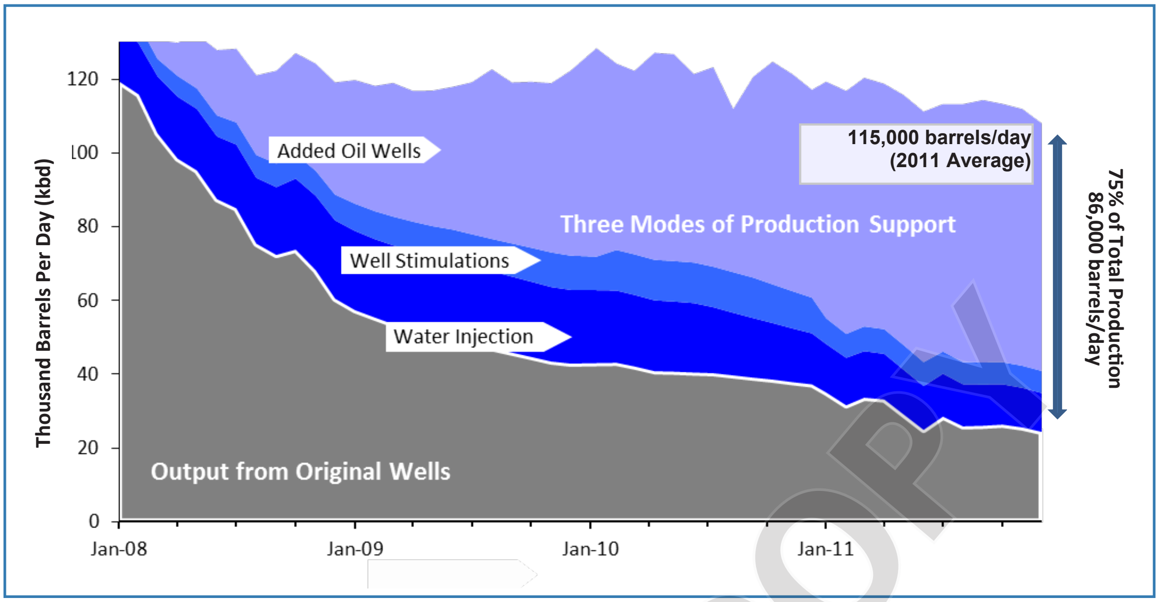
## Appendix E

## Crude Oil Output of Chad-Cameroon Pipeline




Source: Esso Exploration and Production Chad Inc. "Chad/Cameroon Development Project: Project Update No. 31, Year-End Report 2011." *Esso Exploration and Production Chad Inc.* Tchad Oil Transportation Company S.A., Cameroon Oil Transportation Company S.A., 2012. Web. 3 Dec. 2014. <http://www.esso.com/Chad-English/PA/Files/31_allchapters_eng.pdf>.

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## Appendix F
# Chevron Financial Highlights 2011

| Millions of dollars, except per-share amounts | 2011 | 2010 | % Change |
|---|---|---|---|
| Net income attributable to Chevron Corporation | $ 26,895 | $ 19,024 | 41.4% |
| Sales and other operating revenues | $ 244,371 | $ 198,198 | 23.3% |
| Noncontrolling interests income | $ 113 | $ 112 | 0.9% |
| Interest expense (after tax) | - | $ 41 | -100.0% |
| Capital and exploratory expenditures* | $ 29,066 | $ 21,755 | 33.6% |
| Total assets at year-end | $ 209,474 | $ 184,769 | 13.4% |
| Total debt at year-end | $ 10,152 | $ 11,476 | -11.5% |
| Noncontrolling interests | $ 799 | $ 730 | 9.5% |
| Chevron Corporation stockholders' equity at year-end | $ 121,382 | $ 105,081 | 15.5% |
| Cash provided by operating activities | $ 41,098 | $ 31,359 | 31.1% |
| Common shares outstanding at year-end (Thousands) | 1,966,999 | 1,993,313 | -1.3% |
| Per-share data | | | |
| Net income-diluted | $ 13.44 | $ 9.48 | 41.8% |
| Cash dividends | $ 3.09 | $ 2.84 | 8.8% |
| Chevron Corporation stockholders' equity | $ 61.71 | $ 52.72 | 17.1% |
| Common stock price at year-end | $ 106.40 | $ 91.25 | 16.6% |
| Total debt to total debt-plus-equity ratio | 7.7% | 9.8% | |
| Return on average stockholders' equity | 23.8% | 19.3% | |
| Return on capital employed (ROCE) | 21.6% | 17.4% | |
| ** Includes equity in affiliates* | | | |

Source: Chevron Corporation. "2011 Annual Report." *Chevron Corporation*. Chevron Corporation, 2012. Web. 3 Dec. 2014. <http://www.chevron.com/documents/pdf/annualreport/Chevron2011AnnualReport_full.pdf>.

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## Endnotes


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