

### 3. Economic Implications of the Baku-Tbilisi-Ceyhan Pipeline

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Later this year, when tankers start leaving the port of Ceyhan laden with oil that has been transported from the Caspian Sea to the Mediterranean through the Baku-Tbilisi-Ceyhan (BTC) pipeline, they will be serving global oil markets that are *gasping* for new supply. In fact, shipments of oil through BTC are expected to represent roughly 25% of the incremental new supply that will reach global markets in 2005 and 2006.<sup>2</sup>

Those who initiated the idea of a BTC pipeline – and those who lobbied for it, negotiated, planned, designed, financed, and built it – did not specifically intend to bring BTC into operation at such a crucial time. None of those people knew that oil markets would be so especially jittery at the time of BTC’s commissioning that a modest, unanticipated bump in East Asian and North American oil demand – a demand increase of only one or two million barrels of oil per day – would send oil prices skyrocketing toward \$60 per barrel.

What the backers and builders of BTC did know was that the project had the potential for significance on a host of different levels – first and foremost as a critical infrastructure link between once-distant Caspian energy deposits and global markets, but also as a source of greater supply diversity, a symbol of independence, a proof of cooperation among neighbors, a standard for the performance of a global industry, and a tool for economic development.

This essay surveys the economic implications of BTC for global oil markets, for the region and countries participating directly in it, and for the global energy industry. No aspect of the BTC story is simple. On the contrary, it is a complex project that exists in a complicated region of the world and that has confronted challenges at every turn. For these reasons, BTC merits study and, as it begins operating in 2005, celebration.

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<sup>2</sup> “Energy Security and Investment: BP in the South Caucasus” – Conference presentation by Wref Digings, Country Manager for Georgia, BP. Tbilisi, March 2005.

## **Beginnings Of The Idea**

At the end of the Soviet period, global oil and gas companies realized that they had an important new opportunity. The USSR, and then its successor states, needed technology and capital in order to develop oil and gas deposits that were beyond the capabilities of local companies. The international energy companies, in turn, needed new reserves.

The Caspian Sea region was an area of particular interest in the 1990s, and something of a gold rush mentality prevailed in Baku, Azerbaijan and Almaty, Kazakhstan in particular. International energy executives frequently came to visit; annual oil exhibitions were flooded by investors and service providers and policy makers. Project agreements were signed; companies struggled to secure exploration and development infrastructure, as well as global-standard office and residential services.

One key problem with this Caspian gold rush was the need for transportation systems to get the oil production to the global marketplace. Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan had existed previously as a part of a unified Soviet oil and gas industry. The transportation infrastructure reflected this fact, giving Russia – a competing energy producer and the recent imperial ruler – a monopoly over the Caspian countries' access to foreign markets.<sup>3</sup> The map shown in Figure 1, below, which depicts selected major oil and gas pipelines in Eurasia nearly 15 years after the breakup of the USSR, underscores the extent to which the architecture of the Soviet energy transportation systems persist.

A further challenge that complicated oil transportation from the Caspian region, and thus complicated upstream investment decisions, was the fact that the prime southern Russian oil export route – the port of Novorossiysk – as well as routes using the Georgian Black Sea ports of Batumi and Supsa, and the Ukrainian port of Odessa, require tanker transits through the Bosphorus Strait. The Bosphorus slices through the center of Istanbul, a city of twelve million inhabitants that has been designated by UNESCO as a World Heritage Site. The Bosphorus twists and turns its way from the Black Sea to the Sea of Marmara, passing historical palaces, commuter ferry docks, submerged shipwrecks, and elegant promenades.

In the mid-1990s, tankers carrying approximately one million barrels of oil transited the Bosphorus daily, and that figure doubled already by 2005. Accidents involving explosions, and serious injuries or fatalities have been a periodic fact of

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<sup>3</sup> For more detail on the development of oil and gas resources and related transportation infrastructure in the Caspian region, see the chapter entitled “Energy Transportation Futures,” co-authored by Jan Kalicki and Jonathan Elkind, in *Energy and Security: Toward a New Foreign Policy Strategy*, Washington, DC: Woodrow Wilson Center Press and Johns Hopkins University Press, 2005 (forthcoming).

life in Istanbul. This united the Turkish public in fear of hazardous cargos; every successive Turkish government has opposed further increases in oil transits.

Figure 1



Source: US government, 2004

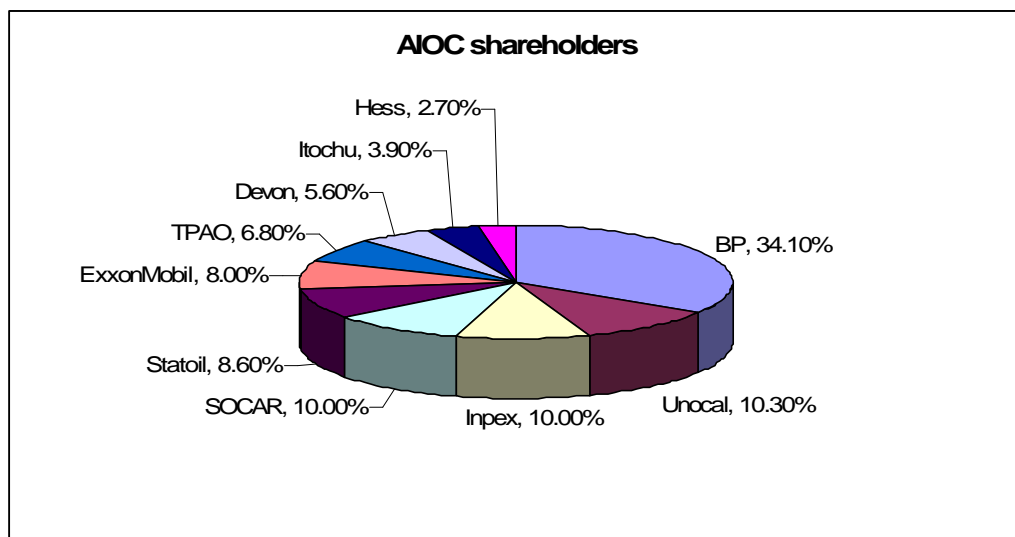
The late 1990s brought a flurry of commercial studies, diplomatic initiatives, and public statements about how to address the energy transportation challenges of the Caspian region. Working groups were formed for the purpose of assessing options. Basic and detailed engineering studies were conducted. Finally, after about five years of intensive analysis and negotiations, a commercial structure took shape that led to the creation of the Baku-Tbilisi-Ceyhan Pipeline Company (BTC Co.).<sup>4</sup>

<sup>4</sup> In the interest of space, a complex chronology has been compressed into a paragraph. For more on the development of the BTC project, see Kalicki and Elkind, cited above, or consult the common website that is maintained by BP, in its capacity as operator of BTC, ACG, the Shah Deniz project, and the South Caucasus Pipeline (SCP): [http://www.caspiandevlopmentandexport.com/ASP/BTC\\_ProjectHistory.asp](http://www.caspiandevlopmentandexport.com/ASP/BTC_ProjectHistory.asp).

## The BTC Project – Participants And Users

To assess accurately the significance of BTC for global energy markets, one must view the project in the manner that was stressed above: BTC is a three-billion-dollar transportation system that allows producers of oil to reach global markets reliably and to generate returns on their investments in multi-billion-dollar upstream projects. The companies that joined together to form the consortium called the BTC Pipeline Company are mostly – but not exclusively – partners in a separate consortium, the Azerbaijan International Operating Company. AIOC is building and will operate a 13-million-dollar project to produce crude oil from the Azeri, Chirag, and Deepwater Guneshli fields which are located in the waters of the Caspian Sea, about 100 kilometers offshore from the Absheron Peninsula (usually referred to as the ACG project). Certain AIOC partners, notably including ExxonMobil and Devon, opted not to invest in the BTC project. They felt that they could more profitably move their oil from Sangachal to world markets without expending the capital needed for a pipeline to bypass the Turkish Straits. Figure 2 shows the current AIOC investors, and their shares of the consortium.

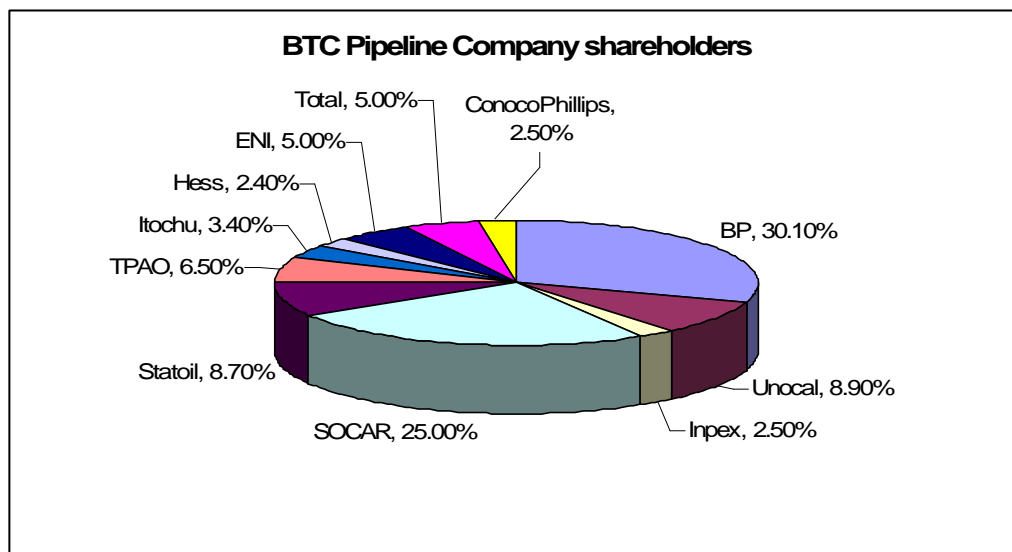
Figure 2



In addition to the AIOC participants, there are some BTC partners that are not participants in AIOC. Total, ConocoPhillips, and ENI are all investors in the Kashagan project, a super-giant field in the Kazakhstani area of the northern Caspian (as is Inpex, which is both an AIOC participant and a Kashagan partner). The Kashagan project is still several years away from major oil production, and its export routings are yet to be determined. Nonetheless, shipping oil across the

Caspian Sea and then out to the Mediterranean via BTC is one export option for Kashagan, and discussions are now underway about the creation of framework agreements that would set the terms for such shipments. Even in advance of the formal framework, certain Kashagan partners evidently feel that BTC's offering is attractive enough to merit early investment that would establish an option for the future. Figure 3 shows the current BTC investors, and their shares of the company.

Figure 3



In short, then, the BTC project is a critical link in the crude oil value chain of the Caspian region. BTC will move crude oil from production wellheads in the Caspian to a modern, deep-water port in the Mediterranean. That port is equipped to load the most efficient modern tankers, which not only means that less oil will be shipped through the tortuous Bosphorus, but also that the oil can cost-effectively be moved to refineries in many corners of the world, including refineries in the United States.

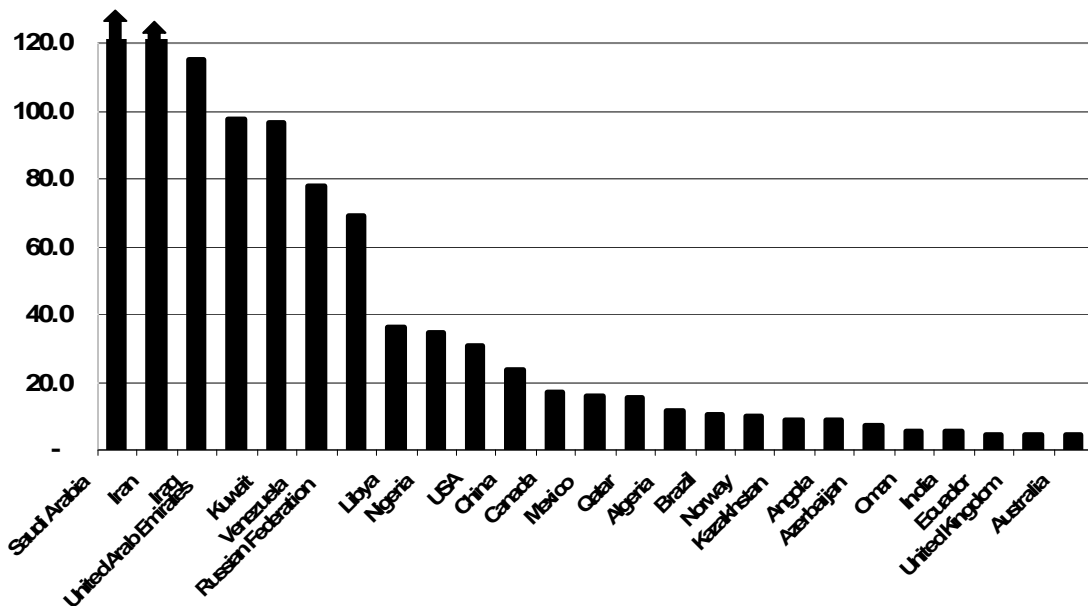
### **BTC's Significance For Global Energy Markets**

As noted above, the BTC project comes on-line at a time when an oil-hungry world is seeking new production. In order to appreciate how significant BTC is in this regard, it is useful to examine the magnitude of oil resources in and around the Caspian Sea, as well as the alternative export routings that are available for companies that do produce the oil.

Oil and gas production has traditionally been a significant part of the economy of Azerbaijan, and Azerbaijan's production has underwritten the economic

calculations that led the BTC partner companies to build the pipeline. Nonetheless, it must be recognized that Azerbaijan's reserves and production are relatively modest by comparison with the reserves and production of the global leaders.

Figure 4



Data from: *BP Statistical Review of World Energy*, 2004

Figure 4 above depicts proven oil reserves for the 25 countries with the top oil reserves. Azerbaijan ranks twentieth in the list with seven billion barrels of proven reserves. Neighboring Kazakhstan, by comparison, has upwards of nine billion barrels.<sup>5</sup> Russia has reserves that are nearly ten times as large – 69 billion barrels. Saudi Arabia and Iran's reserves, however, are literally off the chart, with 262 and 130 billion barrels respectively.

Azerbaijan is in the company of Angola, another country that has lately come to occupy a significant place in new oil production, and Azerbaijan's reserves exceed those of the UK. Together, the Caspian countries' reserves amount to roughly the same magnitude as the reserves of the North Sea.

Just as Azerbaijan's proven reserves are in the second tier of the global oil industry, likewise Azerbaijan is in the second tier of current oil production. Table 1 below shows production volumes from nearly twenty of the world's leading oil-producing

<sup>5</sup> Kazakhstan's proven reserves are a matter of some debate. Both BP's *Statistical Review of World Energy* and *Oil and Gas Journal* cite nine billion barrels of proven reserves, but other analysts such as Wood Mackenzie cite substantially higher figures.

nations. Azerbaijan would not even appear on this listing on the basis of current production, which was 310,000 barrels in 2004.<sup>6</sup> In fact, the entire 5.4 billion barrels of the Azeri, Chirag, and Deepwater Guneshli (ACG) reservoirs amount to roughly one-half of one percent of the world's proven reserves – a modest quantity.<sup>7</sup>

**Oil production by country (2003)<sup>8</sup>**

Saudi Arabia	9.8
Russian Federation	8.5
USA	7.5
Iran	3.9
Mexico	3.8
China	3.4
Norway	3.3
Canada	3.0
Venezuela	3.0
United Arab Emirates	2.5
Nigeria	2.2
Kuwait	2.2
United Kingdom	2.2
Algeria	1.9
Brazil	1.6
Libya	1.5
Iraq	1.3
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Azerbaijan (by 2010 – projected)	1.3

All of these data naturally raise two questions: whether there is sufficient oil to support the cost-effective operation of BTC and whether BTC is truly significant for global energy markets. The first question was the source of extensive speculation in the general and trade press through the late 1990s. Many observers asserted that there was insufficient oil to support the building of a lengthy, large-diameter pipeline.

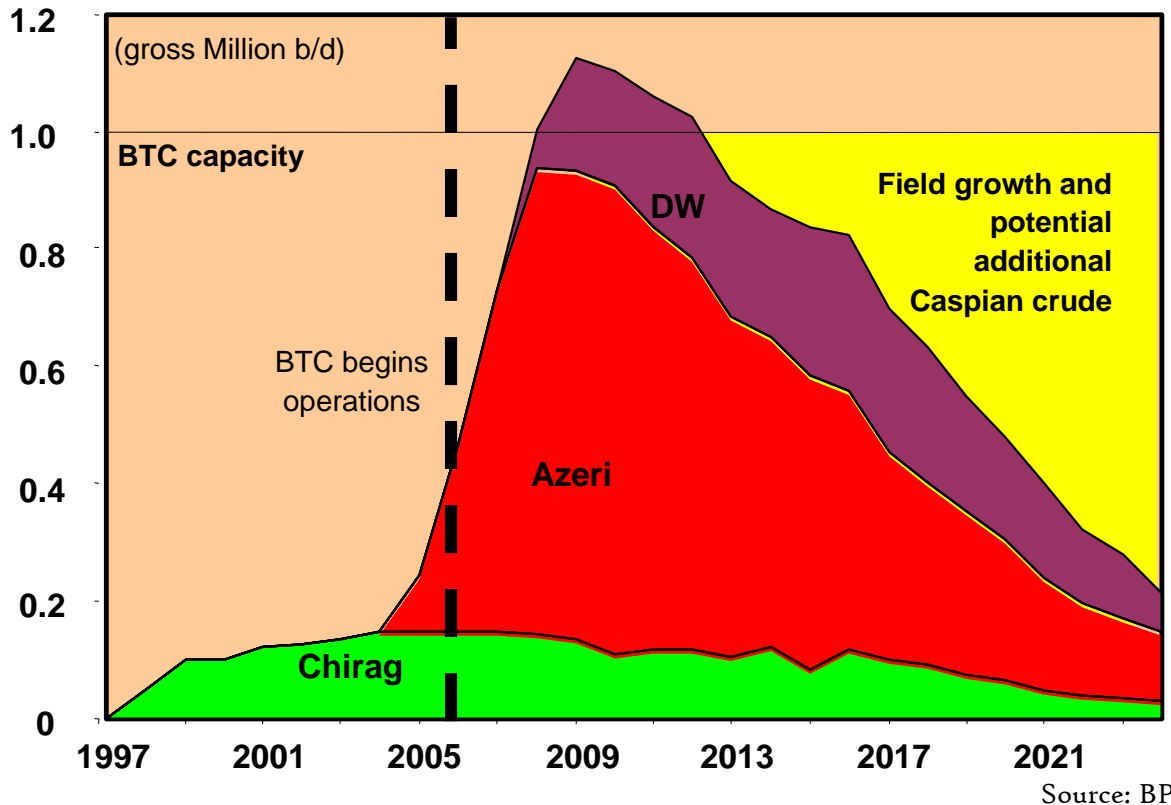
Figure 5 shows that this accusation is incorrect. The production curves for the three elements of the ACG project are shown at the bottom of the graphic. The production volumes from Azeri, Chirag, and Deepwater Guneshli (DWG) will peak relatively quickly, barring the discovery and extraction of further volumes from the license areas. Starting around 2013, there may be room in the BTC for production volumes from the Kashagan project or other non-BTC shippers.

<sup>6</sup> BP Statistical Review of World Energy, 2004.

<sup>7</sup> Digings, BP op. cit.

<sup>8</sup> Data from: BP Statistical Review of World Energy, 2004

Figure 5



Another factor worth considering is the competing transportation routings that might be used by those Caspian oil producers who opt not to use BTC. As noted above, shipping through one of the Georgian or Russian Black Sea ports, and then onward through the Turkish Straits is one possibility. Some oil companies prefer to send tanker shipments through the Bosphorus because they view the Bosphorus as a “free good.”

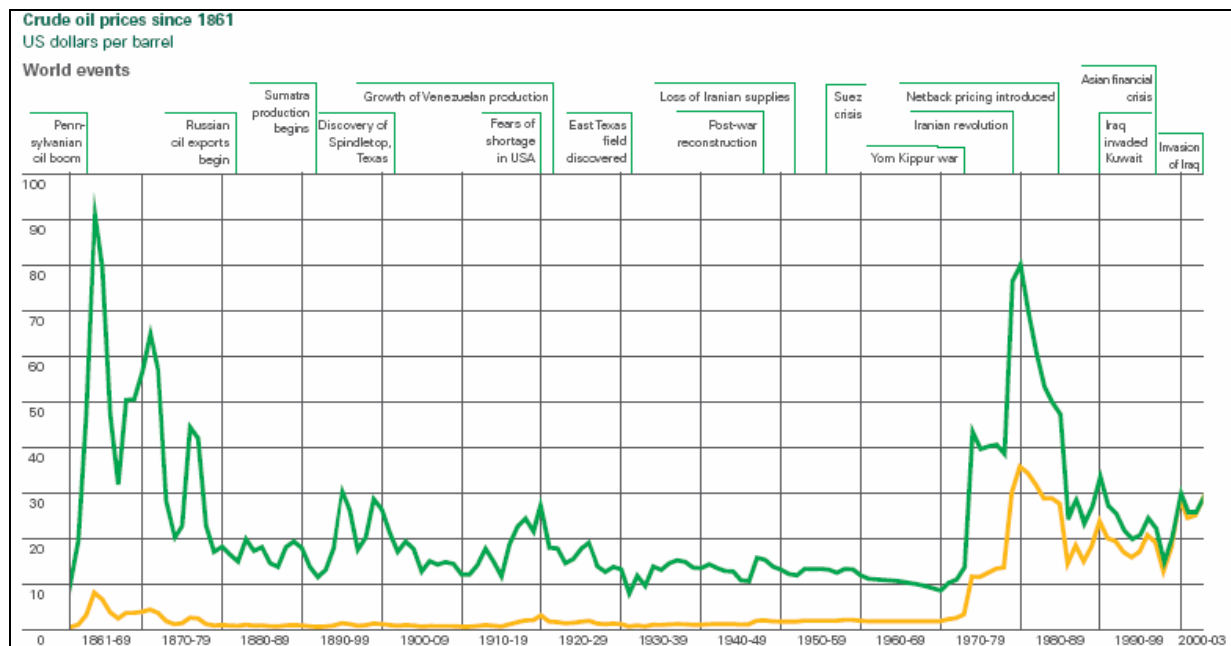
Shippers naturally compare the costs of shipment through the Straits against the costs of using BTC or any other bypass pipelines (such as the planned Burgas-Alexandroupolis pipeline or possibly the Odessa-Brody pipeline which may conceivably be reversed to operate in its original, northbound direction). Unfortunately for those companies wishing to ship through the Straits, bad weather combined with the Turkish government’s increasingly strict safety rules for transits of hazardous cargos have created monumental traffic jams that significantly delay the movement of tankers. In the 1990s, roundtrip passages into and back out of the Black Sea typically took between three and five days on average. Now, during the winter season, the roundtrips often take two weeks or more. For each day that the tankers sit at anchor waiting their turn to pass through the Straits, shippers must pay demurrage charges that often reach \$60,000 per day



or more. In short, even in the absence of an accident that might close down the Straits, no longer are the Straits a “free good.”<sup>9</sup>

Shipping oil north from the Caspian, through Russia’s Transneft crude oil transport system, also has cost implications. Transneft does not operate a quality bank (a means of accounting for varied oil quality and compensating shippers according to the quality of the oil they ship); nor does Transneft use batching or other means of segregating cargos to protect the market value of higher-quality crudes. This means that comparatively light, sweet crudes from the Caspian are mixed with all the other heavier, sourer grades in the Transneft system. Azeri Light crude that is shipped north from Baku, for example, arrives at the port as Urals blend, losing \$4 to \$5 per barrel of value in the process.<sup>10</sup>

Figure 6



BP Statistical Review of World Energy, 2004

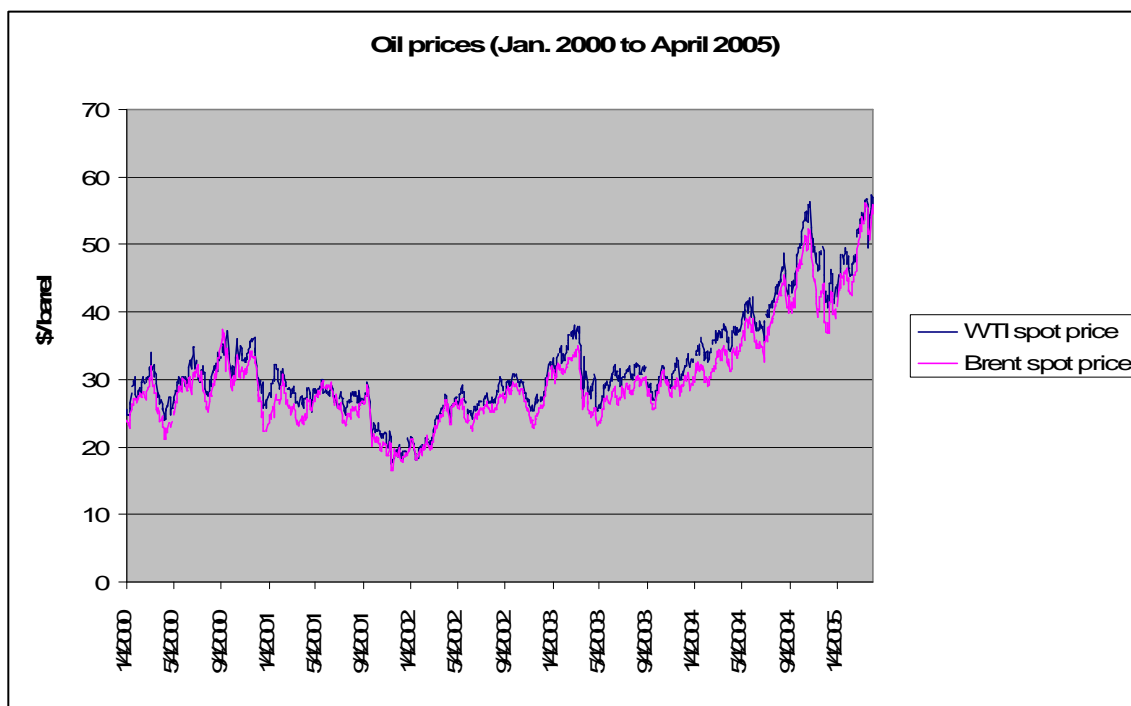
Next comes the question of whether BTC will have a significant impact on world oil markets, and if so why. The answer is less a reflection of Azerbaijan’s future oil production than it is a function of the current state of oil markets. Figure 6 depicts the historical movement of world oil prices for the period from the beginning of industrial oil production, in the 1860s, until the present day. The lower of the two

<sup>9</sup> Data on delays and demurrages are based on numerous press reports and the author’s discussions with industry experts. For an example of the press reporting, see: Torrey Clark, “Greece, Russia Consider Oil Link Bypassing Bosphorus,” *Bloomberg News Service*, March 11, 2005.

<sup>10</sup> “AIOC Will be Losing More than \$3.5 Million in the Baku-Novorossysk Transit Every Month,” *Azer-Press*, February 15, 2005.

curves on Figure 6 traces prices per barrel using the money of the day, whereas the higher curve shows constant-dollar prices from 2003. As is clear, historical oil prices have stretched even higher than recent levels, but current prices are elevated compared to historical averages. Figure 7 provides an even more detailed look at price levels for two of the so-called benchmark crudes (West Texas Intermediate and Brent) during the last two years. Contrary to some expectations among political leaders, the conclusion of active hostilities in Iraq did not lead to a rapid rebound of Iraqi oil production. In addition, during this same period, both East Asian demand (chiefly in China) and North American demand (chiefly the U.S.) have grown robustly. As a consequence, global oil prices not only failed to subside after the war in Iraq, they actually have risen still higher.

Figure 7



Data from: Energy Information Administration, US Department of Energy

So oil markets are tight. The question is whether the start of BTC's operations will have a significant impact on these markets. After all, the oil industry is a mammoth, globalized commodity market. The projected one million barrels of oil per day that will be transported by the BTC at peak throughput will amount to roughly 1.3% of current global supplies.<sup>11</sup> This is not an eye-popping figure to be sure. But significant price impacts in the global oil market are caused by modest

<sup>11</sup> Digings, BP.

*marginal* changes; the unanticipated one or two million barrels of oil per day of Chinese and American demand have helped to push prices up and keep them at elevated levels over the last several years. The availability of BTC, in turn, will allow the full field development of ACG and will encourage the investment necessary for the sustained development of other upstream projects in the Caspian. As noted at the start of this essay, BTC's million barrels of oil per day will amount to about 25% of the new oil supply that will enter the world market during 2005-2006. Clearly, BTC will make a positive impact on a global market that is experiencing volatility and high prices.

### Significance For Host Countries

The discussion above has assessed the implications of the BTC project for the companies that are participating in it, and for the global oil market. Obviously, there are other parties whose interests are significantly affected by BTC – especially the host countries and regional neighbors.

Throughout the 1990s, the routing of BTC and its companion, the gas pipeline known as the South Caucasus Pipeline (SCP), were often referred to by the shorthand phrase – the East-West Energy Transit Corridor. This term emphasized the fact that the BTC oil pipeline and the SCP project would be a departure from the Soviet-era energy infrastructure; the new transportation systems would break monopoly reliance on pipeline networks that were designed to meet the demands of Soviet times. With the advent of the East-West Corridor, oil and gas producers in the Caspian region would at least have a choice about how to reach the marketplace.

In addition to this general implication for the Caspian energy-producing countries as a group, BTC has had specific implications for each of the host countries. Political analysts debate whether these implications have been sufficiently positive, but only time and historical analysis will provide adequate answers to this question. The simple fact for the moment is that Turkey, Georgia, and Azerbaijan have received varied and significant benefits.

Turkey, for example, receives the benefit of significant reduction in the level of tanker traffic that would otherwise pass through the Bosphorus and the Dardanelles. As noted above, this objective is one that has united Turks of all classes, political affiliations, and sensibilities. In addition, Turkey will receive approximately \$200 million per year from BTC transit tariffs in the initial years of operation, with the possibility to increase to \$290 million per year from year 17 to year 40.<sup>12</sup> Turkey is also benefitting from an increase in economic activity in eastern Anatolia, the least

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<sup>12</sup> Regional Review, BP.

developed area of the country. The port of Ceyhan, which has experienced significant reductions in activity since the 1991 Gulf War, is entering a time of resurgence.

Turkish construction companies have played critical roles in the building of BTC and related infrastructure both inside Turkey and in the other two host countries. Turkey's entire economy will benefit from less expensive gas supply once SCP comes into operation, because the Shah Deniz gas is being sold to Turkey at a price that compares very favorably with current costs. And in addition, at the peak of BTC construction in the fall of 2004, approximately ten thousand people were employed along the pipeline construction project in Turkey alone.<sup>13</sup> BP has been careful to note that these are not permanent positions; pipeline operations are capital-intensive, not labor-intensive.

In addition to all these conventional direct benefits, BTC Co. has instituted extensive social investment programs that are designed to bring special positive impacts to those areas of the three host countries that are most directly affected by the project. In Turkey, BTC Co. has funded a Community Investment Program (CIP), that provides funds for high-priority community development projects in those towns and villages that are within four kilometers of the pipeline right-of-way. At present, the CIP is undertaking projects with 300 villages in Turkey.<sup>14</sup> BTC Co. has also funded an Environmental Investment Program which engages in special environmental projects above and beyond project-related obligations.<sup>15</sup>

Georgia too has received a variety of important benefits from the BTC project. The combined BTC and SCP projects are far and away the largest investment activities that are underway or planned in Georgia, and they are bringing the country critically-important foreign direct investment (FDI) at a time when the country is trying to shake off a reputation for endemic corruption and a poor investment climate. Most authoritative macro-economic assessments, such as the one undertaken annually by the European Bank for Reconstruction and Development (EBRD), highlight the importance of BTC-related construction and spin-off investment for Georgia's overall economic activity.<sup>16</sup>

In October 2004, after weeks of intensive discussions about the magnitude of the risks and benefits that BTC would bring to Georgia, BTC Co. undertook additional

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<sup>13</sup> All employment figures were received from BTC Co.

<sup>14</sup> In addition, CIP is working with 70 villages in Georgia and 80 in Azerbaijan. For more information on CIP see: <http://www.btcinvestment.com/>.

<sup>15</sup> More information about the Environmental Investment Program is available on the internet through <http://www.btcinvestment.com/> or at [http://www.caspiandevlopmentandexport.com/Downloads/BTC/eng/q4\\_es\\_04/10\\_2004-Q4%20Additionality%20and%20Offset%20Programmes.pdf](http://www.caspiandevlopmentandexport.com/Downloads/BTC/eng/q4_es_04/10_2004-Q4%20Additionality%20and%20Offset%20Programmes.pdf)

<sup>16</sup> For example: "The economy is expected to grow by 5-6 per cent per year in the medium term, supported by activity linked to the construction of the BTC and South Caucasus Gas Pipelines." Page 131, *Transition Report 2004*, European Bank for Reconstruction and Development, October 2004.

commitments designed to help Georgia to get on its feet economically. BTC Co. initiated a series of new grants that will provide an additional \$40 million to the Georgian budget by 2010 for projects that will contribute to broad-based socio-economic development. In addition, BP in its capacity as operator of the BTC and SCP projects made a unilateral grant in the amount \$10 million for socio-economic development programs such as educational stipends and economic development programs.

In Georgia, as in Turkey, a significant number of people are employed by BP during the roughly two-year construction period for BTC and its sibling pipeline, SCP – 6000 people overall, of whom roughly 4500 are citizens of Georgia. Again, their employment is not long-term in nature, but these workers will benefit from becoming familiarized, and in many cases technically qualified, with the kinds of health, safety, and environmental practices that are required in modern companies the world over. In many cases, these are practices that have never been introduced previously in Georgia.

Because the BTC will cover a shorter distance on Georgian territory than on Turkish territory, Georgia's transit tariffs will amount to a comparatively modest \$50-60 million per year at peak capacity. Nonetheless, even as Georgia's official budget grows over the coming years, these monies will represent a solid contribution to overall receipts.<sup>17</sup> In addition, to use comparative terms rather than absolute figures, Georgia will be paid roughly twice as much, on a per-kilometer basis, as its neighbors Azerbaijan and Turkey.

Georgia will receive two final types of benefits from the BTC and the overall East-West Energy Transit Corridor. First, with the beginning of SCP operations in late 2006, Georgia will have a choice in its gas supply. Initial gas volumes for Georgia from SCP will be modest – an insignificant quantity in the first couple years. Nonetheless, already by the third year of SCP operations, Georgia will have the opportunity to receive as much as one-third of current demand – a valuable addition to current supplies, which come exclusively from Russia's Gazprom. Competitive pressures being what they are, the existence of this new supply has the potential to contribute significantly to Georgia's energy security.

Finally, the operation of BTC and its sibling projects will underscore the fact that serious investors can do business successfully in Georgia. In the period since independence, analysts and commentators have rightly described Georgia as a place of beauty and great hospitality, but they have also often emphasized its instability. Political turmoil, secessionist movements, and endemic corruption have been the

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<sup>17</sup> In addition, for each of the last five years, Georgia has received greater than \$8 million in tariff revenue from the Western Route Export Pipeline, one of the two Early Oil routings that are being used as precursors to BTC, BP: Azerbaijan Business Unit 2004 Sustainability Report.

prominent features found in western assessments of the country. BTC will be concrete proof that, for all of the challenges of the last decade, investors can achieve real results in Georgia – and, moreover, they can achieve real results especially when Georgia works in partnership with its neighbors.

Azerbaijan is in a wholly different position from either of its partner host countries, Georgia and Turkey, because BTC will allow Azerbaijan to monetize its energy resources: It is Azerbaijan's oil that sits under the coastal waters of the Caspian in the Azeri, Chirag, and Guneshli deposits. As noted above, the State Oil Company of the Azerbaijan Republic (SOCAR) owns a ten percent share of AIOC. SOCAR also owns a 25% share of the BTC Pipeline Company, and ten percent of the Shah Deniz partnership. For Azerbaijan, the beginning of major operations of the East-West corridor is a matter of vital economic significance.

In fact, the future economic flows from the major oil and gas projects are of such significance to Azerbaijan that the country faces what some economists refer to as the paradox of plenty. The history of world's oil industry includes all too many cases where major new developments led to economic challenges that the host country was unable to handle effectively. Azerbaijan is certainly at risk of Dutch Disease – imbalance in the macro-economy that can lead to exchange rate effects and smother non-oil development. The Government of Azerbaijan has repeatedly acknowledged this risk and has taken steps to avoid it. In December 2000, Azerbaijan created the State Oil Fund of Azerbaijan (SOFAZ), in order to segregate energy revenues from the remainder of the economy and make more transparent and deliberative decisions about the wise use of the country's energy revenues.<sup>18</sup>

BP has worked closely with Azerbaijan to help it become familiar with effective revenue management practices, including by supporting SOFAZ's participation as a pilot country in the UK-sponsored Extractive Industries Transparency Initiative (EITI). BP also "publishes what it pays" to the host government in order to provide additional encouragement for transparency and effectiveness in revenue management. In 2004 – before the major increase in production that will occur this year – BP delivered to the Government of Azerbaijan 8.3 million barrels of "profit oil" (Azerbaijan's share under the terms of the production sharing agreement (PSA) that governs the ACG field development) – which must be understood as a mere hint of the volumes that Azerbaijan will receive during full-scale operations. BP estimates that Azerbaijan will receive more than \$100 billion in revenue from operations of the ACG, BTC, Shah Deniz, and SCP projects, and even this figure

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<sup>18</sup> For more information on the State Oil Fund of Azerbaijan, including information on the regular SOFAZ audits that are conducted by international accounting firms, see [www.oilfund.az](http://www.oilfund.az). For more information on the importance of effective revenue management, see the Regional Review, available on [www.caspiandevlopmentandexport.com](http://www.caspiandevlopmentandexport.com). Or see Svetlana Tsalik, editor, *Caspian Oil Windfalls: Who Will Benefit?*, New York, Open Society Institute, 2003.

is based on a an oil price of \$30 per barrel – a figure that is substantially below current price levels.<sup>19</sup>

As is true with the other two host countries, Azerbaijan is experiencing an employment benefit from BTC and its sibling projects, in addition to the revenue income. In the case of Azerbaijan, 2600 short-term jobs have been created during the construction period by the joint BTC-SCP project with another 9600 created by the upstream Azeri project. In addition, several hundred long-term jobs will exist after construction due to the sizable permanent BP business presence in Baku and the on-going operations at the mammoth Sangachal terminal.<sup>20</sup>

Sangachal itself is another form of benefit for Azerbaijan. It is one of the largest installations of its kind anywhere in the world at present, and it employs state-of-the-art technology. Azerbaijan's association with the global oil industry dates back to the days of the Nobel Brothers in the late 1800s, but sadly oil development in Soviet times brought the country incredible environmental devastation. By contrast, Sangachal and the off-shore platforms serve as a reminder to the people of Azerbaijan that modern engineering, investment, and environmental protection practices can significantly decrease the extent of environmental impact that is associated with the country's most important economic activity.

Azerbaijan is also benefiting from BTC and its sibling projects in the form of considerable quantities of locally-procured goods and services. In May 2002, BP and its partners established the Baku Enterprise Center, which helps local businesses understand the requirements and practices of major international investors like BP and its partners.<sup>21</sup>

### **Significance for the Energy Industry**

The discussion above highlighted the fact that BTC will bring benefits to today's tight global oil markets and to the countries and companies that participate in the project. In addition, BTC has major implications for the energy industry itself. The BTC Pipeline has introduced new practices at a time when a great deal of worldwide public attention is focused on the actions of the oil and gas industry.

Many non-governmental organizations (NGOs) – some based in the host countries of Azerbaijan, Georgia, and Turkey; others located in North America or Europe – have raised concerns about the BTC project during its planning and construction. Chiefly, the NGO concerns have centered on perceived risks in relation to the

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<sup>19</sup> Estimates for the period 1994-2024, BP: Azerbaijan Business Unit 2004 Sustainability Report, forthcoming.

<sup>20</sup> For detailed breakdown of employment figures, see BP's business update for 2004, available on: <http://www.ecbaku.com/i/news/docs/busupdateeng.doc>.

<sup>21</sup> For more information about the Enterprise Center, see <http://www.ecbaku.com/>.

project's impacts on the environment, human rights, and socio-economic development.

The greatest environmental controversies related to BTC have been related to global climate change and impacts on sensitive areas. Some NGO activists have criticized BP and its partners for bringing on-line new oil capacity at a time when there is growing awareness of the threats posed by the emissions of carbon dioxide and other greenhouse gases.<sup>22</sup> Others have pointed out that the BTC will cross geohazards such as earthquake faultlines, as well as cherished natural areas such as the Kodiana-Borjomi area of Georgia.<sup>23</sup>

In relation to human rights, NGOs have expressed concern over the legal framework that was established for the project, and some have charged that security systems for the project may undermine human rights of the people of Azerbaijan, Georgia, and Turkey.<sup>24</sup> A few NGOs charge that the project has already had a negative human rights impact.<sup>25</sup>

Concerns over the perceived socio-economic development risks of BTC have particularly emphasized the history of past oil rushes in developing countries. In the view of campaigners focusing on the socio-economic risks, oil and gas development inevitably leads to macro-economic distortions, increased corruption, and a worsening of living standards, instead of economic improvements.<sup>26</sup>

BP has not attempted to side-step these criticisms. Instead, it has sought to enter into dialogue with critics of the BTC project, to seek effective new approaches to rule out potential problems, and to institute an unprecedented level of transparency in connection with the project.

The engagement with civil society started early on, with countless information sessions and public meetings, and it continues today. Some of these discussions took place in the national capitals: Baku, Tbilisi, and Ankara. Others took place in European or North American cities where there is high interest in the BTC project.<sup>27</sup> Complaints and suggestions are tracked, reported to the public, and

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<sup>22</sup> Friends of the Earth-UK, for example, decries BP's investment in "a dirty oil pipeline" at the very time that the corporation is investing heavily in an identity as a greener energy company. See: [http://www.foe.co.uk/campaigns/corporates/case\\_studies/bp/index.html](http://www.foe.co.uk/campaigns/corporates/case_studies/bp/index.html).

<sup>23</sup> See for example, the website of CEE Bankwatch, <http://www.bankwatch.org/issues/oilclima/baku-ceyhan/mbaku.html>.

<sup>24</sup> See for example, Amnesty International's report from May 2003, entitled "Human Rights on the Line" [http://www.amnesty.org.uk/images/ul/H/Human\\_Rights\\_on\\_the\\_Line.pdf](http://www.amnesty.org.uk/images/ul/H/Human_Rights_on_the_Line.pdf).

<sup>25</sup> These accusations come mostly from Corner House and the Kurdish Human Rights Project. See [http://www.bakuceyhan.org.uk/press\\_releases/ffm.htm](http://www.bakuceyhan.org.uk/press_releases/ffm.htm).

<sup>26</sup> For example, see Friends of the Earth-UK's paper criticizing the effectiveness of governmental funds for the management of oil revenues - <http://www.foe.org/camps/intl/worldbank/oilrev.pdf>.

<sup>27</sup> For example, the Brookings Institution in Washington, DC, hosted a two-session workshop on BTC in May 2003. See <http://www.brookings.edu/dybdocroot/comm/events/20030304btc.pdf>.



followed-up.<sup>28</sup> Literally hundreds of discussions have taken place in villages near to the pipeline right-of-way, in small halls and schoolrooms – even in outdoor gathering points.<sup>29</sup>

In Azerbaijan, BP and its partners in BTC Co. have teamed up with the Open Society Institute (OSI) to institute a program of NGO monitoring during the implementation and early operation of the BTC. OSI has managed an extensive program that provides training on monitoring methods and standards and then enables the NGOs to develop workplans and carry out monitoring activities, including site visits. The NGOs have formed five working groups that are investigating the effect of the pipeline on the environment, cultural heritage, human rights, local content (procurement issues), and social impacts.<sup>30</sup> In Georgia, Eurasia Foundation has initiated a similar program. In both cases, the NGOs' reports are being made available to the general public. BTC Co. will respond to key criticisms. In Turkey, NGOs will also have extensive opportunities to learn about the project, engage with BTC Co. and relevant Turkish pipeline authorities, and assess the implementation of BTC.

Transparency mechanisms such as these NGO monitoring processes have been a fundamental element of the approach that BP and its partners have employed throughout the planning and implementation of the BTC project. BP has taken a step that is unprecedented for major oil and gas projects: It has published all the major framework agreements and documents that underlie the BTC. Internet users will thus find at the project website ([www.caspiandevlopmentandexport.com](http://www.caspiandevlopmentandexport.com)) the text of the production sharing agreement (PSA) for the ACG project – the chief source of oil that will be shipped through BTC.

They will also find on-line:

- The inter-governmental agreement (IGA) for BTC that was entered into by the governments of Azerbaijan, Georgia, and Turkey;
- The host government agreements (HGAs) between BTC Co. and the three governments;
- The environmental and social impact assessments (ESIAs) for each phase of BTC and its sibling projects in each country;

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<sup>28</sup> For more information on the extent of on-going consultations and examples of the public reporting of complaints, see the quarterly environmental and social reports, such as the one found at: [http://www.caspiandevlopmentandexport.com/Downloads/BTC/eng/q4\\_es\\_04/06\\_2004-Q4%20Case%20Study%2006.1.pdf](http://www.caspiandevlopmentandexport.com/Downloads/BTC/eng/q4_es_04/06_2004-Q4%20Case%20Study%2006.1.pdf).

<sup>29</sup> For example, see the Public Consultation and Disclosure Plans (PCDPs) – one each for Azerbaijan, Georgia, and Turkey – that were prepared as a part of the Environmental and Social Impact Assessments – [http://www.caspiandevlopmentandexport.com/ASP/dd\\_BTC\\_Detail.asp?PID=9973](http://www.caspiandevlopmentandexport.com/ASP/dd_BTC_Detail.asp?PID=9973).

<sup>30</sup> For more details, see OSI Azerbaijan's website: [http://www.osi-az.org/crw\\_nw2.shtml#](http://www.osi-az.org/crw_nw2.shtml#).

- Numerous critical reviews and assessments of the BTC project by independent technical experts working on behalf of the lenders;
- The so-called social and resettlement action plans (SRAPs – a misnomer: the project does not involve any permanent resettlements despite its 1768-km length crossing three countries);
- A detailed report on the method by which the routing of the BTC was chosen within Georgia, where there has been protracted controversy over the pipeline's proximity to the treasured area of Kodiana-Bakuriani and Borjomi; and
- Many other major documents that describe either the commitments that BP and its partners have entered into, or their performance against the established commitments.<sup>31</sup>

BP also took two further steps in relation to BTC. First, BP exhaustively researched, wrote, and then released to the public in February 2003 a document called the *Regional Review*, which states the general philosophy and principles with which BP approaches the BTC and its sibling projects. The *Regional Review* surveys a host of the most controversial issues related to major oil and gas infrastructure projects – corruption, revenue management, human rights, social development, conflict, and environmental impacts. For each topic, the *Regional Review* assesses the potential impacts of BTC and the other BP-led projects on the three affected countries, as well as the potential impact of the countries on BP and the projects. It then discusses measures that are being employed to mitigate negative impacts.

Secondly, in recognition of the fact that the project framework agreements (the PSAs, IGAs, and HGAs mentioned above) are complicated documents written by and for lawyers, BP prepared a *Citizen's Guide* to the BTC. This document explains in everyday language the nature of the commitments that BP and its partners have made. It provides answers to critical questions, such as whether BTC and the sibling projects are exempt from the provisions of national law, a frequent but inaccurate accusation.<sup>32</sup>

The net effect of all of these measures is simple: BP has not said to the people of Azerbaijan, Georgia, and Turkey “just trust us.” Instead, BP has laid out in detail what it has promised, and what its own expectations are of itself and of the

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<sup>31</sup> See <http://www.caspiandevlopmentandexport.com>. Most of the key documents have been made available in the host-country capitals and in many regional information offices and even public libraries, in addition to on the web.

<sup>32</sup> For the text of the *Citizens Guide*, see:

<http://www.caspiandevlopmentandexport.com/Downloads/citizens%2oguide%2ofinal.pdf>.

partners and contractors that will work with BP. It has thus provided very public standards, and BP has every reason to believe that it will be held accountable by international public opinion, and by its own shareholders.

Three specific cases illustrate the approach. Controversy emerged in the press in early 2004 over alleged shortcomings of the anti-corrosive coating that BP is applying to the pieces of pipe (“joints” as they are known in the industry) before welding and laying the pipe down into the trench. This coating is important for reducing or eliminating corrosion that, over time, can reduce the thickness of pipe walls and lead to failures or even spills. In the initial application of this “field joint coating” during cold weather, BP and its contractors discovered that the coating was failing to cure and adhere properly in some instances. Work was interrupted until BP and the contractors corrected work practices; the application of heat addressed and eliminated the problem. In short, there was a technical problem; the problem was identified by BP’s quality control systems; the problem was diagnosed and fixed; work then continued. What is more, BP made available on the internet the key findings of an independent assessment of the topic, in order to address the controversy.<sup>33</sup>

Turning to a second case study, in May 2004, Amnesty International released a major paper that accused BP of failing to take steps to protect human rights in connection with the BTC project. Rather than launching a public relations offensive to reject the Amnesty charges, BP entered into an extensive expert dialogue with Amnesty and their legal counsel. BP clarified: (1) its plans to implement in the security systems for the entire pipeline – for the first time anywhere – the Voluntary Principles for Security and Human Rights (a new industry-government compact that creates high standards), (2) its adherence to other, far-reaching human rights commitments, and (3) a self-imposed legal obligation (a Deed Poll) to use the project’s legal framework as a strengthening of – not as an escape from – national law.<sup>34</sup>

A third case study of BP’s transparent approach for the BTC project can be found in the form of the Caspian Development Advisory Panel (CDAP). CDAP is an independent body that reports to the group chief executive of BP, John Browne. The panel consists of four experienced individuals – a Dane, an Algerian, a Canadian, and an American – who have had distinguished careers in senior positions in industry, international organizations, and government. Their mandate

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<sup>33</sup> See the Independent Field Joint Coating Review and Related Documents on [http://www.caspiandevelopmentandexport.com/ASP/PD\\_BTC.asp](http://www.caspiandevelopmentandexport.com/ASP/PD_BTC.asp).

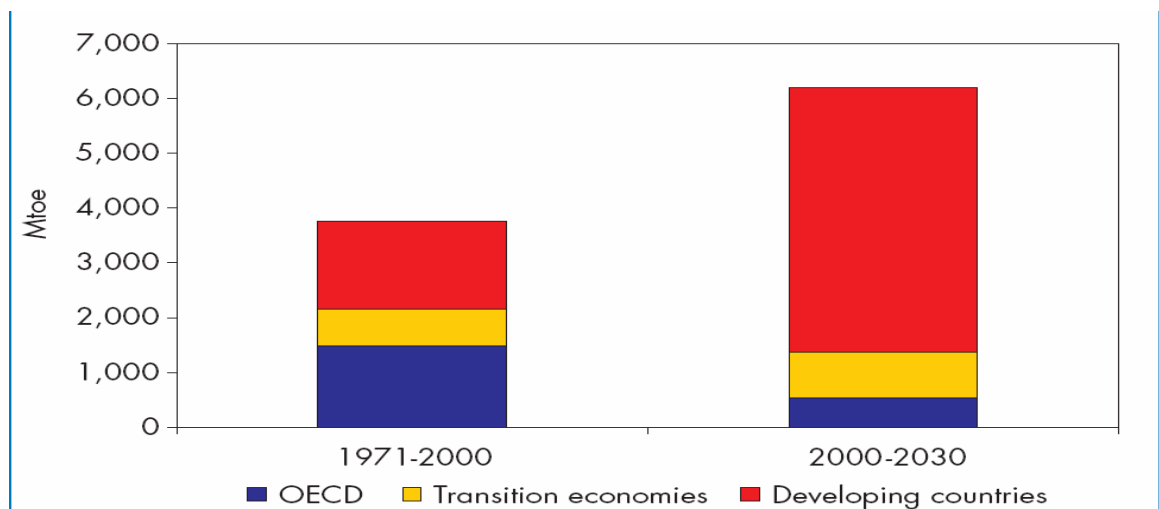
<sup>34</sup> This legal obligation is referred to as a Deed Poll. For more information, see the Citizens Guide, mentioned above. Amnesty did not retract its report and did not endorse the BTC project, but it did document on its website the engagement with BP and the resulting understandings. See <http://www.amnesty.org.uk/business/btc/>

has been to review the implementation of BTC and its sibling projects, enter into independent dialogue with all manner of interested stakeholders, and bring significant findings directly to the attention of the chief executive. Each of the Panel members has his own independence and credibility at stake, so the panel does not hesitate to highlight instances where they feel that the BTC project managers have missed an opportunity or have failed to live up to appropriately high expectations. Similarly, the panel has highlighted major achievements of the project team. A professional secretariat and expert consultants support the Panel, and its findings are published on the internet.

BP's approach in managing the BTC has raised the bar for future projects in the oil and gas industry. It has made clear that companies can take account of the criticisms and concerns of civil society and can, in fact, respond to those criticisms and concerns in a way that strengthens the projects, to be the benefit of investors, shareholders, and civil society alike.

BTC will certainly not be the last major energy transportation project that involves features like a developing-country setting, multiple legal jurisdictions, challenging technical and political parameters, and close attention from host-country and international NGOs. On the contrary, one has every reason to believe that more energy projects will have these characteristics. The International Energy Agency has made this point repeatedly in its forecasts for the global energy industry in publications such as the *World Energy Outlook*.

Figure 8



Source: *World Energy Outlook 2002*, International Energy Agency

In the 2002 edition of this publication, IEA published the graphic that appears above in Figure 8. This graphic makes the point that, in the last three decades,

roughly equal shares of our total global energy production came from industrialized countries on the one hand and from developing and transition countries on the other. In the coming three decades, however, roughly four-fifths of total energy production will come from developing and transition countries. Energy investors working in these countries, which will be such an important part of our energy future, will face many of the same challenges that BP and its partners have faced on BTC – pressing need for new employment, weak institutions, high levels of corruption, low standards of living, and political instability.

Notably, BP's actions as the operator of BTC have also had the effect of raising the stakes for BP itself. The company has made itself accountable, and it would pay dearly in terms of its reputation if BTC were to suffer a serious failure or defect. This fact provides an explicit incentive for BP to do its utmost to prevent potential defects or failures.

In reality, when building and operating major industrial infrastructure such as a pipeline system, one is never able to categorically rule out failures. Nonetheless, clear accountability creates the pressure that is required to minimize chances of bad outcomes. This is an approach that other companies will feel pressured to emulate, and that means that BTC will serve as a learning experience for future operations of the energy industry.

## **Conclusions**

The \$3-billion Baku-Tbilisi-Ceyhan pipeline project is an enormous and multi-faceted undertaking, as the discussion above has illustrated. BTC is a project that was dismissed by some as a fantasy, an illusion that would never come to pass. Now, in 2005, the project is entering operation.

As it does come to fruition, BTC continues to carry great significance for many thousands – indeed millions – of people who are affected by the project in one way or another. Energy consumers in the United States, Europe, Japan, China, and elsewhere will experience subtle, though important, impacts through a global oil market that is experiencing a time of volatility. Energy industry leaders will receive a useful case study of how they can conduct major energy projects in the future. Energy-producing and energy-transit countries around the Caspian will have new choices about how to reach markets. Citizens in the three host countries will experience both indirect benefits (wealthier state coffers) as well as direct benefits – employment, local procurement, community development, and other social investments.

All along the way, from the first conceptual discussions in the 1990s to the present day, BTC and its potential positive impacts have been anything but an inevitability. Now, as the pipeline enters operation, those who have labored to

make BTC a reality can take a moment to celebrate the achievements to date. The Baku-Tbilisi-Ceyhan oil pipeline will bring positive economic impacts for years to come.