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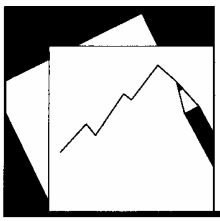

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In the Pipeline: Georgia's Oil and Gas Transit Revenues

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In the Pipeline: Georgia's Oil and Gas Transit Revenues

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Abstract

Starting in 2005, nontax revenue in Georgia is expected to rise significantly, in the form of transit fees for oil transported through the Baku-Tbilisi-Ceyhan Oil Pipeline. Transit fees for gas transported through the South Caucasus Pipeline are expected to start in 2007. This paper discusses (1) how much additional revenue can be expected, (2) prospects for monetizing gas that could be received as in-kind transit fees, in the light of pervasive nonpayment in the domestic gas sector, (3) the impact of these inflows on external competitiveness, (4) how to put in place appropriate reporting on these additional revenues, and (5) whether these inflows justify the creation of a special natural resource fund.

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I. Taking Caspian Oil and Gas to the World Markets

Georgia's geographic location puts it in a good position for transporting Caspian energy to the Mediterranean, as the map below makes clear. Azerbaijan today uses two pipelines for exporting its oil: the 'western route' to the Georgian Black Sea coast, and the 'northern route' through Russia to Novorossiysk. The western route is much shorter and transport costs therefore are much lower (an estimated US$1.5 per barrel, compared with US$3 per barrel for the northern route). In addition, Azeri light crude using the Russian pipeline system loses value when mixed with Siberian crude. For these reasons, the 'western route' has been the preferred one for taking Azeri crude oil to world markets in recent years.

Figure 1. Oil and Gas Pipelines in the South Caucasus

Note: We gratefully acknowledge permission from British Petroleum to reproduce this map. The IMF assumes no responsibility for the accuracy of the map.

The western and northern routes share a common disadvantage, in that they use Black Sea ports that still require passing through the crowded Turkish straits to reach the Mediterranean. With oil exports from the former Soviet Union rising rapidly, the traffic bottleneck at the Bosporus and the Dardanelles has become increasingly problematic, prompting governments and oil companies with a stake in exporting Azerbaijan's oil to build

the Baku-Tbilisi-Ceyhan (BTC) pipeline that will take Azerbaijan's crude oil directly to the Mediterranean.[2]

BTC is expected to be completed in 2005, at a cost of approximately US$3 billion. It will be the main export route for oil from Azerbaijan's Azeri-Chirag-Guneshli (ACG) oil field. Investments in ACG's 'full field development' of almost US$4 billion should facilitate a gradual increase in ACG production from today's level of just over 0.1 million barrel per day (bpd) to 1 million bpd by 2010.

BTC's capacity of 1 million bpd was chosen to accommodate ACG's projected production level. However, under current projections, ACG's production would remain around 1 million bpd only for a few years, and then decline to less than half that amount by 2020. BTC's operator, British Petroleum, will therefore probably need to look beyond Azerbaijan to make optimal use of the pipeline. Kazakh oil would be the obvious candidate to fill the gap; unlike Azerbaijan, Kazakhstan's oil production is projected to increase steadily, reaching more than 3 million bpd by 2015.[3] In March 2004, Kazakh President Nazarbayev expressed strong support for the BTC project and indicated that he expected the pipeline to be used for the export of Kazakh oil. Details of an agreement to transport Kazakh oil via BTC remain under negotiation.[4]

Azerbaijan's gas exports are also projected to rise sharply over the medium term, especially from Shah Deniz, which at 870 billion cubic meters is one of the biggest gas fields in the world. Huge expenditures (US$4–5 billion) have been committed by British Petroleum and its partners to develop the field. The South Caucasus Pipeline (SCP), which will bring Shah Deniz's gas to Turkey, is expected to cost about US$1 billion.

II. EARLY OIL: THE WESTERN ROUTE (BAKU-SUPSA)

Oil and gas production in Azerbaijan decreased sharply in the late 1980s and early 1990s. In recent years, gas production has continued to decrease, but oil output has rebounded. In 1995, the Azerbaijan International Operating Company (AIOC), a consortium of international firms led by British Petroleum, was formed to operate Azerbaijan's most promising oil field, ACG,

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[2] Increased tanker traffic through the straits has led Turkey to tighten regulations, aiming to reduce environmental and safety risks. For example, since 1998, oil tankers have been banned from passing the straits at night.

[3] See Wakeman-Linn, Mathieu, and van Selm (2003).

[4] In March 2004, Kazakhstan's Deputy Minister of Energy, Mr. Kinov, announced that Kazakhstan was ready to deliver up to 150 million barrel per year for transport through BTC. These shipments could play an important role in making full use of BTC's capacity in the next few years, before ACG production reaches it full potential (see Section III below).

with production starting in 1998. A new pipeline from Baku to the Georgian Black Sea terminal of Supsa was completed in April 1999.

In 1996, the Georgian International Oil Corporation (GIOC) was set up to facilitate oil pipeline projects and in 2001, its authority was enlarged to include gas pipelines to be implemented under the East-West Energy Corridor development. For the Baku-Supsa pipeline, in the summer of 1995 the government of Georgia negotiated a transit fee of US$0.18 per barrel that was indexed to inflation and increased to US$0.19 per barrel on average in 2003 (Table 1). The pipeline was used at maximum capacity in 2002 and 2003, generating revenues of almost US$9 million (0.2 percent of GDP) per year.

Table 1. Georgia: Transit Revenues from the Baku-Supsa Oil Pipeline

	1999	2000	2001	2002	2003
Volume (million barrels)	24.8	36.6	43.3	45.9	46.0
Fee (per barrel, US cents)	0.18	0.18	0.18-0.19	0.19	0.19
Transit revenue (US$ million)	4.5	6.5	8.5	8.7	8.7
of which transferred to the government budget (US$ million)	0.7	1.4	3.8	4.3	6.6
of which used to cover expenditures, meeting Georgia's obligations under international agreements (US$ million)	3.8	5.1	4.7	4.4	2.1

Source: Georgian International Oil Corporation (GIOC).

The share of government earnings from Baku-Supsa is increasing because Georgia's obligations (investment and maintenance commitments) under the agreements related to this pipeline were frontloaded.[5] GIOC's transfers to the government consist of tax payments and dividend contributions (classified as nontax revenue in the fiscal accounts). For 2004, GIOC tax and dividend payments are expected to be roughly equal in size.

III. New Pipelines: Baku-Tbilisi-Ceyhan and the South Caucasus Pipeline

Projections for Georgia's transit revenues from the transport of oil and gas via BTC and SCP (presented in Table 2) are based on the following assumptions:

- BTC is assumed to be completed in the second half of 2005, and SCP by mid-2007.
- Over the projection period (2005–12), BTC will be used to transport oil from the ACG oil field; potential transport of Kazakhstan's oil via the pipeline has not been factored in, since no concrete agreement on volumes and transport fees for Kazakh oil has been reached to date.

[5] The authorities indicate that all revenues from Baku-Supsa will be reported on GIOC's website, www.gioc.ge.

- The Baku-Supsa pipeline will continue to be used at maximum capacity; BTC will be used for exports of ACG oil that cannot be accommodated by Baku-Supsa. Since the transit fee for Baku-Supsa, now at US$0.19 per barrel (Table 1), exceeds the fee for BTC (US$0.12, Table 2), Georgia's revenues from oil transit would be reduced if oil now shipped via Baku-Supsa was redirected through BTC.

- Georgia will receive 5 percent of the gas transported through SCP as a transit fee, and will be able to sell that gas for US$100 per thousand cubic meters (tcm) in the first year (the price will then rise by 2 percent per year). This is an optimistic assumption in the light of the widespread nonpayment in this sector in Georgia, even though there are some recent signs of improving payments discipline (see below).[6]

- Transit fees from SCP are based on the contract with Turkey that was agreed in 2001. The fees could increase if additional buyers of Shah Deniz gas can be found. In particular, negotiations with Greece are under way, but no concrete agreement has been reached to date.

- Possible profits from Georgia's right to purchase additional gas transported through SCP have not been taken into account.[7]

- It is assumed that Georgia does not incur significant costs for policing the pipelines. The plausibility of this assumption is difficult to gauge at present, because the security costs that will be incurred once the pipeline has been laid depend on the exact modalities of pipeline construction (depth of the pipes, number of sensors installed throughout the backfill, etc.). These modalities are being discussed between the oil companies (who are paying for the construction) and the Georgian authorities (who will be responsible for securing the pipeline).

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[6] Article 8 and Appendix 1 of the 2002 Host Government Agreement on the SCP Pipeline suggest that Georgia has a choice between receiving a cash transit fee of US$2.50 per tcm or receiving 5 percent of the gas transported through SCP. The two options would have equal value if all gas could be sold at US$50 per tcm without any storage or transaction costs. The cash option looks attractive given the poor payments discipline in Georgia's domestic gas sector, but the Georgian authorities have agreed with the operators that Georgia will take gas as in-kind payment for gas transit because it will contribute to a diversification of Georgia's sources of energy and because they are confident that payments discipline in the domestic gas sector will be improved.

[7] The contracts pertaining to the South Caucasus Pipeline use the terms "Option Gas" for gas that is received as in-kind transit fee, and "Supplemental Gas" for additional Georgian purchases.

The projections in Table 2 indicate that Georgia can expect to receive around 1 percent of GDP in additional revenues if the pipelines are used to full capacity. While these revenues would make a significant contribution to the government's resource envelope, given the country's relatively low tax revenue (the tax-to-GDP ratio is projected at about 17 percent in 2004), they are not of the same order of magnitude as oil revenues of oil producing countries. For example, in neighboring Azerbaijan, oil sector receipts account for almost half of all government revenues (Wakeman-Linn, Mathieu and van Selm, p. 343), or 10 percent of GDP in 2003.

IV. A GEORGIAN "OIL FUND"?

Fiscal issues that are typically a major source of concern in oil producing countries play a less significant role in countries receiving transit revenues. Davis and others (2001) list the following implications for fiscal policy stemming from nonrenewable resource revenues:

- **Volatility and uncertainty of the revenue stream**: while oil price volatility can have a major effect on overall government revenue in oil producing countries, price volatility is not an issue for countries that transit oil—Georgia's transit fees are fixed and do not depend on oil price developments. As a consequence, instruments that oil producing countries put in place to address price volatility, such as hedging or revenue stabilization funds, are less likely to be useful tools for macroeconomic policy management in oil transiting countries.

- **Exhaustibility of the revenue stream**: the Georgian example shows that in specific cases, this may be a more significant problem in oil producing countries than in oil transiting countries. The decline in ACG production that is projected to take place in the second decade of the century will lead to sharply lower oil revenues for Azerbaijan's government—but Georgia's transit fees from BTC need not decline if the pipeline can be used to transport Kazakh oil. As in the case of volatility, this implies that instruments of macroeconomic policy that are designed to address the exhaustibility of nonrenewable resources (such as oil revenue savings funds) are less likely to play a useful role in oil transiting countries.

Table 2. Georgia: Oil and Gas Transit Revenues, 2005-2012

	2005 1/	2006	2007	2008	2009	2010	2011	2012
BTC revenues:								
AIOC oil production (million barrel)	114.6	192.0	265.0	338.0	338.0	374.5	411.0	411.0
exported using Baku-Supsa	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
exported using BTC	56.3	146.0	219.0	292.0	292.0	328.5	365.0	365.0
BTC transit fee (US$ per barrel)	0.12	0.12	0.12	0.12	0.12	0.14	0.14	0.14
BTC transit fees (US$ million)	6.8	17.5	26.3	35.0	35.0	46.0	51.1	51.1
BTC transit fees (percent of GDP)	0.12	0.29	0.41	0.52	0.49	0.60	0.63	0.59
SCP revenues:								
Gas sales to Turkey (bcm)			2.0	3.0	5.0	6.6	6.6	8.0
Georgia's 5 percent (in-kind fees) (bcm)			0.100	0.150	0.250	0.330	0.330	0.400
Assumed sales price (US$ per tcm)			100	102	104	106	108	110
SCP transit fee (US$ million)			10.0	15.3	26.0	35.0	35.7	44.2
SCP transit fee (percent of GDP)			0.16	0.22	0.36	0.46	0.44	0.51
BTC plus SCP transit revenues (US$ million)	**6.8**	**17.5**	**36.3**	**50.3**	**61.1**	**81.0**	**86.8**	**95.3**
BTC plus SCP transit revenues (percent of GDP)	**0.12**	**0.29**	**0.57**	**0.74**	**0.85**	**1.06**	**1.07**	**1.11**
Memorandum items:								
Nominal GDP (million lari)	10,809	11,804	12,890	14,075	15,224	16,466	17,810	19,263
Nominal GDP (US$ million)	5563	5942	6357	6803	7211	7644	8103	8589

Sources: GIOC; and IMF staff projections.

1/ In 2005, the Baku-Supsa and BTC pipelines cannot fully accommodate AIOC production, because BTC will become operational only in the second half of the year.

- **Real exchange rate volatility and Dutch disease**: these phenomena will likely be a less serious issue for oil transiting countries than for oil producing countries because of the much smaller magnitude of the flows involved. In the case of Georgia, projected 2008 oil transit revenues are just 2 percent of exports of goods and services for that year and hence a significant effect on the exchange rate is unlikely. By contrast, in Azerbaijan, oil exports are responsible for around 90 percent of total exports.[8] With oil exports that large relative to the rest of the economy, there is a significant risk that exchange rate appreciation driven by oil exports puts other sectors of the economy at a competitive disadvantage ('Dutch Disease'). The corollary is that instruments to mitigate exchange rate appreciation, such as natural resource funds that keep their assets abroad in foreign-currency-denominated securities, would not be justified in the case of Georgia.

V. MONETIZING IN-KIND GAS TRANSIT PAYMENTS

Monetization of in-kind fees from transiting gas through SCP is predicated on a significant improvement in payments discipline in the domestic gas sector. An overview of the main consumers of gas in Georgia is presented in Table 3. The consumers can be grouped into three different types: large power generation/industrial clients, distributors, and other, mainly small-scale businesses.

Payments discipline is the highest in the small-scale client segment. Enforcing discipline from large-scale direct clients has proven much more difficult, because these entities are perceived as "systemically important," complicating the enforcement of a tough disconnection policy. Payments discipline for gas sold to distributors has also been poor, because they have not been able or willing to enforce discipline on their own customers. For example, the collection rate of Tbilgazi, the municipality-owned distributor in the capital, amounted to less than 30 percent in 2002 and approximately 23 percent in 2003. Tbilgazi's cash collection rate improved to 32 percent in the first half of 2004.

[8] See Wakeman-Linn, Mathieu, and van Selm (2003, p. 343).

Table 3. Georgia: Major Gas Consumers, 2000-03
(in millions of cubic meters)

	2000	2001	2002	2003
Power generation				
Mtkvari	142.2	345.5	74.5	176.5
Tbilresi	367.1	48.1	89.8	7.0
Distribution				
Tbilgazi	106.6	156.0	206.8	289.6
Rustavigazi	31.0	13.0	6.8	10.7
Kutaisigazi	12.2	11.9	10.7	10.7
Kazbegigazi	4.6	11.7	23.0	38.0
Industrial				
Azoti (chemicals)	247.7	125.4	167.8	176.0
Rustavi Cementi	19.7	35.8	37.7	39.6
Kartuli Shakari	0.0	0.0	6.1	9.2
Other	188.6	161.9	140.9	191.7
Losses 1/	78.2	46.6	48.3	60.0
Total consumption	**1197.9**	**955.9**	**812.4**	**1009.0**

Source: Georgian Gas International Cooperation (GGIC).

1/ Assumes that network-wide losses are distributed according to throughput between Georgian distribution and transit to Armenia.

Georgia's experience with monetizing fees for the transit of Russian gas to Armenia using the "Magistral" pipeline has been positive, but volumes have been relatively small. As shown in Table 4, the quantity of gas transited through Georgia for consumption in Armenia is slightly higher than domestic gas consumption. Georgia is entitled to 10 percent of the gas transiting the country as an in-kind fee, but this is reduced by the technical losses incurred in transportation, which amount to about 6 percent of the quantity transported. As a result, Georgia received 30–40 million cubic meters of gas as transit fees in 2002–03—less than 5 percent of total domestic consumption. The in-kind transit fees have been handled by Georgian Gas International Cooperation (GGIC), a state-owned enterprise established in 1997 to manage the country's high-pressure transmission network. GGIC has been able to sell the in-kind receipts mainly to the small-scale business segment, such as automobile gas stations, at a tariff of approximately US$95 per tcm. According to data provided by GGIC, the collection rate on these sales is close to 75 percent.

Table 4. Georgia: Gas Consumption and Gas Transit, 1989-2003
(in millions of cubic meters)

	Distribution in Georgia	Transit to Armenia
1989	6223.2	
1990	5479.8	
1991	4580.5	
1992	5982.7	916.6
1993	4273.0	800.6
1994	2719.5	867.9
1995	1055.9	1582.3
1996	1078.8	1135.2
1997	910.6	1444.9
1998	924.2	1510.9
1999	970.5	1231.5
2000	1197.9	1403.6
2001	955.9	1403.1
2002	812.4	1070.3
2003	1009.0	1200.9

Source: GGIC.

In contrast, as shown in Table 2, transit fees from SCP would increase to 330 million cubic meters by 2010 under the in-kind option—about one-third of current gas consumption in Georgia. This would make it much more difficult to successfully market the gas. Construction of a gas storage facility would make the operation easier to handle, but all options for gas storage under consideration are expensive. For example, a storage facility with a capacity of 300-400 million cubic meters would cost about US$40-50 million. Leasing storage space in Azerbaijan could be an alternative.

Monetization of gas received as a transit fee is further complicated by Georgia's commitment to buy additional gas from the SCP consortium at a discounted price for at least the first five years of the project (see Table 5). The authorities need to develop as soon as possible a strategy to deal with these issues—especially to find paying customers at home or abroad, and to build or rent storage capacity. If evidence accumulates that it will be difficult to monetize the additional gas (which Georgia is now committed to purchase) at low transaction and storage costs, the authorities may want to consider taking cash as a transit fee.

Table 5. Georgia: Additional Gas Purchases from SCP

Year	Volume per year 1/	Price (US$/tcm) 2/
1	200	55
2-3	250	...
4-5	300	...
6-20	500	...

Source: Georgian authorities.

1/ Volumes in million cubic meters.
2/ Price escalates at a rate of 1.5 percent per year.

The recent experience of other countries of the Commonwealth of Independent States (CIS) reinforces the conclusion that monetizing in-kind gas transit fees may be difficult. Ukraine receives about 25 bcm per year in in-kind transit fees from Russia, to compensate it for the use of its gas pipeline network to transport Russian gas to Western and Central Europe, as well as to southern parts of Russia and to other CIS countries. If sold at US$50 per tcm, these fees would be worth more than US$1 billion per year. But the company that receives and handles the fees, Naftogaz, is the largest delinquent taxpayer in Ukraine, runs arrears on its payments for imported gas from Russia and Turkmenistan, and has not been able to make the investments needed to properly maintain trans-Ukrainian pipelines in recent years. Owing to a combination of underpricing and poor collection rates, Naftogaz's cash flow is inadequate. Clearly, Georgia should do a much better job in monetizing in-kind transit fees–or take the cash option instead.[9]

Summarizing, the superiority of the in-kind remuneration for SCP transit services is, at best, questionable. In the transition to strict enforcement of payments discipline in the energy sector, it would be more prudent to take cash payment for SCP transit services and evaluate the early experience in monetizing the additional gas that Georgia has committed to purchase. If that works well, Georgia could then switch to in-kind remuneration for transit services at a later stage.

VI. Extractive Industries Transparency Initiative (EITI)

Transparent public reporting by international oil companies on their payments to governments, and by governments on their petroleum revenues, can foster appropriate use of these revenues. Publication of payments allows citizens to hold their authorities to account. Examples of countries that used petroleum revenues to enrich a few corrupt officials, without doing much to help improve the lives of the majority of the population, are not hard to find—

[9] For further details on energy sector issues in Ukraine, see Bassett and others (2003).

see a recent Global Witness (2004) report for an account of five egregious country cases.[10] The Georgian government and British Petroleum should therefore be encouraged to practice maximum transparency in the reporting and utilization of transit fees. The Georgian authorities have taken a promising first step in this regard by agreeing in principle to become a pilot country under the EITI launched by U.K. Prime Minister Tony Blair at the September 2002 World Summit on Sustainable Development in Johannesburg.

The EITI is implemented by the U.K. Department for International Development (DfID). In its inaugural June 2003 conference, the EITI proposed a set of templates for reporting of oil and gas revenues for host governments and oil companies—details can be found at www.eitransparency.org. The templates appear to have been prepared with oil and gas producing, rather than transiting, countries in mind. In the EITI template for host government reporting, no entry for reporting transit revenues has been provided, but extending the template's coverage would be relatively straightforward.

Oil and gas revenues for oil transiting countries are easier to keep track of than revenues of producing countries. Producing countries receive revenues in the form of profit taxes, royalties, signature bonuses, dividends, or licensing fees, and estimating overall government revenues from the sector is often complicated. In the case of oil or gas transiting countries, by contrast, estimating government revenues is straightforward: expected revenues can be derived directly from the volume that is transited and the agreed transit fee. The EITI should therefore be encouraged to develop a special, simplified template for oil and gas transiting countries. Georgia would be a very good test case to help EITI develop such a template. The Georgian authorities could then publish quarterly updates on government revenues from transiting oil and gas on a site that is easily accessible both to domestic and international users—for example, the website of the Ministry of Finance. British Petroleum could usefully apply the same template to report its payments to the Georgian government on its website.

Global Witness (2004, pp. 77-82) provides an interesting overall progress report on the EITI project. It warns that political support and human resources might not be sufficient for the project to succeed, despite EITI's status as a DfID priority. Staffing for EITI at DfID has recently been increased, and work on pilot countries is now under way. As noted above, Georgia's participation in EITI could help to broaden the initiative by looking beyond petroleum producing countries and including oil and gas transiting countries. Georgia's active participation in EITI also dovetails well with the authorities' overall reform objectives, which aim to overhaul Georgia's public sector by enhancing transparency, public oversight and citizen input, and by eliminating corruption and bribery. In short, both EITI and Georgia have a lot to gain from effective cooperation.

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[10] The study covers one case in the Caspian region: Kazakhstan. Other studies that look into oil and gas revenue management in the region include Tsalik (2003) and Wakeman-Linn, Mathieu, and van Selm (2003).

VII. CONCLUSION

This paper provides estimates of transit revenues that Georgia can expect once the construction of two major new pipelines is complete, and it discusses policies that could help to ensure that these revenues are used to good effect. The main conclusions are:

- The transit fees from two new pipelines that Georgia can expect to receive from 2005 are unlikely to increase government revenue by more than 1 percent of GDP per year over the medium term. While these fees will make an important contribution to government revenue, they are too small to justify the creation of a natural resource fund for stabilization or saving purposes. Instead, the additional resources should be incorporated in the general government budget and used to defray the cost of urgent social and infrastructural needs.

- The authorities urgently need to develop concrete plans for the monetization of in-kind gas fees, as well transparent reporting mechanisms for both Baku-Tbilisi-Ceyhan and South Caucasus Pipeline transit fees.

- The Extractive Industries Transparency Initiative could provide Georgia with a useful framework for adequate reporting, but the template that has been developed by the initiative should be extended to allow for easy reporting by oil and gas transiting countries.

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