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Removing obstacles to investment in Georgia's mining regulation

David Saha, Hans-Georg Petersen, Levan Pavlenishvili, Woldemar Walter

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German Economic Team Georgia

c/o Berlin Economics

Schillerstr. 59

D-10627 Berlin

Tel: +49 30 / 20 61 34 64 0

Fax: +49 30 / 20 61 34 64 9

E-Mail: info@get-georgia.de

www.get-georgia.de

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Executive Summary

Although the mining sector of Georgia only accounts for a small share of GDP, around one quarter of Georgia's total exports are related to mining activities. Increased use of Georgia's natural resources thus has the potential to benefit the economic development of the country as well as to contribute to public finances.

How can regulation be improved to strengthen the economic gains and public revenues from the mining sector? The current regulation creates unnecessary obstacles to investment in mining. These deter investors from increasing activities in Georgia, leading to less economic growth of Georgia in mining and related industries as well as smaller public revenues from a sector that generally is highly interesting from a perspective of creating tax and other public income.

One key problem of the current regulation is the frontloading of the fiscal burden faced by mining companies due to an auctioning of licences with a minimum price. As usually only a single bidder exists, this system effectively reduces to an administratively determined fiscal burden in the early stage of a project, when investor liquidity is likely to be strained. Furthermore, not all existing geological information on potential mining sites is freely available, leading to unnecessary uncertainty about site attractiveness for investors. In the extraction stage, the royalty level does not respond to market price changes and payments are linked to pre-planned rather than actual extraction amounts.

We recommend a range of measures to increase economic activity in and fiscal revenues from the mining sector. First, inexpensive natural resources destined for the domestic market such as construction materials should be regulated separately from metallic minerals in focus here. Next, a national strategy for mining should be developed, which encompasses full and free access of possible investors to all existing information on sites and regulates the licensing process without minimum prices in auctions. Fiscal revenues should then be generated by using a two-stage royalty system with a fixed royalty (defined in money terms) per unit and a flexible element that depends on the world market price for the respective resource. The government should further consider joining EITI, the Extractive Industries' Transparency Initiative, a group of countries with joint transparency standards for company data in resource extraction, hence strengthening profit tax enforcement.

Authors

David Saha	saha@berlin-economics.com	+ 49 30 2061 3464 0
Hans-Georg Petersen	hg@profpetersen.de	
Levan Pavlenishvili	l.pavlenishvili@iset.ge	
Woldemar Walter	walter@berlin-economics.com	

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1. Introduction

Although Georgia usually is more associated with economic activities such as agriculture or tourism, it also possesses significant natural resources. At the moment, mining of natural resources only accounts for around 1% of Georgia's GDP, but many resources are not being extracted at present. Apart from presumed gas fields off the Black Sea coast, there are sizeable reserves of resources such as coal, manganese, copper and gold, which are only being partially utilised at the moment. Increasing activity in the mining sector is attractive to the country for several reasons: It implies increased economic activity – both through the direct act of mining and the potential of locating further steps in the value-added chain of the respective resource in Georgia. It also has the potential to be a source of significant fiscal revenue. Establishing a solid legal framework for the extraction of natural resources is crucial in order to ensure that Georgia maximally benefits from their use both through economic growth effects and fiscal revenue. Furthermore, the economic and fiscal objectives have to be reconciled with environmental and social ones.

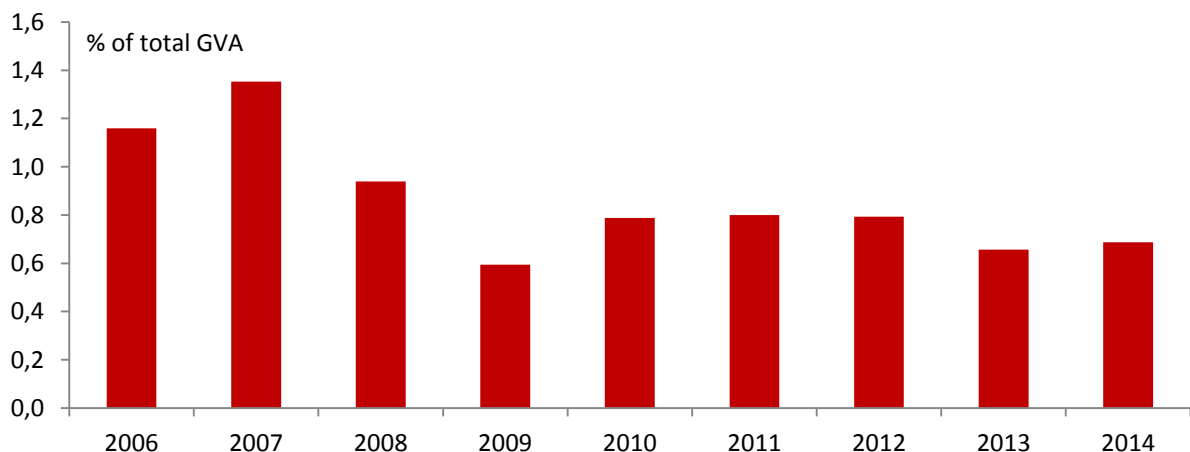
The current legal framework in Georgia is being perceived as inadequate and creating obstacles to investment, leading to an underutilisation of Georgia's natural resources. This paper gives recommendations for the reform of the regulation of the mining sector in Georgia. We give a brief overview over the state and importance of the mining sector in Georgia in chapter 2 and provide a review of the current regulation of the mining sector in chapter 3. The objectives of mining regulation are outlined in chapter 4. We then assess the Georgian regulation in the light of international experience and best practice in chapter 5 and provide recommendations for Georgia in chapter 6.

2. The mining sector in Georgia

The mining sector of Georgia accounted for 0.8% of total GDP in 2014 (Fig.1). It is essentially comprised of two parts: Extraction of relatively inexpensive construction materials such as stones, which is carried out by a multiplicity of often small companies and on numerous sites, and mining of relatively valuable metals and minerals, which is concentrated on a small number of relatively large extraction sites run by large companies. The most important sites are the manganese ore deposits near Chiatura, a copper mine in Bolnisi and gold deposits.

Figure 1

Gross value added in mining and quarrying



Source: Geostat

However, the small GDP share of the mining sector understates the importance of natural resources for the economy of Georgia. Table 1 shows that on average 24% of the total exports of Georgia in 2012-2014 were related to mining activities. The processing of manganese into ferro-alloys and the production of nitrogenous fertilisers are both economic activities that were started in times of the Soviet Union, but continue to be competitive because of two competitive factors of Georgia: The availability of relatively cheap energy (mostly gas imports from Azerbaijan) *and* the availability of the key mineral input (e.g. manganese).

Table 1

Key Georgian export goods related to mining activity, 2012-2014 average

	USD m	% of Georgian exports	% of world trade
Ferro-alloys	258.71	9.5	1.0
Copper	154.42	5.7	0.3
Fertilisers	135.14	5.0	0.6
Gold	66.87	2.5	0.0
Cement	26.75	1.0	0.3
Manganese oxides	6.69	0.2	2.1
Manganese	2.98	0.1	0.1

Source: UN Comtrade

Although Georgia will and should never be an economy primarily dependent on non-renewable resources, further developing the mining sector in Georgia has the potential to provide a boost to the economy, possibly also benefiting the still relatively small manufacturing sector. Furthermore, it is particularly the mining of metals and minerals that can have a significant impact on economic growth, exports and fiscal revenue.

3. Current regulation of mining in Georgia

This paper is focused on that part of the mining sector regulated by the law on mining of 1996 and its ancillary regulation. This law concerns the mining of all subsoil natural resources except oil, gas and water for hydroelectricity. Importantly, it covers a relatively wide range of natural resources including relatively inexpensive construction materials such as stones and sand as well as expensive metals and minerals.

Legal framework of natural resource extraction

The relevant body of legislation is the law on mining of 1996, an adjusted version of a similar law introduced in Latvia and its related and ancillary regulation, consisting of the law on licences and permits and three government decrees, which partially also refer to natural resources outside the scope of the law on mining and are being regulated by other principal laws¹.

¹ Table A1 in the annex gives an overview of the legal framework governing resource extraction in Georgia.

The law itself mainly regulates property rights and obligations, stipulating that the subsoil and the minerals contained are the property of the state, not of the landowner. Extraction of natural resources hence requires a licence from the government, regulated by the law on licences and permits. The process of licence allocation is then regulated by the law on licences and permits as well as the decree 136 on rules and conditions for giving out licences. Both the exploration and the extraction of natural resources require a licence. Two further decrees are crucial for the public revenues from resource extraction: Decree #1-1/480 of 4th April 2008 stipulates the methodology to be used for calculating minimum prices for licence auctions and Decree #1 of 12th August 2011 sets the level of the regulatory fees or royalties imposed for extracting natural resources.

Licence allocation

A licence is required both for exploration and for commercial extraction of natural resources (exceptions exist only for minor cases such as personal use of groundwater). The National Environmental Agency under the Ministry of Environment and Natural Resources Protection of Georgia is responsible for giving out licences, selecting sites for licensing and determining the licence period. Licences are allocated to bidders through auctions. A licence holder does therefore not necessarily own the land on top of the licensed resource and will have to come to a settlement with the respective landowners if the land needs to be accessed for the extraction of the resource.

Extraction licences can be given for a maximum period of 45 years; however, the usual licence period is 20-30 years. Licence holders have to agree with the National Environmental Agency on an *extraction plan*, an integral part of the licence that details the timing of extraction during the licence period. The full volume of the resource under the licence has to be planned for extraction before the end of the licence period. After the plan is approved, parts or the entire licence may be sold, but buyers are bound to the extraction plan, which has financial consequences (see below) that amount to penalties, if extraction is below planned volumes. Thus, several companies might do the extraction on a single site. If the full licence volume is not extracted at the end of the licence period, the company may apply to the State Commission for Reserves (managed by the Minister of Environment and Natural Resources Protection) for an extension of the licence, stating why full extraction was not reasonably possible. A renewal would not create additional cost.

Exploration licences are usually giving the right to explore the site for the presence of natural resource of any type and are valid up to 5 years. The usual practice is to give out the licence for its maximum validity period. If a resource is found due to the exploration, the respective company is then eligible for an extraction licence without any further auction process. However, to get the extraction licence, it will have to pay the difference between the starting price of an auction that would have been used for the extraction of the respective resource and the price it has paid for its exploration licence.

Fees and taxes

The fiscal burden of mining activities consists of three types of payments to the government: Costs of the initial licence (both for exploration of an area and, if a commercially viable deposit is found, for

extraction), royalties (fixed sums per unit of extracted material) and general taxes on profits and property.

Licence cost

The initial cost of the licence is determined by an auction. The National Environmental Agency determines the type of auction used. Public, closed or electronic auctions can be used although electronic auctions are the most frequent type used. Information about the auction should be published in the national press and on the web-page of an entity. Nevertheless, many auctions in the past only involved a single bidder, thus giving crucial importance to the calculation of a minimum, starting price for bidding that is set by the government. Calculating the starting price of an auction and setting up the payment rule is the responsibility of the National Environmental Agency. The methodology for calculating the starting price of the licence is stipulated in decree #1-1/1480 of 4th April 2008.

For extraction licences, the starting price of the auction is usually the net present value (NPV, a discounted stream of future incomes, see the annex) of the payments of the regulatory fee for a complete extraction of the resource during the licence period, assuming a constant extraction volume per time period. If the starting price resulting from application of the formula is less than GEL 10,000 the starting price of the auction should be equal to GEL 10,000. For exploration licences, the usual price is GEL 500 per hectare.

Royalties: Extraction and regulatory fee

Two royalties (payments determined by the volume or value of extracted resources) have to be paid by extractors. The “regulatory fee” is paid to the National Environmental Agency and the extraction fee is paid to the local municipality. A peculiarity of the Georgian system is that a company has to pay extraction and regulatory fees based on its submitted extraction plan, even if the planned amount is not extracted. On the other hand, if more is extracted, the difference will have to be paid by the company. The royalty levels by resource type are summarised in Table 2.

Table 2

Regulatory fees for natural resource extraction licensing

Natural Resource	Unit	GEL amount of regulatory tariff	GEL Amount of Extraction Fee
Coal	1 ton	0.1	1
Manganese	1 ton / with 1 % content	0.1	0.012
Copper	1 ton	127.5	255.31
Lead	1 ton	14.8	37
Zinc	1 ton	36	90
Gold	1 gram	1.5	3
Silver	1 gram	0.02	0.03
Diatomite	1 ton	3	6
Oil	1 ton	24.19	21
Other minerals	1 m ³	0	N/A
Construction materials and stones	1 ton – 1 m ³	N/A	0.14 – 8 (depending on type of material)

Source: National Environmental Agency

Taxes

Three types of taxes have to be paid for by companies: A flat corporate profit tax of 15%, an 18% value added tax and a property tax of up to 1% of the property value per year, where the specific level is annually defined by the respective municipality which also receives the tax revenues.

4. Objectives of mining regulation

Regulation of the mining sector should ensure that different economic, social and environmental objectives are reconciled. Generally, four objectives have been identified for the mining sector²:

- Economic growth and efficient use of resources
- Fiscal revenues (extraction of resource rents)
- Minimising negative effects on the environment
- Intergenerational justice

The first two objectives are the focus of this paper: Regulation should facilitate economic growth and ensure that resources are extracted if their extraction costs do not exceed the market price and no subsidies are required. Also, resource extraction is a particularly important area for fiscal revenues. Natural resources yield *resource rents*, excess profits as, due to their scarce and finite nature,

² Cf. Boadway, R. and Flatters, F. (1993), The Taxation of Natural Resources: Principles and Policy Issues, World Bank Policy Paper 1210 and Meyer, E. and Ludewig, D. (2011), Das Potential der bergrechtlichen Förderabgabe für Ressourcenschutz und Länderfinanzen, FOES Discussion Paper 12/2011

resources can permanently be sold at more than their extraction costs. Also, resources are usually seen as originally belonging to the nation as a whole and not to individuals. Therefore, the resource rents should, at least to a large extent, be captured from investors through taxes and other revenue instruments. Fiscal revenue is often the main economic benefit from mining activity as, though it is desirable, it cannot be ensured that resource extraction leads to significant other economic activities (such as further stages in the value chain) in the country³.

The objectives of environmental protection and intergenerational justice are essentially out of the scope of this paper. Environmental effects of mining can be significant and must be addressed such that these effects are mitigated and compensated by investors, but environmental protection and effects mitigation is largely regulated outside the legal framework that this paper is directed at. Furthermore, the Georgian government is in any case bound to adapt, within certain boundaries, EU environmental standards as part of the deep and comprehensive free trade agreement. Intergenerational justice refers to how much national wealth (financial, economic and natural) is accumulated or depleted in the context of mining and is thus available to later generations of Georgians. It has to be ensured both in the environmental legislation and in the use of fiscal revenues from resource extraction that the benefits of extraction are not purely short-term and that long-term negative effects are minimised.

5. Assessment of the current regulatory framework

In order to properly assess the current regulatory and institutional framework, the textual base of the framework, which has been reviewed above, and the practical implementation of licensing, monitoring and taxation of mining activities (exploration and extraction) have to be taken into account. We split our assessment in two parts: We first consider the process of licence allocation, including issues such as how investors access information about possible mining sites. Then we turn to fees and taxes. The key issue of assessment throughout this section is, whether the regulation is conducive to both economic activity and the generation of fiscal revenues.

One aspect should be noted in advance. Currently, a range of relatively different resources is regulated by the same framework, which can be separated into two broad categories: Stones/construction materials and metallic minerals for export. **In this paper, we focus on the mining of export metals and minerals and the appropriateness of the regulatory environment for this activity.** The reason for this focus is that this type of mining is on the one hand economically more important (due to prices for the materials and possible fiscal revenue) and on the other hand more difficult from the perspective of regulation. Indeed, later on we will recommend a partially separated regulatory treatment of these two categories.

Licence allocation

One difficult aspect of the process of licence allocation is the access of possible investors to information about potential mining sites. Currently, not all available information about mining sites is

³ Cf. German Development Institute, 2011, Die Besteuerung nicht erneuerbarer Ressourcen in Entwicklungsländern

centrally available. However, as exploring sites is a costly activity, existing relevant geological data will be highly valuable for investors. Indeed, if some information on deposits exists, it can be crucial to attract an investor to a site, even if the information is only partial. For Georgia, significant geological data exists from studies conducted in Soviet times, but this data is neither free nor centrally available and it is unclear whether the government has a record of all existing data. This presents an unnecessary hindrance to investors. A better, free and central access to data would enable investors to reduce their risk and costs before the start of actual extraction. It may hence lead to more investment and more fiscal revenue. The lack of access to existing information is thus likely to be one reason for the perceived underinvestment in the sector.

Conclusion 1: The lack of free and centrally available geological and other data on possible mining sites is a potential obstacle to investment in mining.

Fees and taxes

The structure of payments to the government should satisfy two conditions to reconcile the objectives of economic growth and fiscal revenue: It should not put unnecessary burdens on mining companies that may inhibit investments from taking place, and it should be relatively robust to the possibility of tax avoidance behaviour by companies. The first condition applies not only to the absolute level of the fiscal burden but also to its timing (and its sensitivity to the revenue and profit situation of companies). The condition of robustness to tax avoidance (and possibly even evasion) behaviour is crucial as expensive metallic minerals are often extracted by large, multinational companies that have relatively advanced options available for tax avoidance purposes such as internal transfer prices.

Licence cost

A first peculiarity of the current structure of fees and taxes is the existence of auctions with minimum prices for extraction licences. Generally, auctions are a popular instrument with economists in order to determine a buyer's willingness to pay for an asset. An auction would in theory be suitable to determine how much resource rent is expected by investors from a mining project. The resource rent equals the expected sales value of the resource minus costs and minimum operating margin of the investor. Particularly, the last two items are unknown to the government and an auction would in theory be attractive to determine how much revenue the government could extract from investors. However, at least two bidders are required for an auction to work in this way. This is almost never the case for auctions of mining licences. Hence, the auction system in Georgia usually turns into a fixed sum (the administratively determined minimum price) to be paid upfront by the investor.

Such an upfront payment is problematic with regard to the objectives of growth and fiscal revenue. Mining of the materials in focus here is a highly capital-intensive activity, and an investor needs to invest large sums to build a mine and start production. Hence, the liquidity situation of the investor is likely to be strained at the beginning of the investment (period) and the need for a high upfront payment is an unnecessary further burden at this stage of a project. There is no economic rationale for an upfront payment as opposed to collecting the same revenue at a later stage, when the investor has earnings from selling the resource. Particularly, the calculation of the minimum price (technically the net present value of the future stream of royalties at a discount rate of 15%) is

essentially arbitrary as there is no reason why a net present value of a future payment should be paid in advance. If the objective of the upfront payment is to secure investor quality (ensure that licences are only allocated to financially liquid investors who can then carry out the project), this instrument comes at the expense of potentially discouraging otherwise potent investors. Other countries usually use a very simple system: In Australia (see the case study in the annex) or Canada, which are internationally perceived to have exemplary regulation of the mining sector, no auction system is used but the first investor to register an interest in a site will get the licence.

Conclusion 2: The minimum price of auctions with usually only one bidder creates an obstacle to investment compared to the later collection of the same fiscal revenue. It increases the financial burden to investors in the early phase of an investment with a potentially strained liquidity situation.

Furthermore, the exploration fees valid in Georgia of effectively GEL 500 per hectare are very high in international comparison, as can be seen in Table 3. As explorations can cover tens or hundreds of thousands of hectares, this implies another significant upfront cost for investors before production and hence their revenue stream has commenced. Therefore, it is another potential hindrance to investment compared to less frontloaded forms of collecting public revenue.

Conclusion 3: The licence fee for exploration of GEL 500 per hectare is very high in international comparison and further contributes to significant upfront costs for investors.

Royalties: Extraction and regulatory fee

In Georgia, additional to the upfront payments for the exploration and extraction licences, investors have to pay two kinds of royalties, the “extraction fee” and the “regulatory fee”. On top of this, the normal corporate tax (CIT) of 15% and the VAT apply. It is common international practice that CIT and VAT apply on top of royalties although deductibility rules vary. The existence of resource rents economically warrants the use of a special revenue instrument such as royalties or a special profit tax in the mining industry. The rents are inherent in the resource and should therefore benefit the population, who is the original owner of the resource.

Table 3Comparison of royalties, fees and corporate tax (CIT) in Georgia with other countries⁴

	Royalty rate	Royalty base	Exploration fees	CIT
Georgia	0.003-5% ⁵	Planned extraction volume	Min 500 GEL per ha (≈USD 210)	15%
Western Australia	2.5-7.5%	Volume of extracted minerals	Min. AUD 30 per ha (≈USD 22)	30%
Quebec (Canada)	16%	Adjusted PBT	Administrative fees only	26.9%
Chile	0-14%	Adjusted PBT	Min. MTU 0.005 per ha (≈USD 0.18)	20%
South Africa	0.5-7%	Adjusted revenues	Min. ZAR 1 per ha (≈USD 0.07)	28%

Source: National governments, PWC, own calculations.

Royalty rates, bases, exploration fees and the level of the corporate income tax (CIT) are compared for Georgia and several other important resource exporting countries, which have a good reputation for mining regulation, in table 3. Note that this is only a comparison of headline, not effective rates as the exact specifications of tax bases, deduction allowances etc. varies. It can be inferred from this table that Georgia, with the exception of the exploration fees, has set comparatively low levels of royalties and taxes; even more so as the royalty rates have been calculated from the GEL/t definition at currently low international commodity prices. The perceived underinvestment in mining in Georgia is therefore probably not due to excessive tax and royalty rates. Rather, if other obstacles to investment would be removed, royalty rates and hence fiscal revenues could probably be increased.

Conclusion 4: The total fiscal burden on the mining sector in Georgia through royalties and corporate tax is relatively low in international comparison and is unlikely to be the cause of underinvestment.

Two particularities of the Georgian system stand out: Firstly, the royalty is defined as an absolute amount per tonne of extracted material rather than as a percentage of sales value or profits as in most other countries. The advantage of such a system is that it cannot be circumvented for tax avoidance purposes by transfer prices and that it is relatively easy to execute for the responsible authority (the National Environment Agency in Georgia), provided that the extraction volumes can be adequately measured. The clear disadvantage of this system is, however, that it is insensitive to market price changes and hence leads to an unpredictability of the effective tax rate to mining companies. If the market price of a resource decreases, the “tax rate” (the royalty divided by the market price) increases. Whereas the revenues to government per extracted amount remain fully predictable, the investor carries the risk that in case of low market prices, the tax rate of the royalty

⁴ Note that this is a summary of statutory, not effective tax rates and fees. In practice, the tax bases will vary considerably. Royalties in Georgia are specified as GEL per amount, the percentage has been calculated using current world market commodity prices

⁵ On top of the rate, at minimum, the NPV of the expected royalty stream at 15% discount rate has to be paid upfront as licence cost.

would increase significantly. In the converse case of world market price increases for a resource, the government would lose out as it would not claim a share of the rising profits of mining companies through royalty payments. As the level of royalties has not been adjusted since 2011, it is evident that the present system suffers from an inability to adjust royalty levels to market price conditions.

Conclusion 5: Setting the royalty level in GEL per extracted tonne has advantages with regard to tax enforcement, but it implies an inflexibility of the system to adequately react to market price changes for resources and hence an unpredictability of the relation between royalty payments and revenue to companies and the risk of inadequate rents capture in case of rising prices to the government.

The second particularity is that royalty payments are tied to planned, rather than actual extraction volumes. This is problematic as it implies that the total tax burden to the investor is fixed without regard to factors beyond the mining company's control. Two reasons exist for this practice: Firstly, it involves very little room for manipulation and is very easy to execute administratively, providing safe execution of the royalty at little administrative cost. Secondly, a minimum payment penalises licence holders who do not actually extract the licensed resource and thus serves as a screening instrument that deters investors with insufficient financial and technical capacity from buying licences, for example for speculative purposes rather than for actual extraction.

However, both these reasons are not sufficient to justify this practice: Administrative ease may justify such a practice for relatively inexpensive materials such as stones, where the costs of exactly monitoring extraction volumes for a multiplicity of small sites may be disproportionate compared to relatively low expected fiscal revenues. But this is not the case for expensive resources with high expected royalty payments. Most countries employ relatively sophisticated systems to monitor the output and profit situation of large mining companies. Also, ensuring investor quality is usually handled either through a prequalification system, in which investors are tested for their capacity to carry out the required mining activities or through "use or lose" clauses in the licences, stipulating that the licence is void if no significant extraction takes place after a specified period.

Setting a minimum royalty through planned extraction volumes increases the market price risk faced by mining companies beyond the normal measure. If the market price of a resource sharply decreases in one year, revenues decrease and profits further decrease because the tax burden does not adapt to the revenue decrease. Also, a disincentive to adjusting production volumes exists as the tax burden must be paid. This is further reinforced by the royalty definition as GEL/tonne. Under this regulatory framework, fiscal revenues of the government are highly predictable whereas the companies carry large risks, leading to probable underinvestment and therefore also lower total fiscal revenues in the long run.

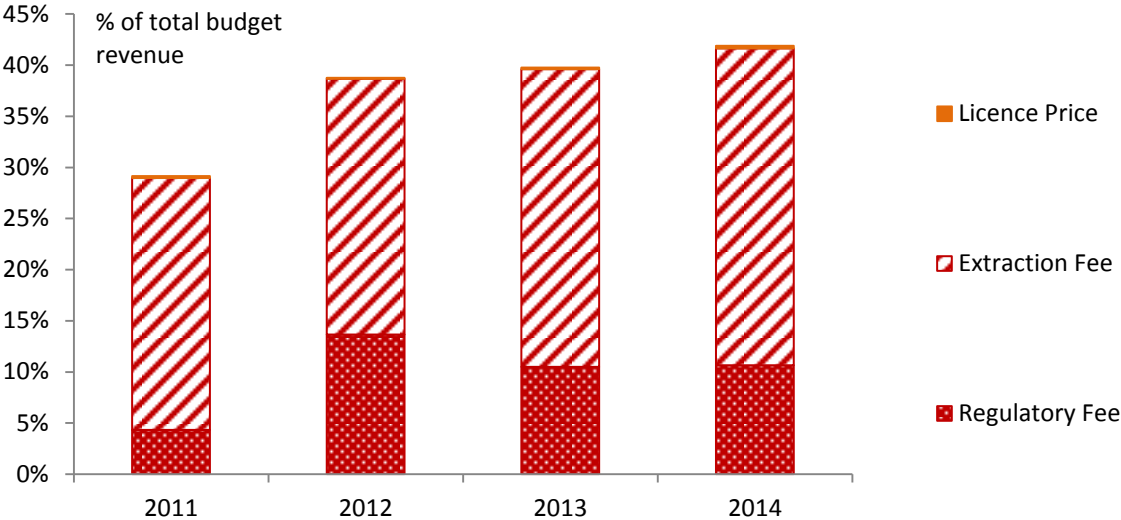
Conclusion 6: Tying royalty payments to planned rather than actual extraction volume burdens mining companies with excessive risks related to market price developments.

Public revenues from mining in Georgia

The current system of generating fiscal revenues from the mining sector prioritises early and highly predictable revenue streams to the government over risk sharing between the public and private sectors and the collection of fiscal revenues linked to the revenue situation of the company. In result,

both the economic activity and the total expected fiscal revenues may be reduced through this risk-averse approach to revenue generation. On the one hand, this regulation may present obstacles to investment, reducing the total activity of the sector, and on the other hand fiscal revenues may be reduced as tax and royalty *levels* have been set relatively low to partially compensate investors for the risks they have been burdened with. Indeed, Figure 2 indicates that the fiscal revenues from the mining sector are relatively low in Georgia.

Figure 2
Revenues from mining activities (excl. corporate tax revenue)



Source: National Environmental Agency

Income from both auctions and royalties accounts only for around GEL 30 m per year, corresponding to around 0.4% of annual budgetary revenues. Given that this is a sector that accounts for around 1% of GDP and should be characterised by relatively large rents, this is a relatively low value and indicates that the total fiscal burden is indeed relatively low, not in statutory tax rates (as compared in Table 3) but also in effective tax rates. Furthermore, it is striking that fiscal revenues from licences has been extremely low in the past four years (around GEL 0.2 m p.a.). No major new licences have been issued during those years.

The data on fiscal revenue from the mining sector thus strengthens the presumption that the current system is failing on both key objectives – generation of economic activity and of fiscal revenues – because of an excessive preoccupation with frontloaded and predictable payments of mining companies to the government.

Conclusion 7: In summary, the current regulatory system for mining creates obstacles for investment and also seems unsuitable to maximise fiscal revenue from the mining sector. Mining companies have to bear large risks – from lack of geological information on sites to increased market price risks – and the fiscal burden is unnecessarily frontloaded. The current fiscal treatment of the mining sector treats the companies as a financier, who provides liquidity according to the governments needs rather than as a source of tax revenue with revenues streams linked to economic activity.

6. Recommendations for Georgia

From the previous chapter, it is obvious that the current regulatory framework in Georgia is inadequate for both the economic growth and fiscal revenue objective. In designing recommendations, several considerations have to be borne in mind.

- Both the economic objective of generating growth through investment in mining, ideally through subsequent investments in further value-added stages for the mined resources and the objective of generating fiscal revenues have to be observed. However, in many countries the growth impact has been limited and it should hence be ensured that the country reaps sufficient fiscal benefit from mining activities.
- Mining of metallic minerals is a highly capital intensive, often FDI driven industry in which companies are often large and multinational. The taxation of such companies is challenging as they seek to, and have ample capacity to, minimise tax loads, for example through internal transfer pricing strategies. Both the regulation and the executing institutions of revenue collection must therefore be adequately designed and equipped to monitor the respective tax bases (production volumes, values or profits) in a challenging environment.
- As investors are likely to be internationally active, the regulatory system and particularly the fiscal burden imposed should be designed with a view towards international reference systems and values.
- Apart from combining the objectives of making Georgia an attractive place to invest for mining companies and at the same time to maximise the fiscal income from taxing resource rents, regulation also needs to ensure that investors who purchase a licence actually have the financial and technological capacity to carry out the mining project in order to avoid licensed deposits laying idle.

Therefore, we are here providing a comprehensive set of recommendations aimed equally at both economic and fiscal objectives. The outcome of a reform of the mining law and the related body of legislation should be an increase in economic activity in the mining sector involving large new projects and a long-term increase in fiscal revenues. To this end, some lower predictability and frontloading of taxation of the mining sector must be accepted, necessitating a treatment of the sector as a source of tax revenue rather than as a financier or bank as is, effectively, presently the case. At the same time, stringent rules that balance economic with environmental concerns should be kept or developed in the relevant bodies of legislation. These will contain provisions for mitigation and compensation for environmental effects by mining companies⁶ and will also specify in which cases environmental grounds can inhibit mining projects.

Recommendation 1: The regulation of the mining sector should be separated for the large-scale mining of metallic minerals destined for the export market and for the more small-scale mining.

The current system attempts to regulate both large mines extracting resources such as manganese and copper for export purposes and small sites, where construction materials such as stone are

⁶ International experience shows that it is important to ensure that adequate funds or activities for environmental compensation are collected or carried out during the life cycle of the mining project as it has frequently happened that, when only ex-post compensation was required, companies (usually purpose vehicles for one project) declared insolvency after completion of mining.

extracted with the same system. However, a separate regulation for both parts of the mining sector would enable a more appropriate regulation of each part. Whereas for the large, often multinational companies extracting metallic minerals that are in the focus of this policy paper, tax authorities should closely monitor production volumes and profits to ensure an adequate taxation that reflects the current situation of the respective companies, for smaller companies, simpler methods (possibly based on pre-agreed plans) may reduce administrative costs for the government and companies without negatively affecting the revenue situation of the state or creating excessive risks for companies.

Recommendation 2: Georgia should develop a national strategy for mining of metallic minerals with the objective of ensuring a better use of Georgia’s natural resources. The strategy includes 9 building blocks:

1. Natural resources should remain in public property and be licensed, but not sold to investors.
2. All available geological information on resource deposits is collected, consolidated, integrated with cadastral records and made publicly available for free.
3. The National Environmental Agency in cooperation with Invest in Georgia, the Ministry of Environment and Natural Resources and the Ministry of Economy and Sustainable Development will select which sites to specifically promote to investors.
4. If investors register their interest in a site either on their own initiative or after having been approached by the authorities during investment promotion, this interest is made public during a grace period in which other investors can also still register their interest.
5. If multiple investors have registered their interest, an auction without a minimum price is held to determine which investor can buy the licence. If only one investor is interested, no price will be charged for the licence.
6. The fee for exploration should be sharply reduced.
7. To prevent licensed resources from being unused, the government should include a pre-qualification for investors, checking their financial and technological capacity to carry out the proposed project. Furthermore, licence should incorporate “use or lose” clauses that void the licence if no sufficient extraction of the resource takes place.
8. There should be clear rules on the expropriation and fair compensation of the owners of land on top of a licensed subsoil resource.
9. The National Environmental Agency should be sufficiently equipped with staff, capacity and funding to carry out the above processes.

This strategy should effect a significant improvement in attracting investors. It involves a better availability of information for potential investors with the purpose of attracting more investor interest and reducing the riskiness of their project. The smaller the ex-ante risks investors face, the higher will be their willingness to invest despite somewhat higher taxation during the extraction period. Furthermore, it involves a more proactive approach with regard to seeking out investors that requires a certain degree of cooperation by institutions. Whereas the National Environmental Agency and the Ministry of Environment have the most knowledge about deposits, Invest in Georgia has the largest competence with regard to proactively searching and contacting potential investors and Ministry of Economy should be involved to assure that the potential of resources to attract further value added into Georgia is taken into account.

Facilitating more private investment in mining is a key objective of the strategy. However, a *privatisation* of natural resources (rather than staying with the current system of maintaining public ownership of natural resources and granting licences to private investors) is not recommended in light of international experience (see Box 1). Apart from issues of the extent of resources making privatisation difficult, all experiments with raising fiscal revenue from the privatisation of such resources have failed in the past. Particularly, voucher-based privatisation has dismally failed the public interest in most transformation countries. As creating fiscal revenue must remain a key objective of the government for the mining sector, a privatisation of resources is hence *not* recommended.

Abolishing the current system of auctions with a minimum price is crucial to the success of the strategy. This system leads to an unnecessary frontloading of the fiscal burden without good economic reason. The fiscal burden of a mining project should occur as much as possible during the extraction phase of the project when the company has revenue streams. In this context, it should be considered to reduce the licence fee for exploration licences as such fees are common in other countries, too, but the current Georgian fee is towards the higher end of the scale.

Nevertheless, auctions should take place – without a minimum price – if multiple investors are interested in a site. Without a minimum price, an auction can never be an obstacle to investment and would in the case of multiple bidders be helpful at securing a larger share of the resource rents for the Georgian public. This system is therefore not one of “open access” in which the first investor gets a site. An open access system does not ensure that the largest possible share of resource rents is retained by the country; however, precisely this should be the aim of the structure of taxes and fees.

Pre-qualification screenings and “use or lose” clauses should be incorporated in the licensing process. “Use or lose” clauses can be connected with a development planning that is jointly undertaken between the National Environmental Agency and the mining company, specifying which method will be used and what minimum extraction volumes are foreseen. Such development planning already is incorporated in the regulation of the Georgian oil and gas sector and it should be investigated, which practices can be directly transferred on a technical level. This planning also has the advantage that the agency will gain necessary information in order to ensure tax compliance at later stages.

Finally, as land ownership (private) and ownership of natural resources (public and licensed to third parties) may and will create conflicts between investors in mining and the owners of land or houses on top of a resource, clear rules should be in place that detail when an expropriation is justified and how much the owners of houses or land should be compensated. As the resource is in public ownership and all resource rents thus belong to the public, house or land owners should only be compensated for the price of the house without being “rewarded” for the fact that a resource was found under their land.

These components of the strategy require a strengthening of the work, and potentially the capacity of the National Environmental Agency. As the mining industry can be a significant source of growth and revenue, but requires competent oversight, it is necessary to present the industry with a competent and strong counterpart on the side of the public sector to ensure fulfilment of standards, licence contract obligations and, crucially, tax compliance.

Box 1: Should resources remain public property or be privatised?

The property rights system of a specific country is the outcome of its historical traditions and the ruling political systems respectively. Open access for land use is only possible as long as scarcity conditions do not apply. In case of agricultural land use under scarcity conditions, private ownership has been a useful and efficient concept, which has assured a sustainable land use even in a long-termed intergenerational perspective. But in most of the existing ownership regimes in high developed countries, private ownership is limited to the surface use of soil for agricultural production, industrial production, and housing. In almost all modern political settings, renewable resources on the surface (water resources, virgin forests and organic natural resources like wild game, fishing resources etc.) and non-renewable resources below the soil are managed by collective utilisation regimes, which have to secure social targets (like welfare and social justice) as well as an efficient and sustainable resource use.

The economic reasons behind such collective utilisation regimes are primarily the extent of natural mineral and non-mineral deposits which often exceed the limits of existing private ownership, secondly the public interests in an efficient resource use and thirdly the serious distribution problems if private ownership regimes should be established. A switch from a national utilization regime to private ownership would create enormous problems regarding the rights of the still existing (surface) land owners or the resource owners newly to be defined. A distribution in favour of the surface land owners would virtually expropriate all other citizens; distributing the private ownership on all citizens would mean the implementation of a voucher system or a state agency.

Voucher systems have totally failed in most of the transformation countries where in the shortest possible time all the former state property came into the hands of the newly established oligarchs. In view of all possible shortcomings, state agencies have been more efficient in using the returns from natural resources for infrastructural investments, collective funding (like in Norway) or even for direct transfers to the households (like in Mongolia).

“Simply giving resources away to private interests in order to enable their exploitation and enhance economic growth tends to encourage rent-seeking as a general form of political activity. Less directly, but of possibly greater importance, the precedent of giving away resources to private interests encourages the political elite to modify governance structures in ways that enhance their ability to bestow such gifts on political allies, i.e, to adopt more corrupt political systems. Advising resource rich developing countries simply to establish secure property rights to resource stocks could be counter-productive if the method of assignment is seen to be illegitimate, serving only the interests of those in power” (Deacon/Mueller 2004).

Recommendation 3: The principal instrument to secure the state’s share of resource rents (apart from CIT and VAT) should be a two-stage royalty system based on the actual annual extraction volumes of companies.

- The first stage should be a fixed GEL/tonne sum as at present, updated using a transparent method to reflect royalty levels in other countries in pre-determined intervals of ca. 5 years.
- The second stage of the royalty should be market-price based component that takes a share of the deviation of the current market price for the resource from the market price when the first-stage royalty value was determined.

The royalty system should be the key element of the revenue generation from mining activities as it collects revenue during the extraction phase of resources, possibly allowing for a quick depreciation of capital assets in the first few years as is common in many other countries, and thus collects revenue when the liquidity situation of the companies is best.

The two-stage design of the royalty should assist the National Environmental Agency in ensuring tax compliance of companies as only extraction volumes, not values have to be measured on the side of companies. It is crucial that the royalty level of both stages is correctly set at the beginning and updated in regular intervals using a transparent method such that investors can have solid expectations on future royalty payments.

The first stage of the royalty is essentially the same system as is currently operated, but it should be reduced to one fee payable by companies, with intra-governmental distribution of revenues handled through the budget. The first-stage starting level of the royalty should be calculated to be similar to the effective royalty level in other producing countries of the relevant resources. It seems prudent to use technical assistance in producing a method and calculating first-stage royalty levels for the first time. After that, the method should be taken over for updates by the National Environmental Agency. As the total fiscal burden on the mining sector is quite low at present, a significant increase of the royalty level should be expected, but should not deter new investors if combined with the other reform steps suggested here as severe obstacles to investments would be eliminated at the same time.

The second stage of the royalty is a flexible element that helps to reduce the market price risk for tax revenues and burden alike. Technically, the difference of the current market price for a resource from the market price at the time of determination of the first-stage royalty (the “base price”) is taken. Of this difference, for each tonne of extracted material, a specified share then constitutes an additional royalty if the current price is higher than the base price or a partial royalty refund if the current price is below the base price. If the share of the difference between current and base price is higher than the ratio of the first-stage royalty to the base price (the “tax rate” of the first-stage royalty), the combined royalty system can also achieve a smoother taxation of resource rents as the production costs will remain constant and unaffected by market price movements. For market price determinations, international price measures such as IMF commodity prices should be used to enable ease of implementation and transparency.

Recommendation 4: Georgia should consider joining the Extractive Industries' Transparency Initiative (EITI), a group of 31 member countries and 18 candidate countries that have agreed on common standards on the transparency of public and private data related to the extraction of resources.

The attractiveness of EITI to Georgia would particularly lie in the joint standard for disclosure of company-level data that enables a better bargaining position vis-à-vis potential investors. To ensure tax compliance, particularly in the domain of corporate tax, access to sufficient information is crucial particularly in the mining industry, as companies have developed large skills at minimising their tax burden.

Recommendation 5: Georgia should exercise caution in dealing with existing companies in the course of the reform process and not force existing investments into the new system.

Securing investor protection will often be required by contracts. But even when this is not the case, the reputation of Georgia as a good place to invest depends on a predictable treatment of investors. As existing investors have at least already paid the minimum price of auctions to purchase their licences, they should not be forced into the new system with, in all likelihood, significantly higher royalty levels.

Annex

Annex 1: Legal framework governing resource extraction in Georgia

Table A1

Mineral Resource	Legal Document	Content
Mining	Law on Mining	Property rights and obligations
	Law on Licences and Permits	Licence allocation
	Decree 136 of 11 th August 2005 on rules and conditions for giving out licences	Licence allocation
	Decree #1-1/480 of 4 th April 2008 – methodology of initial price of an auction	Determines initial price for auction
	Decree #1 of 12 th August 2011 – regulatory fees for extraction licences	Sets regulatory fees (royalties) for resource extraction
Mineral Water	Law on Water	Property rights and obligations, licence allocation
	Decree 136 of 11 th August 2005 on rules and conditions for giving out licences	Licence allocation
	Decree #1-1/480 of 4 th April 2008 – methodology of initial price of an auction	Determines initial price for auction
	Decree #1 of 12 th August 2011 – regulatory fees for extraction licences	Sets regulatory fees (royalties) for resource extraction
	Oil and gas extraction	Law on Oil and Gas

Source: www.matsne.gov.ge

Annex 2: Case study – Mining regulation and taxation in Western Australia⁷

Exploration

Exploration involves searching a large area with minimal ground disturbance. Exploration titles are therefore generally granted over large areas which are reduced in size over time as the exploration process progresses and the more prospective ground has been identified.

- Application is made at any Mining Registrar's office, or lodged electronically via the Department's website using "Mineral Titles online (MTO)", application and rental fees apply
- The term of an exploration licence is 5 years. The Minister may extend the term in prescribed circumstances.
- At the end of both the third and the fourth year of its term, the licensee is required to surrender 50% of the licence. For a licence applied for and granted after 10.02.2006, the surrender requirement is 40% at the end of the fifth year.
- The holder of an exploration licence may in accordance with the licence conditions, extract or disturb up to 1000 tonnes of material from the ground, including overburden, and the Minister may approve extraction of larger tonnages.

Extraction

The holder of an exploration tenement has the right to apply for and to be granted a mining lease within the area of their exploration licence. It is intended that the holder of an exploration licence will apply for a mining lease if the exploration phase has matured and a commercially viable resource has been discovered.

- Application is made at any Mining Registrar's office or lodged electronically via the Department's website, application and rental fees apply.
- An application for a mining lease must be accompanied by either a mining proposal or a statement and a mineralisation report that has been prepared by a qualified person. The statement contains information on likely start date, mining method and area usage.
- There is no limit to the number of mining leases a person or company may hold.
- The term of a mining lease is 21 years and may be renewed for further terms.

Royalties

The royalty is calculated as a percentage of sales value. There are three ad valorem rates, which reflect processing costs after the mineral is mined: 7.5% applies to bulk material, 5% for mineral concentrates and 2.5% for minerals in metallic form or equivalent. The royalties are paid to the Department of Mines and Petroleum of Western Australia together every quarter.

Taxes

A flat corporate Income tax of 30% is applied. A special tax on mining (Federal Minerals Resource Rent Tax (MRRT) of 22.5% on profits) has been abolished in 2014 due to administrative and enforcement difficulties and low revenues.

⁷ As mining regulation is partially done at state level, this case study reflects national and state level regulation and taxation effective in the state of Western Australia. Sources: PWC, Department of Mines and Petroleum of Western Australia.

Annex 3: Starting price of licence auctions

The starting price of licence auctions is under the present system calculated using the following formula, which is equivalent to the net present value of the expected stream of regulatory fee income to the government for full extraction of the licensed resource, using a constant extraction volume per year and a discount rate of 15%:

$$Y = \sum_{t=1}^n \frac{\frac{Q*L}{n}}{(1 + K)^t}$$

Y – Starting price for extraction licence

Q – Resource Volume

L – Extraction fee (royalty)

K – Discount rate of 15%

n – Licence length (years)

t – Year

Note: Two variations of the formula exist for special resources categories but are not used in practice as the categories have not been sufficiently defined.

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