Fossil Fuels – At What Cost?

Government support for upstream oil and gas activities in Russia

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FOREWORD: WWF-RUSSIA

The report *Fossil Fuels – At What Cost? Government support to upstream oil and gas activities in Russia,* co-published by WWF-Russia and the Global Subsidies Initiative of the International Institute for Sustainable Development, is aimed at assisting Russia in meeting its Group of Twenty (G-20) and Asia-Pacific Economic Cooperation (APEC) commitment to "rationalize and phase-out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption." The first steps in this direction are identification of budget outlays, tax breaks, and other forms of fiscal support for oil and gas extraction and measuring their economic and social efficiency, including integrated costs to the environment and future generations.

WWF-Russia has initiated this first comprehensive inventory of fossil-fuel subsidies in Russia in order to increase transparency of the economic mechanisms that contribute to the growth of greenhouse gas emissions and destruction of natural habitats, especially in the Arctic. In this sense, WWF-Russia follows the same logic that underpins G-20 and APEC commitments to fossil-fuel subsidy reform, but does it from a civil society prospective, advocating a broad debate about the efficiency of any governmental measures that affect the environment and socioeconomic welfare of the people, including over the long term.

WWF-Russia's goal is for the world to develop an equitable and resilient low-carbon economy by 2050. In accordance with international agreements under the auspices of the United Nations Framework Convention on Climate Change, G-8, G-20 and other international forums, all efforts should be undertaken to keep the global average temperature from increasing by more than 2.0°C (compared to 1850). Fossil fuels are the main source of greenhouse gas emissions driving climate change and posing a threat to many natural habitats and human livelihoods.

In the Arctic, which is highly vulnerable to climate change, WWF-Russia works to preserve the region's rich biodiversity and to ensure that the use of its natural resources is sustainable. Of late, the Arctic has become the frontier region where Russian oil and gas companies are increasingly expanding their activities. Meanwhile, WWF-Russia identifies three important gaps that have yet to be closed in order to enable safe development of the Arctic riches: a governance gap, a knowledge and science gap, and a gap in the technical capacity for oil spill response. In view of these gaps, the tax relief schemes discussed in this report incentivize oil and gas companies to carry out projects with extremely high environmental risks offshore and in new areas beyond the polar circle instead of building up "smart" investments into improvements in energy efficiency and oil recovery at existing onshore fields.

Based on the methodology of the Global Subsidies Initiative, this report also explains the cost of Russia's continued reliance on extraction of oil and gas. In our opinion, the "business-as-usual" approach to the development of the Russian energy sector may no longer be adequate for the current global challenges and Russia's modernization agenda.

We look forward to a broad discussion of both the report's findings and future research on its subject matter. We also hope that this report will make a useful contribution to the international body of research underpinning the global reform of wasteful and inefficient subsidies and the wider agenda—sustainable and effective energy in the 21st century.

Evgeny Shvarts

Director of Conservation Policy, WWF-Russia

FOREWORD: INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT

The International Institute for Sustainable Development's Global Subsidies Initiative (GSI) shines a spotlight on subsidies and how they undermine efforts to place the world economy on a path toward sustainable development. Subsidies have a profound effect on our economies, environment and the distribution of income in society. Too often the impacts undermine the goals of sustainable development. Fossil-fuel subsidies are a prime example.

Governments spend at least US$500 billion a year on subsidies to fossil-fuel consumption and production—four times the amount that was spent on official development assistance by all OECD countries in 2010. Reforming these subsidies would lead to a significant reduction in greenhouse gas emissions, while simultaneously freeing up vast sums of money to be invested in public goods. The case for reform is particularly strong considering that fossil-fuel subsidies tend to be regressive, benefiting the wealthy much more than the poor.

For these reasons, the leaders of the Group of Twenty (G-20) countries agreed in September 2009 to phase-out inefficient fossil-fuel subsidies in the medium term. APEC governments made an almost identical commitment the same year.

The GSI is well aware of the complex issues surrounding fossil-fuel subsidies and their reform. That is why it commenced an ambitious program to identify, measure and analyze the effects of fossil-fuel subsidies, in support of international and national reform efforts, including the G-20 and APEC commitments.

Part of the GSI's effort has focused on identifying and measuring subsidies to the upstream oil and gas industry through a series of case studies that currently includes Canada, Indonesia and Norway. In contrast to subsidies for the consumption of fossil fuels, for which good estimates are provided by the IEA and others, very little is known about the extent of subsidies to the production of fossil fuels, nor about the impacts of these subsidies.

We are delighted that WWF-Russia has taken the initiative to produce this comprehensive and detailed accounting of government support to upstream oil and gas activities in Russia. Transparency is the starting point for achieving the G-20 and APEC commitments—fossil-fuel subsidies must be identified and measured before they can be assessed and reformed.

We hope this study will spark a debate in Russia on its fossil-fuel subsidies, one that questions whether they represent the best use of public funds. We also hope it inspires other G-20 and APEC governments to take an open and frank inventory of their own subsidies to fossil-fuel producers, as a first step towards realizing their commitment.

Mark Halle

Executive Director, International Institute for Sustainable Development (Europe)

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ACRONYMS AND ABBREVIATIONS

APEC	Asia-Pacific Economic Cooperation
ASCM	Agreement on Subsidies and Countervailing Measures (WTO)
bcm	billion cubic meters
boe	barrel of oil equivalent
capex	capital expenditures
CIS	Commonwealth of Independent States
CO2	carbon dioxide
G-20	Group of Twenty Major Economies
GDP	Gross Domestic Product
GEM	Global Emerging Market (countries such as China, India, Brazil, Russia, South Africa, etc.)
GSI	Global Subsidies Initiative
FDI	foreign direct investment
IEA	International Energy Agency
IISD	International Institute for Sustainable Development
MET	mineral extraction tax in Russia (also known as NDPI)
NOK	Norwegian krone
OECD	Organisation for Economic Co-operation and Development
PSA	production-sharing agreement
RRC	reserve replacement costs
R & D	research and development
VAT	value-added tax
VEB	Vnesheconombank (Russian Development Bank)
WTO	World Trade Organization
WWF	Worldwide Fund for Nature

EXECUTIVE SUMMARY

The purpose of this report is to provide an inventory of government subsidies to upstream oil and gas activities in Russia as a launching pad for a broad debate among the Russian government, academia, business, civil society and international stakeholders on the economic, social and environmental expediency and efficiency of such policies. In turn, both the inventory and the open discussion of hydrocarbon producer subsidies can pave the way for more informed decisions on maintaining, building up or phasing out Russian government support for various energy-related projects. In particular, the inventory aims to assist Russia in meeting its international commitments "to rationalize and phase-out over the medium term inefficient fossil-fuel subsidies that encourage wasteful consumption" under the agreements of Group of Twenty (G-20) and the Asia-Pacific Economic Cooperation (APEC).

The study follows the methodology of the Global Subsidies Initiative of the International Institute for Sustainable Development. This methodology draws upon the definition of "subsidy" given in the *Agreement on Subsidies and Countervailing Measures*, which Russia signed as part of the documents package under its accession to the World Trade Organization on December 16, 2011. The chosen methodological approach is also fully compatible with both the inventories of tax breaks by the Ministry of Finance of the Russian Federation and with inventories of fossil-fuel subsidies undertaken for the member countries by the Organisation of Economic Co-operation and Development (OECD), where Russia's application for membership is currently under consideration.

Methods of data collection include investigating open sources, such as public accounts, official documents related to subsidy monitoring and budget planning and reporting, academic literature and media items. The study also draws upon a number of discussions with experts as acknowledged at the beginning of the report.

The value of the Russian government's support to the upstream oil and gas activities is very significant. The subsidies to oil and gas producers in Russia that have been identified and quantified in this report amounted to 4.2 per cent and 6.0 per cent of the total value of oil and gas production in Russia in 2009 and 2010 respectively. These subsidies also amounted to 8.6 per cent and 14.4 per cent of the industry's total tax and other payments to the federal government in 2009 and 2010 respectively.

At the *federal level,* the study has identified 30 schemes of conferring subsidies to oil and gas producers in 2009 and 2010. Some of these schemes serve as umbrella categories for several subsidy programs. Of these 30, the study has been able to quantify the value of 17 subsidy schemes totalling *US$8.1 billion in 2009 and US$14.4 billion in 2010.* The rapid increase in cumulative subsidies from 2009 to 2010 occurred due to the introduction of an exemption from export customs duty on oil produced at new onshore oil fields in East Siberia, as well as due to an increase in oil production at new fields in East Siberia, the Nenets Autonomous Okrug and some other areas, which are eligible for tax holidays with respect to the mineral extraction tax.

Relief on the mineral extraction tax and export duties accounts for most of the value of the identified and quantified subsidies (US$9.8 billion in 2010, or 68 per cent of the total value). Importantly, more schemes of reducing the extraction tax and export duty rates for new offshore fields and some onshore fields are scheduled or discussed for the future. The Russian government and the oil and gas industry generally agree that development of petroleum reserves in Russia's frontier areas, especially the Arctic, would be impossible without reducing their fiscal burden, as compared with the regular regime.

Other significant types of Russian government support to oil and gas producers at the federal level in 2010 included: the reduced tariff for transportation of oil through the East Siberia-Pacific Ocean pipeline (approx.

US$1.1 billion); deduction of research and exploration costs from taxable profits (at least US$0.6 billion); accelerated depreciation allowance (at least US$0.6 billion); and federal budget spending on oil and gas exploration (US$284 million).

Importantly, the summary values above are exclusive of the identified types of government-provided income and price support in Russia that the study has failed to quantify but that are likely to be very significant. In particular, a form of income support such as regulatory loopholes creating opportunities for tax minimization through transfer pricing is likely to confer benefits to companies in the order of several billion U.S. dollars. In 2011 Russia adopted new legislation with respect to transfer pricing, effective January 1, 2012, that is expected to phase-out this form of price support to the industry.

Subsidies to oil and gas producers are also conferred at the level of *Russian regions*, mainly in the form of tax expenditures. However, the legislation and materials reviewed suggest that the cumulative value of the regional subsidies to the industry is likely to be much *less significant* than that at the federal level due to the high degree of centralization in the budgetary and fiscal system of Russia.

In addition to the federal and regional jurisdictions, oil and gas are also produced under three *production-sharing agreements*: Sakhalin-1, Sakhalin-2 and Kharyaga. By comparing these with the national taxation and royalty regime, the minimum cumulative amount of subsidies under Russia's three production-sharing agreements has been estimated at *US$5.4 billion in 2008, US$3.5 billion in 2009* and *US$4.9 billion in 2010.*

The identified oil and gas producer subsidies have been granted to fulfil the following *policy objectives*:

- Securing sufficient volumes of oil and gas for export, including to the new rapidly growing markets in the east in accordance with Russia's positioning as a "guarantor of global energy security"
- Ensuring reserve replacement and the sustained production of oil and natural gas for domestic consumption
- Sustaining or increasing the government ownership of petroleum-producing assets to prevent disinvestments
- Supporting or creating jobs in energy-related sectors, especially in Russia's regions
- Preventing capital flight and attracting foreign direct investment in the oil and gas sector as Russia's flagship industry
- Stimulating rational and efficient use and maximum recovery of oil and gas reserves
- Stimulating technological advancements in oil and gas extraction with potential spillovers to other sectors
- Participating in the global race to develop Arctic oil and gas resources

As a way to meet most of these objectives, the distribution of the identified subsidies to oil and gas producers is significantly *skewed toward development of new fields*, including in the Arctic. By contrast, the improved recovery and higher efficiency option has not been fully utilized in Russia yet, although it can present a competitive alternative to meeting the majority of the above-mentioned policy objectives. For instance, according to the estimates of the International Energy Agency, if in 2008 Russia used energy as efficiently as Canada, Sweden, Norway and some other comparable northern countries of the OECD, it could have saved more than 200 million tonnes of oil equivalent from its primary energy demand, equal to 30 per cent of its consumption that year and an amount similar to the total primary energy used by the United Kingdom. Furthermore, under the *General Scheme of Development of the Oil Industry* (Government of the Russian

Federation, 2011b), increasing the projected oil recovery factor in Russia by 5 per cent (from 37 per cent to 42 per cent) would result in additional recoverable reserves exceeding 4 billion tonnes. This significantly exceeds the reserves of many individual new fields in the Russian frontier areas. For instance, the recoverable oil reserves of Prirazlomnoe in the Pechora Sea in the Arctic amount to just 72 million tonnes. Yet, *a much smaller amount of subsidies in Russia is conferred for improved recovery of the existing fields and improved energy efficiency.*

According to Russia's implementation strategy to rationalize and phase-out inefficient fossil-fuel subsidies that encourage wasteful consumption, the G-20 Pittsburg Summit commitment "will be implemented in Russia within the framework of its *Energy strategy of Russia for the period to 2030* (Government of the Russian Federation, 2009) and the *Concept of Long-Term Social and Economic Development till 2020* (Government of the Russian Federation, 2008b). The implementation of the Pittsburg Initiative "becomes a part of the national economic and energy policy" (G-20 Toronto Summit, 2010, p. 19). As noted in becomes a part the document (p. 19), "the implementation strategy can include:

- Identification and total revision of all energy subsidies with special attention given to fossil fuel subsidies;
- Analysis of their efficiency in terms of the intended goals and their optimal integration into national overall economic and energy policy;
- Development of Russia's Energy Subsidies Model;
- Drafting and making decisions to amend, replace or phase-out concrete inefficient fossil fuel subsidies that encourage wasteful energy consumption;
- Executive and Legislative moves to reform energy subsidies set-up;
- Implementation of the Executive and Legislative formal decisions on rationalizing and phasing out inefficient fossil fuel subsidies that encourage wasteful consumption in the context of reforming energy subsidies set-up."

At present, Russia is at the very first stage of implementing this strategy. To move forward on this pathway, Russia needs to establish a uniform mechanism for monitoring and evaluating fossil-fuel subsidies against their intended policy objectives, with special attention paid to their full social and environmental impacts. A government agency that would be responsible for these activities needs to be selected in the course of consultations among the Russian Ministry of Finance, Ministry of Economic Development, Ministry of Energy, other government agencies, academia, business, civil society and international organizations. Russia can also draw on existing experience from the OECD, the International Energy Agency, Worldwide Fund for Nature, and the Global Subsidies Initiative of the International Institute for Sustainable Development.

Given the magnitude of existing fossil-fuel subsidies in Russia, their reform would definitely be an important contribution to the international process of internalizing environmental externalities and decarbonizing the world economy. In the meantime, as the APEC chair in 2012, the host of the G-20 summit in 2013 and president of the G-8 in 2014, Russia also has a unique opportunity to shape the energy agenda internationally. Russia showed leadership in environmental policy when it proposed the Global Marine Environment Protection Initiative at G-20 Summit in Toronto in 2010 in order to establish an international mechanism for preventing offshore accidents, cleaning up their unavoided negative impacts and protecting marine environment. Therefore, it would be a logical step for Russia to take the lead in embedding the full environmental risks and costs into mandatory analysis underpinning any decisions on granting fiscal support to development of energy resources offshore, especially in the Arctic.

INTRODUCTION

In Russia, an economy highly dependent on the extraction of oil and gas, should the government support production of hydrocarbons and development of new fields? An answer to this complex question can hardly be given in general.

Rather, for each existing or proposed scheme of government support for upstream oil and gas activities, a scrupulous examination should juxtapose its costs to the budget and the society (including fiscal expenditures, opportunity costs and negative social and environmental externalities), and its benefits (including the projected tax revenues in the future as well as social, economic and technological spillovers). Such analysis is particularly relevant given the scarcity of public funds, currently exacerbated by the ongoing financial and economic crises.

In order to determine which schemes of government support for upstream oil and gas activities are most expedient and affordable to the federal and regional budgets, governments, academia, business and civil society need reliable data on existing and proposed oil-and-gas subsidies and an open dialogue to discuss their economic, social and environmental costs and benefits. In Russia, both the data on oil and gas producer subsidies and public debate on their expediency have been lacking. The purpose of this report is to close these two gaps.

As a member of G-20 and APEC, Russia has already committed to "rationalize and phase-out over the medium term inefficient fossil-fuel subsidies that encourage wasteful consumption." This report is aimed at assisting Russia in making its first steps towards identification and phase-out of the oil and gas producer subsidies that are harmful and inefficient from economic, social and environmental points of view.

1 STUDY PURPOSE AND SCOPE

The purpose of this report is to provide an inventory of government subsidies to upstream oil and gas activities in Russia as a launching pad for a broad debate among the Russian government, academia, business, civil society and international stakeholders on the economic, social and environmental expediency and efficiency of such policies. In turn, both the inventory and the open discussion of hydrocarbon producer subsidies will pave the way for Russia's more informed and productive participation in the international process of fossil-fuel subsidy reform under the auspices of Group of Twenty (G-20) and Asia-Pacific Economic Cooperation (APEC).

1.1 THE INTERNATIONAL CONTEXT OF THE FOSSIL-FUEL SUBSIDY REFORM AGENDA

Russia plays an important role in international efforts to reform fossil-fuel subsidies, both by the magnitude of the existing government support to the Russian energy sector and by its participation in the two international organizations driving the reform on a global scale: the G-20 and the APEC forum. Russia is not only a member of the G-20 and APEC, but also the APEC chair in 2012, the host of the G-20 summit in 2013 and president of the G-8 in 2014.

In 2009 G-20 and APEC members, including Russia, committed to "rationalize and phase-out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption'" (G-20 Pittsburgh Summit, 2009; APEC Singapore Summit, 2009). Pragmatically, there are several driving forces behind the G-20 and APEC initiatives in the area of fossil-fuel subsidy reform.

First, G-20 members that are proactive in fighting climate change (the European Union, the United Kingdom, Germany, France and some others) regard *the phase-out of fossil-fuel subsidies as the first and foremost step to incentivize decarbonization of the world economy.* Assisted by both consumer and producer subsidies, current prices for fossil fuels do not fully reflect their social and environmental costs, especially the cost of climate change, making it cheap to emit greenhouse gases (Intergovernmental Panel on Climate Change, 2007, p. 69).

According to the estimates of the International Energy Agency (IEA), a complete phase-out of fossil-fuel consumption subsidies by 2020 would result in higher prices for fossil fuels in countries currently subsidizing prices, and a consequent decrease in the global demand for primary energy by 5 per cent, accompanied by a reduction in CO_2 emissions by 5.8 per cent compared with the business-as-usual scenario (IEA, 2010, p. 56; IEA, 2011b, p. 507).

In order to internalize the negative environmental externalities of fossil fuels and enable transparent price signalling on the markets, the phase-out of fossil-fuel producer and consumer subsidies should precede the introduction of other decarbonization measures discussed today—for instance, a carbon tax.

Second, given the pressing circumstances of the current financial and economic crisis and the austerity measures undertaken by governments, *the phase-out of the fossil-fuel consumer and producer subsidies are a way to reduce budget deficits in many of the G-20 and APEC economies.* Reform of fossil-fuel consumer subsidies may require targeted budget spending on assisting the most vulnerable groups in society to overcome the negative impacts of the increased prices for energy, but this is normally more efficient and less costly to the budget, as experienced by Iran, Indonesia, El Salvador and some other countries (IEA, 2011b, pp. 524–525).

Third, developed countries are finding it difficult to deliver on their commitments to provide US$30 billion by 2012 and US$100 billion by 2020 in climate finance to developing countries as part of the agreements reached at the conferences of the parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen in 2009, in Cancun in 2010 and in Durban in 2011. Therefore, *additional budget*

revenues secured as a result of the phase-out of fossil-fuel subsidies appear to be the most acceptable and feasible among the so-called "innovative sources" of finance for climate change adaptation in developing countries[1] (World Bank, International Monetary Fund, OECD & Regional Development Banks, 2011). According to the estimates of the United Nations Secretary-General's High-Level Advisory Group on Climate Change Financing, the politically acceptable amount of finance to be redirected by developed countries from subsidizing fossil fuels to assisting climate change adaptation may be on the order of US$8 billion per year (High-Level Advisory Group on Climate Change Financing [AGF], 2010).

Historically, the international community, led by the World Bank Group, International Monetary Fund, IEA and OECD, first focused their attention on phasing out fossil-fuel subsidies to consumers in developing countries. However, of late, more attention has been paid to producer and consumer subsidies in developed countries as well. The Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) was the first organization to start calling attention to this issue in 2009 when it released its estimate of US$100 billion per year in global support to fossil-fuel production (GSI, undated).

In the run-up to the G-20 summit in Cannes and the APEC summit in Honolulu in November 2011, the OECD has published its first inventory of both producer and consumer subsidies to fossil fuels in 24 of its 34 member countries (OECD, 2011a). The international momentum that the issue of fossil-fuel subsidies is gaining also helps some individual countries phase-out the subsidies that they have been trying to eradicate for a long time (e.g., closing coal mines in Europe), but failed to do out of fear of adverse social effects. In this context, the international experience can also be used to address domestic issues, which is of particular interest to Russia given the difficulties it faces in improving its energy efficiency.

Russia is currently in the process of joining the OECD. In June 2009 the OECD passed a Declaration on Green Growth (OECD Meeting of the Council at Ministerial Level, 2009). The declaration formed the basis of the OECD Green Growth Strategy, formally adopted in May 2011 (OECD, 2011c). Among other provisions, the OECD Green Growth initiatives "encourage domestic policy reform, with the aim of avoiding or removing environmentally harmful policies that might thwart green growth, such as subsidies: to fossil-fuel consumption or production that increase greenhouse gas emissions; that promote the unsustainable use of other scarce natural resources; or which contribute to negative environmental outcomes" (OECD Meeting of the Council at Ministerial Level, 2009). These provisions are also valid for Russia as an OECD candidate.

Fossil-fuel subsidy reform is discussed in the fundamental report *Towards a Green Economy: Pathways to sustainable development and poverty eradication* published by UNEP as a launching pad for the agenda of the United Nations Conference on Sustainable Development in Rio de Janeiro in June 2012 (UNEP, 2011, pp. 22, 214–217). Hence the phase-out of fossil-fuel subsidies is likely to be discussed as one of the important topics in the green economy context at this important sustainability forum.

In the short term, the major tasks Russia has to accomplish as part of its participation in the international fossil-fuel subsidy reform effort involve producing an inventory of its domestic fossil-fuel subsidies and an individual evaluation of their efficiency. As the next step, Russia needs to develop and start implementing a plan to phase-out those subsidies that are wasteful and inefficient. In cases where the phase-out of subsidies may entail negative economic or social effects—for instance, with respect to increases in the prices for gas and electric power for the most vulnerable groups in society—the government should design and implement programs of targeted assistance to compensate negatively affected stakeholders.

[1] Other options discussed include a tax on bunker and aviation fuels as well as a tax on financial transactions.

1.2 IMPORTANCE FOR THE ARCTIC

The Arctic accommodates both extremely fragile ecosystems and vast reserves of oil and gas. Gaps in scientific knowledge about the Arctic make it yet premature to conclude if and how environmental conservation and petroleum production can be complementary beyond the northern polar circle.

The Arctic is an integral part of the Earth's ecosystem and home to many of the world's most iconic wildlife species—polar bears, walrus, ice seals, bowhead whales, beluga whales, eiders, puffins and more. The Arctic also plays an extremely important role in regulating the planet's weather and climate, and is highly vulnerable to climate change. Yet scientists know little about how the Arctic ecosystems function or the ways in which these fragile natural communities might respond to industrial activities.

As the changing climate extends the ice-free periods beyond the northern polar circle, there is an ever-increasing interest in tapping the Arctic oil and gas deposits in view of the depletion of conventional petroleum fields in more easily accessible areas. Estimates of the quantity of hydrocarbons in the Arctic vary widely due to the region's low exploration maturity. The U.S. Geological Survey has estimated that the Arctic seabed could contain 13 per cent of the world's undiscovered oil and 30 per cent of its undiscovered gas (Grom, 2009). Russia's Ministry of Natural Resources and Ecology has estimated that the Arctic territory claimed by Russia could contain twice the volume of Saudi Arabia's oil reserves (Slizhevsky, 2010).

If developed, Arctic oil and gas will eventually be burnt and emitted into the atmosphere in the form of greenhouse gases. This "vicious circle" closes again in the Arctic: as more fossil fuels are produced on a global scale, more carbon is emitted into the atmosphere, the climate gets hotter and the ice-free periods in the Arctic become longer; as a consequence, it becomes easier to extract oil and gas beyond the northern polar circle. Yet there are no proven techniques to prevent and clean up oil spills in the Arctic, no proven models of the permafrost's thawing, and no evidence of the impact of this process on the existing and proposed infrastructure required for oil and gas extraction.

As the experience of the Exxon Valdez oil spill in Alaska in 1989 demonstrates, an oil spill in the Arctic could have enormous consequences for the region's communities and ecosystems. During the winter months, the Arctic seas are covered with ice and are not navigable by oil-spill response ships. This means that if a spill started at the beginning of winter, the oil could continue to gush into the sea and under the ice until spring, lasting for several months. Cleanup in the Arctic would be hampered by sea ice, extreme cold, hurricane-strength storms and pervasive fog (WWF-Russia, 2011b).

The first oil to be extracted in the Russian sector of the Arctic is at the Prirazlomnoe project in the Pechora Sea in 2012. However, the Russian government has yet to establish an adequate oil-response infrastructure in the area, provoking severe criticism from the expert community and non-governmental organizations (WWF-Russia, 2011a).

Given the uncertainty and very high risks and costs of developing the Arctic petroleum reserves, oil and gas companies build up the pressure on national governments to share these risks by providing large-scale subsidies, especially in the form of various tax breaks, without which the development of many oil and gas deposits in the Arctic would be commercially unviable. Meanwhile, any decisions on providing such government support programs should be based on informed, transparent and scrupulous analysis of their broad economic, social and environmental costs and benefits.

1.3 SCOPE AND APPROACH

The scope of the study is limited to identifying and quantifying, where possible, federal and regional subsidies to oil and gas upstream activities in Russia, and to briefly analyze their economic, social and environmental impacts. Quantitative estimates are limited to the years 2009 and 2010, although provisions for the subsidies' future dynamics are described where available.

Box 1. What Remained Beyond the Scope of this Report

This study has been designed to provide just enough information to launch an informed and open public debate on the expediency of the most conspicuous fossil-fuel producer subsidies in Russia. There are a number of important issues that remained beyond the scope of this report and should become the subject matter of separate investigations in the future:

- **Government support to midstream (especially refining) and downstream oil and gas activities in Russia**
- **Government support to coal producers in Russia**
- **Government support to electricity producers in Russia**
- **An inventory of schemes of government support to oil and gas producers at the regional and municipal levels in Russia**
- **Fossil-fuel consumption subsidies in Russia**
- **Government support to energy-intensive industries in Russia**
- **Methodology for quantification, in monetary terms, of the social and environmental costs and benefits of subsidy programs in Russia**
- **Methodology for identification of inefficient and wasteful subsidies in Russia**
- **Cost-benefit analysis of individual schemes of government support to fossil fuels in Russia with a view to determining their efficiency and expediency**
- **Modelling of the economic, social and environmental consequences of the phase-out of wasteful and inefficient fossil-fuel producer and consumer subsidies in Russia**
- **Proposal of a plan for implementation of fossil-fuel subsidies reform in Russia, including measures of targeted assistance to compensate negatively affected stakeholders**

Moreover, both the subject matter of this report and the international methodologies applicable to it develop very dynamically, which makes it necessary to continuously monitor and update the analysis of fossil-fuel subsidies in Russia.

The study follows the definition of subsidy and the methodology that has been developed by the Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) with reference to the subsidy evaluation record of the World Trade Organization (WTO), the OECD, and individual national governments. This choice has been made based on two considerations.

First, the use of this methodology is the only possible approach given the lack of clarity on defining subsidies at the national level. Even though the notion of "subsidy" is broadly used in Russian policies, it is not specified in the national legislation. In particular, there is no definition of subsidy in the Budget Code of the

Russian Federation—an omission that raises criticism by law theoreticians and practitioners (Andreyeva, 2010). Meanwhile, the usage of the word "subsidy" by Russian officials is compatible with the international approach as will be shown below. The Budget Code of the Russian Federation uses the word "subsidy" (Articles 41, 69, 69.1, 78, 78.1, Chapter 16) in the sense of the targeted, *ad hoc* transfer of budget funds to budgets of a lower administrative level, legal entities or individuals for fulfilling specified policy objectives. In this respect, subsidies are understood as unrequited and irrevocable. Similarly, without defining the terms in the Russian legislation, the Russian Ministry of Finance and other government entities also make use of subsidy-related notions that are translations of equivalents of international terms: government revenues foregone (выпадающие доходы бюджета), budget revenue shortfall (бюджетные потери), tax expenditures (налоговые расходы), etc.

Second, application of an international methodology is especially useful given Russia's commitments to participate in the fossil-fuel subsidies reform pertaining to its membership in the G-20 and in APEC. However, despite the G-20 and APEC initiatives for phasing out "inefficient subsidies that encourage wasteful consumption" in the energy sphere, there exists no agreed set of standards for fossil-fuel subsidies accounting as a basis for international comparisons either (GSI, 2010b, pp. 1–3). However, OECD made an important step in October 2011 by releasing its first inventory of both producer and consumer subsidies to fossil fuels in 24 of OECD's 34 member countries (OECD, 2011a).

When compared to the OECD report (2011a), however, the GSI has applied a much more detailed methodology towards defining, quantifying and analyzing oil and gas producer subsidies (GSI, 2010b) to two oil and gas producing nations that are, remarkably, also developing their petroleum reserves in the Arctic: Canada (Sawyer & Stiebert, 2010) and Norway (GSI, forthcoming). The Russia case study has been initiated by WWF-Russia with a view to complement the GSI series, and therefore follows the same methodology.

Meanwhile, wherever possible, the application of the GSI method is complemented with juxtaposition of available subsidy-related calculations and analysis in the documents of the relevant institutions of the Russian government. These include annually reviewed Tax Policy Guidelines, Tariff and Customs Policy Guidelines, clarification notes prepared by the Ministry of Finance as part of the budget drafting process (e.g., Ministry of Finance of the Russian Federation, 2010), reports by the Federal Tax Service, Federal Customs Service and the Accounting Chamber, materials of the budget committees in the both chambers of the Russian Parliament (e.g., Federation Council of the Russian Federation, 2011), and some others. Subsidy monitoring is developing in Russia, but has not yet become comprehensive.

1.4 DEFINITION OF "SUBSIDY"

The GSI uses a definition of "subsidy" based on an interpretation of the WTO's Agreement on Subsidies and Countervailing Measures (ASCM), which is agreed by 156 countries. Russia signed the ASCM as part of the documents package under its accession to the WTO on December 16, 2011, following 18 years of negotiations regarding the terms of its membership in the global trade body.

Under Article 1, the ASCM determines that for all types of economic activities (not just upstream oil and gas operations), four types of subsidies exist, where:

1. Government provides direct transfer of funds or potential direct transfer of funds or liabilities
2. Government revenue is foregone or not collected
3. Government provides goods or services or purchases goods
4. Government provides income or price support

Based on the ACSM list above, the GSI has developed subcategories of subsidies that form the framework for identifying subsidies applicable to upstream oil and gas activities in different countries (Table 1). Most of the listed subsidy types have been identified in the Russian petroleum-producing sector, as this study will reveal.

Table 1. Typology of subsidies

Direct and indirect transfer of funds and liabilities	**Direct spending**	**Earmarks and agency appropriations and contracts:** special disbursements targeted at the sector **Research, development and education support:** funding for research and development programs
	Ownership of energy-related enterprises by government if on terms and conditions more favourable for business than in case of private ownership	**Security-related enterprises:** strategic petroleum reserve; securing oil and gas supply to the domestic market, including from abroad **Utilities and public power:** significant public ownership of thermal power stations; transmission and distribution systems for both natural gas and electric power in cases when it is on terms and conditions more favourable for business than in case of private ownership
	Credit support	**Government loans and loan guarantees at below market rates:** market or below-market lending to energy-related enterprises, or to energy-intensive enterprises such as primary metals industries **Subsidized credit to domestic infrastructure and thermal power plants** **Subsidized credit to oil- and gas-related exports**
	Insurance and indemnification	**Government insurance/indemnification:** market or below-market risk management/risk shifting services **Statutory caps on commercial liability:** can confer substantial subsidies if set well below plausible damage scenarios
	Occupational health and accidents	**Assumption of occupational health and accident liabilities**
	Environmental costs	**Environmental damages and waste management:** directly or indirectly related to current operations of oil and gas producers **Responsibility for closure and post-closure risks:** facility decommissioning and cleanup, long-term monitoring, remediation of contaminated sites, natural-resource restoration, litigation
Government revenue foregone	**Tax breaks**	**Tax expenditures:** tax expenditures are foregone tax revenues, due to special exemptions, deductions, rate reductions, rebates, credits and deferrals that reduce the amount of tax that would otherwise be payable

Provision of goods or services below market value	**Government-owned oil and gas sites**	**Process for leasing of oil and gas sites:** auctions for larger sites; sole-source for many smaller sites. **Royalty relief or reductions in other taxes due on extraction:** reduced, delayed or eliminated royalties and other taxes due on extraction are common at both federal and regional levels **Process of paying royalties due:** allowable methods to estimate and pay public owners for oil and gas extracted from public lands
	Other government-owned natural resources or land	**Access to other government-owned natural resources land:** at no charge or at below-market rates
	Government-owned infrastructure	**Use of government-provided infrastructure:** at no charge or at below-market rates
	Government-provided goods or services	**Government-provided goods or services at below-market rates**
Income or price support	**Market price support and regulation**	**Consumption mandates and mandated feed-in tariffs:** fixed consumption shares for oil and gas use at federal or regional levels **Border protection or restrictions:** controls on imports or exports designed to protect national oil and gas producers **Regulatory loopholes:** any legal loopholes, either in the wording of the statute or in its enforcement, that transfers significant market advantage and financial return to particular oil and gas producers **Regulated prices set at below-market rates:** as a means to guarantee minimal volumes of consumption **Regulated prices set at above-market rates:** as a means to guarantee corporate revenues

Source: Adapted from GSI (2010b, pp. 4–5); Sawyer & Stiebert (2010, pp. 27–28)

1.5. METHODOLOGY

This study adopts a four-step approach: 1) identification of programs providing government support to upstream oil and gas activities in Russia, 2) categorization of the identified subsidy programs, 3) quantification of the subsidies where possible and 4) brief discussion of the identified subsidies in a broader economic, social and environmental context. Methods of data collection include investigating open sources: public accounts and official documents related to subsidy monitoring and budget planning and reporting, academic literature and media items. The study also draws upon a number of discussions with experts as acknowledged at the beginning of the report.

1.5.1 IDENTIFICATION OF PROGRAMS PROVIDING GOVERNMENT SUPPORT TO UPSTREAM OIL AND GAS ACTIVITIES IN RUSSIA

Under Article 2, the ASCM's definition requires that, for a subsidy to be actionable, it has to be specific to an enterprise, industry, or group of enterprises or industries. Therefore the GSI's approach is based on the view that a subsidy exists where preferential treatment—financial and otherwise—is provided to oil and gas producers. Preferential treatment can apply to three categories:

- to selected companies
- to one sector or product when compared with other sectors
- to sectors or products in one country when compared internationally (GSI, 2010b, p. 2)

The GSI method also recognizes that, although in some cases government support is offered to more than one sector, it can still be considered a subsidy if, for example, it is offered only to all extracting industries in the country, or if the petroleum sector disproportionately benefits from the support.

In many cases, what is considered to be a subsidy under the WTO/GSI definition can also be an arrangement that would be generally considered an integral element of the national tax regime rather than an exception to it. For example, many tax practitioners would consider the 30 per cent lump-sum depreciation deduction for capital costs of an oilfield development to be a given, not only in Russia, but also in other countries. In such cases, juxtaposition with the documents of the relevant institutions of the Russian government provides additional argumentation. In particular, the 30 per cent lump-sum depreciation deduction can be considered a subsidy of the "government revenue foregone" type, not only under the GSI definition, but also according to the calculations of the Federal Tax Service (Federal Tax Service of the Russian Federation, 2011).

1.5.2 CATEGORIZATION OF THE IDENTIFIED SUBSIDY PROGRAMS

All identified subsidy programs are classified based on their federal or regional jurisdiction and relevance to the subsidy categories presented in Table 1. Policy objectives and duration of the subsidy programs are also specified. Additionally, subsidies are categorized based on what type of activities they are designed to stimulate. Most of the oil and gas producer subsidies in Russia have been designed to incentivize such stages of the field life cycle as exploration, development and production (see Figure 1) as well as exports to specified destinations.

In some cases, a subsidy program may fit into several categories. For example, accelerated depreciation allowances or the deduction of technological losses from taxable profits fall under both federal and regional jurisdictions, since the corporate profits tax in Russia is levied at both levels of government. The accelerated depreciation allowances particularly incentivize oil and gas companies at the field-development stage, but they are also beneficial at the stage of field operation. Further, property-tax relief on trunk oil and gas

pipelines can be considered as regional tax expenditures due to the regional status of the tax, but the subsidy is actually stipulated by federal legislation. Moreover, this measure also provides indirect income and price support to oil- and gas-producing companies since the tax relief is granted to prevent increases in pipeline transportation fees.

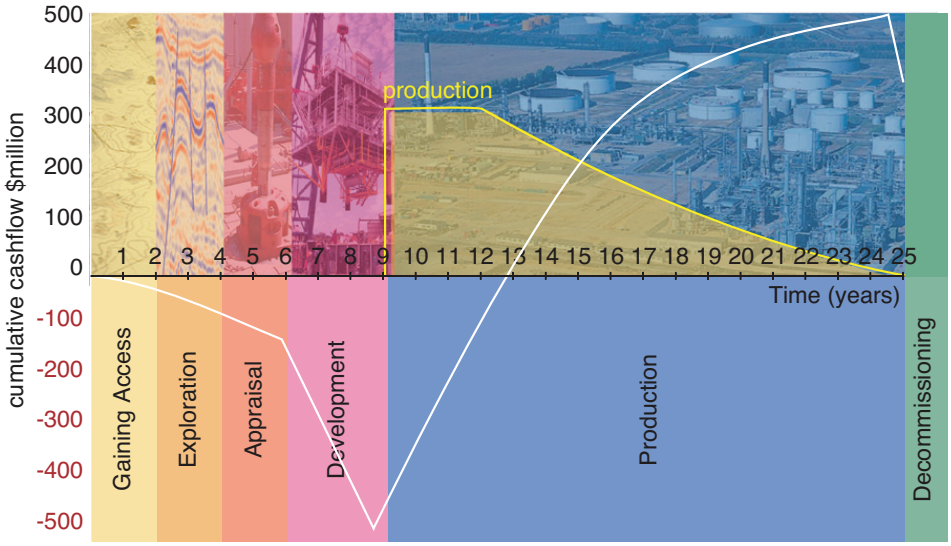

FIGURE 1. THE FIELD LIFE CYCLE AND TYPICAL CUMULATIVE CASH FLOW

Source: Jahn, Cook & Graham (2008, p. 1).

Finally, due to the vertically integrated nature of Russian oil and gas companies, there is sometimes only a very fine line between subsidies for upstream activities and subsidies for downstream activities— revenues from different activities are recycled within individual companies. For instance, the exemption of gas exported to Turkey through the Blue Stream pipeline from export customs duty can be considered support for downstream activities and subsidy to gas consumption in Turkey. But since Gazprom is a gas monopoly and its revenues are recycled, the duty relief can also benefit its upstream operations, in particular, the development of new gas fields in the Yamal peninsula.

1.5.3 BENCHMARKING AND QUANTIFICATION OF SUBSIDIES

Quantification of oil and gas producer subsidies requires reference to a benchmark rate of applicable tax or royalty against which to calculate the deviation. However, a fundamental challenge to benchmarking is measurement of the natural resource rent that governments need to capture (see Box 2). "It may be difficult to define precisely what the economic rent is for a unit of a given natural resource, because of uncertainties about future markets and other factors. Nevertheless, the full economic rent available for any natural resource that is extracted from publicly owned land or waters should accrue to the state.... *If the state does not capture the full economic rent on the sale of natural resource rights to private companies, it is transferring financial resources to the company just as much as if it provided a tax concession or an outright grant*" (Porter, 1994, emphasis added). However, as mentioned above and explained in Box 2, both determining the benchmark in a way that fully captures the resource rent and setting the tax and royalty rates at this benchmark is highly complicated.

Given the difficulties with determining the value of the natural resource rent and setting benchmarks for oil- and gas-related taxes and royalties, subsidy valuation is often undertaken via alternate routes. In particular,

subsidy valuation in the petroleum sector draws on extensive expertise of estimating producer support in other traditionally subsidized sectors such as agriculture, fisheries, irrigation and biofuels. For instance, in 2010–2011 OECD developed a methodology for energy subsidies evaluation based on its agricultural subsidy gold-standard text, *The PSE Manual* (OECD, 2010a), and undertook reviews of fossil-fuel subsidies in its member countries (OECD, 2010b). However, *no methodology can be considered ideal*. Moreover, using the same benchmarks for different countries can be particularly erroneous, as tax regimes are complex and unique to each country. Setting the appropriate benchmark will depend on the structural features of the tax regime in question (OECD, 2010b, p. 31).

Box 2. In Search of the Natural Resource Rent Meter

One of the most widely used definitions of natural resource rent (also sometimes called "economic rent") has been given by David Ricardo (1821) in Chapter 2 of his treatise *On the Principles of Political Economy and Taxation:* it corresponds to the extra ("supranormal") profit, on top of "normal" cost of capital, labour and technology, which remunerates the ownership of a scarce and useful productive asset:

Rent = Quantity * (Price – "Normal" Cost)

In resource-rich economies, natural resource rents can constitute a considerable share of the national wealth. For instance, in Russia the natural resource rents as a share of Gross Domestic Product (GDP) varied from 45 per cent in 2000 to 21 per cent in 2009 (World Bank, 2011). Oil and gas accounted for about 90 per cent of the total natural resource rents in Russia (see Figure 2).

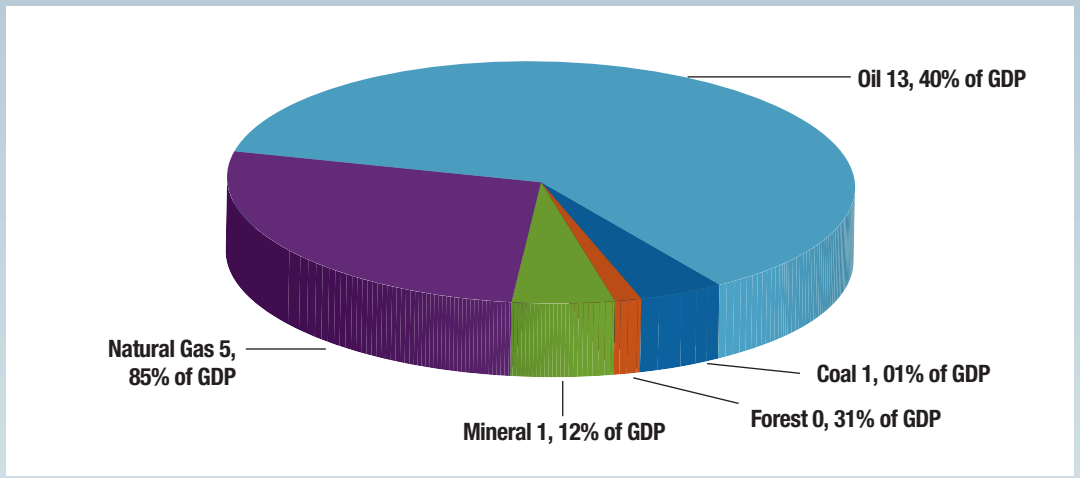

FIGURE 2. STRUCTURE OF NATURAL RESOURCE RENTS IN RUSSIA IN 2009 ACCORDING TO THE WORLD BANK ESTIMATES

Source: World Bank (2011).

In practice, this theoretical provision has two complications. First, it is often not the owner who uses the natural resource. In most countries, natural resources are owned by the state, but leased to businesses for development and extraction. The state can capture the resource rent through taxes and royalties levied on participants of natural resource markets, but in practice a considerable share of the resource rent is often diffused (Bosquet, 2002).

Second, it is debatable which rate of profits can be considered "normal." For instance, "normal" profits can be understood as economy-average. Based on this approach and official statistics (Table 2), it can be said that Russian oil and gas companies enjoy supranormal profits. This means that petroleum-related businesses retain some of the resource rent that the Russian state does not fully capture through taxes and royalties. In its decisions in 2009–2011, the Russian Ministry of Finance benchmarked the "normal" profitability rate for the Russian oil and gas businesses at 15–17 per cent (Sosnova, 2010; RIA Novosti, 2011a).

Table 2. Profitability of goods and services sold by Russian organizations (exclusive of small businesses), by percentage

	October 1, 2005	October 1, 2006	October 1, 2007	October 1, 2008	October 1, 2009	October 1, 2010	October 1, 2011
All industries	14.7	14.91	13.88	15.79	11.24	11.6	11.15
Oil and gas extraction and related services	37.66	36.68	28.32	32.43	33.76	30.98	32.03

Source: Federal Service of State Statistics (2011d).

As can be deduced from the equation above, to capture the oil and gas rent fully at all points in time at all license sites, the benchmarks of taxes and royalties should be adjusted by:

- The highly volatile prices of hydrocarbons
- The corporate costs, which are determined by: a) each field's productivity depending on the type of the geological formation (e.g., deepwater, light or heavy oil, etc.) and depletion (these factors are sometimes called "Ricardo's rent" as David Ricardo was the first economist to differentiate agricultural rent depending on the land's fertility); b) each field's distance from the consumer markets and availability of transport infrastructure (these factors are sometimes called "Thünen's rent" as they were first conceptualized by the German economist Johann Heinrich von Thünen); or c) each field's size, as the capital costs for a license site's development are usually high and larger oil and gas sites enjoy economies of scale.

Adjustments by price are relatively easy, and in most oil- and gas-extracting countries, for instance, Canada and Russia, royalty formulas include the price component (Government of Alberta, 2011; Tax Code of the Russian Federation, Article 342, p. 3).

However, adjustments by costs present a challenge, as companies may tend to declare higher costs than they actually incur. Therefore, rough adjustments have to be done based on technical characteristics of individual licence sites. For instance, in Canada, although in a manner differing from province to province, royalties are established individually for each well, their computation is complex and is generally based on a function of the well's productivity (Ernst & Young, 2011, p. 78; Bobylev & Turuntseva, p. 45; Government of Alberta, 2011). In Russia, in 2002 the Tax Code initially established a flat rate of the extraction tax for oil, adjusted only by a world price coefficient. This measure made development of many less productive fields commercially unviable. To overcome this negative effect, the government started introducing further coefficients based on fields' depletion and size as well as introducing extraction tax holidays for certain new and remote fields (see Annex V for more detail).

Therefore, there are tradeoffs between governments' efforts to capture all the resource rents and simplicity and transparency of administration of taxes and royalties. Determining fields' productivity level and corresponding corporate costs requires extra government spending on continuous instrumental measurement of wells' characteristics and staff or consultants with technical expertise. Until a simple-to-use natural resource rent meter is invented, governments will have to use a simplified approach to establishing tax and royalty rates in the oil and gas extraction sector.

As far as this report is concerned, valuation of the identified subsidies to oil and gas producers in Russia is performed in a number of ways, from adopting outright subsidy levels published by the Ministry of Finance of the Russian Federation to estimating the subsidy based on sector information. To identify suitable valuation methods, this study refers to *Subsidy Estimation: A survey of current practice*, the GSI manual of the many different methodologies used by organizations to calculate subsidy values (Jones & Steenblik, 2010). The manual draws on methodologies used and publicly reported by intergovernmental organizations (Food and Agriculture Organization, IEA, OECD, World Bank and WTO); countervailing authorities (Canada, the European Commission, India, Korea and the United States); other government agencies (Australia, Canada, the European Commission and the United States); and non-government organizations (e.g., Earth Track and the Environmental Working Group). In Annexes I–III, the applied quantification methods are specified individually for each subsidy program.

Meanwhile, *estimates of subsidy values contained in this report are by no means final values, and alternative interpretations can be viable*. For instance, the Ministry of Finance of the Russian Federation classifies all deviations from the benchmark (maximum) rates of the mineral extraction tax and export duty on oil and gas as "budget revenue shortfalls," that is to say, a subsidy (e.g., Lermontov, 2007; Ministry of Finance of the Russian Federation, 2010). In such cases, the study follows the Finance Ministry's approach. But it can be argued that the royalty reliefs for high-cost upstream projects in the Russian oil and gas industry, for instance in East Siberia, are a way to reflect the lower level of the natural resource rent that the state has to capture, and therefore no subsidy exists. It can be further argued that, without various tax and royalty reliefs as well as income and price support, such high-cost upstream projects in the Russian oil and gas industry would not be viable at all. Therefore, *under no circumstances should the aggregation of subsidy value in this study be viewed as the actual revenues "under-received" by the federal and regional governments.*

Meanwhile, the objective of subsidy estimation does not need to be to conclude an exact figure, but to 1) ascertain each subsidy's order of magnitude and 2) set up the analysis of its impacts, leading to an evaluation of whether it is "wasteful" and "inefficient." Estimates in the report are rounded up to avoid the impression of a final accuracy.

1.5.4 DISCUSSION OF ENVIRONMENTAL AND ECONOMIC OUTCOMES OF SUBSIDIES

The study reviews the policy objectives of the identified subsidies and discusses whether achievement of these policy objectives can also be assisted by different instruments. Special attention is paid to sustaining and increasing oil and gas output in Russia via improved hydrocarbon recovery and production efficiency, as opposed to extensive development of new fields in the Arctic and sub-Arctic regions.

All data in the report are as of December 1, 2011. For all subsidy values, all conversions from Russian rubles (RUB) to U.S. dollars are first adjusted based on the yearly average exchange rate for the reported year according to the estimates of the Ministry for Economic Development of the Russian Federation. All values are presented in prices for the reported year.

2. OVERVIEW OF THE UPSTREAM OIL AND GAS ACTIVITIES IN RUSSIA

Among the fossil-fuel-producing nations, Russia has the world's largest proved reserves of natural gas (44.8 trillion cubic metres by the end of 2010, or 23.9 per cent of the world's total) and the world's eighth largest proved reserves of oil (77.4 billion barrel at the end of 2010, or 5.6 per cent of the world's total). In 2010 its daily production of crude oil averaged 10.1 million barrels, which made Russia the world's largest oil

producer (12.9 per cent of the world's total oil output). Russia is the world's second largest producer of gas (after the U.S.) averaging 57 billion cubic feet on a daily basis in 2010 (18.4 per cent of the cumulative gas production in the world) (BP, 2011; see Annex VI for conversion factors).

2.1. ROLE OF OIL AND GAS EXTRACTION AND EXPORTS IN RUSSIA'S ECONOMY

The role of oil and gas extraction and exports in the Russian economy is fundamental, but is forecasted to decline over the long term due to the development of other sectors (see Figure 3). Industry data and estimates may differ among official Russian agencies (Federal Service of State Statistics, Ministry of Energy, Ministry of Economic Development, Ministry of Finance, Federal Customs Service, and some others) due to discrepancies in the methodologies they apply.

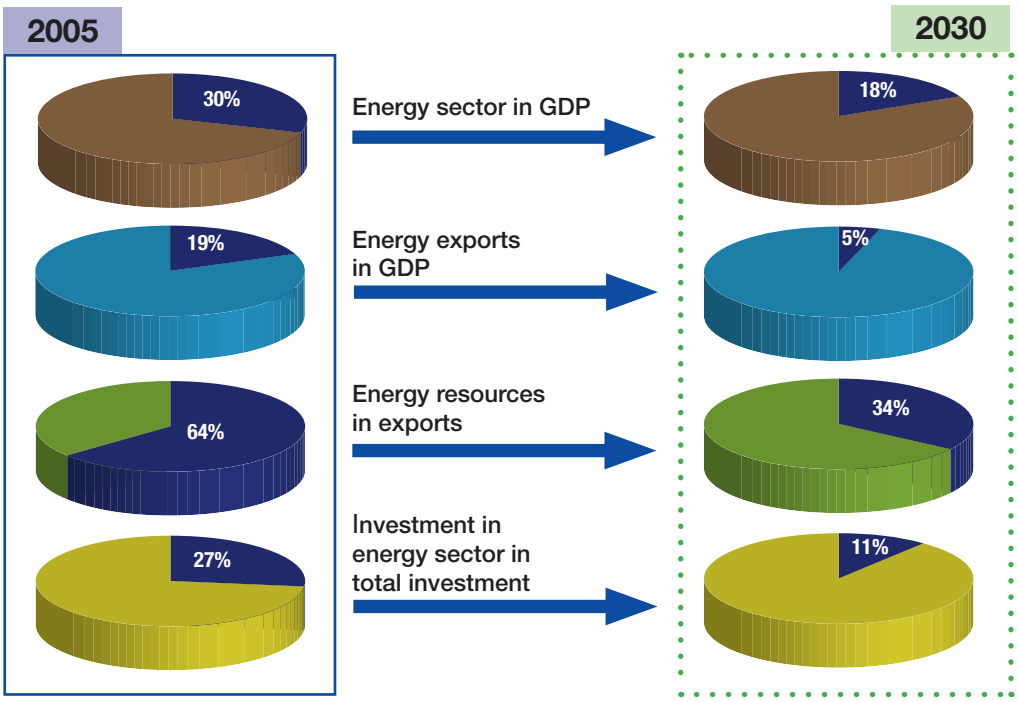

FIGURE 3. FORECASTED CHANGE IN THE CONTRIBUTION OF THE FUEL AND ENERGY COMPLEX TO THE RUSSIAN ECONOMY

Source: Government of the Russian Federation (2009); Gromov (2009).

In terms of GDP contribution, the Russian national accounts usually merge oil and natural gas production with either other extractive industries (coal, metals, etc.) or other elements of the fuel and energy complex (refining, coal, nuclear industry, electricity generation, etc.). According to the Russian Federal Service of State Statistics (Rosstat), the entire extractive sector accounted for 8.9 per cent of the Russian GDP in 2010 (7.8 per cent in 2009) and 1.5 per cent of all jobs, employing 994,000 people in 2010 (Federal Service of State Statistics of Russia, 2011a; Federal Service of State Statistics of Russia, 2011b). The Ministry of Finance estimates that the contribution of the Russian oil and gas sector (upstream and downstream) to the GDP amounted to 17 per cent of GDP in 2009 and will decrease to 13 per cent of GDP by 2020 (Rossiyskaya Gazeta, 2010). Capitalization of Russia's five largest oil and gas companies (Gazprom and its subsidiary Gazpromneft, Rosneft, LUKOIL and Surgutnetegaz) accounts for over 60 per cent of the value of the Russian stock market (Korzhubaev & Eder, 2011).

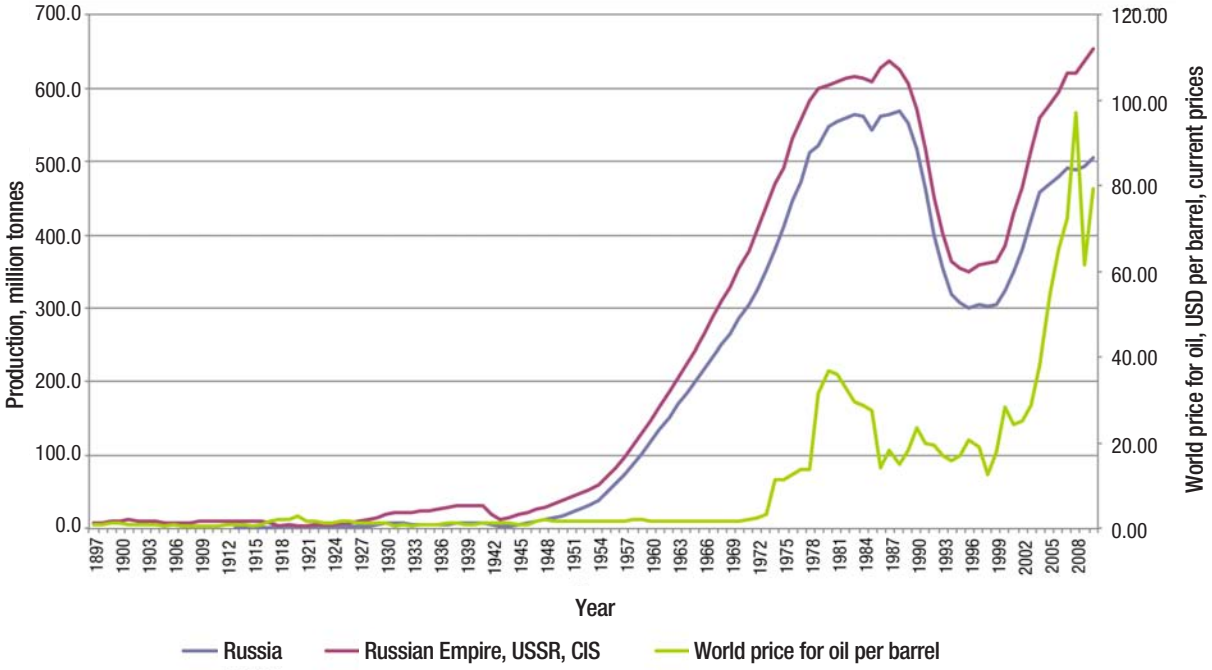

FIGURE 4. OIL PRODUCTION IN RUSSIA AND WORLD PRICE* FOR OIL IN 1897–2011

Source: Source: Korzhubaev & Eder, 2011
* World price for oil: 1897–1944 US average, 1945-1983 Arabian Light at Ras Tanura, 1984-2010 Brent at Rotterdam
Source: Korzhubaev & Eder (2011)

Production of oil in the Russian Federation peaked at 570 million tonnes per year in 1986–88. Oil production started to decline gradually starting in 1989, and then more abruptly with the breakup of the Soviet Union in 1992 due to depletion of the mature fields and lack of capital investments. By the late 1990s Russian annual oil output stabilized at slightly above 300 million tonnes. Most of the Russian oil companies were then privatized, and the state was losing control over the natural-gas monopoly Gazprom. In the early 2000s redistribution of property in the oil and gas industry was mainly finalized and its new structure and an increased predictability of the business environment ensured more capital investments, resulting in increased production of oil and gas in the country. Based on the Ministry of Energy data, Russia produced 505 million tonnes of oil and 649 bcm of gas in 2010 (see Figure 4 and Annex IV for more detail).

According to the Federal Customs Service, in 2010, the export of crude oil from Russia amounted to 234 million tonnes or US$129 billion (32.5 per cent of the value of all Russian exports), while the export of natural gas amounted to 153 billion cubic metres (bcm) or US$43.5 billion (11 per cent of the exports total value). Overall, the oil and gas sector accounts for almost two thirds of Russia's exports and currency revenues if the export of petroleum products (131 million tonnes or US$69 billion in 2010) is also included (Federal Customs Service of Russia, 2011a).

Taxation of the oil and gas sector is a pillar of Russia's fiscal system. In 2011 the federal government was budgeted to receive US$183 billion, or 50.7 per cent of its revenues (9.8 per cent of Russia's GDP) directly from the oil and gas sector, mainly in the form of the extraction tax on hydrocarbons and the export duties on oil, gas and petroleum products (Government of the Russian Federation, 2011a). In 2010, when the world price was lower, oil- and gas-related revenues amounted to US$126 billion or 46 per cent of the federal budget's revenues (8.6 per cent of Russia's GDP) (Ministry of Finance of the Russian Federation, 2011a).

The oil- and gas-related revenues are recycled in the Russian budgetary system and injected back into the economy in the form of social transfers and government expenditures. In case of the federal budget surplus, a corresponding share of the oil- and gas-related budget revenues is transferred to the Reserve Fund of the Russian Federation (worth RUB801.8 billion or US$25.6 billion as of December 1, 2011) and the National Wealth Fund of the Russian Federation (worth RUB2,764.4 billion or US$88.3 billion as of December 1, 2011).

2.2 PHYSICAL CHARACTERISTICS OF THE RUSSIAN OIL AND GAS RESOURCE BASE

Russia's hydrocarbon reserves are concentrated in several geological provinces, with most of the oil currently produced in West Siberia and Volga-Ural basins. Oil is also produced in the Timan-Pechora oil and gas province, the Caspian oil and gas province (including Caucasus) and Sakhalin Island (Figure 5, Figure 7). Most gas is extracted in the Yamalo-Nenets and Khanty-Mansi Autonomous Okrugs of the Tyumen oblast (Figure 6). Oil and gas fields in these regions have high rates of depletion and the application of some methods of intensified oil recovery (hydro-fracturing, horizontal drilling, etc.) in 2000–2005 led to a consequent decline in production at many fields in West Siberia and Volga-Ural oil provinces.

According to the *General Scheme of Development of the Oil Industry of the Russian Federation* (Government of the Russian Federation, 2011), the country-wide oil-recovery factor at producing fields amounted to 20 per cent in 2009. This is quite low by international standards, when compared to the estimated 23 per cent oil recovery factor in Saudi Arabia and Venezuela (2007 data), 35 per cent in the United States (1999 data), and 46 per cent for the entire North Sea Province (2007 data) (Sandrea & Sandrea, 2007). In practical terms, this means that *Russia has two alternative options to sustain its current level of hydrocarbon production: improved recovery of existing fields or development of new fields in the frontier areas such as East Siberia and offshore areas, including in the Arctic.* There is a heated ongoing debate in Russia on the pros and cons of each of the two options, whereby proponents of both insist on attracting corresponding subsidies from the government.

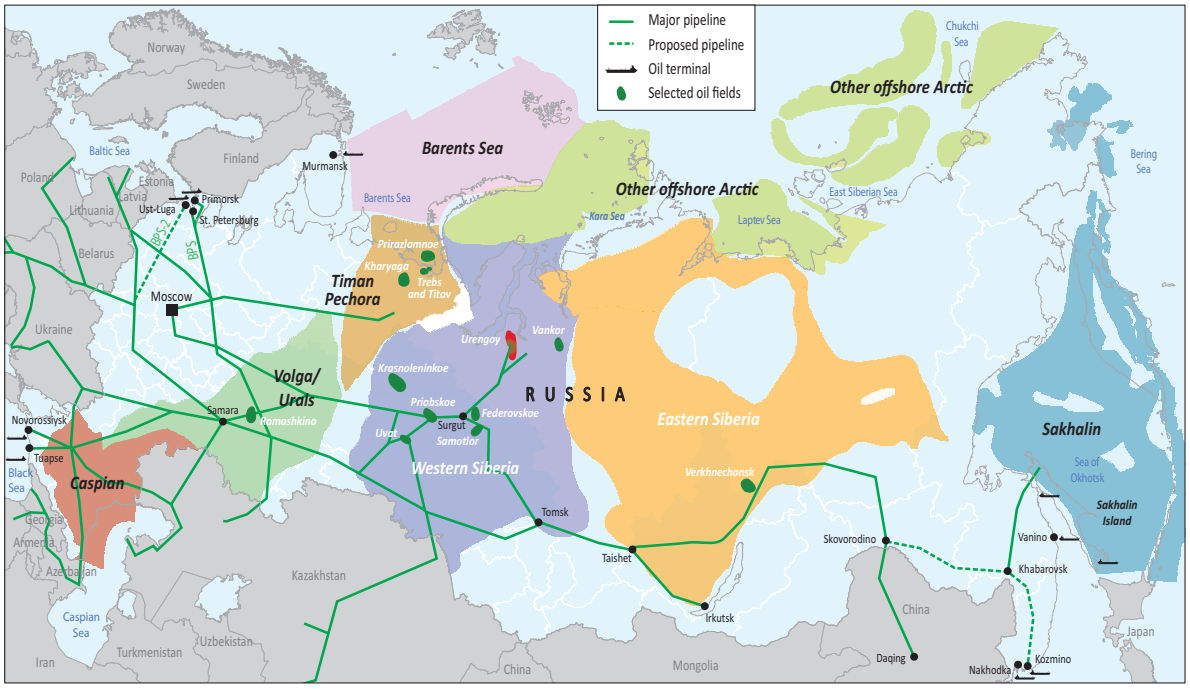

FIGURE 5. MAJOR OIL FIELDS AND SUPPLY INFRASTRUCTURE IN RUSSIA

Source: IEA (2011b, Figure 8.9, p. 297). © OECD/IEA. Reproduced with permission of IEA.

FIGURE 6. MAJOR GAS FIELDS AND SUPPLY INFRASTRUCTURE IN RUSSIA

Source: IEA (2011b, Figure 8.15, p. 313). © OECD/IEA. Reproduced with permission of IEA.

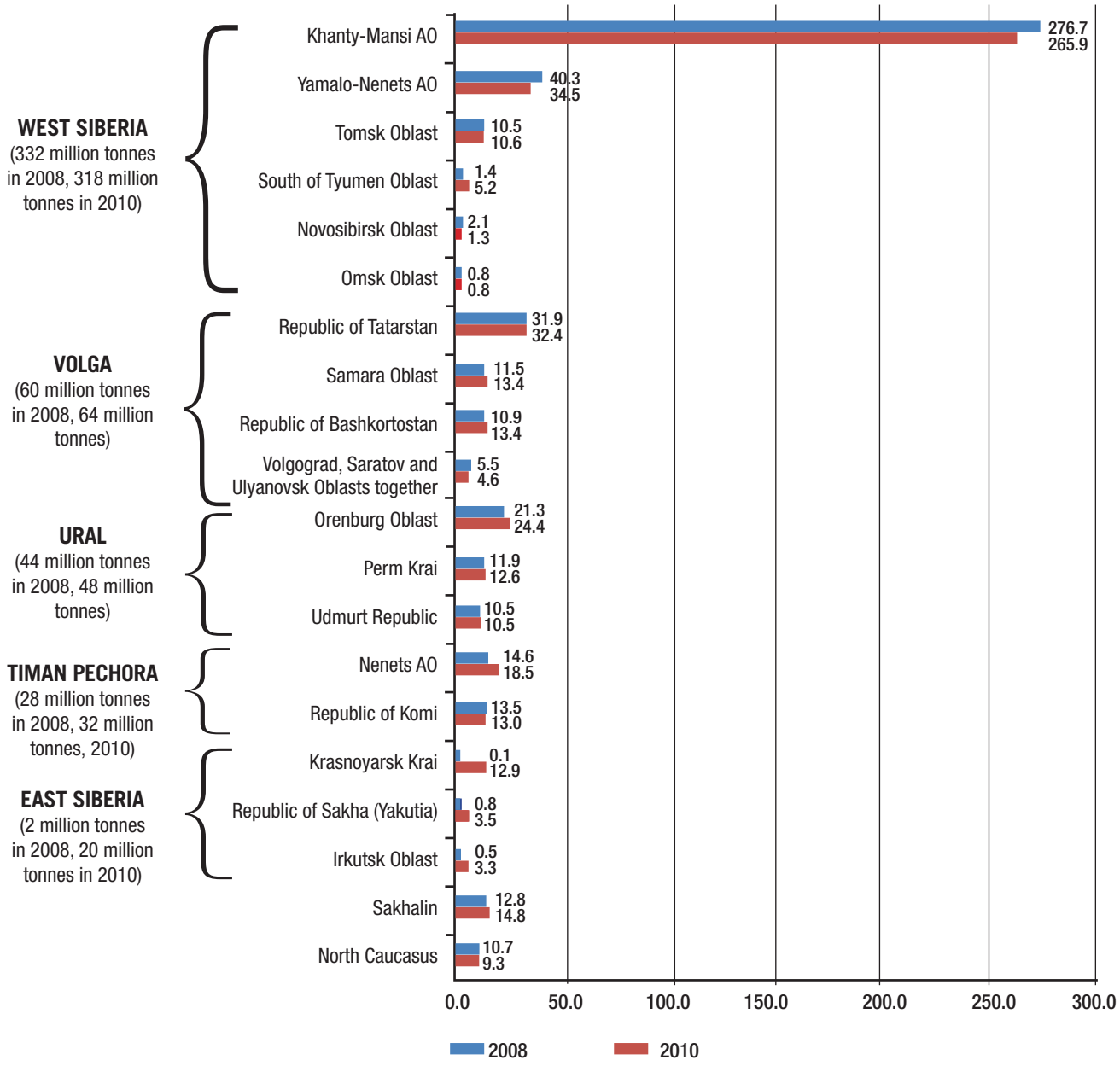

FIGURE 7. PRODUCTION OF OIL IN RUSSIAN REGIONS IN 2008 AND 2010, MILLION TONNES

Source: Plotted based on the data of Korzhbaev & Eder (2011).

2.3. CORPORATE STRUCTURE OF THE RUSSIAN OIL AND GAS INDUSTRY

As of January 1, 2011 there were 325 oil-extracting companies in Russia, 145 of which were subsidiaries of the eight vertically integrated majors: state-owned Rosneft and Gazprom Group (including Gazprom itself and its subsidiary Gazpromneft), LUKOIL, TNK-BP, Surgutneftegaz, Tatneft, Bashneft and Russneft. Gazpromneft and TNK-BP also jointly own Slavneft (Figure 8). Of these, 177 companies were independent from the majors, and three others were operating under production-sharing agreements with the Russian Government (Korzhubaev & Eder, 2011).

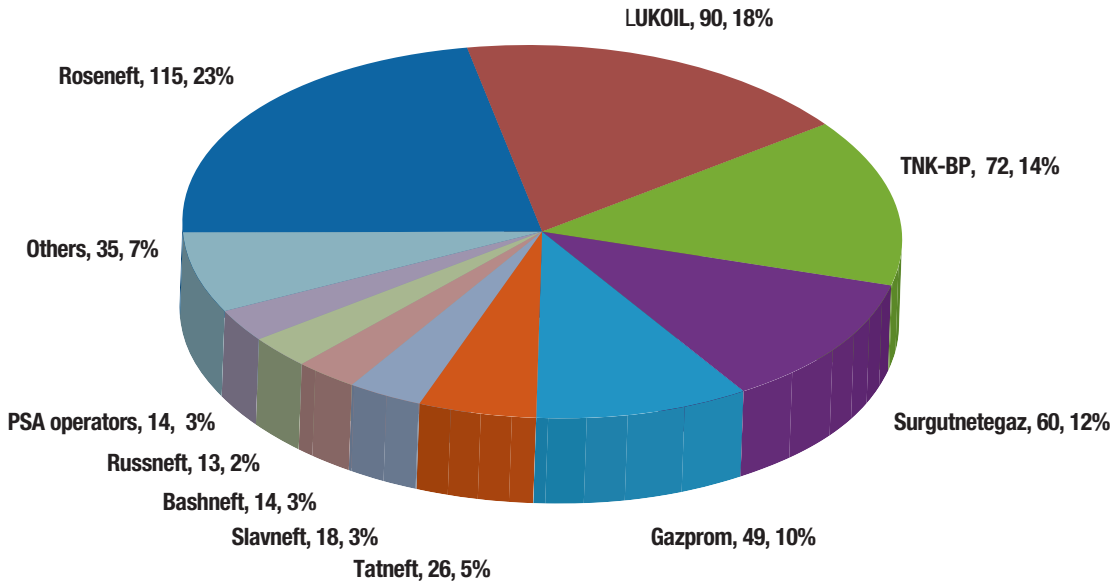

FIGURE 8. CRUDE OIL PRODUCTION IN 2010 BY COMPANY (OIL PRODUCTION IN MILLION TONNES, PER CENT OF THE TOTAL PRODUCTION IN RUSSIA)

Source: Plotted based on the data of Korzhubaev & Eder (2011).

Gas production in Russia is much more concentrated: state-owned monopoly Gazprom accounts for 77 per cent of gas production in Russia, although its share has declined since the early 2000s when it was over 90 per cent (Figure 9).

Due to the domination of oil and gas extraction and refining in the Russian economy, and despite a considerable share of the natural resource rent not captured by the state as discussed above, the major petroleum companies are also key individual taxpayers to the Russian federal budget (Figure 10).

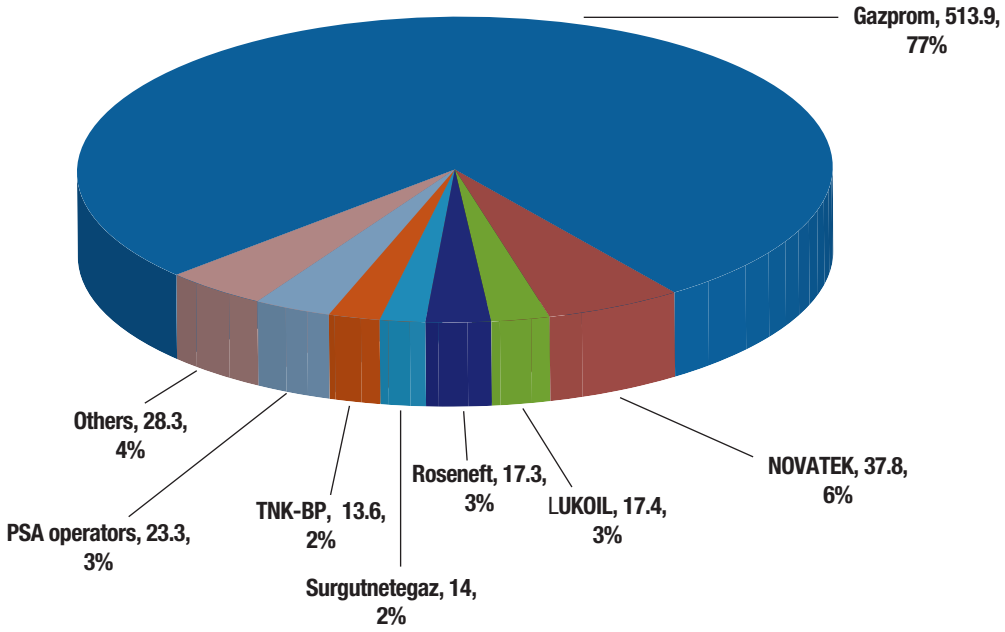

FIGURE 9. NATURAL GAS PRODUCTION IN 2010 BY COMPANY (NATURAL GAS PRODUCTION IN BCM, PER CENT OF THE TOTAL PRODUCTION IN RUSSIA)

Source: Plotted based on the data of Korzhubaev, Sokolova & Eder (2011).

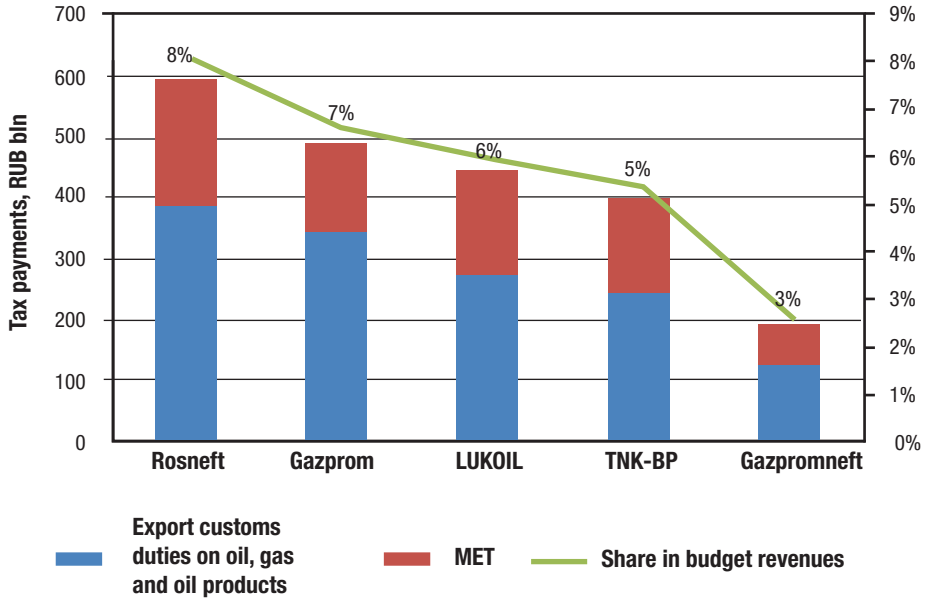

FIGURE 10. PAYMENTS OF THE MINERAL EXTRACTION TAX (MET) AND EXPORT DUTY TO THE FEDERAL BUDGET BY MAJOR OIL AND GAS PRODUCERS IN RUSSIA IN 2009

Source: Company data; Sosnova (2010).

2.4 CORPORATE COSTS AND TAXES IN THE RUSSIAN OIL AND GAS INDUSTRY

According to the estimates of Renaissance Capital, production costs and upstream capital expenditures (capex) of Russian oil companies remain significantly below those of international "supermajors" and petroleum companies in the global emerging market (GEM) (Figure 11). This can be viewed as a source of competitive advantage (Davletshin, 2011).

By law, oil and gas companies in Russia are required to pay federal taxes and fees (social insurance fees, mineral extraction tax, value-added tax, excise duties, payments for the use of water and other natural resources, payments for negative impact on the environment, state duties), customs duties on imports and exports (especially the export customs duty on oil and gas), regional taxes (corporate income tax, property tax, transport tax) and the local land tax. Overall, the industry tax and royalty payments are predominantly skewed towards the federal budget.

The extraction tax and export customs duties on oil and gas are the government's primary tools to capture the natural resource rent in the sector. Both charges are computed per unit of oil or gas and are directly linked to their world prices (see Annex V for more detail).

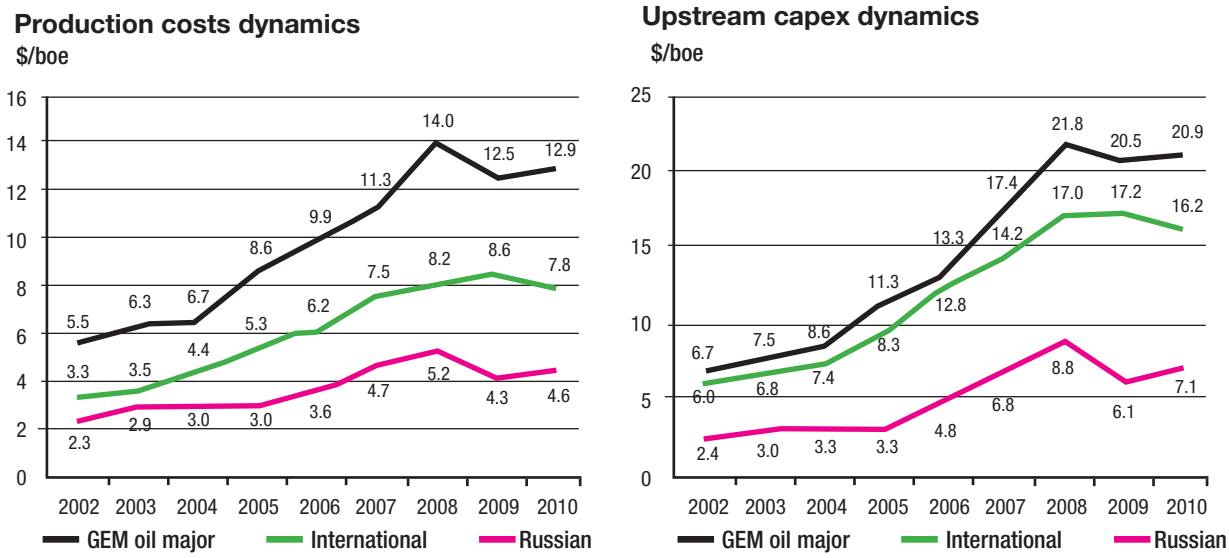

FIGURE 11. INTERNATIONAL COMPARISONS OF SELECTED COSTS IN THE RUSSIAN OIL SECTOR

Source: Renaissance Capital estimates based on company data (Davletshin, 2011).

Note: *GEM indicated is exclusive of Russia. The measurement "boe" indicates barrel of oil equivalent*

Estimates of the adequacy of the existing tax burden on oil and gas extraction in Russia, or, to the contrary, its acceptability by the industry, vary a lot and are a source of continuous controversies among the petroleum companies, different government agencies and academia. According to Renaissance Capital's analysis, in late spring 2011 Russian oil and gas companies averaged a lower profitability per barrel of oil equivalent (boe) than international "supermajors" (Figure 12). However, Russian petroleum companies and international supermajors had the same average free cash flow (about US$4 per boe) due to the supermajors' higher reserve replacement cost (US$18 per boe). Meanwhile, Russian petroleum companies

appeared to be less competitive than their peers in the GEM—for example, Brazilian or Chinese oil and gas producers—whose free cash flow was more than three times higher (US$14.2 per boe). GEM oil and gas companies also had a higher reserve replacement ratio than Russian producers: 131 per cent versus 100 per cent (Davletshin, 2011).

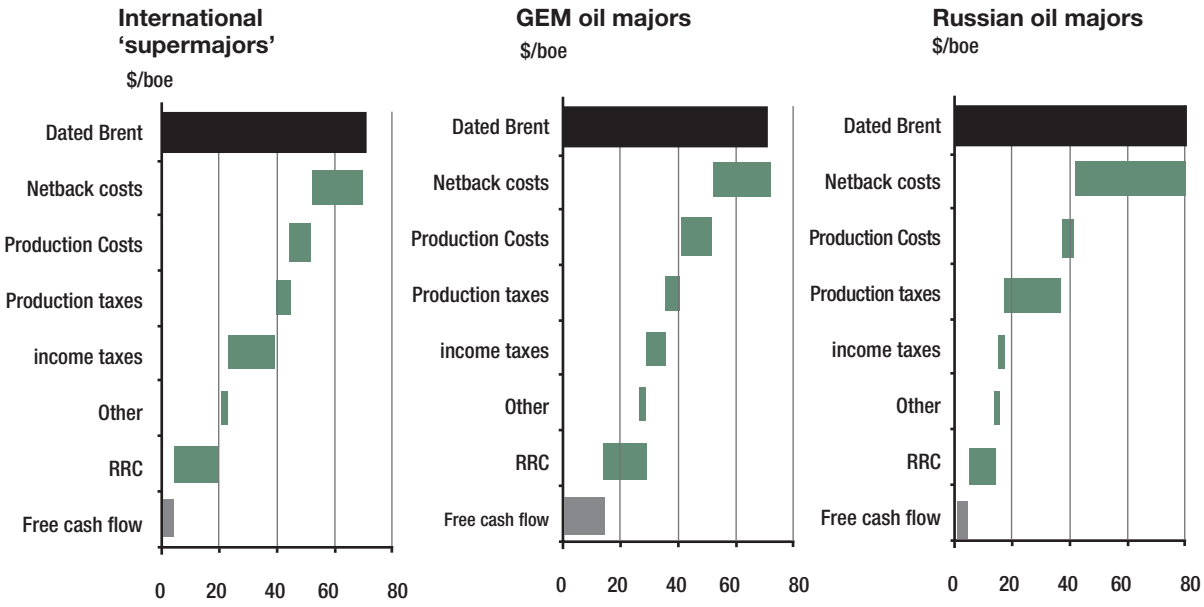

FIGURE 12. INTERNATIONAL COMPARISONS OF SELECTED EXPENDITURES IN THE RUSSIAN OIL SECTOR (DATA AS OF MAY 27, 2011)

Source: Renaissance Capital estimates based on company data (Davletshin, 2011).

Note: RRC indicates reserve replacement costs. Netback costs for Russia include costs export customs duty and are therefore high

3. SUMMARY OF IDENTIFIED AND QUANTIFIED SUBSIDIES FOR OIL AND GAS PRODUCERS IN RUSSIA

Both the federal and regional governments provide subsidies to oil and gas producers, but due to the high degree of centralization of the Russian state and its budgetary and tax system, the federal subsidies are much bigger in value. Exempted from the federal and regional taxation regimes, upstream activities at three projects—Sakhalin-1, Sakhalin-2 and Kharyaga—are regulated by production-sharing agreements (PSAs).

3.1 FEDERAL SUBSIDIES

At the federal level, the study has identified 30 schemes conferring subsidies to oil and gas producers in 2009 and 2010. Without diminishing the value of future investigations in this area, this list is likely to cover all major channels of providing government support to upstream oil and gas activities in Russia.

Some of the identified government support schemes serve as umbrella categories for several subsidy programs. Of these 30, *the study has been able to quantify the value of 17 subsidy schemes totalling US$8.1 billion in*

2009 and US$14.4 billion in 2010 (see Table 3 and Annex I for details). The top 10 most sizeable federal subsidies supporting upstream oil and gas activities in Russia were (in order of their diminishing value in 2010):

- The export duty exemption for East Siberian oil (approx. US$4 billion)
- Tax holidays with respect to the mineral extraction tax on East Siberian oil (approx. US$2 billion)
- The property-tax exemption for trunk oil and gas pipelines (approx. US$1.9 billion)
- Tax holidays with respect to the mineral extraction tax on oil produced at new onshore fields in the Nenets Autonomous Okrug and of the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug (approx. US$1.5 billion)
- The reduced tariff for transportation of oil through the East Siberia-Pacific Ocean pipeline (approx. US$1.1 billion)
- The reduced rate of mineral extraction tax on oil from mature fields (approx. US$1 billion)
- The export-customs duty exemption for natural gas exported through the Blue Stream pipeline to Turkey (approx. US$0.8 billion)
- The deduction of R&D and exploration costs from taxable profits (at least US$0.6 billion)
- The accelerated depreciation allowance (at least US$0.6 billion)
- Federal budget spending on oil and gas exploration (US$284 million)

The rapid increase in cumulative subsidies from 2009 to 2010 occurred due to the introduction of an exemption from export-customs duty on oil produced at 22 new onshore oil fields in East Siberia, as well as due to an increase in oil production at new fields (including the same 22 fields in Eastern Siberia), which are eligible for holidays from the MET. As a result of the relief on these two types of natural resource rent payments, the overall structure of the identified and quantified federal subsidies changed as well (Figure 13). Provision of goods and services (mainly access to oil and gas from the subsoils) at below-market value gained even bigger importance as the prevailing subsidy group (54 per cent of all federal subsidies in 2009 and 76 per cent in 2010) followed by government revenues foregone (42 per cent in 2009 and 22 per cent in 2010), and direct and indirect transfer of funds and liabilities (4 per cent in 2009 and 2 per cent in 2010).

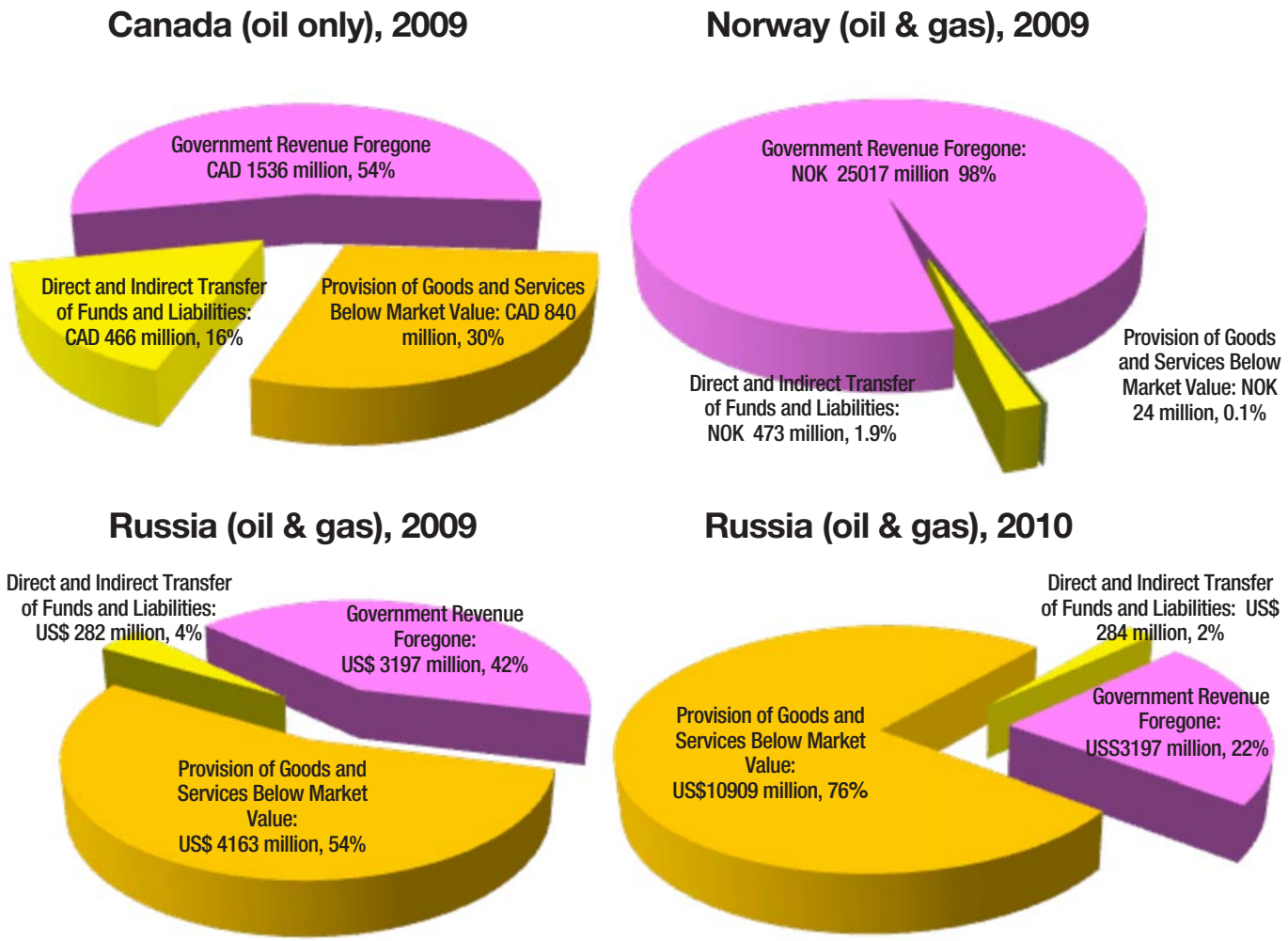

FIGURE 13. STRUCTURE OF OIL AND GAS PRODUCER SUBSIDIES IN RUSSIA, CANADA AND NORWAY*

Source: Plotted based on the analysis contained in this report as well as Sawyer & Stiebert (2010); GSI (forthcoming).

*** Methodological notes:**

1) This representation is based only on the estimates of subsidies that the country studies have been able to quantify. Due to the significance of some non-quantified support schemes, the actual subsidies structure may be different.

2) Even though the same methodology has been applied in all country studies, aggregated absolute values of subsidy schemes are not comparable across countries due to alternate scope of investigations and different benchmarks used for subsidy estimations.

3) Subsidies in Russia estimated at the federal level only for both oil and gas production; subsidies in Norway (unitary state) estimated for both oil and gas; subsidies in Canada estimated at both the federal and provincial level for oil only.

Importantly, the summary values above as well as Figure 13 are *exclusive of the identified types of government-provided income and price support in Russia that the study has failed to quantify but that are likely to be very significant.* In particular, such a form of income support as regulatory loopholes creating opportunities for tax minimization through transfer pricing are likely to confer benefits to companies *in the order of several billion U.S. dollars* (Expert et al., 2000; RBC, 2004). Due to their tax avoidance nature (transforming sometimes into tax evasion as exemplified by the Yukos bankruptcy case), benefits from transfer pricing are non-transparent and very difficult to quantify. One of the studies (Expert et al., 2000) estimated that in 2000, the application of transfer pricing enabled oil companies to pay only 56 per cent of their natural resource rent income to the state in the form of taxes. By comparison, if market-based prices had been applied, they would have paid 82 per cent of the economic rent as taxes to the state. In monetary terms, this roughly corresponds to an extra corporate benefit worth US$4.5 billion. However, these estimates are for the period preceding the enactment of the Tax Code of the Russian Federation and were made at a very different level of world prices for hydrocarbons and level of oil and gas production in Russia.

As explained in Section 1.5 describing the methodology, *the obtained multi-billion aggregate value of federal subsidies to Russian oil and gas producers in 2009 and 2010 should not be viewed directly as an estimate of revenues actually under-received by the federal budget.* In particular, reductions of MET and export-customs duties for less productive or more costly fields in Russia could be a case of "taking into account higher costs and lower margins in systems that otherwise would over-tax (and therefore potentially render uneconomic) economically marginal projects (which generate little or no economic rent)" (OECD, 2011a, p. 31). But importantly, *these values represent an estimate of the magnitude of the federal government support provided to the oil and gas producers* to meet the policy objectives discussed in Chapter 4.

The identified exemptions from the property tax, deductions from the corporate profits tax, and tax holidays with respect to MET are entrenched in the Russian Tax Code and can be viewed as permanent. In the meantime, the relief on export-customs duties was introduced in December 2009–January 2010 on a temporary basis by a federal government decision. This response to the abrupt drop in the world price of oil was designed to ensure profitability of oil production at new East Siberian fields with a view to exporting this oil through the new East Siberia-Pacific Ocean pipeline, bound to China and other consumers in the Far East. Since that time, the government has used the regime of "manual control" with respect to the export-customs duty for East Siberian oil, as well as for oil produced offshore in the Caspian Sea. The manual control approach allows the government to instantaneously phase-out these subsidies as the profitability of a specific field reaches an "acceptable" rate of 15–17 per cent. For example, in the summer of 2011, nine East Siberian fields were found to have reached the acceptable profitability rate of 15–17 per cent, and therefore the duty reduction for them was waived (see Annex V for more details).

There are numerous ongoing discussions on the reinstatement or cancellation of the subsidy for individual oilfields in East Siberia depending on fluctuations of the world price of oil as well as on the extension of the manual control approach to export-customs duty on oil and gas produced at other fields, including on the Arctic shelf. Similarly, the below-market-value tariff for transporting oil through the East Siberia-Pacific Ocean pipeline is at the discretion of the federal government and follows this manual control logic.

Several of the identified subsidy schemes have been scheduled to be phased out. In particular, the government plans to phase-out the exemption for natural gas exported to Turkey through the Blue Stream pipeline as the project is about to reach its breakeven point in 2012. Furthermore, in 2011 Russia adopted a new law amending the Tax Code with the aim of eliminating the loopholes that enable transfer pricing conferring multi-billion dollars in benefits to oil and gas producers and companies from other sectors. The new legislation is effective from January 1, 2012 and is expected to phase-out this form of price support to the industry.

In the meantime, as described in detail in Annex I, *several large-scale schemes subsidizing oil and gas production at new fields will become active in the near future*, namely:

- Federal budget earmarks to Gazprom for covering the gap between the price of natural gas purchased from the operator of the Sakhalin-2 project and the price of gas intake into the gas-transporting system Sakhalin-Khabarovsk-Vladivostok (US$65.9 million in 2011, US$388.9 million in 2012 and US$390.9 million in 2013)
- The temporary exemption from export-customs duty with respect to oil produced at newly developed offshore oilfields in the Caspian Sea
- Tax holidays with respect to the extraction tax levied on newly developed offshore oilfields north of the Arctic Circle
- Tax holidays with respect to the extraction tax levied on newly developed oilfields in the Sea of Azov and the Caspian Sea
- Tax holidays with respect to the extraction tax levied on new offshore oilfields in the Black and Okhotsk Seas
- Tax holidays with respect to the extraction tax levied on newly developed onshore oilfields in the Yamalo-Nenets Autonomous Okrug north of the 65th latitude
- Tax holidays with respect to the extraction tax levied on natural gas and gas condensate produced on the Yamal Peninsula under NOVATEK's LNG project
- A lowering coefficient for the extraction tax applicable to oil produced at new small fields

As a result, the cumulative value of federal government support to upstream oil and gas activities in Russia is likely to increase in the forthcoming years.

Table 3. Overview and value of federal subsidies to oil and gas producers in Russia in 2009 and 2010 (US$ million, current exchange rate)

Typology of subsidies		Subsidy	Estimate of annual value	
			2009	2010
Direct and indirect transfer of funds and liabilities	**Direct spending**	**Earmarks and agency appropriations and contracts:**		
		• Federal budget spending on exploration and prospecting for hydrocarbons	282	284
		Research, development and education support: • Federal budget spending on oil and gas-related research, development and education	*Identified, but difficult to quantify. Requires further research.*	
	Ownership of energy-related enterprises by government if on terms and conditions more favourable for business than in case of private ownership	**Security-related enterprises:** • Federal ownership of security-related enterprises in the upstream oil and gas industry, including Rosgeologiya	*Identified, but difficult to quantify. Requires further research.*	
		Utilities and public power: • Federal ownership of thermal electricity generation companies and power grids	*Identified, but difficult to quantify. Requires further research.*	
	Credit support	**Government loans and loan guarantees at below-market rates**	*Identified, but difficult to quantify. Requires further research.*	
		Subsidized credit to domestic infrastructure and thermal power plants	*Identified, but difficult to quantify. Requires further research.*	
		Subsidized credit to oil- and gas-related exports to Commonwealth of Independent States states	*Identified, but difficult to quantify. Requires further research.*	
	Insurance and indemnification	**Government insurance/indemnification**	*Requires further research.*	
		Statutory caps on commercial liability	*Requires further research.*	
	Occupational health and accidents	**Assumption of occupational health and accident liabilities**	*Requires further research.*	
	Environmental costs	**Responsibility for closure and post-closure risks, waste management, environmental damages**		
		Government expenditures on reduction of environmental risks and mitigation of negative impacts on the environment	*Identified, but difficult to quantify. Requires further research.*	
Government revenue foregone	**Tax breaks**	**Tax expenditures:**		
		• Property tax exemption for trunk oil and gas pipelines	~1,900	~1,900
		• Deduction of technological losses of oil and gas incurred during extraction and transportation from the taxable profits	97	97
		• Deduction of expenses on exploration, R & D from taxable profits	>600	>600
		• Accelerated depreciation allowance	>600	>600

Provision of goods and services below market value	**Government-owned oil and gas sites**	**Process for mineral leasing:** • Exclusive rights of Gazprom and Rosneft to the license sites on the federal continental shelf	*Identified, but difficult to quantify. Requires further research.*	
		Royalty relief or reduction in other taxes due on extraction:		
		• Temporary exemption from export customs duty with respect to gas transported through the Blue Stream pipeline	~1,000	~800
		• Temporary exemption from export customs duty with respect to oil produced at newly developed onshore oilfields in East Siberia	~130	~4,000
		• Temporary exemption from export customs duty with respect to oil produced at newly developed offshore oilfields in the Caspian Sea	0	~2
		• Exemption from extraction tax with respect to technological losses of oil, condensate and gas incurred during extraction	231	279
		• Exemption from extraction tax with respect to associated gas	~190	~190
		• Exemption from extraction tax with respect to oil recovered from off-spec reserves and slimes	*Likely small*	
		• Tax holidays with respect to the extraction tax levied on newly developed onshore oilfields in East Siberia	~630	~2,000
		• Exemption from extraction tax with respect to super-viscous oil	~2	~2
		• Tax holidays with respect to the extraction tax levied on newly developed oilfields in the Sea of Azov and the Caspian Sea	0	~6
		• Tax holidays with respect to the extraction tax levied on newly developed onshore oilfields in Nenets Autonomous Okrug and on the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug	~1,300	~1,500
		• A lowering coefficient of the extraction tax (0.7) for companies that have invested their own funds into exploration and prospecting of fields they are developing	~30	~30
		• A lowering coefficient of the extraction tax for oil produced at mature fields	~1,000	~1,100
		Process of paying royalties due	*Requires further research.*	
	Other government-owned natural resources or land	**Access to other government-owned natural resources or land**	*Requires further research.*	
	Government-owned infrastructure	**Use of government-provided infrastructure:** • Subsidized network tariff for transportation of oil through the East Siberia-Pacific Ocean pipeline	0	~1,100
	Government-provided goods or services	Government-provided goods or services at below-market rates	*Requires further research.*	

Income or price support	**Market price support and regulation**	**Consumption mandates and mandated feed-in tariffs**	*Requires further research.*
		Border protection or restrictions: • Exclusive right of Gazprom to export dry gas	*Identified, but difficult to quantify. Requires further research.*
		Regulatory loopholes: • Insufficient enforcement of legislation related to subsoils use and environment protection • Opportunities for tax minimization through transfer pricing	*Identified, but difficult to quantify. Requires further research.* *Likely very significant. Requires further research.*
		Regulated prices set at below-market rates	*Significant subsidies for consumers of gas and electricity, but no subsidy to producers*
		Regulated prices set at above-market rates	*Not identified in the upstream sector, available in the sector of refined products through import duties on petroleum products*

Source: Compiled based on the analysis contained in this report.

3.2 REGIONAL SUBSIDIES

Russia is a federation comprising 83 entities (or regions as referred to throughout this report) with different levels of autonomy linked to their mono- or multi-ethnic status: 21 republics, nine krais (territories), 46 oblasts, one autonomous oblast, two cities of federal importance (Moscow and Saint Petersburg), and four autonomous okrugs (districts). Some of these entities have a "*matryoshka"* (Russian nesting doll) structure and include other entities. Most importantly for this study, this applies to Khanty-Mansi Autonomous Okrug (53 per cent of Russia's oil production in 2010) and Yamalo-Nenets Autonomus Okrug (85 per cent of Russia's gas production in 2010), which are both part of a larger entity, the Tyumen oblast.

Overall, oil is produced in 36 regions of Russia and natural gas extracted in 33 entities of the federation. An inventory of individual regional subsidies to upstream oil and gas activities is beyond the scope and capacity of this report as their variety and numbers are very considerable. However, an overview of the regional practices suggests that the cumulative value of regional subsidies to the industry is likely to be much less significant than that at the federal level due to the high degree of centralization in the budgetary and fiscal system of Russia.

The most widespread types of subsidies to oil and gas production in Russia's regions include tax expenditures with respect to the profits tax and the property tax (Annex II). For instance, in August 2011, the Murmansk oblast lowered the profits tax rate from 20 per cent to 15.5 per cent for the major Shtokman offshore gas deposit. Regional subsidy schemes also include direct and indirect spending in the form of target programs and government-ownership of energy-related enterprises when on terms and conditions more favourable for business than in the case of private ownership. Regional subsidies are most commonly designed to benefit small and medium-sized oil and gas companies rather than the Russian oil and gas majors.

Table 4 provides an overview of some regional incentives to oil and gas companies based on a survey conducted by the Rusenergy information and consulting agency in August 2011. The survey was restricted to small and medium-sized oil and gas companies working in 17 regions of Russia (in the remaining half of Russia's oil and gas regions there are no small and medium-sized oil and gas companies, only subsidiaries of Russia's petroleum majors). Executives of these companies were asked to assess 12 criteria of the regions' investment attractiveness on a 10-mark scale. Some of the 12 criteria, especially availability of tax benefits and availability of loans via regional banks, can roughly be viewed as proxies for subsidy evaluation, although much more detailed research in the area is required to draw firm conclusions.

Table 4. Investment attractiveness of Russian regions: 12 criteria on a 10-mark scale. A survey of small and medium-sized oil and gas companies.

	Simplicity and accessibility of the procedure of business registration and opening	Constructiveness of regional leaders in solving problems of the oil and gas business	Readiness of regional representations of federal agencies to deal with problems of subsoils users	Favourable regional legislation, availability of tax benefits	Approach of tax authorities	Assistance of law enforcement bodies in protection of business and property rights	Availability and qualification of human resources	Availability of construction materials, electric power, equipment	Availability of contractors in the areas of seismic, drilling, etc	Availability and quality of transport infrastructure (roads, pipelines, ports)	Availability of credit finance via regional banks	Government activity in fighting crime	**Total Marks for the Region**
Republic of Tatarstan	6.0	8.3	7.3	5.0	5.5	7.7	9.3	9.0	8.7	9.0	9.5	8.3	**93.6**
Khanty-Mansi AO	7.8	7.3	7.3	4.0	7.3	5.7	8.8	7.5	9.5	6.3	6.6	7.5	**85.6**
Perm Krai	5.8	8.5	7.7	5.7	6.8	5.8	7.5	9.0	8.5	6.5	5.0	6.2	**83.0**
Tomsk Oblast	8.0	7.7	7.0	5.3	4.0	7.7	8.0	7.7	8.7	6.3	6.0	6.0	**82.4**
Volgograd Oblast	8.0	4.7	4.3	5.0	8.0	7.5	8.3	8.7	8.0	5.0	8.0	6.0	**81.5**
Irkutsk Oblast	9.0	5.7	6.7	2.0	7.3	7.0	6.0	7.0	8.3	6.3	7.0	6.0	**78.3**
Republic of Bashkortostan	6.5	5.3	7.0	3.0	8.0	5.3	8.3	8.3	7.3	6.0	5.0	7.5	**77.5**
Saratov Oblast	8.8	4.3	4.5	2.3	5.0	8.0	6.5	8.5	7.3	8.3	6.7	5.0	**75.2**
Krasnoyarsk Krai		8.5	7.5	9.0	7.5	8.0	3.5	7.0	7.5	2.0	5.0	8.0	**73.5**
Republic of Udmurtia	8.0	4.0	5.0	2.3	5.0	3.0	7.0	7.7	8.0	7.0	8.5	7.0	**72.5**
Yamalo-Nenets AO	3.3	6.7	6.7	6.0	3.0	8.3	7.7	5.0	8.3	3.3	5.0	9.0	**72.3**
Republic of Sakha (Yakutia)	4.5	5.7	6.0	4.7	4.7	6.3	8.0	6.0	9.3	2.3	6.7	7.0	**71.2**
Sakhalin Oblast	7.7	7.3	5.7	4.5	4.5	6.3	7.3	6.3	5.0	5.0	5.0	5.7	**70.3**
Samara Oblast		8.0	9.0	5.0	4.0	3.0	8.0	8.0	8.3	8.0	4.0	4.0	**69.3**
Republic of Komi	3.5	7.3	7.7	1.7	5.3	6.0	5.7	6.0	5.7	3.7	6.3	5.0	**63.9**
Republi of Kalmykia	7.0	4.0	3.3	2.0	4.3	4.0	6.7	4.7	6.3	7.0	3.7	5.0	**58.0**
Republic of Dagesan	5.3	4.0	3.3	4.7	4.0	3.3	3.3	6.3	3.0	7.3	4.7	3.3	52.5

Source: Kogtev & Mysak (2011).

Note: *The two criteria that can be viewed as proxies for regional subsidy analysis are shaded.*

3.3. PRODUCTION-SHARING AGREEMENTS

PSAs are special taxation systems generally viewed separately from federal and regional jurisdictions. Under PSAs some regular taxes, royalty payments and other charges are waived or replaced by production sharing between private investors and the state. These provisions are viewed as a subsidy by some government agencies, most notably the Federal Customs Service.

The Russian tax system was supplemented by the PSA regime in the mid-1990s when Russia lacked credibility as an international-investment destination. To attract large-scale foreign direct investment in the oil and gas sector, the Russian government concluded three PSAs containing a "grandfather clause" stipulating that if developments in legislation led to an increase in the cumulative tax burden, a foreign investor working under the PSA would remain subject to the same legislative conditions as at the start of implementation of the project. The three oil and gas development projects operating under PSAs are Sakhalin-1, Sakhalin-2 and Kharyaga.

The PSA for the **Sakhalin-1** project, offshore Sakhalin Island in the Russian Far East, was concluded between the Russian Federation, represented by the federal government and the Government of the Sakhalin region, and the investors' consortium on June 30, 1995. The agreement took effect on June 10, 1996. The project includes development of Chayvo, Odoptu and Arkutun Dagi fields, which have potential recoverable reserves estimated at 307 million tonnes of oil and 485 bcm of natural gas. As of December 1, 2011, investors participating in Sakhalin-1 were: ExxonMobil (U.S.) for 30 per cent, Rosneft (Russia) for 20 per cent, ONGC (India) for 20 per cent and Sodeco (Japan) for 30 per cent.

The PSA for the **Sakhalin-2** project, also offshore Sakhalin Island in the Russian Far East, was concluded between the Russian Federation, represented by the federal government and the government of the Sakhalin region, and the investors' consortium on June 22, 1994. The agreement came into force on June 15, 1996. The project includes development of the Piltun-Astokhskoye and Lunskoye fields, which have recoverable reserves estimated at 150 million tonnes of oil and 500 bcm of natural gas. In 2006 the Russian state-owned gas monopoly Gazprom purchased a controlling stake in the project. As of December 1, 2011, investors participating in the Sakhalin-2 project were: Gazprom (Russia) for 50 per cent plus one share, Royal Dutch Shell (Netherlands/UK) for 27.5 per cent, Mitsui (Japan) for 12.5 per cent and Mitsubishi (Japan) for 10 per cent.

The PSA for the **Kharyaga** onshore oilfield in the Nenets Autonomous Okrug was concluded on December 20, 1995 between the Russian Federation, represented by the federal government and the Government of the Nenets Autonomous Okrug, and the investors' consortium. The agreement took effect February 12, 1999. Kharyaga's total reserves of petroleum are estimated at 160.4 million tonnes. In 2009 the state-owned Zarubezhneft company joined the Kharyaga project, and as of December 1, 2011, the shareholdings were as follows: Total (France) for 40 per cent, Statoil (Norway) for 30 per cent, Zarubezhneft (Russia) for 20 per cent and Nenets Oil Company (Russia) for 10 per cent.

In 2010 total production under the three PSAs amounted to 15 million tonnes of oil and 15 bcm of natural gas, which accounts for only about 3 per cent of all oil and less than 3 per cent of all gas produced in Russia (see Annex IV for more details). Since the early 2000s high-ranking Russian officials have stated on numerous occasions that Russia had gained credibility among international investors and many foreign companies started working in the country under the national taxation regime. Therefore, there was no longer a need to conclude new PSAs.

Taxation regimes have been determined individually for each of the three PSAs. However, for all of them the most significant government revenues foregone include an exemption from export duties on the extracted oil

and gas and from import duties on equipment for implementation of the projects. According to the Federal Customs Service, the value of the exemptions from export-customs duties for oil and gas produced under the PSAs amounted to US$4.2 billion in 2008, US$2.5 billion in 2009 and US$3.9 billion in 2010. Exemptions from import duties totalled US$0.3 billion in 2008, US$0.2 billion in 2009, and US$0.2 billion in 2010 (Federal Customs Service of Russia, 2011b; see Annex III for more details).

The royalties that companies pay under PSAs are also lower than corresponding payments under the national taxation regime: under the grandfather clause, the royalty fees paid at present under the three PSAs amount to about 50 per cent of the extraction tax under the national taxation regime introduced in 2002. Using the maximum rate of the extraction tax as a benchmark (see Annex IV), the subsidy in the form of this royalty reduction has been estimated at US$0.9 billion in 2008, US$0.8 billion in 2009 and US$0.8 billion in 2010 (see Annex III for more detail).

Furthermore, under the three PSAs, company operations also enjoy exemptions or reduced rates for some other levies such as the property tax, corporate profits tax, VAT on goods imported for the projects, etc. But these tax expenditures are less significant in monetary terms and more difficult to quantify.

Overall, *the minimum cumulative amount of subsidies under the Sakhalin-1, Sakhalin-2, and Kharyaga PSAs is estimated at US$5.4 billion in 2008, US$3.5 billion in 2009 and US$4.9 billion in 2010.*

3.4 SIGNIFICANCE OF OIL AND GAS PRODUCER SUBSIDIES IN RUSSIA

Globally, both consumer and producer subsidies for all types of fossil fuels (oil, gas, coal and petroleum products) are estimated to be of the order of US$600 billion per year, of which about US$100 billion per year is provided to producers. "Nobody knows the real number, however, because there is no international framework for regularly monitoring fossil-fuel subsidies" (GSI, undated). Estimates vary significantly depending on the methodology and approach adopted (GSI, 2010a; OECD, 2011a).

3.4.1 OIL-AND-GAS PRODUCER SUBSIDIES VERSUS FOSSIL-FUEL CONSUMER SUBSIDIES IN RUSSIA

Using the price-gap approach, the IEA has estimated that Russia is one of the leading providers of fossil-fuel consumer subsidies in the world: in 2010, fossil-fuel consumer subsidies in Russia amounted to US$39 billion (US$34 billion in 2009). In this respect, Russia is surpassed only by Iran[2] (US$80 billion in fossil-fuel consumer subsidies in 2010) and Saudi Arabia (US$44 billion), and followed by India (US$22 billion) and China (US$21 billion) (IEA, 2011b). According to the IEA, fossil-fuel consumer subsidies in Russia are limited to natural gas (US$17 billion in 2010) and electricity (US$22 billion). Meanwhile, Russia has announced plans to raise its natural gas prices to international levels for industrial users by 2014, and is gradually phasing out its other fossil-fuel consumer subsidies by liberalizing regulated prices for natural gas and electricity (Table 5).

Overall, IEA estimates consumer subsidies in key developing countries to stand at US$409 billion in 2010 (IEA, 2011a, p. 508). The applicability of the IEA price-gap approach to natural gas and electricity prices has raised some controversies in Russia. However, these arguments are beyond the scope of this report.

2 Iran reformed a substantial amount of its energy subsidies in December 2010 in order to reduce the burden on its central budget and reverse deep inefficiencies in its energy sector and the larger economy. Prior to the reform, energy prices were often subsidized by over 90 per cent. Under the reform programme, the prices of regular gasoline increased by 300 per cent, premium gasoline by 230 per cent, and diesel and gas oil by 840 per cent (IEA, 2011a, p. 525). Hence, in 2011 Russia is likely to be surpassed only by Saudi Arabia in terms of its consumer subsidy volumes.

For the purpose of this study, the subject of fossil-fuel consumer subsidies in Russia is raised to show the scale of the identified producer subsidies. Hence, it can be noted that *in 2010 the value of the identified and quantified oil and gas producer subsidies in Russia (US$14.4 billion) was approximately of the same order of magnitude as the direct consumer subsidies for the same fossil fuels (US$17 billion for gas while there were no such subsidies for oil).*

Table 5. Fossil-fuel consumer subsidies in Russia based on IEA price-gap estimates

	2007	2008	2009	2010
Oil	0	0	0	0
Gas	18.38	28.47	18.57	16.95
Coal	0	0	0	0
Electricity	14.95	23.03	14.40	22.26

Source: IEA (2011b).

3.4.2 OIL AND GAS PRODUCER SUBSIDIES IN RUSSIA VERSUS FOSSIL-FUEL SUBSIDIES IN OECD COUNTRIES

In October 2011 the OECD published its first inventory of measures supporting fossil fuels in 24 member countries, estimating aggregate annual value of both producer and consumer subsidies to have varied between US$45 billion and US$75 billion in recent years. This wide range reflects, in part, important variations in the world price of crude oil. In 2008, when oil prices peaked at over US$140 per a barrel, support for fossil-fuel production and use had risen to around US$75 billion. In 2010, with oil prices being lower, total support dropped to around US$60 billion (OECD, 2011a; OECD, 2011b).

However, in the absence of a common international benchmark, the available estimates of producer subsidies are not readily comparable with those for other countries. In particular, "a simple cross-country comparison of tax expenditures can lead to a misleading picture of the relative treatment of fossil fuels" (OECD, 2011a, p. 33). Hence, the higher reported tax expenditures for some countries may reflect their higher levels of taxation or greater transparency in reporting rather than a higher level of absolute support.

With these caveats in mind, the estimates of fossil-fuel producer subsidies reported in the OECD as well as GSI case studies for other countries (see Figure 13) provide useful information about the economic incentives created for fossil-fuel producers within the national systems of some G-20 countries, which are of particular interest to Russia.

In **Canada,** a GSI study identified a total of 63 subsidy programs targeted at the oil-extraction industry, the value of which was CAD$2.8 billion in 2009. Of those, 17 programs were provided at the federal level and totalled about CAD$1.38 billion. Other subsidy programs were also provided at the provincial level: 18 in Alberta, 19 in Saskatchewan, and 9 in Newfoundland and Labrador. The study identified that most of these subsidies seek to increase exploration and development activity, with a focus on reducing the costs of exploration, drilling and development through a mix of tax breaks and royalty reductions (Sawyer & Stiebert, 2010).

In **Norway**, a GSI study identified nine subsidies that are offered the oil and gas extracting industry with an aggregate value of around NOK25.5 billion (US$4.4 billion) in 2009. Of these, the major subsidy program was the fast deduction of investments worth NOK21 billion, followed by reimbursements to exploration companies worth NOK4 billion (GSI, forthcoming).

In **Germany** and **France,** the bulk of fossil-fuel producer subsidies are provided to hard-coal mining. In the course of subsidy reform, the value of those subsidies in Germany fell from €4.9 billion in 1999 to €2.1 billion in 2009. The German subsidies to hard-coal production are to be phased out entirely by 2018. France gradually phased out its support to its coal industry: from more than €1 billion in 1990, producer support decreased to €92 million in 2007, and then ended altogether. This was accompanied by a range of measures meant to address the social costs associated with mine closures.

In the **United States**, where estimated support for energy producers stood at about US$5 billion in 2009, the 2012 federal budget proposes eliminating a broad group of tax concessions benefitting oil and natural gas producers, with the potential to increase government revenues by more than US$3.6 billion (OECD, 2011b; OECD, 2011a).

3.4.3.SUBSIDIES TO OIL AND GAS PRODUCER SUBSIDIES IN RUSSIA VERSUS THE OVERALL GOVERNMENT'S TAKE FROM THE INDUSTRY

The significance of the obtained subsidy values for Russia can also be assessed by way of comparing them with the industry's total tax bill and other payments to government, and the value of national oil and gas production (Table 6). *The subsidies to oil and gas producers in Russia that have been identified and quantified in this report amounted to 4.2 per cent and 6.0 per cent of the total value of oil and gas production in Russia in 2009 and 2010 respectively*. For Canada, a GSI study estimated the subsidy to production ratio in the oil sector to be 5.2 per cent in 2008 (Sawyer & Stiebert, 2010). However, this assessment cannot be readily compared with the estimate for Russia due to discrepancies in taxation benchmarks and scope.

Furthermore, *the subsidies to oil and gas producers in Russia that have been identified and quantified in this report amounted to 8.6 per cent and 14.4 per cent of the industry's total tax and other payments to the federal government in 2009 and 2010 respectively.* For Canada, a GSI study estimated the ratio of subsidies to the oil industry to its transfers to the federal and provincial governments at 5.3 per cent in 2008 (Sawyer & Stiebert, 2010). But again, a direct comparison between the estimates for Russia and those for Canada remains impossible for methodological reasons, mainly pertaining to the use of different taxation benchmarks.

The significance of existing subsidies to oil and gas producers in Russia is further underscored by the Russian petroleum industry itself, which argues that oil and gas production in Russia would have been inevitably much lower had the government not provided the existing volume of support (Sosnova, 2010). This argument has a logical continuation in the industry's consistent pressure on government with a view to obtaining more exemptions, deductions and other reliefs from the amounts of taxes and royalties they contribute to the budget. The industry's concerns are supported by the Ministry of Energy of Russia as testified by the *General Scheme of Development of the Oil Industry of the Russian Federation* (Government of the Russian Federation, 2011b), which proposes the introduction of new subsidy schemes to support domestic oil and gas production.

Table 6. Federal subsidies to oil and gas producers in Russia as a percentage of the industry's payments to government and the value of the national oil and gas production

	2009	2010
VALUE OF FEDERAL SUBSIDIES TO OIL AND GAS PRODUCERS (US$ BILLION)	**8.1**	**14.4**
Value of oil production (US$ billion) based on:	145	185
Value of oil exports (US$ billion)	93	129
Value of nationally produced oil consumed domestically (US$ billion), based on:	52	56
Nationally produced oil consumed in the domestic market (million tonnes)	209	218
Producer prices for oil on the domestic market (US$ per tonne)	247	255
Value of gas production (US$ billion) based on:	**46**	**54**
Value of gas exports (US$ billion)	39	44
Value of nationally produced gas consumed domestically (US$ billion), based on:	7	10
Nationally produced gas consumed in the domestic market (bcm)	414	471
Producer prices for gas on the domestic market, (US$ per one thousand cubic metres)	16	20
TOTAL VALUE OF OIL AND GAS PRODUCTION (US$ BILLION)	**191**	**239**
TOTAL OIL AND GAS INDUSTRY TRANSFER TO THE FEDERAL BUDGET (US$ BILLION)*	**94.1**	**126**
SUBSIDY TO PRODUCTION RATIO	**4.2%**	**6.0%**
SUBSIDY TO TRANSFER RATIO	**8.6%**	**11.4%**

Source: Calculated by author based on the analysis contained in this report and data of the Federal Customs Service of Russia, Federal Service of State Statistics of Russia, Ministry of Finance of Russia, Ministry of Economic Development of Russia (see Annex IV for more details).

** Note: Both upstream and downstream activities importantly include export-customs duty on oil products.*

4. PATHWAYS FOR ANALYSIS OF THE EFFICIENCY OF OIL AND GAS PRODUCER SUBSIDIES IN RUSSIA AGAINST THEIR POLICY OBJECTIVES

Based on an analysis of both Russia's official documents (Government of the Federation Russia, 2009) and statements by competent high-ranking officials, it is possible to conclude that most of the identified subsidies to oil and gas producers in Russia seek to fulfil the following major policy objectives:

- Securing sufficient volumes of oil and gas for export, including to the new rapidly growing markets in the East in accordance with Russia's positioning as a "guarantor of global energy security"
- Ensuring reserve replacement and the sustained production of oil and natural gas for domestic consumption
- Sustaining or increasing the government ownership of petroleum-producing assets to prevent disinvestments
- Supporting or creating jobs in energy-related sectors, especially in Russia's regions
- Preventing capital flight and attracting FDI in the oil and gas sector as Russia's flagship industry
- Stimulating rational and efficient use and maximum recovery of oil and gas reserves
- Stimulating technological advancements in oil and gas extraction with potential spillovers to other sectors
- Participating in the global race for development of the Arctic oil and gas resources

In most cases, there are several ways to meet each of these policy objectives, and preference to one of the available alternatives can be framed only in terms of its opportunity costs with respect to other viable options (Box 3).

Evaluation of the efficiency of the identified oil and gas producer subsidies and their policy objectives requires a series of separate studies and is beyond the scope of this report. However, already at this stage it should be noted that cost-benefit analysis of the identified government support schemes to extraction of hydrocarbons in Russia should necessarily examine their social aspects, including positive and negative environmental externalities.

Environmental costs of subsidization of oil and gas production include, first of all, destruction of the habitats and ecosystems in the frontier areas that the countries develop as conventional reserves of hydrocarbons become depleted in the easily accessible terrains. This particularly concerns the Arctic, which accommodates both extremely fragile ecosystems and vast reserves of hydrocarbons. At present, numerous gaps in scientific knowledge about the Arctic's riches make it yet premature to conclude if and how environmental conservation and petroleum production can be complementary beyond the northern polar circle. Nonetheless, oil and gas companies exercise increasing pressure on the national governments, including the Government of the Russian Federation, in order to share the risks and costs of developing Arctic petroleum resources. Arctic reserves of hydrocarbons are often commercially unviable without large-scale government subsidies to producers, especially in the form of various tax breaks such as those that have been inventoried in this report.

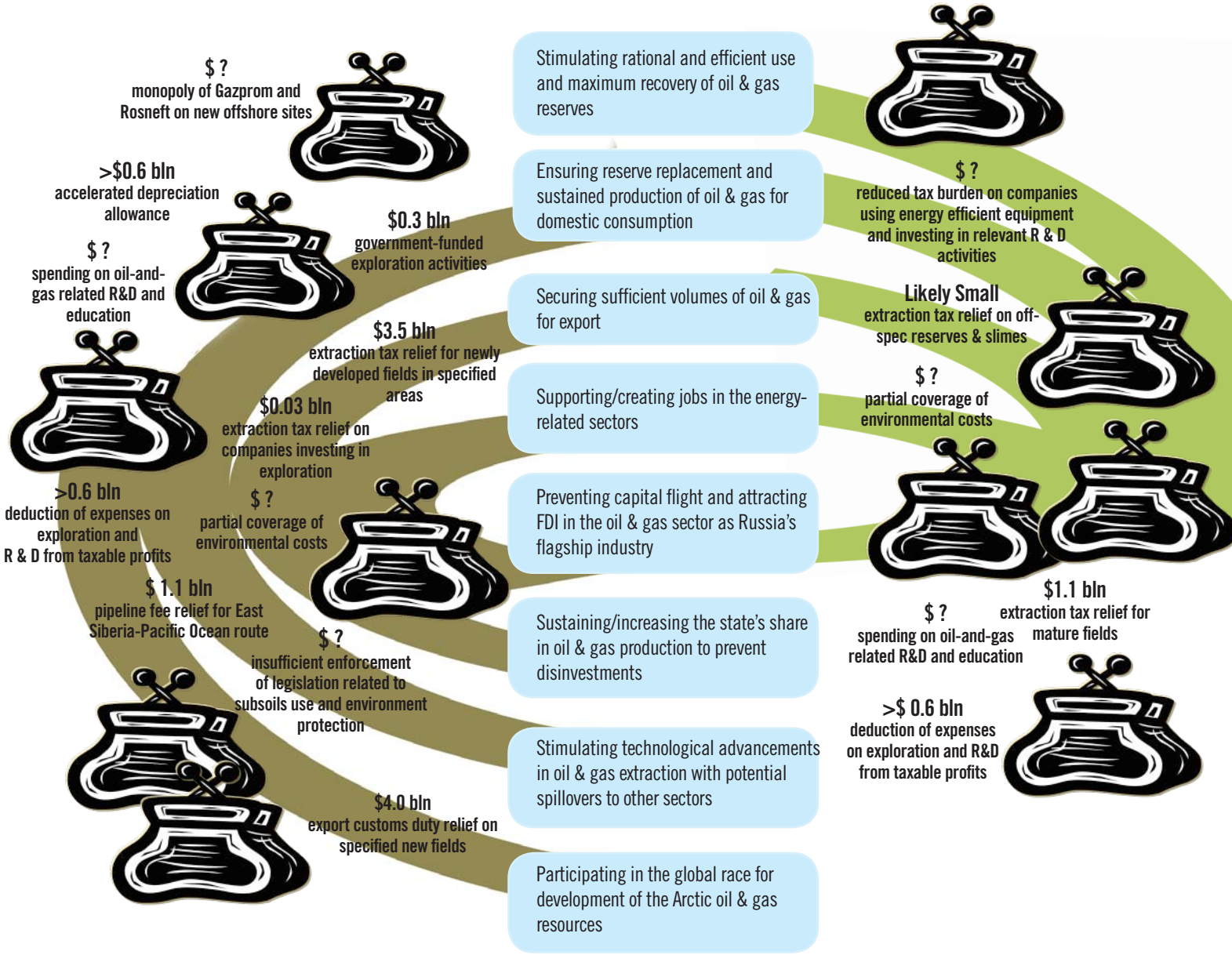

FIGURE 14. STATE POLICY OBJECTIVES OF SELECTED SUBSIDIES TO UPSTREAM OIL AND GAS ACTIVITIES IN RUSSIA: FEDERAL SUBSIDIES AIMED AT DEVELOPMENT OF NEW FIELDS VERSUS FEDERAL SUBSIDIES AIMED AT IMPROVED RECOVERY AND EFFICIENCY IN 2010*

**Note: Most of the subsidies simultaneously promote several policy objectives. Subsidies beneficial predominantly for new fields are highlighted in brown. Subsidies beneficial mainly for improved recovery at existing fields and higher energy efficiency are highlighted in green.*

Source: Based on Government of the Russian Federation (2009) and estimates and analysis contained in this report.

Furthermore, subsidization of oil, gas or coal production on a global scale lowers their prices on the world market and leads to increased consumption of fossil fuels and emissions of greenhouse gases, driving climate change. Government support to fossil fuels also distorts the level playing field for renewable energy sources and energy-efficiency programs by making them relatively more costly than they actually are.

Box 3. Evaluation of a subsidies' efficiency using the cost-benefit analysis toolkit

Traditional theories of public finance maintain that governments should seek to equalize the marginal social (including environmental) benefits of a unit of public money spent on each budgetary item. In other words, governments should allocate funding on a given budgetary item (e.g., oil and gas exploration) until its marginal social benefit is equal to that of other budgetary items that are similarly funded (e.g., education or healthcare). Therefore, if a policy objective can be achieved by multiple tools (e.g., sustaining the current oil and gas production volumes in Russia can be achieved either by subsidizing development of new fields or supporting improved recovery at the existing extraction projects), preference should be given to the schemes with the highest net present value expressed in terms of social costs and benefits:

Social cost	=	Private cost	+	Negative externalities including environmental effects
Social benefit	=	Private benefit	+	Positive externalities including environmental effects

$$\text{Net Present Value of the Subsidy Program} = \sum_{t=0}^{n} \frac{\text{Subsidy program's social benefits net of its social costs}}{(1 + \text{discount rate})^t}$$

For more details see literature on evaluation of public policies and projects, for example, Dasgupta, Sen & Marglin (1972).

Most importantly, Russia is faced with *two alternate routes to maintain its role on international energy markets: either developing new oil fields, particularly in the Arctic or improving oil recovery at existing fields and raising the energy efficiency of domestic consumption,* which has the potential to free up considerable volumes of hydrocarbons for exports.

Nevertheless, as displayed in Figure 14, the distribution of identified subsidies to oil and gas producers is significantly skewed toward the development of new fields. This support was provided through a mix of direct spending and tax and royalty concessions stipulated, in part, by the high costs and risks of developing the necessary infrastructure and fields in the frontier areas. In 2010 relief on the mineral extraction tax on new fields in East Siberia, Nenets Autonomous Okrug and Yamal Peninsula amounted to US$3.5 billion, relief on export customs duty for East Siberian deposits amounted to US$4.0 billion, and similar subsidies are already entrenched in the Tax Code for benefiting future production of oil in the Arctic and on most offshore sites.

On the contrary, a much smaller amount of subsidies was conferred to improve recovery at the existing fields and improve the environmental performance of the oil and gas industry. Of these, the most significant subsidy is the lower coefficient for the extraction tax on mature fields, which amounted to US$1.1 billion in 2010.

The skewing towards subsidizing new fields, especially in the Arctic, is often explained in Russia by referencing current practices in other oil-producing countries such as the United States, Canada or Norway. But this argument ignores the fact that the United States, Canada and Norway all have depleted their "conventional" fields after having exhausted the available solutions for improved recovery and higher efficiency. The oil recovery factor is estimated at 35 per cent in the United States (1999 data) and at 46 per cent for the entire North Sea Province (2007 data) (Sandrea & Sandrea, 2007).

By contrast, the improved recovery and higher efficiency option has not been utilized in Russia yet. According to the *General Scheme of Development of the Oil Industry of the Russian Federation* (Government of the Russian Federation, 2011b), the country-wide oil recovery factor at producing fields amounted to only 20 per cent in 2009 while, on paper, the average projected recovery factor was supposed to reach 37 per cent. Increasing the projected oil recovery factor by 5 per cent (up to 42 per cent) would result in additional recoverable reserves for an amount exceeding 4 billion tonnes. This significantly exceeds the reserves of many individual new fields in the frontier areas. For instance, the recoverable oil reserves of Prirazlomnoe in the Pechora Sea in the Arctic amount to 72 million tonnes (Prirazlomnoe, undated).

Improving energy efficiency in Russia will have similarly remarkable gains in terms of oil and gas volumes freed up for exports to fulfil Russia's international commitments even without developing new fields (see Box 4).

Box 4. Russia's energy-saving potential

There is greater scope to use energy more efficiently in Russia than in almost all other countries (IEA, 2011b, pp. 257–258). For instance, wasteful practices of burning natural gas at domestic thermal power stations results in losses of 40–50 bcm of gas per year, which is more than the annual gas needs of the Moscow megacity (30 bcm) (WWF-Russia, 2011c). Another conspicuous and widely discussed inefficiency is flaring-associated gas. Due to deficiencies in their technological processes and insufficiencies in the gas processing and transportation infrastructure in Russia, oil companies mainly dispose of gas associated with oil as a by-product rather than a valuable raw material. As a result, despite the companies' obligations to utilize 90–95 per cent of the extracted associated gas under their oilfield licenses, 25–30 per cent of it (12–16 bcm) is flared (Sapozhnikov, 2004; Kutepova, Knizhnikov & Kochi, 2011).

According to the estimates of the IEA, if in 2008 Russia used energy as efficiently as Canada, Sweden, Norway and some other comparable northern countries of the OECD, it could have saved more than 200 million tonnes of oil equivalent from its primary energy demand, equal to 30 per cent of its consumption that year and an amount similar to the total primary energy used by the United Kingdom. With these savings, Russia's energy intensity would still be about 60 per cent higher than the OECD average (or 85 per cent higher than the European Union), due to Russia's more energy-intensive industrial structure and the large share of its population living in areas with high heating requirements (IEA, 2011b, pp. 257–258).

The Russian government is aware of this potential. The President's Decree № 889 of June 4, 2008 *On Certain Measures to Improve Energy and Ecological Efficiency of the Russian Economy* mandates a decrease in the energy intensity of Russia's GDP by 40 per cent by 2020 (as compared to its 2007 level). Meanwhile, the 40 per cent decrease target has been set based on the trend of efficiency gains following the collapse of the Soviet Union. However, as the Russian government has recognized (Government of the Russian Federation, 2009), this improvement in energy intensity has been due mainly to structural changes in the economy, that is to say, a drop in the share in GDP of

energy-intensive output. Only a relatively small part of the change since 2000, one fifth, was derived from actual improvements in the efficiency of energy use and, despite this limited improvement, Russia's energy intensity remains among the highest in the world.

The business-as-usual scenarios will not result in a decrease in the energy intensity of Russia's GDP by 40 per cent by 2020 from the 2007 level, and additional incentives are needed to promote energy efficiency (Grigoriev & Kondratiev, 2010). The phase-out of inefficient and wasteful fossil-fuel subsidies in accordance with Russia's G-20 and APEC commitments is an important tool towards achieving Russia's energy-efficiency goal.

Efficiency of alternate subsidies to oil and gas producers in Russia should be evaluated in a consistent and rigorous way. To this end, a lot of information has yet to be collected. Russia needs to establish a uniform mechanism for the monitoring and evaluation of such subsidies. This system can draw on the elements of monitoring of energy subsidies that are part of the already-existing activities of the Russian Ministry of Finance, the Ministry of Energy, and the Ministry of Economic Development. A government agency that would be responsible for integrated subsidies monitoring and evaluations needs to be selected in the course of consultations.

A very useful framework in this respect is provided by the G-20 and APEC initiatives to rationalize and phase-out inefficient fossil-fuel subsidies that encourage wasteful consumption. These forums, together with the OECD and IEA, provide an important platform where Russia can exchange its views and experiences with other countries with respect to identifying, evaluating and reforming its energy subsidies. A dialogue with broader business and academic circles as well as non-governmental organizations such as WWF and the GSI of the IISD will also prove useful.

Meanwhile, it is worth stressing again that fossil-fuel subsidy reform in Russia should not be viewed only as a way of delivering on Russia's international commitments. Reform will also contribute to fulfilling Russia's internal objectives of modernizing and diversifying its economy, improving its energy efficiency and solving its environmental problems

5. CONCLUSION: RUSSIA AND THE INTERNATIONAL REFORM OF FOSSIL-FUEL SUBSIDIES

According to Russia's implementation strategy to rationalize and phase-out inefficient fossil fuel subsidies that encourage wasteful consumption (G-20 Toronto Summit, 2010, p. 19) the G-20 Pittsburg summit commitment "will be implemented in Russia within the framework of its Energy Strategy 2030 [Government of the Russian Federation, 2009] and the *Concept of Long-Term Social and Economic Development till 2020* [Government of the Russian Federation, 2008a]. The implementation of the Pittsburg Initiative becomes a part of the national economic and energy policy." As noted in the document (p. 19), "the implementation strategy can include:

- Identification and total revision of all energy subsidies with special attention given to fossil fuel subsidies;
- Analysis of their efficiency in terms of the intended goals and their optimal integration into national overall economic and energy policy;
- Development of Russia's Energy Subsidies Model;
- Drafting and making decisions to amend, replace or phase-out concrete inefficient fossil fuel subsidies that encourage wasteful energy consumption;
- Executive and Legislative moves to reform energy subsidies set-up;
- Implementation of the Executive and Legislative formal decisions on rationalizing and phasing out inefficient fossil fuel subsidies that encourage wasteful consumption in the context of reforming energy subsidies set-up."

At present, Russia is at the very first stage of implementing this strategy, and the report at hand can be viewed as a contribution of civil society to the process of identification of a very significant category of the domestic fossil-fuel subsidies, namely the schemes of government support to oil and gas producers that have remarkably grown by both value and number in recent years.

Given the magnitude of existing fossil-fuel subsidies in Russia, their reform would definitely be an important contribution to the international process of internalizing environmental externalities and decarbonizing the world economy.

In the meantime, as the APEC chair in 2012, the host of the G-20 summit in 2013 and president of the G-8 in 2014, Russia also has a unique opportunity to shape the energy agenda internationally. Russia showed leadership in environmental policy when it propsoed the Global Marine Environment Protection Initiative at G-20 Summit in Toronto in 2010 in order to establish an international mechanism for preventing offshore accidents, cleaning up the unavoided negative impacts and protecting marine environment. Therefore, it would be a logical step for Russia to take the lead in embedding the full environmental risks and costs into mandatory analysis underpinning any decisions on granting fiscal support to development of energy resources offshore, especially in the Arctic.

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Annex I. Federal Subsidies

1 Direct and Indirect Transfer of Funds and Liabilities

1.1 Direct Spending

1.1.1 Subsidies to Gazprom to Cover the Price Gap for Gasification of the Russian Far East

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Direct Spending ➔ Earmarks and Agency Appropriations and Contracts		
Stimulated Activity	Infrastructure development		
Subsidy Name	**Subsidies to Gazprom for Covering the Gap between the Price of Gas Purchase from the Operator of 'Sakhalin-2' Project and the Price of Gas Intake into the Gas Transporting System 'Sakhalin-Khabarovsk-Vladivostok'**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Federal budget law passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To facilitate gasification of the Russian Far East by recompensating Gazprom's expenditures on construction of the Sakhalin-Khabarovsk-Vladivostok pipeline		
End Recipient(s) of Subsidy	Gazprom		
Time Period	2011–2013		
Background	Gazprom receives the subsidies from the federal budget under administration of the Ministry of Finance of the Russian Federation. To date, the energy mix of the Russian Far East includes locally mined coal and fuel oil brought from Siberia. Gasification of the Russian Far East, despite the high capital costs of the transport and distribution infrastructure, has been a political choice, which also explains the conferment of the subsidies to Gazprom. The revenue base for the subsidy is royalty payments to the Russian Federation for production sharing offshore projects Sakhalin-1 and Sakhalin-2 (Bayazitova, 2010). Although the subsidy is de facto earmarked for compensation of Gazprom's expenditures on construction of the Sakhalin-Khabarovsk-Vladivostok pipeline, it can be considered a producer subsidy as Gazprom has both gas-extracting and transporting monopolies in Russia, and all its revenues are recycled.		
Amount of Subsidy Conferred	2011	RUB1,885.7 million	US$65.9 million
	2012	RUB11,162.4 million	US$388.9 million
	2013	RUB11,493.5 million	US$390.9 million
Information Sources	Federal Law No. 357 (2010); Bayazitova (2010).		

1.1.2 Federal Budget Spending on Exploration and Prospecting for Hydrocarbons

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Direct Spending ➔ Earmarks and Agency Appropriations and Contracts		
Stimulated Activity	Exploration		
Subsidy Name	**Federal Budget Spending on Exploration and Prospecting for Hydrocarbons**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Federal budget law passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	As stated in the Long-Term Government Program on Exploration of Subsoil Resources and Replacement of Mineral Reserves of Russia: • To replace the mineral reserves at a rate compensating the extraction rates in the interests of the present and future generations of the citizens of the Russian Federation • To ensure the exploration maturity of the territory of the Russian Federation and its continental shelf as well as monitoring and conservation of the geological environment		
End Recipient(s) of Subsidy	State-owned and private exploration and prospecting companies, normally not belonging to large oil and gas-producing companies		
Time Period	From the Soviet period to present		
Background	In accordance with the *Long-Term Government Program on Exploration of Subsoil Resources and Replacement of Mineral Reserves of Russia* (Ministry of Natural Resources and Ecology of the Russian Federation (2008), the Ministry of Natural Resources and Ecology annually submits its claims for exploration funding to the Ministry of Finance to be included into the federal budget draft. After the budget is approved by the Federal Assembly, exploration funding is allocated to the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology) and around 100 entities reporting to it, including those in the regions. These entities have the flexibility to commission seismic and other exploration work independently to contractors from among both the state-owned unitary enterprises and private firms in order to explore reserves ordered by the Ministry of Natural Resources and Ecology. The obtained geological information is available to all interested parties. (Until January 2011, users had to pay a fee for the information.) The estimates below represent effective disbursements in current prices at the official yearly average exchange rate for the relevant year for the period 2004–2010, and planned allocations in 2008 prices and at the official yearly average exchange rate for that year for the period 2011–2020.		
Amount of Subsidy Conferred	2007	RUB9,267.7 million	= US$363.4 million
	2008	RUB10,120.6 million	= US$406.4 million
	2009	RUB8,930.5 million	= US$281.7 million
	2010 (estimate)	RUB8,636.2 million	= US$284.1 million
	2011-2020 (plan)	RUB200,602.1 million	= US$8,056.3 million
Information Sources	Ministry of Natural Resources and Ecology of the Russian Federation (2008); Ministry of Natural Resources and Ecology of the Russian Federation (2011); Federal Agency for Natural Resource Use of Russia (2010).		

1.1.3 Federal Budget Spending on Oil & Gas Related Research and Education

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Direct Spending ➔ Research, Development and Education Support
Stimulated Activity	Research and education
Subsidy Name	**Federal Budget Spending on Oil and Gas Related Research and Education**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal budget law passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To maintain and advance fundamental and applied knowledge related to oil and gas activities and prepare qualified staff for the industry
End Recipient(s) of Subsidy	Directly: state-owned research and educational establishments Indirectly: oil and gas companies
Time Period	From the Soviet period to present
Background	There are numerous state-owned research and educational establishments in Russia that entirely or partially specialize in activities related to the oil and gas industry. The most prominent ones include the Gubkin University of Oil and Gas (Moscow), Saint-Petersburg State Mining University, All-Russia Scientific and Research Geo-Exploration Institute (Saint Petersburg), Tyumen State Oil and Gas University, Ufa State Oil Technical University and others. These institutions receive funding both from the federal budget in the form of agency appropriations and contracts and from the private sector. For instance, some research related to oil and gas development on the Russian Arctic shelf is conducted within the framework of the Exploration and Development of the Arctic subprogram of the Federal target program World Ocean (see 1.4.1. for more details). The subsidy is difficult to quantify for two reasons. First, similar fiscal support is also provided to many research and educational establishments in Russia related to other industries (e.g., aerospace engineering) and technical knowledge may be required to distinguish which particular types of research or education subsidies are not available in other sectors. Second, as many of Russia's research and educational establishments undertake interdisciplinary and diversified activities, there are both synergies and tradeoffs in terms of the actual values of support received specifically by the oil and gas sector.
Amount of Subsidy Conferred	Not available
Information Sources	Federal Agency for Natural Resource Use of Russia (2009); OilCareer.Ru (undated).

1.2 Ownership of Energy-Related Enterprises by Government if on Terms and Conditions more Favourable for Business than in Case of Private Ownership

1.2.1 Federal Ownership of Security-Related Enterprises

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Government Ownership of Energy-Related Enterprises if on Terms and Conditions More Favourable for Business than in Case of Private Ownership ➔ Security-Related Enterprises
Stimulated Activity	Exploration
Subsidy Name	**Federal Ownership of Security-Related Enterprises**
Jurisdiction	Federal
Legislation/Endorsing Organization	Decrees and other decisions of the President of the Russian Federation and the Government of the Russian Federation
Policy Objective(s) of Subsidy	To ensure strategic interests, defensive capacity and security of the state (according to the Decree of the Prresident of the Russian Federation No.1009 of August 4, 2004)
End Recipient(s) of Subsidy	Federal State Unitary Enterprises and Joint Stock Companies 100 per cent owned by the Government of the Russian Federation, in particular, Rosgeologiya
Time Period	From the Soviet period until present
Background	As an oil-exporting nation, Russia does not have a strategic petroleum reserve for domestic purposes. Instead, strategic interests in the oil and gas industry are secured through a number of publicly owned enterprises determined by the List of Strategic Enterprises and Strategic Joint Stock Companies (initially issued by the President's Decree No. 1009 of August 4, 2004, revised later). As of October 1, 2011, the list includes the following enterprises in the oil and gas industry: 1) the national gas producing and transporting monopoly Gazprom (50 per cent plus 1 share owned by the state); 2) the leading oil producing company Rosneft (75 per cent owned by the state); 3) 100 per cent state-owned Rosneftegaz, a company holding 11 per cent of shares in Gazprom and 75 per cent of shares in Rosneft; 4) the national operator of oil and oil products pipelines Transneft (78.1 per cent owned by the state); 5) Zarubeshneft, a company producing oil both in Russia and abroad (100 per cent owned by the state); 6) national exploration company Rosgeologiya (100 per cent owned by the state).

	The companies included on the List of Strategic Enterprises cannot be entirely privatized, and the minimal state ownership level is determined by the same list. Under the GSI methodology, state ownership of companies working in the oil and gas industry is not considered a subsidy if the government's investment is on the same terms and conditions as other investors, and if the government is getting the same rate of return on its investment as other investors. This is a clear case with respect to Gazprom and Rosneft, 'blue chips' that have been enjoying internationally competitive profits. The federal government has also been getting market-rate return on its investment in Transneft and Zarubezhneft. However, under the GSI methodology, government ownership is a subsidy if the state is not getting a market-rate return on its investment. This is the likely case for several dozens of the Federal State Unitary Enterprises and Joint Stock Companies 100 per cent owned by the state that specialize in oil and gas exploration. The primary source of revenues of these companies is the government-distributed contracts for exploration, and the efficiency of these companies is mostly lower than that of their privately owned peers. On July 15, 2011 the President of the Russian Federation issued Decree No.957 merging most of the existing federal state-owned exploration enterprises, namely 37 of them, into a new strategic joint stock company, Rosgeologiya, that will be 100 per cent owned by the state. According to the Decree, Rosgeologiya is established "to ensure complex geological survey and replacement of mineral reserves based on the most advanced geological, geophysical and geochemical technologies." The companies that are being merged into Rosgeologiya accounted for about 10 per cent of the exploration services market in 2008. Many of the state-owned geological companies explore for both hydrocarbons and other minerals. Data limitations preclude quantification of the subsidy.
Amount of Subsidy Conferred	Not available
Information Sources	Decree of the President of the Russian Federation No. 957 of July 15, 2011 *On Joint Stock Company Rosgeologiya*; Decree of the President of the Russian Federation No. 1009 of August 4, 2004 *On Approval of the List of Strategic Enterprises and Strategic Joint Stock Companies;* Ministry of Natural Resources and Ecology (undated); Ministry of Natural Resources and Ecology of the Russian Federation (undated); Visloguzov (2011).

1.2.2 Federal Ownership of Gas-Fired Electricity Generation Companies and Power Grids

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Government Ownership of Energy-Related Enterprises if on Terms and Conditions More Favourable for Business than in Case of Private Ownership ➔ Utilities and Public Power
Stimulated Activity	Production
Subsidy Name	**Federal Ownership of Gas-Fired Electricity Generation Companies and Power Grids**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal Government decisions
Policy Objective(s) of Subsidy	To retain a certain degree of control in the liberalized electric power market
End Recipient(s) of Subsidy	Gas producing companies, most notably Gazprom
Time Period	From the Soviet period to present
Background	Payments for fuel gas represent indirect transfer of government funds in cases when electricity generation companies and power transmission networks are wholly or partially owned by the state. In this sense, the subsidy exists in Russia. As of October 1, 2011 the federal government has retained significant stakes in several wholesale generation companies, territorial generation companies, some individual power generation facilities and the Federal Grid Company. The state-owned gas producing monopoly Gazprom also holds large stakes in a number of power generation companies. Meanwhile, the government's control of the Russian power industry has considerably contracted as a result of its privatization in 2003–2008. Although the government has considerable decision-making power over the purchase of gas as fuel for electricity generation facilities, this indirect transfer of funds follows the logic of the market in most cases. Prices for gas on the domestic market are much lower than on the world market (see Annex IV), while other energy sources in the Russian power mix include coal, fuel oil, hydropower and nuclear power. The share of wind, biofuels and other "alternative" energy sources is insignificant. The subsidy is difficult to quantify.
Amount of Subsidy Conferred	Not available
Information Source	Ilyushenko and Ogorodnikov (2011).

1.3 Credit Support

1.3.1 Government Loans and Loan Guarantees to Oil and Gas Companies and Energy- Intensive Enterprises

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Credit Support ➔ Government loans and loan guarantees at below market rates
Stimulated Activity	All activities
Subsidy Name	**Government Loans and Loan Guarantees to Oil and Gas Companies and Energy-Intensive Enterprises**
Jurisdiction	Federal
Legislation/Endorsing Organization	Government decisions
Policy Objective(s) of Subsidy	To ensure national ownership of the key Russian oil and gas companies
End Recipient(s) of Subsidy	Oil and gas producing companies
Time Period	From the Soviet period to present
Background	In most cases, the Russian government provides loans and loan guarantees to the upstream oil and gas businesses as well as energy-intensive enterprises (primary metals, petrochemistry, etc.) for security-related reasons. For example, in October 2008 the Russian government took a decision to provide up to US$9 billion in loans to Gazprom, Rosneft, LUKOIL and TNK-BP to refinance their overseas loans in order to avoid the risk of foreign creditors acquiring control of these companies. Gazprom, Rosneft, Rosneftegaz, Transneft, Zarubeshneft and Rosgeologiya that are included in the List of Strategic Enterprises and Strategic Joint Stock Companies (initially issued by the President's Decree No. 1009 of August 4, 2004, amended and revised later) may be eligible in the future for additional subsidies such as credit support at below market rates, debt relief, etc. (see also 1.2.1. above). The Russian government provides loans and loan guarantees to the national oil and gas companies mainly through the majority state-owned banks: the Russian Development Bank (VEB), Sberbank, VTB and Gazprombank. In 2007 the Russian Oil, Gas, Coal, Fuel and Chemical Sector borrowed US$8.5 billion from Sberbank, US$6.5 billion from VTB, US$4.5 from VEB and US$2.1 billion from Gazprombank. In the same year, the rest of the extractive and energy-intensive sector of Russia (manufacturing exclusive of the light industry, metallurgy and mining) borrowed US$17.7 billion from Sberbank, US$8.9 billion from VTB, US$2.7 billion from Gazprombank and USB 1.9 billion from VEB. However, Russian oil and gas companies usually raise capital on international financial markets on better terms than on the undercapitalized domestic market. According to Uralsib Financial Group estimates, as of October 30, 2008, the Russian oil and gas industry had accumulated approximately US$44 billion in foreign syndicated loans and approximately US$34 billion in Eurobonds. Some of loans of the Russian state-owned banks, in particular VEB, to the national oil and gas industry appear to be pre-export financing. Meanwhile, a considerable share of the Russian state-owned banks' loans to the oil and gas companies and energy-intensive enterprises is provided at market rates and cannot be considered a subsidy. It is difficult to establish in which cases the government loans and loan guarantees may be provided to the oil and gas and energy-intensive industry at below-market rates due to the lack of detailed reporting. Data limitations preclude quantification of the subsidy.
Amount of Subsidy Conferred	Not available
Information Sources	Standard & Poor's (2009); Uralsib (2008); Gerasimchuk, Ilyumzhinova & Schorn (2010); Rebrov, (2008).

1.3.2 Subsidized Credit to Domestic Infrastructure and Thermal Power Plants

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Credit Support ➔ Subsidized Credit to Domestic Infrastructure and Power Plants
Stimulated Activity	Production
Subsidy Name	**Subsidized Credit to Domestic Infrastructure and Thermal Power Plants**
Jurisdiction	Federal
Legislation/Endorsing Organization	Government decisions
Policy Objective(s) of Subsidy	To support development of domestic infrastructure and public power
End Recipient(s) of Subsidy	Oil and gas producing companies
Time Period	From the Soviet period to present
Background	The Russian utilities and infrastructure companies related to the energy industry are much more reliant on the domestic sources of finance than oil and gas or primary metal companies tapping on the international capital market. The government plays a key role in providing loans to the infrastructure and utilities mainly via majority state-owned banks: VEB, Sberbank, VTB and Gazprombank. In 2007 the Russian electricity sector (including hydropower and nuclear power) borrowed US$3.7 billion from Sberbank, US$2.5 billion from VTB, and 1.5 from Gazprombank. At the time, the Russian government-dominated financial system lacked liquidity to finance large infrastructure projects. For instance, Transneft secured funding for the construction of the East Siberia-Pacific Ocean pipeline via US$10 billion loan from the China Development Bank. It is difficult to establish in which cases the government loans and loan guarantees may be provided to the Russian utilities and infrastructure companies at below-market rates due to the lack of detailed reporting. Data limitations preclude quantification of the subsidy.
Amount of Subsidy Conferred	Not available
Information Sources	Gerasimchuk, Ilyumzhinova & Schorn (2010)

1.3.3 Subsidized Credit to Oil- and Gas-Related Exports to CIS States

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Credit Support ➔ Subsidized Credit to Oil and Gas Related Exports
Stimulated Activity	Production
Subsidy Name	**Subsidized Credit to Oil and Gas Related Exports to CIS States**
Jurisdiction	Federal
Legislation/Endorsing Organization	Government decisions
Policy Objective(s) of Subsidy	To support Russian exports to the Commonwealth of Independent States (CIS) states
End Recipient(s) of Subsidy	Oil and gas producing companies
Time Period	From the end of the Soviet Union period to present
Background	In order to maintain its exports to the former Soviet republics, the Russian government provides credit support to the members of the CIS states through both intergovernmental loans and loans from the majority state-owned banks (Sberbank, VEB, VTB). These loans are often provided at below-market rates. The loans are not always earmarked for the purchase of specified Russian products, but media monitoring suggests that a considerable share of Russian loans to Belarus, Kyrgyzstan, Moldova, Tajikistan and Ukraine have been granted to enable those countries to purchase Russian oil and gas. Quantification of the subsidy is difficult.
Amount of Subsidy Conferred	Not available
Information Sources	*Agreement between the Government of the Republic of Belarus and the Government of the Russian Federation on Conferment of the State Loan to the Republic of Belarus,* November 13 2008; *Agreement between the Government of the Republic of Belarus and the Government of the Russian Federation on Conferment of the State Loan to the Republic of Belarus,* March 6, 2009; Krotov (2011); Draft Law *On Federal Budget for 2007* (1992).

1.4 Environmental Costs

1.4.1 Government Expenditures on Reduction of Environmental Risks and Mitigation of Negative Impacts on the Environment

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Environmental Costs ➔ Responsibility for Closure and Post-Closure Risks, Waste Management, Environmental Damages
Stimulated Activity	All activities
Subsidy Name	**Government Expenditures on Reduction of Environmental Risks and Mitigation of Negative Impacts on the Environment**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal budget law passed by the Russian Federal Assembly (Parliament), regulations of the Russian Ministry of Natural Resources and Ecology and the Russian Ministry of Emergency Situations
Policy Objective(s) of Subsidy	To reduce environmental risks and mitigate negative environmental impacts on the environment
End Recipient(s) of Subsidy	Oil and gas companies
Time Period	From the Soviet period to present
Background	Under the Russian legislation, companies, including those in the oil and gas sector, are responsible for reducing the environmental risks of their activities and mitigating negative impacts on the environment. However, there are two limitations to this provision. First, the current law enforcement practices do not stimulate companies to undertake sound management of their environmental footprint. Pollution fees in Russia are lower than in OECD countries. Moreover, in absence of continuous instrumental monitoring and measurement of environmental impacts, pollution payments are calculated based on companies' own declarations checked (often negligently) by officials of agencies reporting to the Russian Ministry of Natural Resources and Ecology (Accounting Chamber of the Russian Federation, 2004; Terentieva, 2011). As a result, companies can cut their environmental costs, which particularly benefits metals, mining, oil and gas and petrochemical companies. Therefore this government practice can be considered a Russia-wide subsidy, largely benefiting the oil and gas industry, although not exclusive to it. Second, in the case of the oil and gas industry, the environmental impacts of accidents, particularly oil spills and associated gas flaring, can be vast. In practice, it is not just petroleum companies but also the Russian Ministry of Emergency Situations that is actively involved in activities related to prevention and mitigation of oil spills and other environmental accidents. The Ministry can recover all or part of its costs through litigation with responsible companies, but only after the expenditures have already been incurred. These practices represent a subsidy to all Russian industries, particularly benefiting the high-risk and high-impact petroleum sector.

As a result, the Russian government incurs environmental costs directly or indirectly related to upstream oil and gas activities. For instance, the value of economic damages from associated gas flaring directly depends on the estimation method and varies between US$5.2 and US$19.3 billion according to the Accounting Chamber of the Russian Federation.

Some of the environmental costs of oil and gas operations from 2006 to 2010 were covered from the Federal Target Program, Reduction of Risks and Mitigation of Impacts of Natural and Technological Emergencies in the Russian Federation and Exploration and Development of the Arctic, subprogram of the Federal Target Program World Ocean (see table below). However, since the programs are not exclusive to the oil and gas sector, it is difficult to quantify the subsidy.

Name of the Program	Actual disbursements from the federal budget			
	2009		2010	
Exploration and Development of the Arctic, subprogram of the Federal Target Program World Ocean	RUB141 million	=US$4.4 million	RUB175 million	=US$5.8 million
Federal Target Program Reduction of Risks and Mitigation of Impacts of Natural and Technological Emergencies in the Russian Federation to 2010	RUB1,181 million	=US$37.3 million	RUB1,490 million	=US$49 million

In view of the plans of the Russian government and individual petroleum companies to develop the oil and gas reserves of the Russian sector of the Arctic, in 2010 the Russian Ministry of Emergency Situations announced its plans to establish 10 disaster management centres in the Russian sector of the Arctic. Costs of establishing one disaster management centre are estimated at RUB170–180 million (US$5.5–6 million).

Amount of Subsidy Conferred	Not available
Information Sources	Subprogram Exploration and Development of the Arctic of the Federal Target Program World Ocean; Federal Target Program Reduction of Risks and Mitigation of Impacts of Natural and Technological Emergencies in the Russian Federation to 2010; Accounting Chamber of the Russian Federation, (2011a, part 5, pp. 83–85); Accounting Chamber of the Russian Federation (2004, pp. 104–112); RIA Novosti (2010); Sapozhnikov (2004); Terentieva (2011).

2 Government Revenue Foregone

2.1 Tax Breaks

2.1.1 Property Tax Exemption for Trunk Oil and Gas Pipelines

Subsidy Category	Government Revenue Foregone ➔ Tax Breaks ➔ Tax Expenditures		
Stimulated Activity	Directly: infrastructure maintenance and development Indirectly: all activities		
Subsidy Name	**Property Tax Exemption for Trunk Oil and Gas Pipelines**		
Jurisdiction	Federal and regional		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 381, p. 11) passed by the Russian Federal Assembly (Parliament); Federal Government decree No. 504 of September 30, 2004 endorsing a list of the eligible infrastructure objects (preceded by other federal laws and government regulations)		
Policy Objective(s) of Subsidy	As stated in the *Tax Policy Guidelines for 2012 and the Planned Period for 2013 and 2014:* To encourage capital investment into the pipeline infrastructure and curb the growth of tariffs for oil and gas transportation as a potential inflation driver		
End Recipient(s) of Subsidy	Directly: Gazprom, Transneft Indirectly: price support to all oil- and gas-extracting companies		
Time Period	From the Soviet period to present		
Background	For Russian enterprises, the benchmark (in this case the maximum) property tax rate amounts to 2.2 per cent of the yearly average value of the owned property. The tax is levied to budgets of the Russian regions, therefore property tax exemptions are normally granted by regional governments. However, the exemption for trunk oil and gas pipelines has been granted by the federal authorities. The Russian Ministry of Finance has proposed on numerous occasions to cancel the exemption. However, the federal government has rejected these initiatives based on concerns about the economic incidence of the property tax on energy users and acceleration of inflation as Gazprom and Transneft can compensate their new tax payments through higher tariffs. Therefore the property tax exemption can be considered a consumer subsidy. However, in the case of Gazprom, which has both gas-extracting and transporting monopolies in Russia, classification as a producer subsidy is also valid as all Gazprom's revenues are recycled. By contrast, Transneft does not have any upstream business and is exclusively an oil transporting company. The estimates below are those by the Development Center of the Higher School of Economics (Moscow) based on the revenue forgone approach and yearly average value of eligible assets, tax rate at 2.2 per cent (Tovkailo & Sterkin, 2011).		
Annual amount of Subsidy Conferred in 2009 and 2010	Transneft (2009 estimate):	RUB49.2 billion	= US$1.55 billion
	Gazprom (2009 estimate):	RUB10.5 billion	= US$0.33 billion
Information Sources	Tovkailo & Sterkin (2011); Tax Code of the Russian Federation, p. 11, Article *381;* Decree of the Government of the Russian Federation No. 504 of September 30, 2004, *On the List of Property Pertaining to the Public Railway Tracks, Public Automobile Roads, Trunk Pipelines, Power Transmission Lines and Structures That Are Indispensible Technological Part of the Designated Objects Eligible for Property Tax Exemptions* (with amendments and additions); Government of the Russian Federation (2010c)		

2.1.2 Deduction of Technological Losses of Oil and Gas Incurred during Extraction and Transportation from Taxable Profits

Subsidy Category	Government Revenue Foregone ➔ Tax Breaks ➔ Tax Expenditures		
Stimulated Activity	Production		
Subsidy Name	**Deduction of Technological Losses of Oil and Gas Incurred during Extraction and Transportation from Taxable Profits**		
Jurisdiction	Federal and regional		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 254, p. 1) passed by the Russian Federal Assembly (Parliament); technological regulations approved by the Ministry of Energy of Russia in coordination with the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology)		
Policy Objective(s) of Subsidy	To make adjustments for limitations of technologies used in the Russian oil and gas sector		
End Recipient(s) of Subsidy	Oil- and gas-extracting companies		
Time Period	From the Soviet period to present		
Background	The profits tax was introduced in 1992 and its rate has been revised several times. Since the latest revision at the beginning of 2009 the rate amounts to 20 per cent, with 2 per cent of the tax revenues levied to the federal budget and 18 per cent of the revenues collected to regional budgets. However, the regional governments have the flexibility to lower their collectable share of the tax rate to 13.5 per cent. Since Russian oil and gas producing regions do use this option to attract investments, the subsidy value below has been estimated using the minimal 15.5 per cent (13.5 per cent + 2 per cent) tax rate as a benchmark. Russian companies have the right to deduce from the taxable profits the value of minerals lost during extraction and transportation as envisaged by the technologically acceptable limits. Thus the subsidy is not exclusive to the oil and gas companies, but the petroleum sector largely benefits from it. The technological limits for each industry are approved individually by authorized ministries; in case of the oil and gas sector, by the Ministry of Energy of the Russian Federation in coordination with the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology). It is recognized that the technological losses of hydrocarbons in Russia are higher than in many other oil and gas producing countries due to the obsolete infrastructure and methods (Ministry of Natural Resources and Ecology of the Russian Federation, 2011). Estimates of oil, condensate and gas losses during extraction in Russia vary, including among the Ministry of Energy, Ministry of Natural Resources and Ecology and the Ministry of Finance (used below for subsidy estimates). Russian oil and gas companies do not disclose information about their technological losses in a transparent and consistent manner. In many instances, data for oil and condensate is merged. Below the value of oil and gas losses has been estimated using the yearly average producer prices as reported by the Federal Service of State Statistics (see Annex IV for more details).		
Annual amount of Subsidy Conferred in 2009 and 2010	Oil (losses during extraction at 2.6 million tonnes)	RUB2.7 billion	= US$90 million
	Gas (losses during extraction at 2.6 bcm)	RUB0.2 billion	= US$7 million
	Total	**RUB2.9 billion**	**= US$97 million**
Information Sources	Tax Code of the Russian Federation (Article 254, p. 1); Government of the Russian Federation (2008b); Ministry of Natural Resources and Ecology of the Russian Federation (2011).		

2.1.3 Deduction of Expenses on Exploration, Research & Development from Taxable Profits

Subsidy Category	Government Revenue Foregone ➔ Tax Breaks ➔ Tax Expenditures		
Stimulated Activity	Exploration, research		
Subsidy Name	**Deduction of Expenses on Exploration, Research & Development from Taxable Profits**		
Jurisdiction	Federal and regional		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Articles 261–262) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To stimulate exploration, research and development by Russian oil and gas companies		
End Recipient(s) of Subsidy	Oil- and gas-extracting companies		
Time Period	From the Soviet period to present		
Background	The profits tax was introduced in 1992 and its rate has been revised several times. Since the latest revision at the beginning of 2009 the rate amounts to 20 per cent, with 2 per cent of the tax revenues levied to the federal budget and 18 per cent of the revenues collected to regional budgets. However, the regional governments have the flexibility to lower their collectable share of the tax rate down to 13.5 per cent. Since Russian oil and gas producing regions do use this option to attract investments, the subsidy value below has been estimated using the minimal 15.5 per cent (13.5 per cent + 2 per cent) tax rate as a benchmark. Exploration costs are generally deductible within 12 months following the month when a particular stage in exploration work has been completed. Unsuccessful exploration costs are also written off over 12 months, as are expenses related to dry holes, following notice of liquidation of the well (Tax Code, Article 261). Research and development costs are deductible as well (Tax Code, Article 262). The deduction of exploration, research and development costs from taxable profits is also available to other industries in Russia. According to the data of the Ministry of Natural Resources and Ecology, in 2009 exploration expenses in the Russian mineral resource sector amounted to RUB148.9 billion, of which RUB129.8 billion occurred in the oil and gas sector.		
Amount of Subsidy Conferred	**2007** (exploration expenses at RUB122.1 billion, no estimates for research & development [R & D])	> RUB19 billion	= >US$0.7 billion
	2008 (exploration expenses at RUB165.4 billion, no estimates for R & D)	> RUB26 billion	= >US$1 billion
	2009 (exploration expenses at RUB129.8 billion, no estimates for R & D)	> RUB20 billion	= >US$0.6 billion
Information Sources	Tax Code of the Russian Federation (Articles 258–259.3); Ernst & Young (2011, pp. 368–369); Ministry of Natural Resources and Ecology of the Russian Federation (2011).		

2.1.4 Accelerated Depreciation Allowances

Subsidy Category	Government Revenue Foregone ➔ Tax Breaks ➔ Tax Expenditures
Stimulated Activity	Development, production
Subsidy Name	**Accelerated Depreciation Allowances**
Jurisdiction	Federal and regional
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Articles 258–259.3) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage capital-intensive development of oil and gas reserves by companies
End Recipient(s) of Subsidy	Oil- and gas-extracting companies
Time Period	From the Soviet period to present
Background	Costs of developing oil and gas fields are deductible through depreciation of constructed fixed assets. Uniform accelerated depreciation allowances apply to all industries in Russia. Depreciable assets are allocated to 10 groups in accordance with their useful lives, which are determined partly by statute and partly by the taxpayer. Ten per cent (and not more than 30 per cent of fixed assets included in depreciation groups 3 to 7) of the cost of newly acquired fixed assets or expenses incurred in connection with the extension, modernization or partial dismantling of fixed assets may be expensed immediately, that is to say that the cost is deduced from taxable profits (Tax Code, Article 258.9). According to the Federal Tax Service of Russia, in 2009 the value of the 30 per cent lump-sum depreciation deduction (depreciation premium) for the oil- and gas-extracting activities amounted to RUB99.2 billion (for all industries, the total was RUB344.1 billion), and the corresponding value of the tax expenditures (budget outlays) was RUB19.8 billion (US$0.6 billion). This estimate is likely to have been computed using the maximum rate of the profits tax (20 per cent), although in some regions the rate can be reduced down to 15.5 per cent, and, to avoid double counting for the purposes of this report, the subsidy value might therefore be lower. Accelerated depreciation (up to three times) is available for fixed assets that are subject to a lease agreement and included in depreciation groups 4 to 10. There is also a provision for accelerated depreciation (up to twice) for fixed assets employed under the conditions of an aggressive environment, such as locations in the far north, north of the Arctic Circle (Tax Code, Article 259.3). For these incentives no estimates are available.
Amount of Subsidy Conferred in 2009	> US$0.6 billion
Information Sources	Tax Code of the Russian Federation (Articles 258–259.3); Federal Tax Service of the Russian Federation (2011); Ernst & Young (2011, pp. 368–369).

3 Provision of Goods or Services below Market Value

3.1 Government-Owned Oil and Gas Sites

3.1.1 Exclusive Rights of Gazprom and Rosneft to License Sites on the Continental Shelf

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Process for Leasing of Oil and Gas Sites
Stimulated Activity	All activities on the continental shelf
Subsidy Name	**Exclusive Rights of Gazprom and Rosneft to License Sites on the Continental Shelf**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal Law On Subsoils No. 2395-I of February 21, 1992. With revisions and additions (Article 9) and Federal Law On the Continental Shelf of the Russian Federation No. 187 of November 30, 1995 (Article 7)/Federal Assembly of the Russian Federation (Parliament)
Policy Objective(s) of Subsidy	The subsidy is a side-effect of the provision ensuring national defense and state security.
End Recipient(s) of Subsidy	Gazprom, Rosneft
Time Period	From April 29, 2008 to present
Background	In April 2008 two federal laws, *On Subsoils* and *On the Continental Shelf of the Russian Federation*, were amended in accordance with the new federal law, On the Procedure for Foreign Investment in Business Companies which are of Strategic Importance for National Defense and State Security. As a result, the natural resource use on the federal continental shelf is reserved only for companies that: 1) have at least five years experience in working on the Russian continental shelf and 2) are at least 50 per cent controlled by the Russian Federation. In practice, there are only two such companies: Gazprom and Rosneft. The sites of the federal continental shelf are assigned for use to these two companies without competitive tenders or auctions that are mandatory for other sites. This advantage can be considered a subsidy exclusive to Gazprom and Rosneft, although its quantification is difficult.
Amount of Subsidy Conferred	Not available
Information Sources	Federal Law No. 2395-I of February 21, 1992 *On Subsoils,* with revisions and additions, Article 9; Federal Law No. 187 of November 30, 1995 *On the Continental Shelf of the Russian Federation*, Article 7; Federal Law No. 58 of April 29, 2008 *On Amending Certain Legislative Acts of the RF and Repealing Certain Provision of the RF Legislative Acts in Connection with Adoption of the Federal Law On the Procedure for Foreign Investment in Business Companies which are of Strategic Importance for National Defense and State Security.*

3.1.2 Temporary Exemption from Export Customs Duty with Respect to Gas Transported through the Blue Stream Pipeline

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reductions in Other Taxes Due on Extraction		
Stimulated Activity	Directly: export to a specified destination Indirectly: all activities		
Subsidy Name	**Temporary Exemption from Export Customs Duty with Respect to Gas Transported through the Blue Stream Pipeline**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Agreement between the Government of the Russian Federation and the Government of the Republic of Turkey on Delivery of the Russian Natural Gas to the Republic of Turkey through the Defined Area of Water of the Black Sea of December 15, 1997/Parliaments of Russia and Turkey		
Policy Objective(s) of Subsidy	To facilitate construction of the Blue Stream pipeline and boost gas exports to Turkey		
End Recipient(s) of Subsidy	Gazprom		
Time Period	From the launch of the Blue Stream pipeline in 2003 until the project reaches the break-even point		
Background	Since 2003, the export customs duty rate for natural gas has been established at 30 per cent of the customs value. Since export of gas is monopolized in Russia, the only company paying the duty is Gazprom (see Annex V). The only exemption from the customs duty has been made with respect to exports of gas to Turkey through the Blue Stream pipeline in accordance with the intergovernmental agreement between Russia and Turkey. Under the agreement, the exemption is applied until the project reaches the break-even point, which was expected to occur in 2012. As of November 2011, the Government of Russia was investigating whether the project's costs have been already recovered. The exports duty exemption can be considered a foreign consumer subsidy. But Gazprom has both gas-extracting and transporting monopoly, and its revenues are recycled. Therefore classification as a producer subsidy is valid. The subsidy estimates below have been obtained using the following data. The volume of gas exported to Turkey through the Blue Stream pipeline amounted to 10.1 bcm in 2008, 9.8 bcm in 2009, 8.1 bcm in 2010 and is expected to reach 12.8 bcm in 2011. The contract price has not been officially disclosed, but according to information given by the Turkish newspaper *Habertürk* in February 2010, Turkey received a 6.5 per cent discount from the price previously set at US$330 per thousand m^3.		
Amount of Subsidy Conferred	2008	10.1 bcm * US$330 * 30 per cent	= US$1 billion
	2009	9.8 bcm * US$330 * 30 per cent	= US$1 billion
	2010	8.1 bcm* US$310 * 30 per cent	= US$0.8 billion
Information Sources	*Agreement between the Government of the Russian Federation and the Government of the Republic of Turkey on Delivery of the Russian Natural Gas to the Republic of Turkey through the Defined Area of Water of the Black Sea of December 15, 1997*; Ministry of Finance of the Russian Federation (undated); Gemici (2010); Mazneva (2011); Nazarova, 2010; Blue Stream (undated, a); Blue Stream (undated, b).		

3.1.3 Temporary Exemption from Export Customs Duty with Respect to Oil Produced at Newly Developed Onshore Oilfields in East Siberia

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reductions in Other Taxes Due on Extraction	
Stimulated Activity	Production at specific new fields and exports through the East Siberia-Pacific Ocean Pipeline	
Subsidy Name	**Temporary Exemption from Export Customs Duty with Respect to Oil Produced at Newly Developed Onshore Oilfields in East Siberia**	
Jurisdiction	Federal/Customs Union	
Legislation/Endorsing Organization	A series of decrees by the Russian Government/Commission of the Customs Union	
Policy Objective(s) of Subsidy	To encourage exploitation of new onshore oilfields in East Siberia which supply oil to the East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East	
End Recipient(s) of Subsidy	Oil-extracting companies: primarily Rosneft, Surgutnetegaz and TNK-BP	
Time Period	From December 2009/January 2010 for the periods during which individual oilfields' profitability is below an "acceptable" rate understood at 15–17 per cent	
Background	In view of an abrupt decrease in world prices for oil and the need to fill in the newly launched East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East, on December 1, 2009 the Government introduced the regime of "manual adjustments" of export duties by waiving them for crude oil from 13 newly developed onshore fields in East Siberia: Vankorskoe, Yurubchenko-Takhomskoe, Talakanskoe, Alinskoe, Srednebotuobinskoe, Dulisminskoe, Verchnechonskoe, Kuyumbinskoe, Severo-Talakanskoe, Vostochno-Alinskoe, Verchnepeleduiskoe, Pilyudinskoe and Stakhanskoe. In January 2010 the exemption was extended to nine more fields: Yaraktinskoe, Danilovskoe, Markovskoe, Zapadno-Ayanskoe, Tagulskoe, Suzunskoe, Yuzhno-Talakanskoe, Chayandinskoe and Vakunayskoe. As the world price for oil bounced up, on July 1, 2010 the government reinstated the exports customs duty for these fields, but at a reduced rate. The decisions of the Russian government have been confirmed by the Commission of the Customs Union of Russia, Kazakhstan and Belarus. In summer 2011, nine fields on the were found to have reached the "acceptable" profitability rate of 15–17 per cent, and therefore the duty reduction for them was waived (see Annex V for more detail). There are numerous ongoing discussions on reinstatement/cancelation of the subsidy for individual oilfields in East Siberia depending on the fluctuations on the world price for oil. The subsidy estimates below have been calculated using the Federal Budget planning materials and the regular export customs duty rate (see Annex IV).	
Amount of Subsidy Conferred	2009	US$130 million
	2010	US$4.0 billion
Information Sources	Ministry of Finance of the Russian Federation (undated); RIA Novosti (2011a); RIA Novosti (2011b); RIA Novosti (2011c).	

3.1.4 Temporary Exemption from Export Customs Duty with Respect to Oil Produced at Newly Developed Offshore Oilfields in the Caspian Sea

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reductions in Other Taxes Due on Extraction
Stimulated Activity	Development of and production at specific fields
Subsidy Name	**Temporary Exemption from Export Customs Duty with Respect to Oil Produced at Newly Developed Offshore Oilfields in the Caspian Sea**
Jurisdiction	Federal
Legislation/Endorsing Organization	Decision of the Commission of the Customs Union of December 8, 2010
Policy Objective(s) of Subsidy	To encourage development of Korchagin and Filanovskiy offshore oilfields in the Caspian Sea
End Recipient(s) of Subsidy	LUKOIL
Time Period	From December 8, 2010 to present (for the periods when individual oilfields' profitability is below an "acceptable" rate understood at 15–17 per cent)
Background	The Commission of the Customs Union of Russia, Kazakhstan and Belarus established a reduced rate of the export customs duty for oil produced at two new offshore oilfields in the Caspian Sea developed by LUKOIL (see Annex V for more detail). The partial duty relief took effect on December 8, 2010 and applied to the first oil produced by the Korchagin field (Filanovskiy field has not come on stream yet). The subsidy estimate below has been calculated based on LUKOIL data and the maximum export customs duty rate as a benchmark (see Annex IV).
Amount of Subsidy Conferred in 2010	US$2 million
Information Sources	LUKOIL (2010); RBC (2010); Decision of the Commission of the Customs Union of December 8, 2010.

3.1.5 Exemption from Extraction Tax with Respect to Technological Losses of Oil, Condensate and Gas Incurred during Extraction

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Production
Subsidy Name	**Exemption from Extraction Tax with Respect to Technological Losses of Oil and Gas Incurred during Extraction**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p.1.1) passed by the Russian Federal Assembly (Parliament), technological regulations approved by the Ministry of Energy of Russia in coordination with the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology)
Policy Objective(s) of Subsidy	To make adjustments for limitations of technologies used in the Russian oil-and gas-sector
End Recipient(s) of Subsidy	Oil- and gas-extracting companies
Time Period	From the Soviet period to present
Background	A zero extraction tax rate applies to all commercial minerals lost during extraction within the technologically acceptable limits approved by the responsible government agency. Whereas the subsidy applies to all minerals, for oil, condensate and gas the limits are approved by the Ministry of Energy of the Russian Federation in coordination with the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology). It is recognized that the technological losses of hydrocarbons in Russia are higher than in many other oil and gas-producing countries due to the obsolete infrastructure and methods (Ministry of Natural Resources and Ecology of the Russian Federation, 2011). In some cases, companies sustain technological losses beyond approved limits; these extra losses are not eligible for the exemption from the extraction tax. Estimates of oil, condensate and gas losses during extraction in Russia vary, including among the Ministry of Energy (for example, in the Government Program, Energy Saving and Improvements in Energy Efficiency), Ministry of Natural Resources and Ecology and the Ministry of Finance (used below for subsidy estimates). Russian oil and gas companies do not disclose information about their technological losses in a transparent and consistent manner. In accordance with the Russian Finance Ministry's approach, estimates below have been obtained using the maximum extraction tax rates (see Annex IV) as a benchmark. In the Tax Policy Guidelines for 2009–2011, the Ministry of Finance of Russia proposed to cancel the tax exemption for technological losses of oil (no mention of condensate or gas), but this proposal has not been successful.

Amount of Subsidy Conferred	**2007**		
	Oil (2.6 million tonnes)	RUB6.4 billion	= US$252 million
	Condensate (0.8 million tonnes)	RUB200 million	= US$8 million
	Gas (3.1 bcm)	RUB460 million	= US$18 million
	Total	**RUB7.1 billion**	**= US$278 million**
	2008		
	Oil (2.6 million tonnes)	RUB8.9 billion	= US$356 million
	Condensate (0.2 million. tonnes)	RUB70 million	= US$3 million
	Gas (3.1 bcm)	RUB460 million	= US$18 million
	Total	**RUB9.4 billion**	**= US$377 million**
	2009		
	Oil (2.6 million tonnes)	RUB6.9 billion	= US$217 million
	Condensate (0.2 million tonnes)	RUB60 million	= US$2 million
	Gas (2.6 bcm)	RUB380 million	= US$12 million
	Total	**RUB7.3 billion**	**= US$231 million**
	2010		
	Oil (2.6 million t)	RUB8 billion	= US$264 million
	Condensate (0.2 million tonnes)	RUB70 million	= US$2 million
	Gas (2.7 bcm)	RUB400 million	= US$13 million
	Total	**RUB8.5 billion**	**= US$279 million**
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.1); Government of the Russian Federation (2008b); Ministry of Natural Resources and Ecology of the Russian Federation (2011); Government of the Russian Federation (2010c); Ministry of Finance of the Russian Federation (undated).		

3.1.6 Exemption from Extraction Tax with Respect to Associated Gas

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Production		
Subsidy Name	**Exemption from Extraction Tax with Respect to Associated Gas**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p.1.2) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To facilitate oil production		
End Recipient(s) of Subsidy	Oil-extracting companies		
Time Period	From the Soviet period to present		
Background	Extraction of associated gas has never been taxed in Russia (Mazneva, 2008). Estimates of associated gas production in Russia vary among various government agencies while oil companies do not publicly disclose this information (Malkova & Kostenko, 2010), and it is estimated that Russia annually produces from 40 to 60 billion m^3 of associated gas as part of the oil production process. Due to deficiencies in their technological processes and insufficiencies of the gas processing and transportation infrastructure in Russia, oil companies mainly dispose of gas associated with oil as a by-product rather than a valuable raw material. As a result, despite the companies' obligations to utilize up to 90–95 per cent of the extracted associated gas under their oilfield licenses, 25–30 per cent of it (12–16 billion m^3) is flared (Sapozhnikov, 2004). Since 2008 some government agencies, including the Accounting Chamber and Ministry of Finance, have made proposals to introduce a differentiated rate of the extraction tax with respect to associated gas in order to stimulate its utilization. The proposed tax rate will be zero or very low for utilized volumes of gas and high for flared associated gas. However, no amendments have been made yet to the relevant legislation. The proxy maximum benchmark rate used in some government estimates is the rate of the extraction tax for free natural gas (i.e., RUB147 for 2007–2010 for 1,000 m^3. Below, this rate is applied to the minimal reported amounts of both flared and extracted associated gas in Russia.		
Annual Amount of Subsidy Conferred in 2009 and 2010	**Only flared associated gas**		
	12 billion m^3 * RUB147	RUB1.8 billion	= US$60 million
	All extracted associated gas		
	40 billion m^3 * RUB147	RUB5.9 billion	= US$190 million
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.2); Mazneva (2008); Malkova & Kostenko (2010); Sapozhnikov (2004).		

3.1.7 Exemption from Extraction Tax with Respect to Oil Recovered from Off-Spec Reserves and Slimes

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Production
Subsidy Name	**Exemption from Extraction Tax with Respect to Oil Recovered from Off-Spec Reserves and Slimes**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, pp. 1.4–1.5) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage oil recovery from off-spec deposits and slimes
End Recipient(s) of Subsidy	Oil-extracting companies, service companies
Time Period	From introduction of the mineral extraction tax on January 1, 2002 to present. Before 2002 a similar incentive was applied under Article 40 of the Federal Law, *On Subsoils* of February 21, 1992
Background	Oil recovered from off-spec reserves and slimes has been exempted from the extraction tax. The incentive has not been successful: the volumes of oil recovered from off-spec reserves and slimes have been negligible in Russia. A similar incentive applies to all other commercial minerals.
Annual Amount of Subsidy Conferred in 2009 and 2010	Likely small
Information Sources	Tax Code of the Russian Federation (Article 342, pp. 1.4–1.5).

3.1.8 Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in East Siberia

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Development, production, export through the East Siberia-Pacific Ocean pipeline		
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in East Siberia**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p.1.8) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new onshore oilfields in the harsh conditions of East Siberia which supply oil to the East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East		
End Recipient(s) of Subsidy	Oil-extracting companies: primarily Rosneft, Surgutnetegaz and TNK-BP		
Time Period	From January 1, 2007 until specified production levels are reached		
Background	Temporary exemption from the extraction tax applies to oil deposits wholly or partially situated within the boundaries of the Republic of Sakha (Yakutia), Irkutsk region and Krasnoyarsk Territory until cumulative production from a particular field reaches 25 million tonnes. Tax holidays are granted for the period of 10 years from the start of the field's exploitation in the case of the license for exploration and production and for 15 years in the case of the license for simultaneous geological survey (prospecting and exploration) and production. The subsidy has applied to 13 oil fields, the exploitation of which has started both before and after its introduction (January 1, 2007): Vankorskoe, Yurubchenko-Takhomskoe, Talakanskoe, Alinskoe, Srednebotuobinskoe, Dulisminskoe, Verchnechonskoe, Kuyumbinskoe, Severo-Talakanskoe, Vostochno-Alinskoe, Verchnepeleduiskoe, Pilyudinskoe and Stakhanskoe. As of September 1, 2011 the Vankorskoe oilfield developed by the state-owned company Rosneft is the only oilfield in East Siberia for which the tax holidays have finished due to the cumulative production exceeding the threshold of 25 million tonnes on May 1, 2011. In accordance with the Russian Finance Ministry's approach, the subsidy estimates below have been obtained using the maximum rate of the extraction tax as a benchmark (see Annex IV for more detail). (см. текст в предыдущей редакции)		
Amount of Subsidy Conferred	2008 (1.3 million tonnes)	RUB4.4 billion	= US$180 million
	2009 (7.5 million tonnes)	RUB20 billion	= US$630 million
	2010 (20 million tonnes)	RUB60 billion	= US$2 billion
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.8); Geltishchev (2009); Ministry of Finance of the Russian Federation (undated).		

3.1.9 Exemption from Extraction Tax with Respect to Super-Viscous Oil

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Development, production		
Subsidy Name	**Exemption from Extraction Tax with Respect to Super-Viscous Oil**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.9) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To facilitate recovery of heavy oil		
End Recipient(s) of Subsidy	Oil-extracting companies, primarily Tatneft		
Time Period	2007–present		
Background	Before 2007 extraction of super-viscous (super heavy) oil in Russia was carried out mainly for research and development purposes, with no industrial application. In 2007 production of super-viscous oil (i.e., oil with viscosity of over 200 mPa under formation conditions) was exempted from the extraction tax. Introduction of the subsidy has encouraged companies, mainly Tatneft in the Republic of Tatarstan and LUKOIL in the Republic of Komi to increase their production of super-viscous oil, but only to aggregate 25–30 thousand tonnes a year for 2009–2010 (Tatneft, undated, a). Overall, the exemption has not significantly encouraged Russian companies to develop super-viscous oil deposits. The subsidy estimate below has been obtained using the maximum rate of the extraction tax as a benchmark (see Annex IV for more detail). (см. текст в предыдущей редакции)		
Annual Amount of Subsidy Conferred in 2009 and 2010	25,000 tonnes	RUB 66million	= US$2 million
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.9); Tatneft (undated, a).		

3.1.10 Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Offshore Oilfields North of the Arctic Circle

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Development, production
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Offshore Oilfields North of the Arctic Circle**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p.1.10) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new offshore oilfields North of the Arctic Circle (in harsh conditions)
End Recipient(s) of Subsidy	Oil-extracting companies, primarily Gazprom Group
Time Period	From January 1, 2009 until specified production levels are reached
Background	Temporary exemption from the extraction tax applies to oil deposits wholly or partially situated within the inland sea waters or the territorial sea and on the continental shelf of Russia until cumulative production from a particular field reaches 35 million tonnes. Tax holidays are granted for the period of 10 years from the start of the field's exploitation in case of the license for exploration and production and for 15 years in case of the license for simultaneous geological survey (prospecting and exploration) and production. As of November 2011, no commercial oil production has started North of the Arctic Circle in Russia. However, the tax holidays will benefit the state-owned Gazprom Group as soon as its Prirazlomnoe oil field in the Pechora sea (south-eastern part of the Barents sea) comes on stream, which is expected in 2012.
Amount of Subsidy Conferred	New subsidy, estimates will be available for future periods
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.10)

3.1.11 Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Oilfields in the Sea of Azov and the Caspian Sea

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Development, production		
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Oilfields in the Sea of Azov and the Caspian Sea**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.11) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new oilfields in the harsh conditions of the sea of Azov and the Caspian sea		
End Recipient(s) of Subsidy	Oil-extracting companies, primarily LUKOIL		
Time Period	From January 1, 2009 until specified production levels are reached		
Background	Temporary exemption from the extraction tax applies to oil deposits wholly or partially situated in the Sea of Azov and the Caspian Sea until cumulative production from a particular field reaches 10 million tonnes. Tax holidays are granted for the period of seven years from the start of the field's exploitation in the case of the license for exploration and production and for 12 years in the case of the license for simultaneous geological survey (prospecting and exploration) and production. The subsidy has mainly applied to the Korchagin oilfield in the Caspian sea exploited by LUKOIL. Meanwhile, new fields in the designated areas are expected to come on stream in the mid-term future. The subsidy estimate below has been obtained using the maximum rate of the extraction tax as a benchmark (see Annex IV for more detail).		
Amount of Subsidy Conferred	2009 (0 tonnes)	none	
	2010 (55 thousand tonnes)	RUB170 million	= US$6 million
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.11); Ministry of Finance of the Russian Federation (undated); LUKOIL (2010).		

3.1.12 Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in Nenets Autonomous Okrug and on the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Development, production		
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in Nenets Autonomous Okrug and on the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.12) passed by the Russian Federal Assembly (Parliament)		
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new oilfields in the harsh conditions of the Nenets Autonomous Okrug and on the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug		
End Recipient(s) of Subsidy	Oil-extracting companies, primarily LUKOIL, Rosneft and Gazpromneft		
Time Period	From January 1, 2009 until specified production levels are reached		
Background	Temporary exemption from the extraction tax applies to oil deposits wholly or partially situated on the territory of the Nenets Autonomous Okrug and on the Yamal Peninsula in the Yamalo-Nenets Autonomous Okrug until cumulative production from a particular field reaches 15 million tonnes. Tax holidays are granted for the period of seven years from the start of the field's exploitation in case of the license for exploration and production and for 12 years in case of the license for simultaneous geological survey (prospecting and exploration) and production. The subsidy has benefited mainly three companies: LUKOIL (developer of the Yuzhnoe Khylchuyu oilfield), the state-owned Rosneft (developer of several subsoil sites pertaining to the Val Gambutseva structure) and Gazpromneft. In December 2010 cumulative production of oil at LUKOIL's Yuzhnoe Khylchuyu has reached 15 million tonnes, and therefore this field is not eligible for the subsidy any more. New fields in the designated areas are expected to come onstream in the mid-term future. There is a possibility to supply oil from these reserves to the East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East via the Zapolyarnoe-Purpe connection pipeline currently under construction. The subsidy estimates below have been obtained using the maximum rate of the extraction tax as a benchmark (see Annex IV for more detail).		
Amount of Subsidy Conferred	2009 (15 million tonnes)	RUB40 billion	= US$1.3 billion
	2010 (15 million tonnes)	RUB46 billion	= US$1.5 billion
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.12); Division of the Federal Service of State Statistics for the Arkhangelsk Oblast (2010); LUKOIL (2010).		

3.1.13 Exemption from Extraction Tax with Respect to the Natural Gas Used for Gas Cycling

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Production
Subsidy Name	**Exemption from Extraction Tax with Respect to the Natural Gas Used for Gas Cycling**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.13) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To stimulate the use of gas cycling technology to boost gas condensate recovery
End Recipient(s) of Subsidy	Gazprom
Time Period	From summer 2011
Background	The exemption from the extraction tax applies to the natural gas reinjected into the reservoir to maintain reservoir pressure needed for recovery of gas condensate. The subsidy benefits primarily Gazprom, the state gas monopoly.
Amount of Subsidy Conferred	New subsidy estimates will be available for future periods.
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.13).

3.1.14 Tax Holidays with Respect to the Extraction Tax Levied on New Offshore Oilfields in the Black and Okhotsk Seas

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Development, production
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on New Offshore Oilfields in the Black and Okhotsk Seas**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, pp. 1.14–15) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new offshore oilfields in the Black and Okhotsk Seas
End Recipient(s) of Subsidy	Rosneft and some other oil-extracting companies
Time Period	From January 1, 2012 until specified production levels are reached
Background	Temporary exemption from the extraction tax applies to: 1) oil deposits wholly or partially situated in the Black Sea until cumulative production from a particular field reaches 20 million tonnes; 2) oil deposits wholly or partially situated in the Okhotsk Sea until cumulative production from a particular field reaches 30 million tonnes. Tax holidays are granted for the period of ten years from the start of the field's exploitation in the case of the license for exploration and production and for 15 years in the case of the license for simultaneous geological survey (prospecting and exploration) and production. The subsidy will benefit Rosneft and other companies as new fields in the designated areas come on stream.
Amount of Subsidy Conferred	New subsidy, estimates will be available for future periods starting from 2012.
Information Sources	Tax Code of the Russian Federation (Article 342, pp. 1.14–15).

3.1.15 Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in the Yamalo-Nenets Autonomous Okrug North of the 65th Latitude

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Development, production
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Newly Developed Onshore Oilfields in the Yamalo-Nenets Autonomous Okrug North of the 65th Latitude**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.16) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage capital investment in and development of new onshore oilfields in the harsh conditions of the Yamalo-Nenets Autonomous Okrug North of the 65th Latitude
End Recipient(s) of Subsidy	Oil-extracting companies
Time Period	From January 1, 2012 until specified production levels are reached
Background	Temporary exemption from the extraction tax applies to oil deposits wholly or partially situated in the Yamalo-Nenets Autonomous Okrug, except on the territory of the Yamal Peninsula in the Yamalo-Nenetsky Autonomous Okrug (already eligible for tax holidays since 2009) until cumulative production from a particular field reaches 25 million tonnes. Tax holidays are granted for the period of 10 years from the start of the field's exploitation in the case of the license for exploration and production and for 15 years in the case of the license for simultaneous geological survey (prospecting and exploration) and production. There is a possibility to supply oil form these reserves to the East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East via the Zapolyarnoe-Purpe connection pipeline currently under construction.
Amount of Subsidy Conferred	New subsidy, estimates will be available for future periods starting from 2012.
Information Sources	Tax Code of the Russian Federation (Article 342, p. 1.16).

3.1.16 Tax Holidays with Respect to the Extraction Tax Levied on Gas and Gas Condensate Produced on the Yamal Peninsula and Used for LNG Production

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Development, production
Subsidy Name	**Tax Holidays with Respect to the Extraction Tax Levied on Gas and Gas Condensate Produced on the Yamal Peninsula and Used for LNG Production**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 1.18–19) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage capital investment in development of new gas and gas condensate fields in the harsh conditions of the Yamal Peninsula as well as in production of liquefied natural gas
End Recipient(s) of Subsidy	NOVATEK
Time Period	From January 1, 2012 until specified production levels are reached
Background	Temporary exemption from the extraction tax applies to gas and gas condensate extracted from deposits wholly or partially situated on the territory of the Yamal Peninsula in the Yamalo-Nenetsky Autonomous until cumulative production from a particular field reaches 250 bcm or 20 million tonnes respectively. Tax holidays are granted for the period of 12 years from the start of the field's exploitation. The subsidy benefits primarily NOVATEK, a private company that develops the Yuzhno-Tambeyskoe gas condensate field and is constructing a gas liquefaction complex on the Yamal peninsula. The project is designed to have three trains to be launched in 2016, 2017 and 2018 respectively.
Amount of Subsidy Conferred	New subsidy, estimates will be available for future periods.
Information Sources	Tax Code of the Russian Federation (Article 342. pp. 1.18–19); Visloguzov (2011); Fincake.Ru (2011).

3.1.17 A Lowering Coefficient of the Extraction Tax (0.7) for Companies that Have Invested Their Own Funds into Exploration and Prospecting of Fields They Are Developing

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Exploration
Subsidy Name	**A Lowering Coefficient of the Extraction Tax (0.7) for Companies that Have Invested Their Own Funds into Exploration and Prospecting of Fields They Are Developing**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 2) passed by the Russian Federal Assembly (Parliament)
Policy Objective(s) of Subsidy	To encourage private investment in exploration and prospecting
End Recipient(s) of Subsidy	Oil- and gas-extracting companies
Time Period	From introduction of the mineral extraction tax on January 1, 2002 to present. Before that, a similar incentive had been applied under Article 44 of the Federal Law, On Subsoils of February 21, 1992
Background	A lowering coefficient of the extraction tax (0.7) applies to companies that have invested their own funds into exploration and prospecting of fields they are developing or have fully requited to the state the expenses for prospecting and exploration of the corresponding reserves. The incentive applies to all commercial minerals including oil, gas and condensate. The incentive has not been successful: according to the data of the Ministry of Finance, it is used for no more than 0.1–0.3 per cent of the oil produced in Russia (0.5–1.6 million tonnes).
Amount of Subsidy Conferred	RUB1 billion = US$30 million
Information Sources	Tax Code of the Russian Federation (Article 342, p. 2); Ministry of Finance of the Russian Federation (undated).

3.1.18 A Lowering Coefficient of the Extraction Tax for Oil Produced at Mature Fields

Subsidy Category	Provision of goods or services below market value ➔ Government-owned energy minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction		
Stimulated Activity	Production		
Subsidy Name	**Lowering Coefficient of the Extraction Tax for Oil Produced at Mature Fields**		
Jurisdiction	Federal		
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p. 4) passed by the Russian Federal Assembly (Parliament), state balance sheet of reserves of commercial minerals administered by the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology)		
Policy Objective(s) of Subsidy	To encourage fuller exploitation of mature fields		
End Recipient(s) of Subsidy	Tatneft, Bashneft, Rosneft and other oil-extracting companies		
Time Period	From January 31, 2007 to present		
Background	The depletion coefficient was introduced in early 2007 to reduce and differentiate the rate of the extraction tax applicable to mature oilfields, that is to say, fields with cumulative oil extraction equal to or greater than 80 per cent of the initially approved extractable oil reserves according to the data of the state balance sheet of reserves of commercial minerals administered by the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology). The coefficient is calculated according to a special formula (see Annex V) and varies between 0.3 and 1. According to the data of the Ministry of Finance, lowering the coefficient to the rate of the extraction tax applies to about 10 per cent of oil produced in Russia, specifically: 49 million tonnes in 2008, 46 million tonnes in 2009 and 43 million tonnes in 2010. Estimates below have been approximated based on Federal Budget planning materials prepared by the Ministry of Finance of Russia using the maximum extraction tax rates as a benchmark (see Annexes IV and V). Due to the various levels of maturity of their fields, different companies benefit from the incentive to a different extent. In particular, the two companies with majority of their reserves eligible for the subsidy are Tatneft and Bashneft. Meanwhile, according to some experts, not all companies eligible for this rate reduction are able to use it due to the requirement to instrumentally verify the production volumes.		
Amount of Subsidy Conferred	2008	RUB43 billion	= US$1.7 billion
	2009	RUB30 billion	= US$1.0 billion
	2010	RUB33 billion	= US$1.1 billion
	2011 (estimate)	RUB29 billion	= US$1.0 billion
	2012 (forecast)	RUB33 billion	= US$1.1 billion
	2013 (forecast)	RUB35 billion	= US$1.2 billion
Information Sources	Tax Code of the Russian Federation (Article 342, p. 4); Ministry of Finance of the Russian Federation (undated); Bobylev & Turuntseva, 2010.		

3.1.19 A Lowering Coefficient of the Extraction Tax for Oil Produced at New Small Fields

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalty Relief or Reduction in Other Taxes due on Extraction
Stimulated Activity	Development, production
Subsidy Name	**Lowering Coefficient of the Extraction Tax for Oil Produced at Small Fields**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 342, p.5) passed by the Russian Federal Assembly (Parliament), state balance sheet of reserves of commercial minerals administered by the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology)
Policy Objective(s) of Subsidy	To stimulate development of new small oilfields with initial recoverable reserves up to 5 million tonnes
End Recipient(s) of Subsidy	Small oil-extracting companies
Time Period	From January 1, 2012
Background	The reserve volume coefficient will be used starting from January 2012 to reduce and differentiate the rate of the extraction applicable to small oilfields, defined as fields with initial recoverable reserves less than 5 million tonnes according to the data of the state balance sheet of reserves of commercial minerals administered by the Federal Agency for Natural Resources Use (Rosnedra, part of the Ministry of Natural Resources and Ecology). The coefficient is calculated according to a special formula (see Annex V) and varies between 0.375 and 1. In 2002–2011 the procedure for calculating the extraction tax for oil did not take into account the differences in sizes of the oilfields. As a result development of small oil fields with recoverable reserves up to 5 million tonnes, as a rule, has turned out to be economically unprofitable due to high specific capital investments and operating costs. At the same time the state balance sheet of reserves lists about 1,000 deposits eligible for the new incentive, with total reserves of about 1 billion tonnes of oil. Application of the lowering coefficient to the extraction tax rate will make development of these small oilfields more profitable. The Russian government has estimated that the new incentive will result in additional extraction of 10.2 million tonnes of oil in the first year and 214 million tonnes over a 10 year period.
Amount of Subsidy Conferred	New subsidy, estimates will be available for future periods starting from 2012.
Information Sources	Tax Code of the Russian Federation (Article 342, p. 5); Bobylev (2010).

3.2 Government-Owned Infrastructure

3.2.1 Subsidized Network Tariff for Transportation of Oil Through the East Siberia-Pacific Ocean Pipeline

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Owned Infrastructure ➔ Use of Government-Provided Infrastructure for below Fair-Market Rate
Stimulated Activity	Export to specified destinations
Subsidy Name	**Subsidized Network Tariff for Transportation of Oil Through the East Siberia-Pacific Ocean Pipeline**
Jurisdiction	Federal
Legislation/Endorsing Organization	Orders of the Federal Tariff Service of Russia
Policy Objective(s) of Subsidy	To ensure competitiveness of oil exports through the East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East To encourage capital investment in and development of new onshore oilfields linked with the East Siberia-Pacific Ocean pipeline
End Recipient(s) of Subsidy	Oil-extracting companies, primarily Rosneft, Surgutneftegaz and TNK-BP
Time Period	From December 28, 2009 to present
Background	The oil pipeline East Siberia-Pacific Ocean is part of the Russian oil pipeline network developed, maintained and operated by Transneft, the state-owned company. The East Siberia-Pacific Ocean pipeline was launched on December 28, 2009. Although the route is operational, it has been only partially completed: on its final segment to the Kozmino sea terminal oil is transported by rail. Completion of the pipeline is expected in 2012. According to Transneft's President Nikolai Tokarev, the average cost of transporting oil through the East Siberia-Pacific Ocean pipeline, including transshipment and shipment by rail, was approximately US$130 per tonne in 2010. However, the government-established tariff for the entire route averaged US$55 in 2010 (the Federal Tariff Service revises the tariffs of Transneft twice a year). The subsidy estimate below is based on the comparison of these two benchmarks for the reported volume of oil transported to and loaded on ships at Kozmino, which is 15.34 million tonnes for 2010.
Amount of Subsidy Conferred in 2010	US$1.1 billion
Information Sources	Order of the Federal Tariff Service No. 167-Э/1 of July 29, 2010 *On Establishment of Tariffs for AK Transneft Services of Transporting Oil through the Trunk Pipeline System;* Vedomosti (2009); VSTONeft.ru (2011).

3.3 Government-Provided Goods or Services

3.3.1 Waived Fees for Access to Geological Information on Subsoils

Subsidy Category	Provision of Goods or Services below Market Value ➔ Government-Provided Goods or Services ➔ Government-Provided Goods or Services at Below-Market Rates
Stimulated Activity	Exploration
Subsidy Name	**Waived Fees for Access to Geological Information on Subsoils**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal Law No. 89 of May 19, 2010, *On Amending Federal Law 'On Subsoils'* and Article 13 of Federal Law *On Production Sharing Agreements/Federal Assembly (Parliament)*
Policy Objective(s) of Subsidy	To ensure free access to geological information for all parties interested in development of subsoils and enhance the number of subsoil users
End Recipient(s) of Subsidy	Oil and gas companies; small exploration companies are primary beneficiaries
Time Period	From January 1, 2011 to present
Background	Starting from January 2011 the government waived the fees for accessing geological information on subsoils. According to the Russian Treasury (Roskazana), the fees paid to the federal budget for the use of information on subsoils totalled RUB80.5 million (US$2.5 million) in 2009 and RUB72.3 million (US$2.4 million) in 2010. However, the Treasury's reporting does not allocate the collected fees to specific minerals. Therefore it is difficult to quantify the subsidy exclusively for upstream oil and gas activities.
Amount of Subsidy Conferred	Not available
Information Sources	Federal Law No. 89 of May 19, 2010 *On Amending Federal Law 'On Subsoils' and Article 13 of Federal Law On Production-Sharing Agreements*; Federal Treasury of Russia (2010); Federal Treasury of Russia (2011).

4 Income or Price Support

4.1 Market Price Support and Regulation

4.1.1 Exclusive Right of Gazprom to Export Dry Gas from Russia

Subsidy Category	Income or Price Support ➔ Market Price Support and Regulation ➔ Border Protection or Restrictions
Stimulated Activity	Directly: export by Gazprom Indirectly: all activities of Gazprom
Subsidy Name	**Exclusive Right of Gazprom to Export Dry Gas**
Jurisdiction	Federal
Legislation/Endorsing Organization	Federal Law On Gas Exports No. 117 of July 18, 2006/Federal Assembly of the Russian Federation (Parliament)
Policy Objective(s) of Subsidy	According to the Federal Law *On Gas Exports* No. 117 of July 18, 2006: • to ensure protection of economic interests of the Russian Federation, delivery on international gas exports commitments, revenues inflow to the federal budget and maintenance of the fuel and energy mix of the Russian Federation
End Recipient(s) of Subsidy	Gazprom
Time Period	From August 1, 2006 to present
Background	The Federal Law *On Gas Exports*, which entered into force on August 1, 2006, established a monopoly of the state-owned company Gazprom on exports of dry gas from Russia (the provision does not apply to dry gas produced under production-sharing agreements). According to the Russian Energy Ministry, Gazprom accounted for 78 per cent of the national gas production in Russia. The remaining 22 per cent of gas is extracted by the so-called independent gas producers, who have the right either to sell it to domestic market or to liquefy it and export it as liquefied natural gas. This is a clear case of market support granted to one company, albeit this subsidy is difficult to quantify.
Amount of Subsidy Conferred in 2010	Not available
Information Sources	Federal Law No. 117 of July 18, 2006 *On Gas Exports*; Vedomosti (2011b).

4.1.2 Opportunities for Tax Minimization Through Transfer Pricing

Subsidy Category	Income or Price Support ➔ Market Price Support and Regulation ➔ Regulatory Loopholes
Stimulated Activity	All activities
Subsidy Name	**Opportunities for Tax Minimization Through Transfer Pricing**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation (Article 40) passed by the Russian Federal Assembly and other legislative acts
Policy Objective(s) of Subsidy	The subsidy is a side-effect of regulatory loopholes
End Recipient(s) of Subsidy	Oil and gas companies
Time Period	From the breakdown of the Soviet Union to January 1, 2012
Background	Opportunities for transfer pricing by oil and gas producers emerged when, following the breakup of the Soviet Union, Russian companies started using the option of trading goods among its subsidiaries in different tax jurisdictions for tax minimization purposes. The Tax Code of the Russian Federation (Article 40 that entered into force on January 1, 1999) stipulates that a company can sell goods to its subsidiaries at a price that differs from market prices no more than by 20 per cent. However, this provision does not specify what is meant under "subsidiaries" and "market prices." Hence, it was not enforced effectively. Opportunities for tax minimization through transfer pricing has been widely used by all export-oriented Russian companies. But due to the dominance of the petroleum sector in the structure of the Russian economy, the benefits to the oil and gas producers have been particularly large. Transfer pricing in the Russian oil and gas sector has been widely discussed in the government. For instance, at a meeting of the Federal Council Commission on Cooperation with the Accounting Chamber of the Russian Federation on July 4, 2005, the Federal Auditors pointed out at large-scale tax avoidance by oil and gas companies and identified transfer pricing as the main method practiced to that end (Oil and Capital, 2005). The 2011 report of the Accounting Chamber notes that "in the circumstances of liberalized tax legislation, there are no efficient and effective instruments of tax control over the accuracy of calculation as well as entirety and timeliness of tax payment by organizations, which creates a potential situation triggering unscrupulous tax payer to violate tax laws. The usage of tax avoidance and evasion schemes, including through transfer pricing, presents a threat to the stability of the budget" (Accounting Chamber of the Russian Federation, 2011b).

	Based on these concerns, and following several years of debates, in 2011 the Russian Federal Assembly passed a law amending the Tax Code with the aim of eliminating the loopholes that enable transfer pricing. The new legislation enters into force on January 1, 2012. There are debates on different aspects of enforcing the new legislation with respect to transfer pricing, but it is generally recognized that the measures will help improve collection of the profit tax in Russia. Regulatory loopholes enabling transfer pricing and benefiting particular companies can be considered a subsidy to the Russian oil and gas industry in the order of several billion U.S. dollars (Expert et al., 2000; RBC, 2004). Due to their tax avoidance nature (transforming sometimes into tax evasion as exemplified by the Yukos bankruptcy case), benefits from transfer pricing are non-transparent and very difficult to quantify. One of the studies (Expert et al., 2000) estimated that in 2000, the application of transfer pricing enabled oil companies to pay only 56 per cent of their natural resource rent income to the state in the form of taxes. By comparison, if market-based prices had been applied, they would have paid 82 per cent of the economic rent as taxes to the state. In monetary terms, this roughly corresponds to an extra corporate benefit worth US$4.5 billion. However, these estimates are for the period preceding the enactment of the Tax Code of the Russian Federation and were made at a very different level of world prices for hydrocarbons and level of oil and gas production in Russia
Amount of Subsidy Conferred	Likely very significant
Information Sources	Tax Code of the Russian Federation (Article 40); Federal Law No. 227 of July 18, 2011 *On Amending Certain Legislative Acts of the Russian Federation with Respect to Improving the Principles of Pricing for Taxation Purposes; A*ccounting Chamber of the Russian Federation (2011b*);* Vedomosti (2011a); Pismennaya & Kazmin, (2011); Oil and Capital (2005); Expert, et al, 2000; RBC, 2004

4.1.3 Failures in Enforcement of Legislation Related to Subsoils Use and Environment Protection

Subsidy Category	Income or Price Support ➔ Market Price Support and Regulation ➔ Regulatory Loopholes
Stimulated Activity	All types activities
Subsidy Name	**Failures in Enforcement of Legislation Related to Subsoils Use and Environment Protection**
Jurisdiction	Federal
Legislation/Endorsing Organization	Law enforcing practices of the Ministry of Natural Resource Use and Ecology and federal and regional agencies reporting to it
Policy Objective(s) of Subsidy	The subsidy is a 'side-effect' of insufficient law enforcement with respect to subsoil use and environment protection
End Recipient(s) of Subsidy	Oil and gas companies
Time Period	From Soviet period to present
Background	Judging by reports of the Federal Accounting Chamber of the Russian Fedeation, Regional Prosecutors' Offices and media, oil and gas companies in Russia frequently violate legislation related to subsoils use and environment protection in order to obtain an economic advantage. For instance, in 2004 the federal Accounting Chamber established "various violations of subsoil legislation and terms of license agreements by companies with respect to failure to meet the established deadlines for commissioning of mineral resources production, failure to meet plans for exploration and commercial extraction as has been stipulated by the license agreements, which results in foregone revenues for the budget system" (Accounting Chamber of the Russian Federation, 2004, p. 104). Given the lack of equipment for continuous instrumental monitoring and measurement at the majority of fields, pollution fees and penalties for failure to utilize the license-stipulated volumes of associated gas are calculated based on companies' declarations. These are checked by officials of agencies pertaining to the Ministry of Natural Resources and Ecology, which is often done with negligence. (Accounting Chamber of the Russian Federation, 2004; Terentieva, 2011). The extent to which particular oil and gas producers can benefit from these regulatory loopholes, and the resulting amount of subsidy they receive as compared to their law-abiding competitors, depends on their lobbying clout. In the downstream business, the oil and gas lobby has convinced the federal government to postpone introduction of mandatory Euro-3 and Euro-4 quality standards for motor fuels. In the upstream sector a similar scenario can develop with respect to the introduction of penalties for failure to utilize 95 per cent of the produced associated gas. This requirement comes into force on January 1, 2012 under the Decree of the Government of Russia No.7 of January 8, 2009, *On Measures Stimulating Mitigation of Air Pollution with Products of Associated Gas Flaring.* However, as of summer 2011, only two Russian companies—Surgutneftegaz and Tatneft—utilized 95 per cent of the associated gas they produced. Such companies as Rosneft have actively tried to convince the government to make exemptions for their operations, which would give them an economic advantage over Surgutneftegaz and Tatneft. The subsidy is difficult to quantify.
Amount of Subsidy Conferred in 2010	Not available
Information Sources	Accounting Chamber of the Russian Federation (2011a, part 5, pp. 83–85); Accounting Chamber of the Russian Federation (2004, pp. 104–112); Decree of the Government of Russia No.7 of January 8, 2009, *On Measures Stimulating Mitigation of Air Pollution with Products of Associated Gas Flaring*; Sapozhnikov (2004); Terentieva (2011); Tyumenskaya Liniya, 2011; Neft, Gaz i Fondovy Rynok (2011); Shvarts (2009).

ANNEX II. REGIONAL AND MUNICIPAL SUBSIDIES

1 Regional Target Programs Regional Target Programs Related to the Energy Sector

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Direct Spending Direct and Indirect Transfer of Funds and Liabilities ➔ Environmental Costs
Stimulated Activity	All activities
Subsidy Name	**Regional Target Programs Related to the Energy Sector**
Jurisdiction	Regional
Legislation/Endorsing Organization	Decisions of the governments of the regions of the Russian Federation
Policy Objective(s) of Subsidy	To make respective regions more attractive for investment in the oil and gas sector To rationalize resource use in the respective regions.
End Recipient(s) of Subsidy	Oil and gas companies operating in the specific regions: mainly small and medium-sized businesses
Time Period	Various for different regions
Background	Target programs of the governments of Russian regions and their responsible agencies are one of the tools Russian regions can employ to earmark government spending for specific tasks that may be related to the oil and gas industry. Regional government spending through the target programs focuses, in particular, on exploration and research activities aimed at supporting rational use of oil and gas resources as well as coverage of the costs of reducing environmental risks and negative environmental impacts. These earmarks may directly or indirectly benefit the oil and gas industry. In most cases, it is small or medium-sized companies that benefit from such subsidies.
Amount of Subsidy Conferred	Not available
Information Sources	Kogtev and Mysak (2011); Government of the Republic of Tatarstan (undated); Government of the Khanty-Mansi Autonomous Okrug (undated).

2 Regional and Municipal Regional and Municipal Government Ownership of Energy-Related Enterprises

Subsidy Category	Direct and Indirect Transfer of Funds and Liabilities ➔ Ownership of Energy-Related Enterprises by Government if on Terms and Conditions More Favourable for Business than in Case of Private Ownership Direct and Indirect Transfer of Funds and Liabilities ➔ Credit Support
Stimulated Activity	All activities
Subsidy Name	**Regional and Municipal Governments' Ownership of Energy-Related Enterprises**
Jurisdiction	Regional
Legislation/Endorsing Organization	Decisions of the governments of the regions of the Russian Federation
Policy Objective(s) of Subsidy	To make respective regions more attractive for investment in the oil and gas sector To rationalize resource use in the respective regions.
End Recipient(s) of Subsidy	Oil and gas companies operating in the specific regions: mainly small and medium-sized businesses
Time Period	Various for different regions
Background	Regional government ownership of upstream oil and gas enterprises is very limited. The most conspicuous examples can be found in the Republic of Tatarstan and Nenents Autonomous Okrug in the Arkhangelsk Oblast. The government of Tatarstan owns a 33 per cent stake in Tatneft, Russia's sixth largest oil producer. The government of Nenets Autonomous Okrug holds 100 per cent of shares in the Nenets Oil Company, which holds a 10 per cent stake in the Kharyaga Production Sharing Agreement. The Nenets Oil Company also has an exploration subsidiary (Severo-Zapadnaya Geologorazvedka). More common is regional and municipal government ownership of utilities and public electric power. However, even though this ownership results in a considerable decision-making power over the purchase of gas as fuel for electricity generation facilities and utilities, this indirect transfer of funds follows the logic of the market in most cases. Gas is a very competitive fuel type on the domestic market, and prices for it are much lower than in many other countries (see Annex IV). However, ownership of energy-related enterprises by regional governments is hardly on more beneficial terms than by private investors, and therefore does not meet the definition of a subsidy. There are also cases of credit support to small and medium-sized energy companies that can be provided by financial institutions wholly or partially owned by regional governments. Some of this support is provided below market rates and can be viewed as a subsidy, albeit difficult to quantify.
Amount of Subsidy Conferred	Not available
Information Sources	Kogtev & Mysak (2011); Tatneft (undated, b); Nenets Oil Company (undated).

3 Regional Tax Breaks Regional Tax Breaks

Subsidy Category	Government Revenue Forgone ➔ Tax Breaks
Stimulated Activity	All activities
Subsidy Name	**Regional Tax Breaks**
Jurisdiction	Federal
Legislation/Endorsing Organization	Tax Code of the Russian Federation, passed by the Federal Assembly (Parliament) Regional legislations/legislative bodies (parliaments) of the Federation entities
Policy Objective(s) of Subsidy	To make respective regions more attractive for investment in the oil and gas sector To rationalize resource use in the respective regions
End Recipient(s) of Subsidy	Oil and gas companies
Time Period	Various for different regions
Background	Under the Tax Code of the Russian Federation, regions have an option to apply reduced rates or investment tax credits with respect to the corporate profits tax and property tax to fulfill their regional policy priorities. Municipalities have an analogous right with respect to Russia's only local tax—land tax. Of those, the most significant benefits for oil and gas producers relate to a reduced rate or investment credit with respect to the corporate profits tax. Since the latest revision at the beginning of 2009, the rate of the tax amounts to 20 per cent, with 2 per cent of the tax revenues levied to the federal budget and 18 per cent of the revenues collected to regional budgets. The regional governments have the flexibility to lower their collectable share of the tax rate down to 13.5 per cent. For instance, in August 2011 the Murmansk oblast has introduced the 13.5 per cent profits tax rate for the major Shtokman offshore gas deposit. But in most cases regional tax incentives are applied to pinpoint smaller-scale objectives, often related to rationalization of upstream oil and gas activities, especially in the regions with highly depleted fields. For instance, from January 1, 2009 Samara Oblast introduced the 13.5 per cent rate of the profits tax for producers of oil, gas and oil products under a condition that the funds freed up as a result of this tax benefit will be channelled as capital investments in the territory of Samara region, including for development of heavy oil reserves.
Amount of Subsidy Conferred	Not available
Information Sources	Tax Code of the Russian Federation (Articles 66–68); Tyumenskaya Liniya (2011); Safonova (2011); Geroyeva (2010).

ANNEX III. PRODUCTION-SHARING AGREEMENTS

1 Exemption of PSAs from Import Duties and Certain Taxes

Subsidy Categories	Government Revenue Foregone ➔ Tax Breaks ➔ Tax Expenditures				
Stimulated Activity	Development, production				
Subsidy Name	**Exemption of PSAs from Import Duties and Other Taxes**				
Jurisdiction	Federal/regional				
Legislation/Endorsing Organization	PSAs concluded individually for each project between the Russian Federation, represented by the federal government and governments of the respective regions, and consortia of investors				
Policy Objective(s) of Subsidy	To attract foreign investment into large-scale, long-term and high-risk oil and gas production projects				
End Recipient(s) of Subsidy	Oil and gas companies				
Time Period	Sakhalin-1: effectively from June 10, 1996, unlimited duration Sakhalin-2: effectively from June 15, 1996, unlimited duration Kharyaga: effectively from February 12, 1999, for 29 years with the possibility of extension to 33 years				
Background	Taxation regimes have been determined individually for each of the three PSAs. All of them are exempt from import duties on equipment for implementation of the projects. The value of the import duty expenditures for PSA is presented below according to the Federal Customs Service's reports. Under the three PSAs, company operations also enjoy exemptions or reduced rates for some other levies such as the property tax, corporate profits tax, VAT, etc. These subsidies are more difficult to quantify.				
Amount of Subsidy Conferred		**Payable under the regular taxation regime (maximum rate)**	**Paid under PSAs**	**Subsidy estimate**	
	2008				
	Import customs duties	RUB8 billion	0	**RUB8 billion**	**= US$0.3 billion**
	Other taxes	Not available	Not available	Not available	Not available
	2010				
	Import customs duties	RUB7 billion	0	**RUB7 billion**	**= US$0.2 billion**
	Other taxes	Not available	Not available	Not available	Not available
	2010				
	Import customs duties	RUB7 billion	0	**RUB7 billion**	**= US$0.2 billion**
	Other taxes	Not available	Not available	Not available	Not available
Information Sources	Federal Customs Service of Russia (2011b); Nazarova (2009); Government of the Russian Federation (2010b).				

2 Special Special Rates of Royalty Payments and Export Customs Duty under PSAs

Subsidy Categories	Provision of Goods and Services below Market Value ➔ Government-Owned Energy Minerals ➔ Royalties Relief or Reductions in Other Taxes due on Extraction				
Stimulated Activity	Development, production				
Subsidy Name	**Special Rates of Royalty Payments and Export Customs Duty under PSAs**				
Jurisdiction	Federal/regional				
Legislation/Endorsing Organization	PSAs concluded individually for each project between the Russian Federation, represented by the federal government and governments of the respective regions, and consortia of investors				
Policy Objective(s) of Subsidy	To attract foreign investment into large-scale, long-term and high-risk oil and gas production projects				
End Recipient(s) of Subsidy	Oil and gas companies				
Time Period	Sakhalin-1: effectively from June 10, 1996, unlimited duration Sakhalin-2: effectively from June 15,1996, unlimited duration Kharyaga: effectively from February 12,1999, for 29 years with the possibility of extension to 33 years				
Background	Taxation regimes have been determined individually for each of the three PSAs. For all of them, the most significant tax expenditures is the exemption from export duties on the extracted oil and gas. The royalties that companies pay under PSAs are also lower than corresponding levies under the national taxation regime: under the grandfather clause, the royalty fees paid at present under the three PSAs amount to about 50 per cent of the extraction tax under the national taxation regime introduced in 2002 (see Annex V). These subsidies have been estimated below using the benchmark (maximum) rates of the extraction tax and export customs duty (see Annex IV).				
Amount of Subsidy Conferred		**Payable under the regular taxation regime (maximum rate)**	**Paid under PSAs**	**Subsidy estimate**	
	2008				
	Extraction tax	RUB41 billion	RUB19 billion	**RUB22 billion**	**= US$0.9 billion**
	Export customs duties	RUB105 billion	0	**RUB105 billion**	**= US$4.2 billion**
	2010				
	Extraction tax	RUB42 billion	RUB17 billion	**RUB25 billion**	**= US$0.8 billion**
	Export customs duties	RUB78 billion	0	**RUB78 billion**	**= US$2.5 billion**
	2010				
	Extraction tax	RUB50 billion	RUB26 billion	**RUB24 billion**	**= US$0.8 billion**
	Export customs duties	RUB120 billion	0	**RUB120 billion**	**= US$3.9 billion**
Information Sources	Federal Treasury of Russia (2011); Federal Customs Service of Russia (2011b); Nazarova (2009); Government of the Russian Federation (2010b); Bobylev & Turuntseva (2010).				

ANNEX IV. KEY MACROECONOMIC INDICATORS USED FOR SUBSIDY ESTIMATES

1 Key Macroeconomic Factors Affecting Russian Oil and Gas Companies

Indicator	2007	2008	2009	2010	2011 (estimate)	2012 (forecast)	2013 forecast)
Production of oil, million tonnes*	490.9	488	494.3	504.9	509.1	510	510
Production of gas, bcm *	652.7	664	582.7	649	671	697	725
Export of oil, million tonnes*	258.6	243.1	247.6	250.3	244.5	244.6	244.3
Export of gas, bcm *	191.9	195.4	168.3	177.9	198.2	211.8	233.1
Yearly average exchange rate, RUB/US$*	25.5	24.9	31.7	30.4	28.6	28.7	29.4
Yearly average world price for Urals oil, US$ per barrel*	69.3	94.4	61.1	78.2	108	100	97
Yearly average contract prices for natural gas, including contracts with CIS countries, US$ per 1,000 m^3 *	234	355	249	268	337	349	342
Yearly average price for gas exported countries outside former USSR, US$ per thousand cubic meters *	266	409	287	306	383	395	381
Yearly average producer prices for oil on domestic market (in 2005–2009 inclusive, in 2010 exclusive of condensate), RUB per tonne**	7075	3377	6633	6634	-	-	-
Yearly average producer prices for associated gas on domestic market, RUB per 1,000 m^3 **	836	1116	1252	1345	-	-	-
Yearly average producer prices for natural gas on domestic market, RUB per 1,000 m^3 **	431	533	510	615	-	-	-
Yearly average benchmark (maximum) rate of the extraction tax for oil per a metric ton*** in US$	96.8	137.1	83.6	101.5	149.3	145.2	147.7
in RUB	2468	3414	2651	3084	4270	4169	4341
Yearly average rate of the extraction tax for gas per 1,000 m^3 *** in US$	5.8	5.9	4.6	4.8	8.3	8.7	9.0
in RUB	147	147	147	147	237	251	265
Yearly average benchmark (maximum) rate of the export customs duty rate for oil, US$ per ton ***	207	359	201	282	423	385	371

* Source: Ministry of Economic Development of the Russian Federation (2011b); Ministry of Economic Development of the Russian Federation (2011a).

** Source: Federal Service of the State Statistics of Russia (2011c).

*** Calculated by the author. For oil CD is taken to be equal to 1. The tax rates calculated based on yearly average exchange rates and export prices. For some oilfields CD is below 1. Various exemptions from the extraction tax may be applicable. See Annex V for more details.

2 Volumes Volumes of Oil Eligible for Different MET Rates, million tonnes

Indicator		2007	2008	2009	2010
Total production		**471.5**	**471.5**	**473.0**	**474.0**
Taxed volumes:					
Total taxed production, incl.:		**456**	**456**	**433**	**421**
Production at fields explored at the expense of private companies, tax rate coef. = 0.7		1.7	1.7	0.9	0.9
Production at mature fields:		not available	49.0	46.2	43.2
depletion level, per cent	tax rate coef.*				
80–85	*from ~0.8 to 1.0*	not available	35.2	28.5	20.3
86–90	*from ~0.6 to ~0.8*	not available	10.4	5.6	11.1
91–95	*from ~0.4 to ~0.6*	not available	2.4	11.0	10.3
96–100	*from 0.3 to ~0.4*	not available	1.0	1.0	1.4
over 100	*0.3*	not available	*0.05*	*0.08*	*0.1*
Regularly taxed production (maximum rate of the extraction tax)		not available	405	386	377
Non-Taxed Volumes:					
Total non-taxed production, including:		**16**	**16**	**40**	**53**
Normative technological losses		2.6	2.6	2.6	2.6
Under PSAs **:		13.2	12.0	15.1	15.4
Sakhalin-1		*10.3*	*9.6*	*8.3*	*6.9*
Sakhalin-2		*1.9*	*1.4*	*5.7*	*6.8*
Kharyaga		*1.0*	*0.9*	*1.2*	*1.7*
Production at new onshore oilfields in East Siberia		not available	1.3	7.5	20.2
Production at new onshore oilfields in Nenets Autonomous Okrug and on the Yamal Peninsula (from January 1, 2009)		regularly taxed		~15	~15
Offshore production in the Caspian Sea		not available	not available	0	0.055
Production of super-viscous oil		not available	not available	0.025	0.025

Source: Calculated by the author, based on Ministry of Finance of the Russian Federation (undated). Data on oil production differ from the data of the Ministry of Economic Development of Russia due to discrepancies in assessment methods. Some numbers may not total due to rounding.

* See Annex V for more details.

** Under PSAs operators do not pay the extraction tax. They only pay royalty fees as a percentage of the extracted oil value, which constitutes about 50 per cent of the extraction tax according to expert estimates and new legislation on future PSAs in Russia. In the mid-1990s when the three PSAs were concluded, under a regular tax regime companies paid royalties as well, but in 2002 royalties along with two other taxes were replaced by the mineral extraction tax.

3 Volumes of Gas Condensate Eligible for Different MET Rates, million tonnes

Indicator	2007	2008	2009	2010
Total production	18.5	16.5	17.0	16.0
Taxed volumes:				
Production taxed at the maximum rate of the extraction tax	17.69	16.33	1.88	15.83
Non-Taxed Volumes:				
Normative technological losses	0.81	0.16	0.12	0.17

Source: Ministry of Finance of the Russian Federation (undated)

4 Volumes of Natural Gas Eligible for Different MET Rates, bcm

Indicator	2007	2008	2009	2010
Total production	620.0	612.5	522.6	564.5
Taxed volumes:				
Regularly taxed production	615.0	607.7	510.9	547.1
Non-Taxed Volumes:				
Normative technological losses	3.14	3.12	2.58	2.70
Production under production sharing agreements (PSAs)*:	1.9	1.7	9.2	14.8
Sakhalin-1	*1.9*	*1.5*	*1.6*	*1.8*
Sakhalin-2	*0.0*	*0.2*	*7.6*	*13.0*

Source: Calculated by the author, based Ministry of Finance of the Russian Federation (undated). Data on gas production differs from the data of the Ministry of Economic Development of Russia due to discrepancies in assessment methods. Some numbers may not total due to rounding.

* Under PSAs operators do not pay the extraction tax. They pay only royalty fees as a percentage of the extracted gas value, which constitutes about 50 per cent of the extraction tax according to expert estimates and new legislation on future PSAs in Russia. In the mid-1990s when the three PSAs were concluded, under a regular tax regime companies paid royalties as well, but in 2002 royalties along with two other taxes were replaced by the mineral extraction tax.

ANNEX V. MET AND EXPORT DUTY FORMULAS

1 Mineral Extraction Tax (MET)

The Tax Code of the Russian Federation (Chapter 26) introduced the mineral extraction tax in 2002 to replace three other taxes on the use of mineral resources. In 2002–2005 the extraction tax for hydrocarbons and other key minerals was fully levied to the budgets of the Russian regions producing oil, gas and condensate (over 30 entities of the Russian Federation). In 2006–2009, 95 per cent of the tax revenues were levied to the federal budget, with regions receiving the remaining 5 per cent. Since the beginning of 2010 the extraction tax for hydrocarbons and other key minerals is fully levied to the federal budget.

For oil, the taxable base for MET is determined as the quantity of extracted oil in physical terms. The tax rate has been set at RUB419 for 2007–2011, RUB446 for 2012 and RUB470 for 2013 for a metric tonne of extracted dewatered, desalted and stabilized oil, multiplied by two coefficients (C_P and C_D) introduced in 2007 and another coefficient (C_R) applicable from January 1, 2012.

The *first coefficient (C_P)* is aimed at reflecting fluctuations in world prices for Urals oil according to the formula:

for the period 2007–2009 $C_P = (P - 9) * R / 261$

for the period 2010–present $C_P = (P - 15) * R / 261$

where:

"P" is the average price level of Urals oil for the tax period in US dollars per barrel;

"R" is the average exchange rate of the U.S. dollar to the Russian ruble, as established by the Central Bank of the Russian Federation

The *second coefficient (C_D)* is aimed at reflecting the level of depletion of a particular subsoil site. If the depletion level is greater or equal to 0.8 and less than or equal to 1, the coefficient is calculated according to the formula:

$$C_D = 3.8 - 3.5 * N / V$$

where:

"N" is the amount of cumulative oil extraction from a particular oil field (including losses during extraction) according to the data of the state balance sheet of reserves of commercial minerals approved in the year preceding the tax period in which the coefficient C_D is applied;

"V" is the initial extractable oil reserves that have been approved in accordance with the established procedure taking into account increments and write-offs of oil reserves (with the exception of write-offs of reserves of extracted oil and losses during extraction).

If the level of depletion of a particular oilfield exceeds 1, the C_D coefficient is taken to be equal 0.3. In all other cases, the C_D coefficient is taken to be equal 1.

The *third coefficient (C_R)* is applicable starting from January 1, 2012. It is aimed at reflecting the volume of reserves of a particular oil field. If the volume of initial extractable oil reserves (V_R) of a particular subsoil site is less than 5 million tonnes and the reserves depletion level is less than or equal to 0.05, the coefficient is calculated according to the formula:

$$C_R = 0.125 * V_R + 0.375$$

where:

V_R is the volume of initial extractable oil reserves in million tonnes according to the data of the state balance sheet of reserves of commercial minerals approved in the preceding year.

In case the volume of initial extractable oil reserves of a particular subsoil site is greater or equal to 5 million tonnes or the reserves depletion level is greater than 0.05, the C_R coefficient is taken to be equal 1.

For condensate, the extraction tax rate has been set at 17.5 per cent of the value of extracted condensate.

For free natural gas, the extraction tax rate has been set at RUB147 for 2007–2010, RUB237 for 2011, RUB251 for 2012 and RUB265 for 2013 for 1,000 m^3 of extracted natural gas for all gas fields.

Sources: Tax Code of the Russian Federation (Article 342); Ernst & Young (2010); Bobylev & Turuntseva (2010).

2 Export Customs Duty

For crude oil, the current procedure of establishing the benchmark (maximum) export customs duty rates is effective from October 15, 2008 under amendments and additions to the Federal Law *On Customs Tariff.* The Government of the Russian Federation establishes the rate of the export customs duty on a monthly basis. The actual rate is based on the average Urals price in the period from the 15th calendar day in the month to the 14th calendar day of the following month (monitoring period). The rate is effective on the first day of the coming month after the monitoring period. The government sets the maximum export custom duty rates according to the following formulae:

Quoted Urals Price (P)		Benchmark (Maximum) Export Customs Duty Rate per tonne, US$
US$ per barrel	US$ per tonne (tonne/barrel conversion factor for Urals oil is 7.3)	
0–15	0–109.50	0 %
15–20	109.50–146.00	35.0 % × (P – 109.50)
20–25	146.00–182.50	US Dollar 12.78 + 45.0 % × (P – 146.00)
>25	>182.50	US Dollar 29.20 + 65.0 % × (P – 182.50)

Exports of crude oil to a number of CIS states are exempt from the customs duty or subject to an individually established favourable regime. For instance, in January 2011 the Russian government approved a US$4.1 billion subsidy to Belarus by exempting the corresponding amount of its oil exports to Belarus from export customs duty (Rossiyskaya Gazeta, 2011a).

In December 2009–January 2010, in view of an abrupt decrease of world prices for oil and the need to fill in the newly launched East Siberia-Pacific Ocean pipeline bound to China and other consumers in the Far East, the government introduced the regime of "manual adjustments" of export duties for crude oil. First, it cancelled export duties for 22 onshore oilfields in East Siberia that were developed to supply oil to the East Siberia-Pacific Ocean pipeline. A few months later, the government restored the duty for these fields, but at a reduced rate. Subsequently, the reduced export duty rate was also been approved for two offshore fields in the Caspian Sea. Introduction and cancellation of the subsidy remains at the discretion of the government, depending on whether or not a particular field enjoys an "acceptable" profitability rate understood at 15–17 per cent.

Oilfield	Reduced rate per tonne: P is the quoted Urals price per tonne whereas the cutoff price of US$366.5 per ton is equivalent to US$50 per barrel	Period
Three onshore oilfields in East Siberia: Vankorskoe (developed by Rosneft), Verchnechonskoe (developed by TNK-BP) and Talakanskoe (developed by Surgutneftegaz)	0	December 1, 2009–June 30, 2010
	According to the formula: 45% * (P – 366.5)	July 1, 2010–April 30, 2011
Two oilfields in East Siberia: Dulsiminskoe (temporarily belongs to Sberbank) and Alinskoe (developed by Surgutneftegaz)	0	December 1, 2009–June 30, 2010
	According to the formula: 45% * (P – 366,5)	July 1, 2010–June 31, 2011
Four oilfields in Eastern Siberia: Zapando-Ayanskoe, Yaratkinskoe, Markovskoe and Danilovskoe (all four developed by Irkutsk Oil Company).	0	Feburary 1, 2010–June 30, 2010
	According to the formula: 45% * (P – 366,5)	July 1, 2010–July 31, 2011
Eight onshore fields in East Siberia: Yurubchenko-Takhomskoe, Srednebotuobinskoe, Kuyumbinskoe, Severo-Talakanskoe, Vostochno-Alinskoe, Verchnepeleduiskoe, Pilyudinskoe, Stakhanskoe	0	December 1, 2009–June 30, 2010
	According to the formula: 45% * (P – 366.5)	1 July 2010 – present
Five onshore fields in East Siberia: Tagulskoe, Suzunskoe, Yuzhno-Talakanskoe, Chayandinskoe, Vakunayskoe	0	February 1, 2010–June 30, 2010
	According to the formula: 45% * (P – 366.5)	July 1, 2010–present
Two offshore fields in the Caspian sea: Korchagin and Filanovskiy (developed by LUKOIL)	According to the formula: 45% * (P – 366.5)	December 8, 2010–present

For natural gas, the export customs duty rate has been established at 30 per cent of the customs value under the Government Decree № 507 of 10 August 2003. Since export of gas is monopolized in Russia, the only company paying the duty is Gazprom. Exports of gas to Turkey through the Blue Stream pipeline has been exempted from the duty under the intergovernmental agreement between Russia and Turkey until the project reaches the break-even point.

Sources: Federal Law № 5003-1 *On Customs Tariff* of May 21, 1993 with revisions and additions, (Article 3, p. 4); Ministry of Finance of the Russian Federation (undated); Bobylev & Turuntseva (2010); LUKOIL (2010); RIA Novosti (2011a); RIA Novosti, (2011b); RIA Novosti, (2011c); RBC (2010); Rossiyskaya Gazeta (2011a); Rossiyskaya Gazeta (2011b).

ANNEX VI. CONVERSION FACTORS

To convert from	To	Multiply by
	Length	
kilometer (km)	mile (mi)	0.621
meter (m)	foot (ft)	3.28
	Urals crude oil*	
metric tonne	barrel (bbl)	7.33
	Gaseous Fuels*	
cubic metre (cm)	cubic foot (cft)	35.3

* Approximate, based on average gravity at standard temperature and pressure.
Source: US Geological Survey, Ministry of Finance of the Russian Federation.

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