Deloitte.

An overview on royalties and similar taxes

Oil and gas upstream sector across Europe

April 2017

Contents

Background and methodology

We were requested by Asociația Română a Companiilor de Explorare și Producție Petrolieră ("ROPEPCA") to conduct an analysis with respect to the level of royalties and similar taxes applicable for the oil & gas upstream sector in Europe, as at 31 December 2015.

For the purpose of establishing a comprehensive and comparative overview of the fiscal environment and the related market conditions in relation to the oil and gas industry, this analysis has taken into account the position of the European countries. Furthermore, most European countries have a specific tax regime for oil & gas industry which includes royalties or other specific taxes, as well as increased corporate income tax rates for operators activating in this sector.

The report should be considered within the limitation that every country has a different tax regime. The effective royalties and similar specific taxes may differ from nominal rates. These are driven by national priorities, market reality and the recent severe decline of oil and gas prices which affected the latest years.

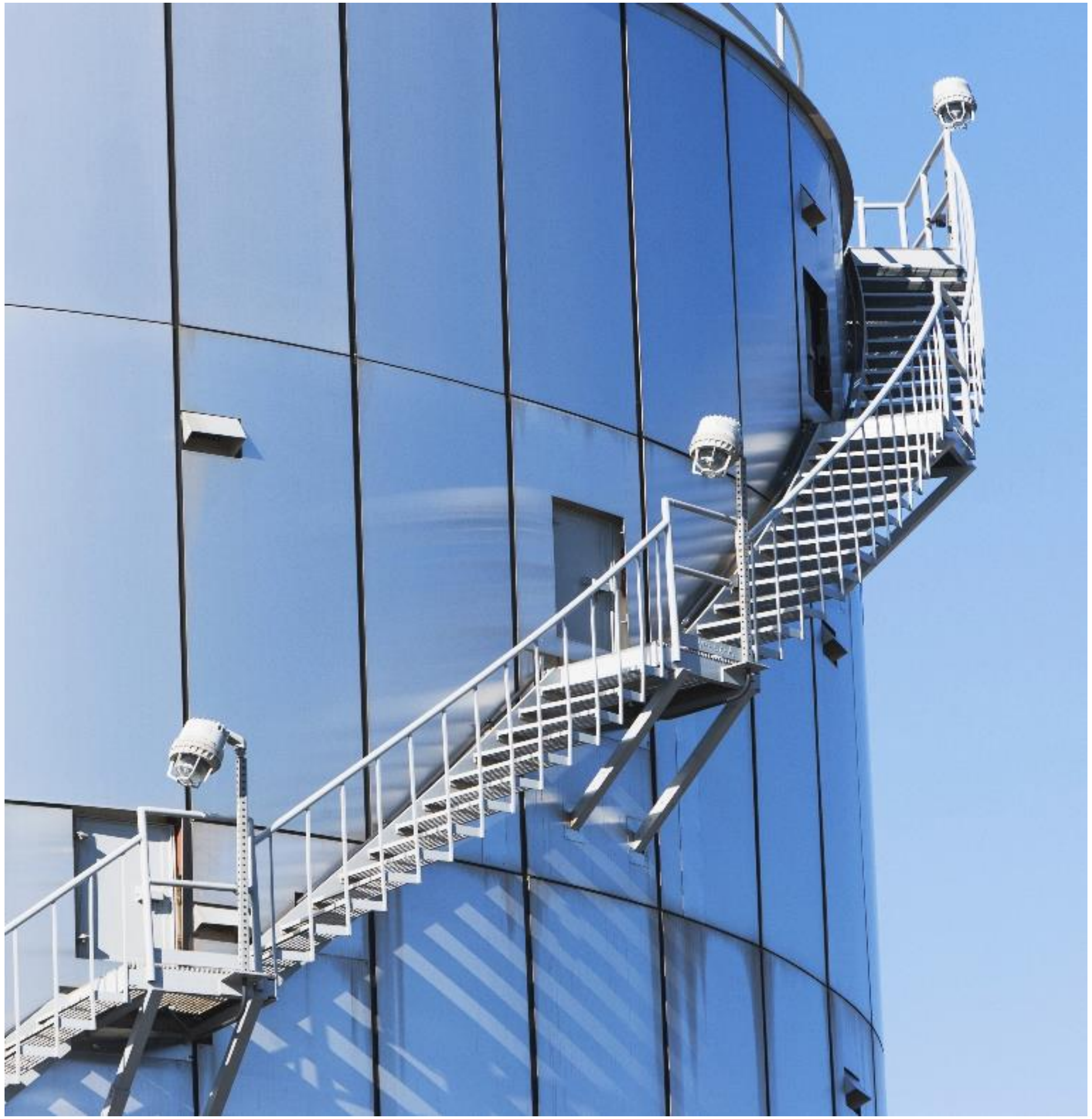
We have performed an analysis regarding the effective tax rates in different European countries based on the information available as at 31 December 2015, except where explained otherwise. The computation of the effective tax rate for each country had in view the value of the royalties and specific taxes paid by the main players divided by the revenues obtained from the production and sale of oil & gas, for which public information was available.

Background and methodology

Given that in most countries, operators present the relevant data in a combined manner (i.e., figures including both oil and gas), the study also presents the effective tax rates for oil & gas upstream activities in each country.

For Romania, as one of the main players in the industry is producing primarily gas, we were able to distinguish between the effective tax rate for gas and oil activities.

The results of this study may be read in conjunction with our previous reports - *"Observation on royalties and similar taxes – 'an updated overview'. Oil and gas upstream in Europe"* issued in February and September 2015, covering 2013 and 2014.



Executive summary

Executive summary

As a general note, the natural gas and oil prices fell during 2015 in most markets. European gas prices reached the lowest level since early 2010. Reasons include weak demand, good supplies and low prices for coal, oil and other competing fuels. Additionally, in most European countries a declining trend was noted also in production.

In countries with a specific taxation regime, adapted to market prices (e.g., taxation on profits) the decrease of prices led to a lower effective tax rate, for example Norway, Denmark and Netherlands. Moreover, some of the countries responded to these market conditions by relaxing their fiscal regimes in relation to the oil and gas specific taxes (Italy, Hungary, Germany and the United Kingdom).

Despite the overall descending trend among European countries (the average rate for royalty and specific taxes in the European upstream sector being reduced to 10% in 2015 comparing to 11.7% in 2014), the level of effective taxation in the Romanian upstream sector has increased. This is mainly derived from the decrease of revenues in comparison with a smaller decrease in the nominal value of the royalties and taxes due (supplementary taxes and construction tax). Moreover, the computation of the supplementary tax for gas was not correlated with the actual prices on the gas market.

There are also other European countries with a slight increase in the effective tax rate, derived either from fixed components (e.g., in France fixed tax per tone) or from small increased taxes (e.g., Lithuania).

General overview of Romania and other European countries

General overview of Romania

The Romanian onshore upstream oil and gas sector is very mature after more than 150 years of activity and it may be characterized as follows:

- In Romania there are over 400 oil & gas fields and more than 13,000 producing wells, however it has one of the lowest rates of production per well among all European Countries (21 barrels of oil equivalent / well / day compared to 2,350 barrels per day in Norway, 964 in Denmark, 363 in the UK and 271 in Italy);

- The oil and gas fields are very fragmented and identification of new reserves often requires drilling at very deep horizons. Moreover, approximately 25% of crude oil production is obtained using enhanced oil recovery techniques and heavy oil represents more than 35% of oil production. Therefore, massive investments are required to improve extraction technologies (increase of reservoir pressure, deep drilling etc.) and increase recovery factor from mature fields in order to cover the national demand;

- Significant amounts are spent annually by the onshore upstream oil and gas exploration and production sector in Romania, in order to bring new wells into production or to invest in the existing technology and to increase the recovery rates of mature oil and gas fields;

- The investments performed should be directly linked with the existing level of employment in the sector. According to EU Energy Statistics, the upstream oil and gas sector in Romania has the largest number of direct employees among the EU countries (25,600 direct employees out of 77,900 employees in all EU countries). It covers a wide range of blue-collar professionals, but also engineers, earth scientists, environmental, health and safety specialists, lawyers, accountants. Moreover, studies show that investments in the oil and gas sector generate a significant number of indirect jobs;

- Last but not least, the upstream oil and gas industry brings an important contribution in the Romanian economy, in terms of taxes paid to the State Budget, as well as the impact that it has on other sectors covering oil refining and electricity, heat production etc.

General overview of Romania

Despite the difficult operating conditions, according to our computations, the average effective royalty and similar tax rate increased from 15% in 2014 to 15.7% for the first half of 2015, 16.9% in 2015 and 17.5% in 2016.

The effective tax rate was computed as average between the observable royalty and similar taxes paid (petroleum and gas royalties, supplementary taxes* and construction tax), reported to the revenues obtained by the main Romanian players - SNGN Romgaz SA (22.5% - effective tax rate in 2015 and 21.8% in 2016) and OMV Petrom SA (14.7% - effective tax rate in 2015 and 15.9% in 2016).

We noted that the effective tax rate for the upstream gas activity is much higher than the effective tax rate for the upstream oil activity (i.e., in 2015 22.5% effective tax rate for Romgaz which produces primarily gas in comparison with 14.7% effective tax rate for OMV Petrom SA having a combined production of oil and gas). The difference between the effective tax rate for the upstream gas activity and upstream oil activity is driven mainly by the gas supplementary tax.

Despite the decrease of the nominal rate from 1.5% to 1% for construction tax starting 2015, the higher overall effective tax rate for the oil and gas upstream activity is mainly the result of:

- ✓ the decrease of revenues in comparison with a smaller decrease in the nominal value of the taxes due;
- ✓ the discrepancy between the threshold used for computing the gas supplementary tax (72 lei/ MWh) with the gas market prices that oscillated below this threshold;
- ✓ royalties charge formula for oil uses reference price of preceding three months; in a declining market this resulted in a higher percentage of effective royalties.

* Supplementary taxes include a tax of 60% applied to additional revenues resulted from the deregulation of natural gas prices and a tax of 0.5% applied to revenues resulted from the crude oil exploitation

General overview of the European countries

We have computed also an arithmetical average for the European producing countries*, obtaining an effective tax rate of 10% or 7.9%, by excluding Groeningen field.

We present below the average observable royalties and similar taxes as of 2015 versus 2014 for several European countries.

United Kingdom

The average observable royalty and similar tax rate as percentage of revenues was negative as at 31 December 2015 (-1.1%). This result was influenced by the following factors:

- ✓ The petroleum revenue tax which was reimbursed to operators;
- ✓ No petroleum revenue tax applied for approximately half of the fields having gross profits above £1 million, as they had no chargeable profits after taking into account field expenditure, reliefs and allowances;
- ✓ The decrease of the supplementary charge applied from 32% in 2014 to 20% in 2015;
- ✓ The decrease of oil prices in 2015 which led to lower profits, as well as a dynamic adjustment of supply, demand, stockholding and investment flows;
- ✓ The significant fall in production exposed UK to the drop in oil prices.

* excluding CIS (Community of Independent States)

General overview of the European countries

Greece

The average observable royalty and similar tax rate was 0%. This is similar to 2014 as the production obtained in 2015 did not exceed 2,500 barrels per day and thus, no royalty was due.

Norway

The average observable royalty and similar tax rate decreased from 18.8% in 2014 to 13.9% in 2015. One of the main factors was the drop in the oil prices, determining a 30% decrease in the revenues and challenging the profitability of the oil and gas industry.

Denmark

The average observable royalty and similar tax rate decreased massively from 20.6% (2014) to 9.2% (2015) due to low oil prices and the decrease of production in the North Sea. The oil production in 2015 totaled 9.1 million m^3, equal to 157,000 barrels/day, a 5 per cent decline compared to 2014. Compared to 2014, gas sales were maintained at a stable level of 3.8 billion Nm^3.

General overview of the European countries

Hungary

The average observable royalty and similar tax rate decreased from 22.9% (2014) to 18.1% (2015) due to the massive drop in crude oil prices. This led to a decrease of the effective tax rate, as royalty nominal rates are linked to a significant extent to crude oil prices.

Austria

The average observable royalty and similar tax rate decreased from 21.2% (2014) to 16.9% (2015) due to the decline of the oil and gas prices during 2015. This led to a decrease of the effective tax rate, as royalty nominal rates are linked to oil and gas prices.

Germany

The average observable royalty and similar tax rate decreased from 17.3% (2014) to 14.5% (2015) for the main German exploitation areas (Niedersachsen and Schleswig – Holstein regions) mostly due to lower nominal royalty rates starting 2015.

Netherlands

The average observable royalty and similar tax rate in relation to small fields significantly decreased from 4.1% (2014) to 2.8% (2015). Groeningen area was also affected, recording a decrease from 69.9% in 2014 to 60.8% in 2015 due to the sales that were considerably lower (22%), following the decrease of gas prices, which were approx. 10% lower than in 2014.

Italy

The average observable royalty and similar tax rate decreased from 11.7% (2014) to 8.7% (2015). This decrease is mainly resulting from the elimination of the profit tax surcharge of 6.5% starting with 2015.

Albania

The average observable royalty and similar tax rate slightly decreased from 14.7% (2014) to 14% (2015) mainly due to the specifics of the royalty regime which tends to decrease the effective tax rate over time.

General overview of the European countries

Serbia

The average observable royalty and similar tax rate slightly increased from 2.8% (2014) to 2.9% (2015).

Lithuania

The average observable royalty and similar tax rate increased from 9.9% (2014) to 13.4% (2015) due to specifics of the royalty regime for existing concessions, despite the more favorable amendments brought to the hydrocarbons legislation for new concessions, which entered into force starting with 1st of January 2015.

Ireland

The average observable royalty and similar tax rate slightly increased from 4.1% (2014) to 4.5% (2015) due to the specifics of the royalties and fiscal regime for producing concessions.

France

The average observable royalty and similar tax rate increased from 6.6% (2014) to 9.6% (2015) due to the method of computing the royalties, as a fixed amount per tone.

Poland

The average observable royalty and similar tax rate slightly increased from 0.7% (2014) to 0.9% (2015).

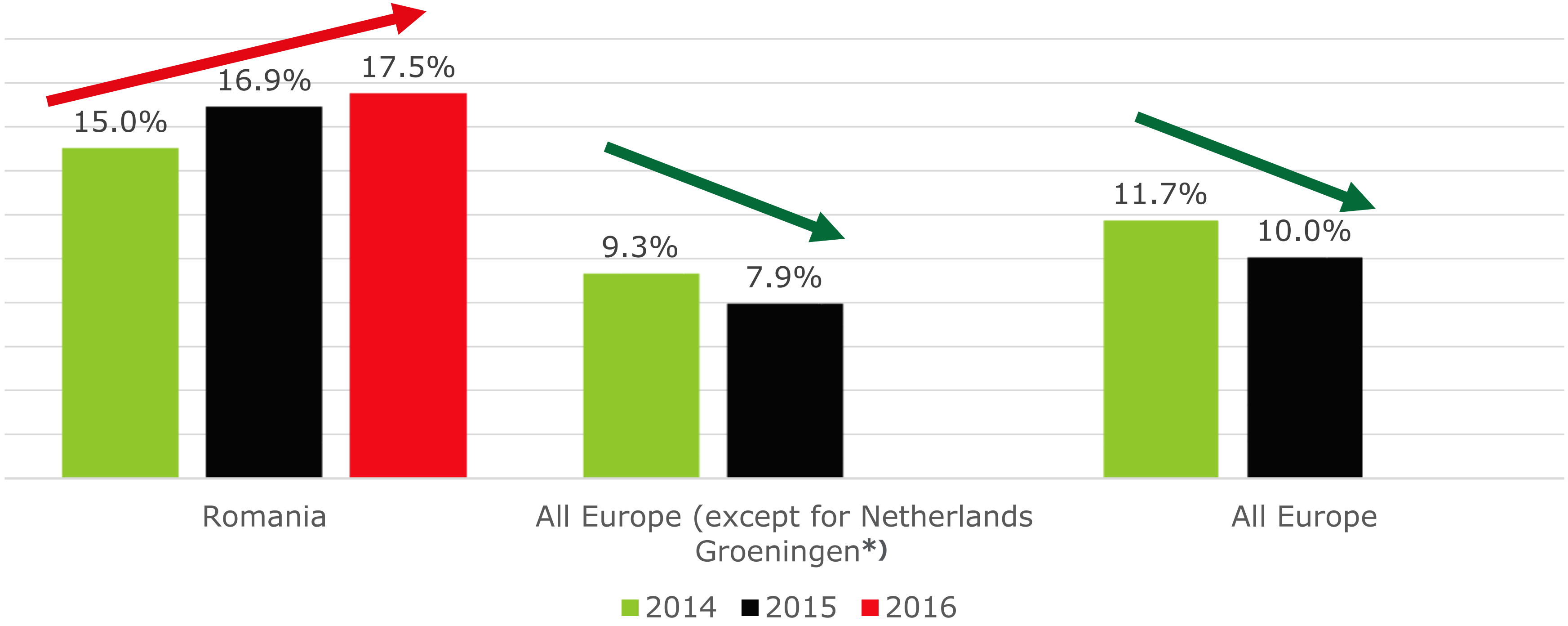
***

Due to lack of public information, we have considered the average observable royalty and similar tax rate similar to 2014 for Spain and Bulgaria, given that no major tax amendments were implemented for 2015.

For Slovakia, the Czech Republic and Slovenia we included only the specific tax rates for oil & gas companies, as no public information was available to compute an effective tax rate.

Graphical view of oil & gas royalties and similar taxes

Average rate for royalty and specific taxes in the upstream sector

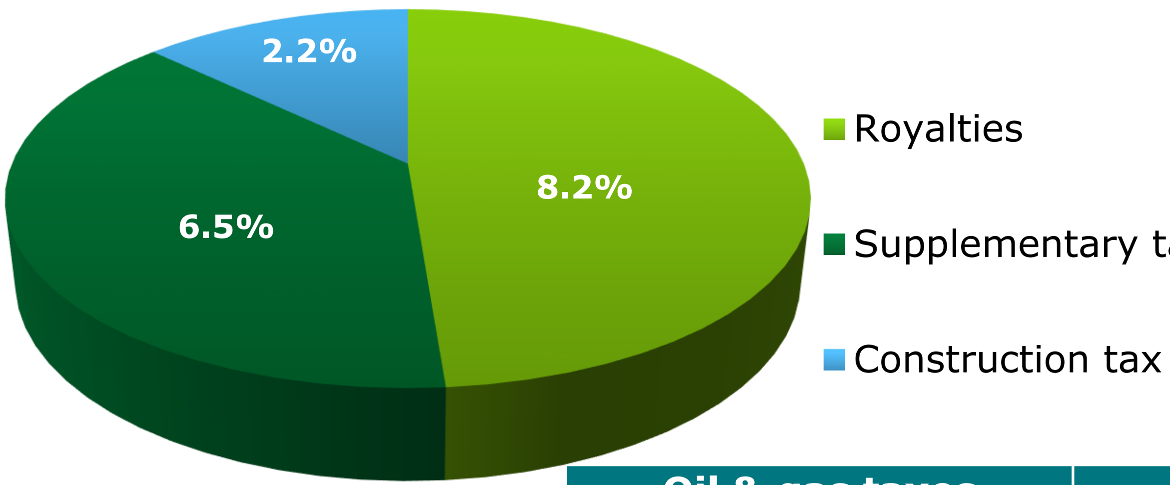


Region	2014	2015	2016
Romania	15.0%	16.9%	17.5%
All Europe (except for Netherlands Groeningen)	9.3%	7.9%	
All Europe	11.7%	10.0%	

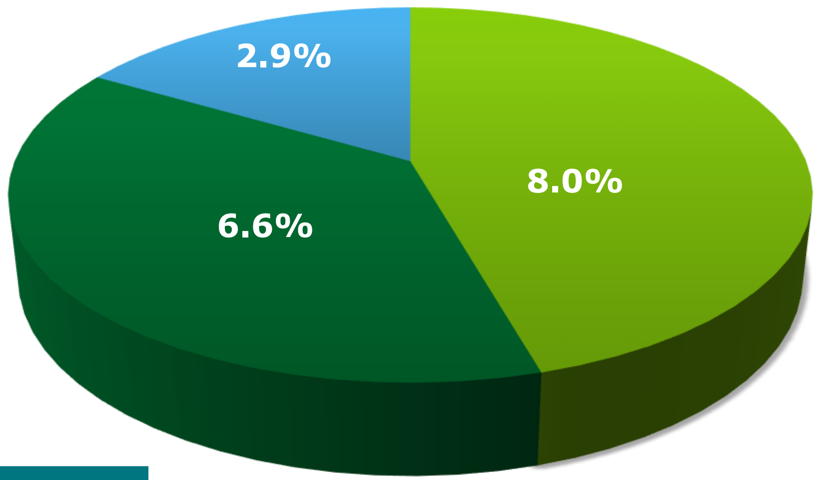
* *Netherlands Groeningen is a giant natural gas field, the largest in Europe, the tenth-largest in the world and as a result, it has a separate fiscal regime. In order to preserve the reserves present in the Groeningen field, the Dutch Ministry decided to promote the exploitation of the Netherland's small fields by granting fiscal incentives specific for them.*

Graphical split of the Romanian oil & gas taxes

2015



2016



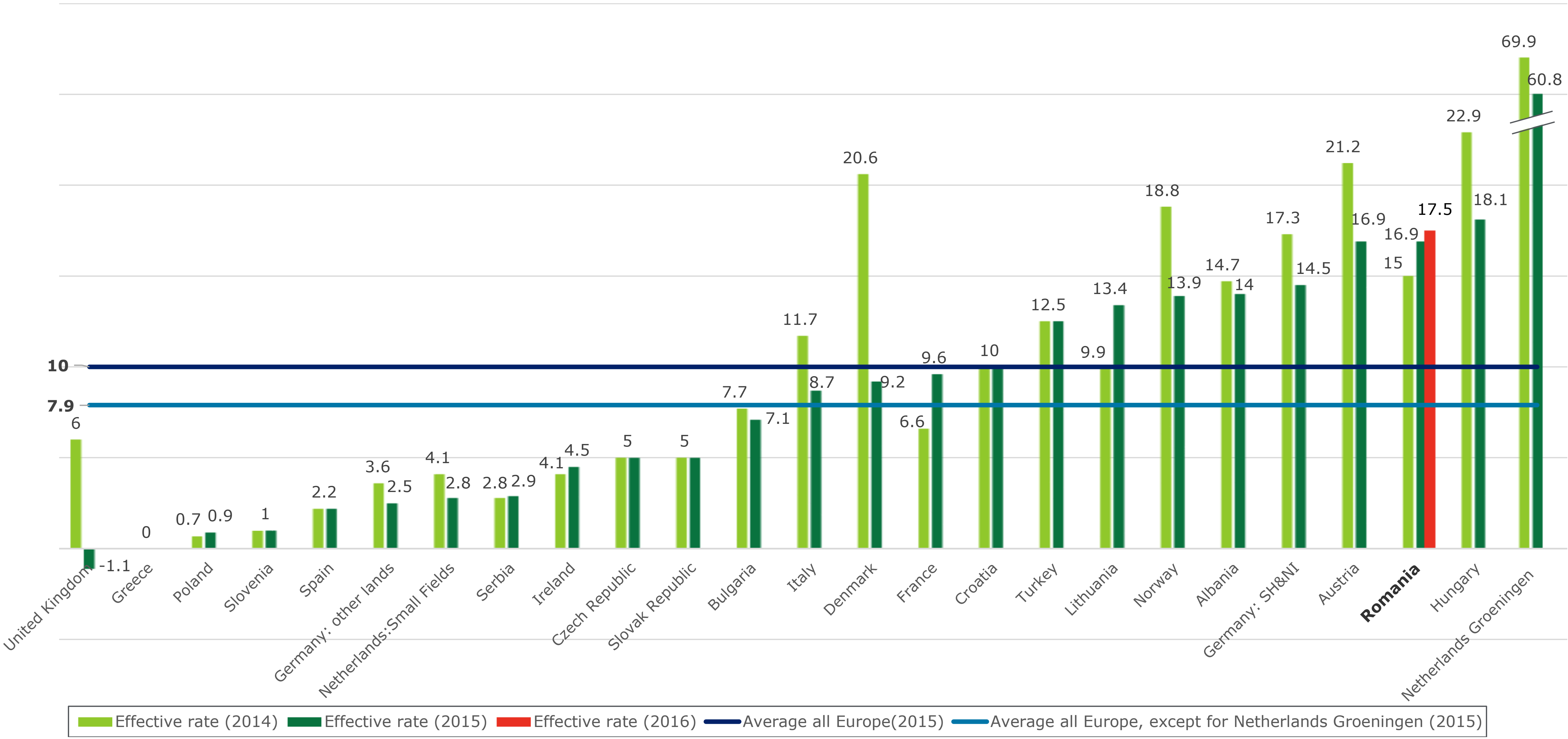
Oil & gas taxes including:	2015	2016
Royalties*	8.2%	8.0%
Supplementary taxes**	6.5%	6.6%
Construction tax***	2.2%	2.9%

* Royalties are computed based on the value of production of oil and gas by applying a rate between 3.5% - 13.5% for oil and 3.5% - 13% for natural gas

** Supplementary taxes include a tax of 60% applied to additional revenues resulted from the deregulation of natural gas prices and a tax of 0.5% applied to revenues resulted from the crude oil exploitation

*** Construction tax of 1% is applied to structures owned by taxpayers (e.g. gas and oil wells, piping networks)

Observable oil & gas royalties and similar taxes



Fiscal regime changes

Fiscal regime changes effective starting with 2015*

United Kingdom	▪ Reduction of supplementary charge (“SC”) from 32% to 20% starting 1 January 2015 and to 10% starting with 1 January 2016; ▪ Elimination of petroleum revenue tax (“PRT”)** starting with 1 January 2016; ▪ Introduction of a 62.5% of investment allowance for expenditure incurred after 1 April 2015: ❖ Deduction additional to investment costs may lead to an effective SC rate significantly lower than 20% ❖ Transitional provisions will be implemented for fields that benefited from other allowances ▪ Introduction of a 62.5% of investment allowance for high pressure high temperature oil & gas projects from a cluster area which encourage exploration and appraisal for surrounding area ▪ Extension to 10 years of the ring fence expenditure supplement which provides an uplift of 10% on a company’s closing loss ring fence loss pool at the end of an accounting period. Previously, only 6 claims could be made. ▪ Additional categories of expenditure were added in the scope of investment allowance. ▪ Extend of the Investment and Cluster Area Allowances to include tariff income starting with 1 January 2016; ▪ Provide certainty that companies will be able to access tax relief on their decommissioning costs starting with 1 January 2016.
Italy	▪ Starting with 2015 CIT surcharge (6.5% in 2015) applicable to several industries, including upstream oil & gas, was eliminated.
Germany Lower Saxony	▪ Reduction of royalties starting with 1 January 2015: ❖ gas: 7.5% - 30% instead of 9.25% - 37%; ❖ oil: 0%/9%/18% instead of 0%/9.5%/19%.

* Given the extensive nature and continuous update, we may not have captured all the changes. These are some of the key changes noted to date.
** Petroleum revenue tax applies to fields developed prior to 1993

Fiscal regime changes effective starting with 2015

Country	Changes
Germany Schleswig-Holstein	▪ Implementation of a price sliding scale royalty for oil with rates of 21-40% starting with 01.01.2015; For oil price per ton up to 556 EUR per ton royalty rate is 21%; ▪ Gas royalty for producing fields is maintained at 18% while for the new fields will apply a 40% royalty.
Romania	▪ Reduction of the special construction tax from 1.5% to 1% starting with 1 January 2015 and elimination starting with 1 January 2017. ▪ Extension of upstream temporary supplementary taxation (60% gas, 0.5% crude oil) for 2016 and 2017.
Hungary	▪ Reduction of royalty from 12% to 2% for non-conventional oil & gas fields and those which require special exploitation methods. ▪ Decrease of minimum royalty in exploration bidding round from 2016 to 16% compared to 19% in previous round.
Norway	▪ Increase of special tax rate to 54% from 53% to compensate a decrease of corporate income tax rate of 1% (24% instead of 25%) starting with 1 January 2017; ▪ Reduction of uplift for investments to 5.4% instead of 5.5% per year starting with 1 January 2017.
Spain	▪ Starting with 1 January 2016 the royalties rates, depending on production level and type of exploitation, were amended as follows: ❖ oil onshore: 2% up to 365k bbl/year, 6% 365k -3.65 mn bbl/year, 8% > 3.65 mn bbl/year; ❖ oil offshore: 1% up to 365k bbl/year, 5% 365k -3.65 mn bbl/year, 7% > 3.65 mn bbl/year; ❖ gas onshore conventional: 3% < 32.85 mn m^3/year, 4% 32.85 - 164.5 mn m^3/year, 5% > 164.5 mn m^3/year; ❖ gas onshore unconventional and offshore: 1% < 32.85 mn m^3/year, 3% 32.85 - 164.5 mn m^3/year, 4% > 164.5 mn m^3/year. ▪ Starting with 1 January 2016 the following taxes were also introduced: ❖ 1% tax on production value payable to owners of land where exploitation takes place; ❖ Lump-sum tax of 125k EUR/600k EUR for drilling onshore/offshore wells.

Limitations and acknowledgements

Limitations and acknowledgements

Methodology:

In compiling information, we have used only publicly available information, as indicated at various places within the analysis and summarized at the end. To keep objectivity, inference has been kept to minimum, in line with the objective of the analysis to present an overview. The extent of publicly available information, especially information from the regulators and other relevant bodies, varies from country to country and creates inherent limitation.

Limitations:

The analysis is not a regulatory advice, assessment of various other regulatory frameworks. It has limited relevance in terms of comparability except highlighting information based on publicly available information that can facilitate a further analysis and debate.

Carrying out such a broad level analysis has inherent limitations due to difference in various countries economic conditions, Oil & Gas industry history and relevant importance to that country, offshore vs. onshore, gas vs. oil, size and age of the field and inability to capture the complexities of all variations in different systems.

No detailed discussions with reporting entities or regulatory bodies were carried out to appreciate broad understanding of the publicly available information. Any reader of this analysis must read this report as an indicative analysis and not as a basis for investment decision, understanding project linked Government take analysis or for management decision making.

Deloitte was commissioned by ROPEPCA to perform an overview of the observable effective royalty and similar taxes in Oil & Gas industry across Europe, in order to have a comparative analysis. Any other party should carry out a thorough analysis for their own needs gathering and using the relevant information.

Limitations and acknowledgements

The reader agrees that Deloitte, its partners and employees neither owe nor accept any duty or responsibility to it, whether by contract or law (including without limitations negligence and breach of any other responsibility), and shall not be liable in respect of any loss, damage or expense whatsoever, which is caused by any use of the reader may choose to make of this report, or which is otherwise consequent upon the gaining of access to the report by the reader, the reader agrees that this report cannot be copied or reproduced, in whole or in part, in any public or legal document or agreement without Deloitte's prior written consent.

Deloitte in the process of compiling this analysis, has used publicly available data and makes no representation in respect of independently auditing this information or verifying the completeness of accuracy of this information.

References and resources

References and resources

Austria

- OMV Annual Report 2015

Czech Republic

- Mineral commodity summaries Czech Republic 2015
- The Czech Republic mine production and mineral reserves

Bulgaria

- Petroceltic Annual Report&Accounts 2014
- Bulgaria Oil & Gas Report Q2 2016 - New Market Report
- Regulations on the principles and methods used for determining the concession remuneration in regard to the underground natural resources extraction as per the order set in the Underground Natural Resources Act Adopted by Ordinance of the Council of Ministers No127 dated 21.06.1999, promulgated in State Gazette, issue 59 dated 29.06.1999, amended and supplemented, issue 46 dated 12.06.2007
- Oil&Gas Exploration and Production PLC Sofia website/ Equipment and Facilities

Denmark

- Taxation and Investment in Denmark 2015 – Deloitte
- Danish Energy Agency – Production Oil & Gas in Denmark 2015 and subsoil use
- Nordsøfonden/Nordsøenheden Annual Report 2015
- Information regarding the revenues allocated to the Danish State Budget according to the website: https://ens.dk/sites/ens.dk/files/OlieGas/produktion_uk.pdf

References and resources

Germany

- http://www.reuters.com/article/germany-oil-idUSL8N1621ER
- BASF Annual Report 2015
- DEA Annual Report 2015
- Federal Mining Act of 13 August 1980 (Federal Law Gazette I p. 1310), last amended by Article 11 of the Act of 24 May 2016 (Federal Law Gazette I p. 1217).
- VDA Jahresbericht 2015
- Statistischer Bericht 2015
- http://www.bveg.de/Themen/Zahlen-und-Fakten/Foerderabgaben

Greece

- Energean Oil & Gas - Summary of payments to the Greek State by Energean Oil & Gas SA Group
- Energean Oil & Gas Corporate Profile July 2015
- Hellenic Petroleum Annual Financial Report 2015
- Oil Regulation - Greek Law
- http://www.energean.com/operations/#development
- http://www.kavalaoil.gr/index.php?act=viewCat&catId=20

France

- Vermilion Energy Annual Report 2015
- http://uk.practicallaw.com/4-629-7328
- https://www.iclg.co.uk/practice-areas/oil-and-gas-regulation/oil-and-gas-regulation-2017/france#chaptercontent1

Hungary

- Mining Law
- Hungarian Energy and Public Utility Regulatory Authority Annual Report 2015
- Mol Annual Report 2015
- https://www.woodmac.com/reports/upstream-oil-and-gas-hungary-upstream-summary-6688109
- https://hipa.hu/images/HIP/Green%20industry%20overview.pdf
- https://www.e3g.org/docs/E3G_Trends_EU_Gas_Demand_June2015_Final_110615.pdf
- http://ec.europa.eu/economy_finance/publications/occasional_paper/2015/pdf/ocp220_en.pdf

References and resources

Ireland

- Sustainable Energy Authority of Ireland - Energy Security in Ireland: A Statistical Overview 2016 Report
- Oil & Gas UK Economic Report 2015
- SEAI Annual Report and Financial Statements 2015
- http://www.finance.gov.ie/sites/default/files/FINANCE%20ACCOUNTS%202015%20-%20To%20PrintRoom%2009.08.2016.pdf
- http://www.irishexaminer.com/business/finance-bill-ignores-oil-and-gas-tax-concerns-360980.html

Italy

- ENI Integrated Annual Report 2015

Lithuania

- Tethys Oil Annual Report 2015
- http://www.naturalgasworld.com/lithuania-passes-hydrocarbons-friendly-legislation-new-tenders

Netherlands

- EBN Annual Report 2014
- EBN Annual Report 2015
- EBN Focus on Dutch Oil and Gas
- Oil and gas taxation in the Netherlands – Deloitte taxation and investment guide
- Groeningen Report 2013

Norway

- Statoil Annual Report 2015
- Statoil Payments to governments 2015
- http://www.norskpetroleum.no/en/economy/investments-operating-costs/

United Kingdom

- Statistics of Government revenues from UK Oil and Gas production released during January 2017
- Oil & Gas UK Economic Report 2015
- Oil & Gas UK Activity Survey 2016

References and resources

Poland

- PGNiG Annual Report 2015
- Directors' Report on the Operations of the PGNiG Group in 2015
- Directors' Report on the Operations of PGNiG S.A. in 2015
- Ministry of Economy - Economy Report - Poland 2015
- Consolidated full-year report of the PGNiG Group for 2015
- Act on the tax extraction of certain minerals

Romania

- OMV PETROM Annual Report 2015
- OMV Petrom Investor Presentation 2016
- OMV PETROM Individual Financial Statements 2015
- OMV Petrom Investor Presentation November 2014
- OMV Petrom – Supervisory Board Report regarding the individual financial statements
- ROMGAZ Board of Director's Report 2015
- ROMGAZ FY/Q4 2016 Preliminary Results
- Energy Policy Group - Romania's Energy Strategy Options: Current Trends in Eastern Europe's Natural Gas Markets
- European Commission - EU energy in figures: statistical pocketbook 2016
- http://www.ropepca.ro/en/articole/ropepca-keeping-the-oil-and-gas-production-at-the-current-level-requires-investments-of-eur-1bn-per-year-in-romania/354/

Spain

- Annual report Repsol 2014

Slovenia

- Slovenia/Hungary Ascent Resources PLC _ October 2010_ Field appraisal & Development) Pannonian Basin
- http://www.petrol.si/o-podjetju/petrol/skupina-petrol/geoenergo-doo

Serbia

- NIS Annual Report 2015
- Law regarding oil & gas taxes
- https://www.iclg.co.uk/practice-areas/oil-and-gas-regulation/oil-and-gas-regulation-2017/serbia