Royalty Information Briefing #1
- What are Royalties? -

What are Royalties?
Royalty is the price that the owner of a natural resource charges for the right to develop the resource.

Ownership:
The right to levy royalties derives from ownership. In most jurisdictions around the world, including Canada, the government owns and manages resource development on behalf of its citizens. In these cases, it is government that charges the royalty. In Canada, natural resources are owned by the provinces. Thus, it is the government of Alberta that charges royalties on behalf of the citizens of Alberta.[1, 2]

A Royalty is not a Tax:
Economists distinguish between royalties and taxes.[3] In the strict sense, a royalty is not a tax. While there are many grey areas, taxes are ultimately levied to cover costs; e.g., police and fire protection, education, and health care. Royalties, however, have nothing to do with costs and are levied simply as a right of ownership.

The Fiscal System:
Royalties are not levied in isolation of taxes. The combination of various types of royalties and taxes is known as the Fiscal System. In determining the appropriate level of royalties, the full fiscal system must be taken into account in order to ensure that the combination of royalties, taxes, and other fiscal levies contribute to the health of the oil and gas sector and to that of the economy as a whole. This does not imply that the sector is better off – "healthier" – if royalties are lower. It means that they must be at the right level – too high will result in underinvestment, while royalties that are too low can result in inflation and reduced competitiveness.

There is a wide range of royalty and tax combinations employed around the world. This is reflective of the fact that royalties are not the only means available for the resource owner to collect its share. Each system is specifically designed to reflect the resource characteristics, policy objectives, and even culture of each jurisdiction. For example, some jurisdictions; e.g., Canada, are net oil and gas exporters while others such as the United States, are net importers. Jurisdictions that are net importers often have special provisions,

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[1] In Alberta the Crown owns approximately 81% of the minerals, including oil and gas. The remainder is owned by the Federal Government; e.g., National Parks, by First Nations, and by Freehold land owners where title was originally granted to the railway companies, the Hudson's Bay Company, and the early settlers. Royalties on non-Crown lands are levied by the owners of these lands. Alberta does levy the Freehold Mineral Tax (FMT) on oil and gas production from non Crown lands in Alberta. The FMT can be compared to the Severance Tax in the United States. See footnote 2.

[2] In some jurisdictions; most notably in the United States; e.g., Texas and Louisiana, resources are owned directly by individuals. These individuals charge developers a royalty for the right to develop their resources. In addition to the royalties charged by individuals, U.S. states levy a Severance Tax on the revenue balance after royalty is deducted. The rational for this tax is based in the notion of compensation to the State for "severing" its original ownership to the individual and in the benefits received by the individual as a result of costs incurred and services provided by the state; e.g., geological information, land title management, and environmental protection.

[3] Others also draw such distinction; e.g., the Supreme Court of Canada has defined royalties as a property right, specifically a contractually stipulated share of production or the proceeds thereof; in contrast, a tax is a compulsory contribution imposed by a government for public purposes or objects.

including lower royalties, to encourage domestic production. Net exporting jurisdictions or jurisdictions with attractive resource bases and market conditions tend to have higher royalties.

Figure 1 on page 5 illustrates the various fiscal system components applied around the world. Generally, the figure shows that some fiscal components apply before a discovery of oil or gas is made; e.g., bonuses and land rental fees. Others apply largely before production begins; e.g., cost-bases fees such as import duties or asset/property taxes. The majority of the fiscal levies, such as royalties, apply after production begins.

Some jurisdictions (e.g., China, Mexico, Saudi Arabia, and Venezuela), have national corporations that can be considered part of the overall fiscal system. This is referred to as state or government participation; whereby, in addition to royalties and taxes, the state obtains a share of the corporate profits. In these cases, however, the state must also pay its share of costs. Such corporations are typically set up where the host oil and gas industry is relatively underdeveloped or if domestic policy prohibits private, particularly foreign, corporations from owning domestic petroleum resources.

Moving from left to right in Figure 1 shows a graduation of fiscal systems from "regressive" to "progressive." Regressive systems are those fiscal systems where a higher proportion of the government share is taken early prior to project payout – the point where costs have been recovered. Regressive systems are characterized by "fixed," upfront, or non profit sensitive, fiscal elements such as asset taxes, import duties, bonuses, and fixed royalties. As the combination of fiscal elements moves to the right in the figure the system becomes more progressive, indicating that the government share increases with profitability. In this progression, royalties move from fixed to sliding scale, normal corporate income tax is applied, and certain "special" levies or windfall profits taxes are also applied.

The progression from left to right also indicates a progression from a low level to a higher level of risk sharing for government. The essential issue in fiscal system design is financial – how will risks and rewards be shared between owners and investors. Bonuses represent no risk for government in that government receives its revenue from the bonus payment even if the investment ultimately turns out to be a failure.[4] Sliding scale royalties based on price or production represent some risk that production or price might be lower than anticipated. Profit sharing systems also include cost risks; e.g., government's share might be lower if costs increase. Full risk sharing is represented in the case where the government (through a state corporation) invests directly in the same proportions as the private sector investor. The notion of risk has with it the balancing notion of reward; systems where government accepts more down-side risk typically include a higher upside share.

Broad Classifications:
World petroleum fiscal systems are classified into three broad classifications – Service Fees, Production Sharing, and Concessions.

Service Fee Systems:
Service fee systems are not very popular and are applied only where host country law prohibits foreign ownership of domestic production. This is the case; for example, in Iran (the Iranian Buy-Back Formula) and Mexico (Multiple Service Contracts – MSCs). In these cases the foreign oil company is not permitted to actually own any of the oil or gas produced. Instead, the company is guaranteed a mark-up or rate of return on the basis of the investment made with no connection to the level of production achieved or the price received.

[4] The dollar amount of the bonus is determined entirely by the investor, typically through a competitive bidding process.

Production Sharing Systems:
Production sharing systems, typically referred to as production sharing contracts (PSCs) are popular in jurisdictions where the legal system is viewed as not being stable. PSC's have the same basic components as concession systems (discussed below) however, when considering PSCs, the operative word is "contracts." Viewing the host country's legal system as not affording sufficient protection for its investments, a corporation insists on a contract with the state and/or Crown corporation in order to secure some additional measure of security through international law. The host countries also like this system because they feel it gives them some added security as well. Security for the host country explains the origin of the term "production sharing." Production (almost always the value of production) is often shared even before the investor's costs have been recovered. In these cases production is first split into a cost component – Cost Oil or Gas – and a profit component – Profit Oil or Gas. The proportion allowed for the recovery of costs in a given year is often limited to ensure that the profit component is positive and that the state will receive at least a minimum level of annual or monthly revenues. PSC systems typically also include corporate income tax, royalties, bonuses, and land rental fees to form the overall fiscal system. In this way they are similar to concession systems.

Concession Systems:
Concession systems[5] – also known as Royalty/Tax systems – are generally applied where the host country's legal system is considered stable enough to afford reasonable protection for the investor. Generally European countries and jurisdictions such as the United States, Canada, and Australia have concession systems. Concessionary systems often include some form of special tax or royalty in addition to normal corporate income taxes and royalties. For example, in addition to corporate income tax, land rental fees, bonuses, and royalties, Alaska levies a special tax known as the Petroleum Profits Tax (PPT). This is similar to Alberta's oil sands, where the royalty is actually a combination of the traditional royalty on gross revenue and a profit share based on net revenue. In the case of Alberta's oil sands, reliance is placed mostly on the profit share.

Alberta's Fiscal System:
The oil and gas fiscal system applied in Alberta consists of:

- Bonuses;
- Land Rental Fees;
- Royalties[6];
- Freehold Mineral Tax; and,
- Corporate Income Tax (both Federal and Provincial).

Figure 2 shows the amount of revenues earned each year by the Alberta government on behalf of Albertans from their non renewable natural resources. Corporate income taxes are not included in this series. The figure shows that Albertan's benefit significantly from the development of the oil, gas, coal, and other mineral resources in the Province. The largest revenue source is from natural gas. Other significant

[5] The reader may be interested that the first concessions occurred in ancient Greece where a royalty was charged for silver mining leases at Laurion. One wealthy Athenian aristocrat who made his fortune from these mines was Callias. It is in the house of Callias that Plato's dialogue *Protagoras* is set.

[6] Alberta distinguishes between conventional oil and natural gas royalties, and the oil sands royalties. For conventional oil and natural gas the royalty is referred to an ad valorem royalty, which is assessed on a sliding scale where the rate changes, or slides, depending on oil or natural gas price and well productivity. For oil sands the royalty is really a combination of the traditional fixed royalty (1%) and a profit share (25%) based on net revenue. This profit share is often referred to as a Resource Rent Tax. Further information on Alberta's oil sands royalty terms is contained in *Technical Report#1 – Alberta's Oil Sands Fiscal System*, Alberta Department of Energy, March, 2007.

sources include conventional oil and oil sands.[7] The oil sands share is expected to grow over time as production increases and projects move from the pre-payout investment phase to the post payout production phase.

Other briefings in this series will provide information on each of the major components of Alberta's fiscal system. These briefings are:

- Royalty Information Briefing# 2 – What is Fair Share?;
- Royalty Information Briefing# 3 – Royalties: History and Description;
- Royalty Information Briefing# 4 – Freehold Mineral Tax;
- Royalty Information Briefing# 5 – Bonuses and Land Rental Fees;
- Royalty Information Briefing# 6 – Corporate Income Tax; and,
- Royalty Information Briefing# 7 – Royalty Programs.

[7] Note that the figure shows three levels of bonuses. This is to distinguish between post 2000 values and, after this, between conventional and oil sands.

Figure 1:

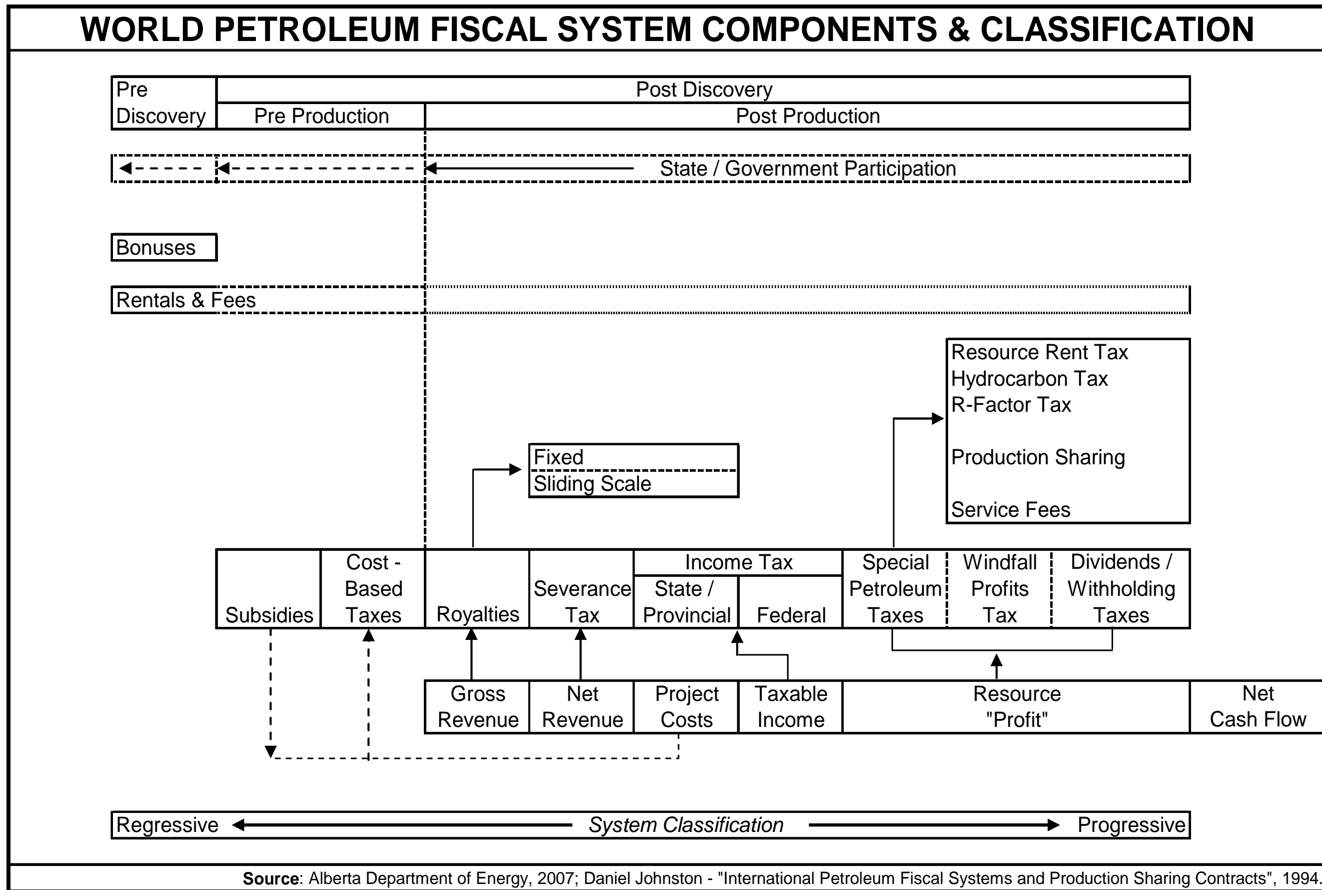

Figure 2: