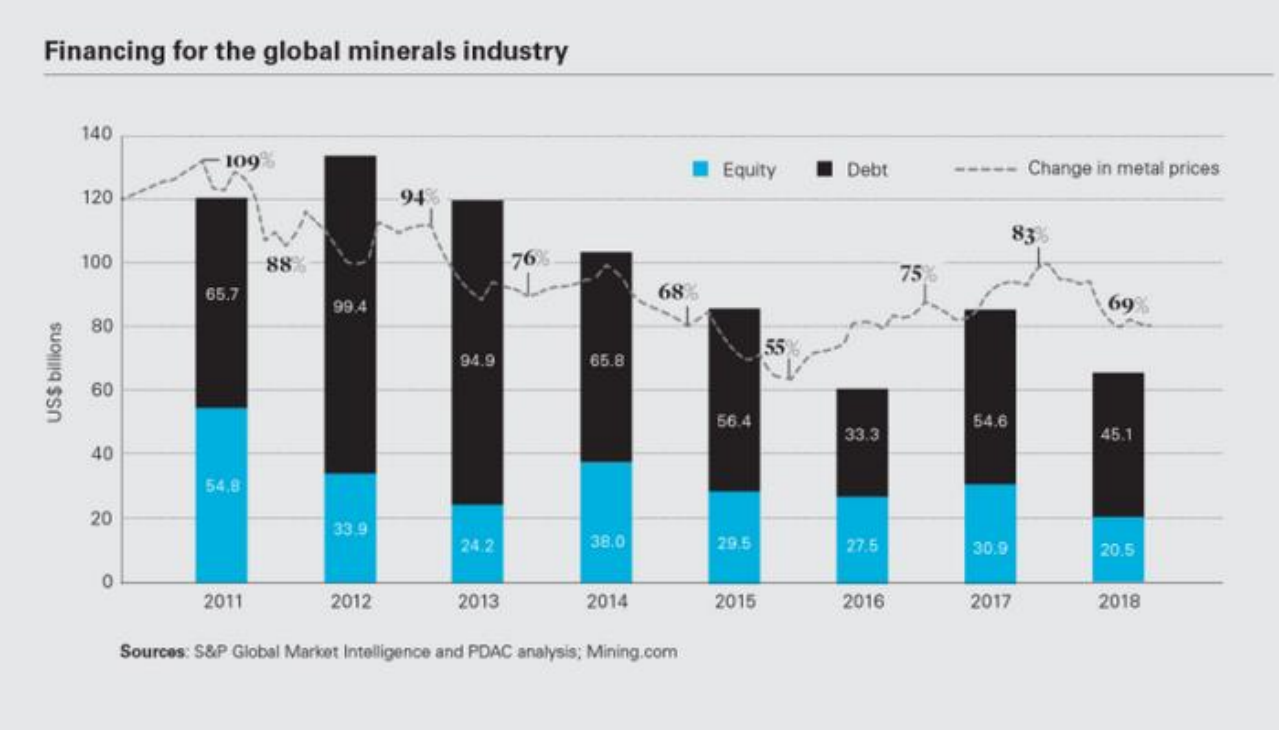
New Era Mining

The blockchain technology is reinventing the way companies operate and deliver products and services to their clients. This is well visible in the **mining and metals** industry.

This sector has been traditionally slow in adopting technological **innovations**. Yet blockchains and smart contracts, which to this point the sector has focused on as a source of productivity and transparency gains for the mining & metals global supply chain, could herald new sources of finance too. Miners face a persistently challenging environment to raise equity and equity-like capital to fund ventures. According to the State of Mining Finance 2019 Report produced by the Prospectors & Developers Association of Canada and junior financing tracker Oreninc, funds raised via equity in 2018 were at the lowest recorded level in the past decade, with equity funding dropping approximately 40 per cent from 2017 to 2018.

Digital funding solution

Digital token offerings have emerged in the last few years as a new way to fund the development of emerging technologies. With their unique benefits, they are well placed to emerge as an alternative or a supplement to traditional financing options available to mining companies.



Recap for ICOs

The first example of a blockchain-based digital token offering was an initial coin offering (ICO) by Omni Layer, formerly known as Mastercoin, in early 2013. Omni is a digital currency and communications protocol built on the Bitcoin blockchain. Since the first ICO in 2013, ICOs have, in short, exploded. An ICO is a method of raising capital in which **investors** participate in the fundraising by transferring government currencies (fiat), and/or cryptocurrencies to the issuer in exchange for digital tokens. The tokens represent a holder's right of benefit or performance vis-à vis the issuer.

The underlying technology of the tokens is based on blockchain, which is maintained by a distributed network of computers and participants. Using cryptography to record transactions, blockchains such as Bitcoin and Ethereum process, verify and track the trade of the relevant **virtual** currency (e.g., Bitcoin or Ethereum) securely across independent network components on a "peer-to-peer" basis. In summary, blockchains, and in particular public blockchains, can remove the need for a variety of intermediaries, at least from a technical point of view. Legally, what is necessary will be facts and circumstances specific and dependent on the jurisdictions involved (cf private blockchains, which are hosted by central parties and are by definition more controlled in a

"walled-garden" style approach which can be desirable from a variety of standpoints, such as compliance).

From ICOs to STOs

Digital token offering structures have evolved - at a great pace - from initial coin offering to security token offering (STO). ICOs have gained the most publicity out of those structures as an innovative "peer-to-peer" financing mechanism, raising more than US$5 bln. in 2017 and more than US$11 billion in 2018, with some estimates of more than US$20 billion. But following the bursting of the "ICO bubble" in early 2018 and the negative press around various ICO scams, the (mostly unregulated) ICO market has been gradually drying out, while IEOs and STOs have been gaining traction. Issuers and investors are turning to more refined **digital** capital-raising solutions, giving more thought to compliance as regulators all around the world begin to formulate and crystallize their approaches to digital token offerings.

Digital token offerings are relatively easy to structure because of technologies like the ERC20 token — issued on the Ethereum blockchain — which simplifies the **process** necessary to create and distribute a new cryptographic asset. This allows issuers to prepare and launch token offerings quickly and effectively.

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Creative financing structures

As challenging financing conditions continue to persist, miners have been looking for creative financing options to fund their ventures, and in particular their growth projects. While traditional financing options—bonds, loans, project finance, prepayment, convertible bonds, equity—generally, remain the most attractive and understood, it is now common for companies to access multiple financing sources to **diversify** their capital structure, combining traditional financing options with alternative financing sources—royalty, streaming and / or private debt. Mining royalty and metal streaming financings have been particularly popular with miners in the last decade as an alternative financing source for growth projects, allowing access to early-stage capital without diluting equity ownership.

Mining royalty finance

A **mining royalty** is a right to receive payment based on a percentage of mineral production or of the revenues or profits generated from the sale of those minerals at a mine. A royalty typically involves an up-front payment to the mining company from the royalty holder (i.e., investor) in return for a contractual undertaking from the mining company to pay a specified percentage of future revenue for a specified period. This can be based on a percentage revenue based on, for example, profit, net smelter returns or production. The up-front payment received from a mining royalty investment can be used for many purposes, from general corporate purposes and capex to acquisitions and even exploration.

The flexibility and profit-sharing mechanism of mining royalty finance is particularly **attractive** as it allows mining companies, at various stages of their life cycle, to access up-front funding as a substitute to an equity raise to fund feasibility studies or debt in order to fund the development and construction of an asset.

Taking the traditional mining royalty finance model and combining it with an innovative digital financing wrapper in the form of an STO could provide a very attractive business model for both mining companies wishing to raise **capital** and for investors. Similarly, the mining stream financing model — a metals prepayment structure commonly used in the sector — would be potentially amenable to tokenization. This may require the investor to accept a physical commodity settlement and is likely to evolve after "royalty tokenization" has taken hold.

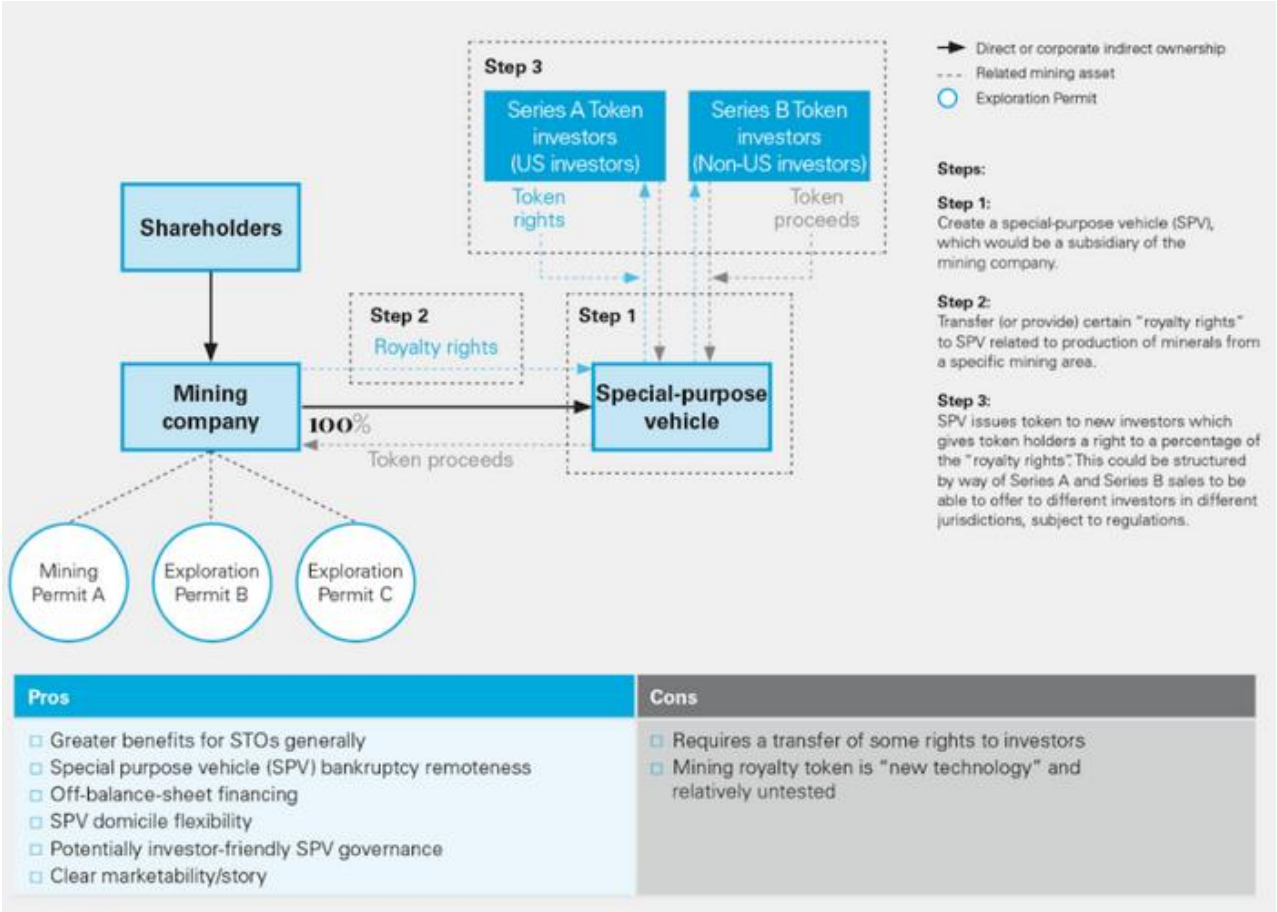
Royalty mining tokens

There are many ways and options to structure a mining royalty token which includes investment from both US investors and non-US investors. For instance, a mining royalty token issuance could be split into two simultaneous token offerings — "Series A Tokens" and "Series B Tokens" — to ensure a "light regulatory burden" in compliance with US Securities Regulations. Series A Tokens could be issued only in the US to **specific** targeted investors who do not need an immediate liquid

market and would be happy to hold onto the tokens, while Series B Tokens could be issued in another jurisdiction with favorable token issuance regulations towards non-US investors.

Series A Tokens could be issued privately in the US by way of an STO to a select few investors through Regulation D Rule 506(c). In such a private US issuance, there is no limit on the amount of money that can be raised. It also allows the company to access a larger pool of investors via general solicitation. In addition, the filing process is relatively light. One **limitation** of this structure is that it's only open to accredited investors — investors earning above US$200,000 or with a net worth above US$1 million. The other one is that such securities would also be "restricted securities" — the investors would only be able to resell the security tokens into the market by using an effective registration statement under the Securities Act or a valid exemption from registration for the resale, such as via so-called Rule 144.

Series B Tokens could be issued to non-US investors in reliance on US Regulation S through an STO. Series B Tokens can be potentially listed on an exchange in a non-US "token friendly" jurisdiction, where such an **issuance** may allow for quick secondary market liquidity. Under US Regulation S, there is also no limit on the amount of money that can be raised, and general solicitation is allowed as long as it does not target any US investors. The cons are that Series B Tokens have resale restrictions on them with respect to US investors.



STO structuring example: revenue-linked royalty token

The royalty token offering gives greater **control** to the mining company in raising royalty-linked capital and potentially diversifies the sources of royalty finance away from the select group of listed royalty companies and specialist funds that have traditionally dominated this realm of mining finance.

Digital assets pegged to physical metals

The crypto market saw a major development after the world's largest stablecoin provider, Tether Ltd announced the launch of its highly-anticipated Tether Gold token (XAUT). Tether currently dominates the **stablecoin** market with a market cap of over $4.6 billion. Now, the firm seeks to transform the gold-backed token arena in much the same way.

News first broke via a post from Tether's management team. In the post, the firm spoke on Tether's **proven track record** for product innovation in the sector. Also, developers discussed the new XAUT token and its functionality. Specifically, the post clarified that XAUT represents ownership of one troy fine ounce of physical gold on a specific gold bar.

Interestingly, Tether decided to go with a **multi-blockchain** approach to the market. Currently, XAU tokens are to release in two different coding formats. XAUT is available in both ERC-20 tokens on the Ethereum (ETH) blockchain and TRC-20 tokens that live on the TRON network. Importantly, both types of XAU₮ are compatible with the current batch of Tether (USDT) wallets. In this way, XAU tokens can transfer to any supported on-chain address without issues.

Tokenized precious metals

Basically, tokenized precious metals are digitalized securities or bonds. For example, your bank can give you a gold certificate in return for cash. This certificate entitles its owner to sell their claim of the gold for the current gold rate at any time they want to. This is exactly how it works for tokenized gold as well, except for the fact that the certificate is not just a piece of paper but, instead, on the blockchain. This sounds quite simple in theory, but the regulatory framework does not acknowledge every claim or **certificate** to be of equal status. Any security or certificate can have different legal consequences even though its main aim and intention are exactly the same.

Depending on the exact intention and aim of the financial instrument, the tokenized metal can fall into the following categories:

- The classic security or certificate describes a contract between two parties for an asset, in this case a precious metal. The owner of the certificate is guaranteed to be entitled to sell their certificate in exchange for the current rate at any time they wish to do so. Just like with a regular certificate, you can sell and buy the tokens of metals at any time.
- A future or forward is a type of contract that is similar to the class certificate, however, it has a set price when the precious metal is meant to be sold. For example, when gold hits a certain value, the metal is automatically sold. Similarly, you can use your token to bet on a specific price of the metal and sell it when it is reached.
- Aside from that, there is also a claim on backed gold. In case someone wants to exchange their token for actual gold, they are also entitled to do that.

Pros and cons of tokenized metals

The biggest **advantage** of tokenized metals is that they can be traded on online platforms at any time and from any place in the world. With regular securities and certificates, the owner has to rely on the opening hours of banks and stock exchanges. Also, on these platforms they can easily be exchanged for other assets, e.g., Bitcoin.

Another big advantage is the **reduced cost** of buying precious metals. Gold traders can easily charge you 50% of the price just for selling you a gram of gold. The more you buy the less they charge you in fees. Tokenized metals, on the other hand, offer a steady fee no matter how much or little you buy.

A controversial aspect of tokenized metals, however, is that most people who buy metals do so because they want a physically **backed asset**. Many people view gold and other metals as something that will always hold value and cannot just be frozen like a bank account. This argument is often found in debates concerning cryptocurrencies and especially for older generations has a lot of importance.

Taxation of tokenized metals. Examples of Austria and Germany

There're three **options** of how to tax tokenized metals in Austria and they depend on the exact circumstances and intentions of the asset:

- A security or certificate is subject to capital gains tax, which is at a constant rate of 27,5% in Austria and 25% in Germany (as of 2020).
- With futures and forwards the progressive income tax rate comes into effect (up to 55% in Austria and 45% in Germany, depending on the amount of the total annual income). It is important to note that a forward or future is not automatically tax free after a year, as it is basically a contract that starts and ends every single day.
- Speculative trading (i.e. physically backed gold) is subject to the progressive income tax rates as well. This type, however, is tax-free if it is held for longer than a year.

All hype and speculation?

The recent rise of blockchain-powered digital financing tools in the form of ICOs created considerable hype and fueled significant speculation. Some ICO scams tarnished the **reputation** of the underlying technology underpinning these digital financing tools.

However, blockchain and the digital financing tools built on it are showing signs of a paradigm shift from speculation to application. We are entering a phase in which there is a realization that unregulated— and in certain cases—speculative ICOs without any **economic rationale** may not be best suited to succeed as a widely adopted digital financing structure, especially by traditional investors. Rather, digital financing structures, such as STOs compliant with regulation and structured with a sound economic purpose, are more likely to succeed.

Recent tokenization of real-world assets by Elevated Returns — a financial group focused on digitizing traditional financial assets — through an US$18 million STO is a sign that regulated blockchain-powered digital financing tools will be embraced to raise capital by financing "real world assets" and not only to raise capital for technological innovations, such as funding the development of source code.

Tokenization will also come to the mining & metals industry. Traditional mining royalty financings, wrapped in an STO, are likely the first **blockchain-based digital financing** structures that will be widely applied in the mining & metals industry.

// Prepared by Alexey Pogorely, Director of Lybrion, 14.03.2021