Unit 3 Case Study: BitGold

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This week's case study is on the company BitGold, which on the surface is a company that is trying to make it easier to pay with gold via debit card, but upon greater inspection has larger implications and observations that could transform both commodities and securities markets as a whole (Burke & Vergne, 2015). Burke & Vergne take use through a history lesson with gold and describe how blockchain technology and cryptocurrency could forever change our relationship with gold. For a history refresher, gold is a noble metal that by itself has many properties that make it desirable. Namely, gold is a noble metal that is resistant to erosion, while also being a highly conductive material that is invaluable to the semiconductor industry. Few can forget the glimmer of gold as well, which makes it a common material for the jewelry industry. In fact, in 1944 the Bretton Woods system of monetary management was established, which obliged allied countries around the world to adopt the U.S. dollar as the world's standard, which was directly backed by gold vaulted in the United States Federal Reserve System. By 1971, the United States no longer had a disproportionally large GDP compared with other nations, which marked the end of the global gold standard and the beginning of the floating fiat standard of monetary policy. The floating fiat standard made it much easier for a treasury to print money when necessary to stimulate economic growth, but is much more prone to inflation than gold based monetary policies. Gold was more or less considered the same as a particular countries legal tender, so between 1944-1971, gold basically was currency at the global market level. However, gold is currently considered as part of commodities markets and usually needs to be exchanged for fiat currency before it can be used to pay for goods or services. Roy Sebag and Josh Crumb, the founders of BitGold, were simply trying to address a basic concern among

people engaging in gold markets - how can we make it easier to pay for goods and services directly with gold without needing to exchange the gold for fiat currency first? In other words, how can we just use a debit card to pay for things, where this debit card is actually exchanging gold between two entities and not a fiat currency. The economics of such an endeavor is actually quite complicated and the rest of this paper addresses the economic concerns of a blockchain-powered gold-backed payment system. It important to note that Sebag and Crumb may have founded this company for intellectual endeavors to begin with and that a similar BitGold concept was proposed by Nick Szabo back in 1998 (Sharma, 2021).

1. BitGold's IPO took place in Canada; however, as a global platform, BitGold aimed to appeal to users in developing countries around the world. Where should BitGold focus on acquiring users?

Sharma's article on Investopedia describes how similar Nick Szabo's BitGold is to the concept of Bitcoin. Developing countries or countries who are otherwise disinterested in cryptocurrency would have an even easier time understanding Sebag and Crumb's twist on the old 1998 idea, because they are adding in the elements of using debit cards and actually having a private gold reserve that customers around the world own stake in. This private gold reserve from BitGold will be able to physically ship your gold to you for a logistics fee of $25 if you decide to physically receive the bullion. BitGold is able to purchase the gold directly from refineries as well for the best price. This kind of technology could open up gold markets to countries where fiat markets are not particularly strong and generally allow retail investors from developing countries around the whole with weak fiat currencies to exchange in a strong gold reserve managed by an extremely transparent and ethical company.

Take for example, the government of El Salvador, which has tried to experiment with Bitcoin as a legal tender as of September 2021 and required all businesses to view Bitcoin as an acceptable form of payment for all goods and services. Belsie (2022) of the National Bureau of Economic Research reports that while the government was trying to regularize the use of Bitcoin around the country, it is only young males from more privileged backgrounds that are regularly using the government owned special cryptocurrency app. The government even gave real-world incentives like cheaper gasoline to get more households to spend with Bitcoin. 68% of the nation actually knew about the Chivo Wallet App, but very few even spent the free crypto the government provided in their wallets during signing up.

Since El Salvador is a country where about 70% of households do not even have a bank account, but roughly 66% have a mobile device with internet connection, Bitcoin seems like it should have taken off. The majority of people seem to not trust Bitcoin for some particular reason or the other (I suppose they don't trust banks either…) and simply prefer cash.

This is where I think BitGold can strike it big. Since BitGold may be using blockchain and crypto-tokens in the "back-end," their user doesn't exactly need to know too many of the details. All the end-user might need to know (if that's all they care about) is that they can exchange their token for gold. BitGold has a huge market in developing nations and should look to countries like El-Salvador to expand their markets. Venezuela, Zimbabwe, and other nations with weak currencies could also be easy targets for retail investors, but the political situation should be handled with care.

2. How could BitGold continue to stay on the right side of the law?

BitGold by Sebag and Crumb still uses a somewhat centralized server in their Aurum backend, but I think they are better off not utilizing Proof of Work for their consensus mechanism. Choice of a public consensus mechanism doesn't necessarily increase risks, but by keeping things more centralized it just makes it easier to build the application out using tried and tested programming techniques, provided Sebag and Crumb comply with the laws of Canada and abroad regarding operating a business. Sebag and Crumb should definitely consider using a private blockchain, though, and make plans for migrating to a more public blockchain transaction environment eventually. Achieving consensus on state is much easier among a consortium or hybrid governance model, which aids in user experience in terms of processing speeds. Certain users, such as gold merchants, will also have to provide certain personal information and could require a Know Your Customer policy in order to be a member. This could help prevent fraud among merchants in their network.

BitGold also needs to actually physically manage gold cubes within vaults, as described in their business model, so they just need to make sure that the vaults they set up comply with local government regulations. Since BitGold is currently making deals with Canadian refineries, compliance with Canadian laws is necessary. If BitGold wants to set up physical vaults within the United States and make deals with US refineries as well, they would have to comply with United States laws at all levels/hierarchies of government. I think creating a coalition for refineries and vaults could be a good step for BitGold to try to help manage all the trading laws involved. It should be worth mentioning that shipping the gold bullion out to war-torn nations might have to be managed particularly well, since the gold could be stolen on-route.

3. How could BitGold market its services to users and merchants, both in Canada and abroad?

Like stated previously, users in third world countries who have weak fiat currency could be marketed towards as a large user pool. These users don't have to care about the underlying technology, but can instead be shown that tokens can actually be redeemed for real gold. This could get a large number of people who are not already in the banking system in the baking system. To users in Canada or in countries with strong fiat currency, the application can be marketed as an easier way to buy and sell gold that helps other countries in the process improve economically. Being able to buy gold directly from a refinery, knowing the price of the gold and being able to confirm the price, seeing the entire journey of a a piece of gold, and being able to physically redeem a piece of gold are all interesting ideas that could catch on to the right user.

Marketing to merchants is an interesting idea, since they will have a particularly important role in the operations of BitGold. If BitGold were to allow Merchant nodes in their blockchain network to be validator nodes, they could enforce a Know Your Customer policy on the 3rd-party merchant who wanted to be a partner in the network. This could make it easier to grow the vault network, as BitGold wouldn't need to individually try and go to countries around the world to set up vaults and gold shipping operations.

4. Given the uneven state of the regulatory environment in the United States with respect to bitcoin startups, how should BitGold organize its US expansion?

Burke & Vergne describe a business paradigm that was early in the making with BitGold back in 2015, but as of 2023, the SEC has pressed charges against a number of organizations including Coinbase for misrepresenting themselves as a securities exchange to investors (U.S Securities and Exchange Commission, 2023). The SEC even filed a case against Ripple (XRP),

and in July of 2023 there was a ruling from Judge Torres of the Southern District of New York that XRP tokens were sold as a security to institutional investors, but XRP as sold to retail investors was more of a commodity (Mascianica et al., 2023). These hearing still need more time to play out as of writing this paper, but according to Holland & Knight Law, the court classified 1 out of 4 of the types of transactions XRP engaged in as investment contracts. More discussions need to be had about enforcement and jurisdiction between the CFTC and SEC regarding blockchain and cryptocurrencies. What BitGold needs to know is that federal agencies in the U.S are deeply interested in regulating this technology and courts around the U.S consider cryptocurrency to be an rivalrous, intangible asset.

At the state level, there have been some wins regarding protections for crypto companies. Kurtin (2022) describes Wyoming's Digital Assets Law which allows crypto companies that register with the state of Wyoming to found as a Limited Liability Corporation (LLC). LLCs provided limited liability for equity holders, which can provide protections from the SEC or other government bodies to some extent from enforcement. Other states are also following suite, and Colorado or Arizona could also be prime places for a blockchain or crypto-company.

Conclusion

The discussion around BitGold is a bit of a thought experiment if anything. BitGold by Sebag and Crumb mostly fuzes the original vision by Szabo with Nakamoto's Bitcoin, while also adding in concepts of debit payments and other novel ideas that help make it seem more complete and larger in scope. Setting up your own gold-backed banking system can be easier than ever thanks to blockchain technology. Whether such an idea is worth pursuing is up to the

reader to decide, but the implications of this case study as well as what is possible is nothing less than a marvel of wonder.

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