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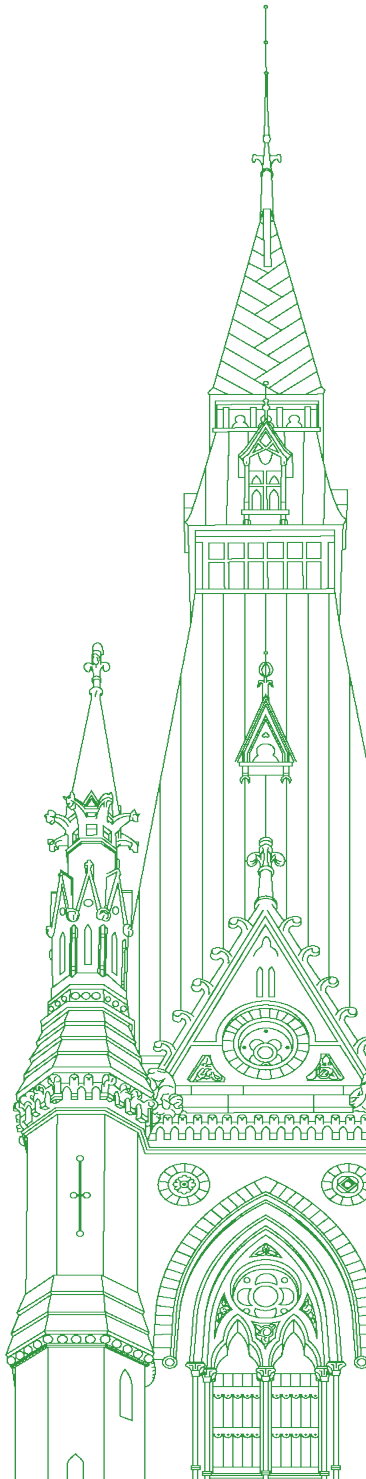

Chair: Mr. Joël Lightbound

Standing Committee on Industry and Technology

Wednesday, February 1, 2023

● (1640)

[*Translation*]

The Chair (Mr. Joël Lightbound (Louis-Hébert, Lib.)): Ladies and gentlemen, dear colleagues, good evening.

[*English*]

I call this meeting to order.

Welcome to meeting number 55 of the House of Commons Standing Committee on Industry and Technology.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Monday, September 26, 2022, the committee is meeting to study the current state of blockchain technology.

Today's meeting is taking place in a hybrid format, pursuant to the House order of Thursday, June 23, 2022.

[*Translation*]

We are fortunate today to have several witnesses at what might be the final meeting on the important subject of blockchain technology in Canada.

By videoconference, we welcome Dina Mainville, the Founder and Principal of Collinsionless.

From the Digital Asset Mining Coalition, we have Sheldon Bennett, Chief Executive Officer of DMG Blockchain Solutions Inc., who is also a member of a digital assets mining coalition; in person, we have Daniel Brock, a Law Partner at Fasken, whom I'd like to thank for being here in Ottawa with us; with us virtually we have Geoffrey Morphy, President and Chief Executive Officer of Bitfarms Ltd; and here in person, we welcome Ms. Tamara Rozansky, Partner, Indirect Tax, at Deloitte Canada Informal Systems Inc.

Virtually, we have Ethan Buchman, Chief Executive Officer of Informal Systems and, according to my notes, Stephen Oliver, Chief Compliance Officer and Head of Calgary, at Tetra Trust Company.

Thanks to all the witnesses for being here with us today.

Each witness or group of witnesses has five minutes to give their address.

Without further ado, I would ask Ms. Dina Mainville of Collisionless to take the floor.

[*English*]

Ms. Dina Mainville (Founder and Principal, Collisionless): Good afternoon, honourable Chair and honourable members of the committee. Thank you for the invitation to speak today.

My name is Dina Mainville. I am the founder of Collisionless, a consulting and advisory services firm based in Toronto.

I started my blockchain career in 2016, and have spent much of my tenure in regulatory compliance. From one angle, I've been fortunate to work with government and regulators across five continents in educating them on virtual assets and advising on regulatory policy. I have trained hundreds of law enforcement professionals, including in Canada, to help them understand how to read blockchain-based data and how to conduct forensic investigations to combat child exploitation, financial crime and terrorist financing.

Since 2020, I have contributed to the work of Canada's largest and most active industry association, the Canadian Blockchain Consortium. I am the former chair of their Fintech Committee, and I am now building a regulatory committee that seeks to make meaningful contributions to the voluntary development of industry best practices rather than waiting for inherently coercive solutioning by regulators.

From another angle, I have also worked strategically with financial institutions globally as their interest in cyptocurrencies has expanded and contracted. I have witnessed, both personally and professionally, Canadian banks implementing policies to restrict their clients from accessing cryptocurrencies and threatening innovation at home by refusing to bank blockchain businesses. I have also worked with blockchain companies that seek to build alternatives to the gatekeeper plumbing of the incumbent financial system. Their tools help democratize finance and unlock individual economic prosperity for Canadians.

I stand before the committee today with three humble recommendations compiled from a unique vantage point.

Recommendation one is that Canada should consider how the low barrier to entry for new value creation will stimulate the Canadian economy.

Blockchain is an expression of advancements in computer science, game theory and cryptography that are changing the fundamental structure of the Internet itself—the merits and utility of which are widely understood. Many, however, underestimate the implications of these changes on how information is processed and owned, and the value dynamics within that. In this era of the new Internet, monetization pathways are being forged that unlock unseen potential for Canadians. These include owning and monetizing your digital footprint, being remunerated for the value you create inside decentralized autonomous organizations and participating in the fractionalized ownership of traditional assets that are becoming increasingly out of reach for Canadians, like real estate. Blockchain will unlock revenue generation opportunities for more than 92% of the Canadian population who are currently Internet users. That's approximately 35 million people.

This dynamic industry also offers uniquely low barriers to entry for more traditional forms of value creation—i.e., jobs. Academic institutions like Princeton and Berkeley provide free online blockchain courses that can be used to enhance digital literacy skills and to support remote work.

According to Glassdoor, the median salary for a blockchain developer in Canada is $92,000 per annum, the requisite tools for which are highly available, pending an Internet connection and a will to learn. York University reported in 2020 that demand for blockchain developers had increased by 374% in the greater Toronto area alone.

Recommendation two is that for Canada's blockchain economy to prosper, collaboration between government stakeholders and industry practitioners is required to develop a national regulatory framework. In the absence of such a framework, Canadians will continue to lose money to bad actors operating unregulated or poorly regulated exchanges in foreign jurisdictions. Good actors will continue to leave Canada in favour of building companies in places with better regulatory clarity, intercepting a major potential growth engine and causing massive brain drain across many sectors.

The realized market capitalization of Ethereum is approximately $240 billion. Binance grew to become the largest cryptocurrency exchange by trading volume only eight months after its launch. Both projects have Canadian ties.

In 2014, FINTRAC amended the PCMLTFA to ensure that crypto assets were adequately covered with respect to financial crime, but we have more progress to make. Canada has an opportunity to leverage our international standing and trust in leading global regulatory harmonization. We should take a nuanced approach to regulation by differentiating between types of crypto assets, by creating appropriate provisions for those assets and by regulating only the parts of this industry that make sense.

The Government of Canada should also communicate that regulation does not equate to endorsement, and that Canadian investors should still think for themselves.

Recommendation three is that this committee should advocate the dismantling of the Canadian banking sector's discriminatory policies against blockchain businesses.

The banking industry in Canada has classified blockchain businesses as high risk because of a perceived lack of adherence to traditional rules and concerns related to money laundering. Cryptocurrency businesses in Canada are required by law to register with FINTRAC and to meet the regulatory requirements of other money services businesses. The auditable transaction history offered by blockchains combined with the on-chain analytic capabilities of private companies have made transaction monitoring easy; in fact, when contextualized, blockchains offer greater transparency than any other financial instrument we've had. These concerns are no longer reasonable arguments for cutting the Canadian blockchain ecosystem off from financial services.

As a Canadian who is deeply involved as a member—

The Chair: Excuse me, Madam Mainville—

Ms. Dina Mainville: I was about to wrap up.

The Chair: You can wrap up, but can you speak a little more slowly? It's a real challenge for the interpreters.

Ms. Dina Mainville: Do you want me to go back?

The Chair: Maybe you can go back 30 seconds.

● (1645)

[*Translation*]

I received this suggestion from Mr. Généreux

[*English*]

You can wrap up. Take your time. Just go a little more slowly.

Thank you.

Ms. Dina Mainville: You're welcome.

As a Canadian who is deeply involved as a member of the blockchain community, I give you my commitment to support the Government of Canada on each one of these recommendations.

Thank you for your time. I look forward to answering your questions.

The Chair: I'm sorry for interrupting so close to the end. You have my apologies for that.

Ms. Dina Mainville: It's no problem.

The Chair: Thank you for your testimony.

Also, I think it's much appreciated that we have all these recommendations so clearly and concisely. They're useful as we head into producing our report.

We'll now turn to the Digital Asset Mining Coalition. Mr. Brock, the floor is yours.

Mr. Daniel Brock (Law Partner, Fasken, Digital Asset Mining Coalition): Thank you, Mr. Chairman. Thank you to the committee members for having me and my colleagues here to speak with you today.

My name is Dan Brock. I'm a partner at the Canadian law firm Fasken. I'm appearing today as the lead advocate for the responsible Digital Asset Mining Coalition.

The coalition is an informal association of 23 companies and organizations participating in Canada's growing digital asset mining industry. The coalition includes Canadian companies that conduct capital-intensive mining activities for digital assets. An example is Bitcoin.

The coalition was formed this past spring to oppose a legislative proposal published by the Department of Finance last February. My colleague Tamara Rozansky, from Deloitte Canada, will provide a little more detail shortly, but let me say that for the coalition, the tax proposal from the Department of Finance is arbitrary and harmful to Canada's digital asset mining industry.

Blockchain technologies and the digital assets they are capable of generating are emerging as a new value-creation sector in the Canadian economy and globally. Canadian companies involved in the new blockchain ecosystem require a sensible regulatory framework that will attract investment and encourage innovation, not tax policies that undermine their businesses.

I look forward to our discussion.

I now pass this on to my colleague, Mr. Morphy.

Mr. Geoffrey Morphy (President and Chief Executive Officer, Bitfarms Ltd., Digital Asset Mining Coalition): Hello, esteemed committee members. My name is Geoff Morphy. I am the president and CEO of Bitfarms.

Bitfarms was started just over five years ago. Today we are one of the largest publicly traded Bitcoin mining companies in the world. Our operations are headquartered in Brossard, Quebec. Between Brossard and Sherbrooke, we operate seven specialized computing facilities, as well as several others outside Canada. We currently employ 108 highly trained Canadians, and that number is growing. The average age of our Canadian employees is 33. In Canada, we use over 99% renewable power.

Directly and indirectly, we've added considerable value to the Canadian economy. We pay corporate and other taxes; we have spent almost half a billion dollars on our Canadians operations through investments in construction, materials and equipment; and we generate much-needed revenue for smaller locally owned hydro companies and their municipal owners. In this way, municipalities can better fund maintenance to improve local grid reliability, and our payments help to balance municipal budgets.

Bitfarms is proud of its Canadian foundation, and we are committed to growing our Canadian operations. I look forward to our upcoming discussion.

I turn now to my colleague, Mr. Bennett.

Mr. Sheldon Bennett (Chief Executive Officer, DMG Blockchain Solutions Inc., Digital Asset Mining Coalition): Thank you, Geoff.

Hello, Mr. Chairman. My name is Sheldon Bennett. I'm the CEO and founder of DMG Blockchain Solutions.

DMG is a publicly traded and vertically integrated blockchain and cryptocurrency company. We manage, operate and develop end-to-end digital solutions to monetize the Bitcoin blockchain.

DMG has two areas of business. First, we operate a data centre in British Columbia, using 100% renewable power. Second, we supply digital asset transaction infrastructure that allows financial institutions to safely and effectively transact with bitcoin.

DMG has built advanced digital asset software tools, employing developers from all over Canada. Our software services include assisting financial institutions and Bitcoin clients to comply with regulations that prevent the commingling of transactions with those of international bad actors.

Our operation in Christina Lake is in a rural part of B.C. and is one of Canada's leading digital asset mining facilities. We have invested over $60 million in our data centre, which was previously an abandoned wood processing factory that had been shut down for close to a decade. With our local power purchases, the Christina Lake community has been protected from power rate increases for several years now.

There are many other positive attributes to our industry in Canada. I look forward to your questions and comments.

I will turn now to my colleague, Ms. Rozansky.

● (1650)

Ms. Tamara Rozansky (Partner, Indirect Tax, Deloitte Canada, Digital Asset Mining Coalition): Thank you.

Hello, Mr. Chairman. My name is Tamara Rozansky. I'm a partner in the indirect tax team at Deloitte Canada based in our Montreal office. I'm a tax policy adviser to the coalition.

Let me start by saying we appreciate that tax matters are usually a topic for your colleagues on the Standing Committee on Finance, but in this instance, as it could impact the future of blockchain technology in Canada, the coalition's disagreement with the Department of Finance is directly on point.

Last February, Finance proposed amendments to the Excise Tax Act, Canada's GST/HST legislation. These amendments focused on digital or crypto-asset mining activities. The principal feature of these proposed tax amendments was to declare that digital asset mining activities are not a commercial activity in Canada. That would mean that companies engaged in digital asset mining would no longer be eligible to receive input tax credits, ITCs. For larger digital asset mining companies, these ITCs can have a value in the tens of millions of dollars.

Subject to certain exceptions, the fundamental principle of Canada's GST/HST is that all activity that is undertaken for gain or to produce income in Canada is deemed to be commercial activity and is taxable. In this respect, the GST/HST paid on any goods or services that go into this commercial activity is generally recoverable as an ITC refund by the commercial business. Only the end consumers of goods or services in Canada pay GST/HST that is not recoverable.

When only consumption and not production is taxed, the GST/HST promotes the global competitiveness of Canadian businesses. From a GST/HST policy perspective, the Finance proposal is unprecedented. In its current form, the proposal is a direct threat to the sustainability and continued growth of digital asset mining companies in Canada.

I look forward to your questions.

The Chair: Thank you very much.

We'll now turn to Mr. Buchman from Informal Systems. The floor is yours for five minutes.

Mr. Ethan Buchman (Chief Executive Officer, Informal Systems Inc.): Honourable Chair, thank you for having me, and thank you to the esteemed committee for its efforts to understand blockchain tech. I know that it can seem a bit daunting and mysterious, but I hope we're able to help.

My name is Ethan Buchman. I'm the co-founder of the Cosmos Network, which is the largest blockchain platform after Ethereum and is used by over 50 public blockchains collectively worth billions of dollars. I co-founded Cosmos in Canada in 2016 and have been building it ever since. I'm now CEO of Informal Systems, a Canadian company structured as a worker's co-operative with 16 member employees in Canada and 60 worldwide. We work on open source software to support the Cosmos Network and what we call the “Internet of blockchains”, or the interchain.

We believe the interchain brings the accessibility, transparency and verifiability necessary to upgrade the quality standards and protections provided by critical institutions in society. For instance, we're building solutions to help real businesses improve their cash flow, reduce risk and collaborate to grow.

My background is in biophysics, artificial intelligence and distributed systems. Recently I have been studying political economy and economic history. I completed a master's degree in applied science at the University of Guelph, which started in AI and pivoted to blockchains. I saw first-hand the potentials and the dangers of AI.

I know that this committee is investigating the risks of blockchains, but AI plays a key role in my story because of the risks it poses. These powerful AIs, and the data streams that drive them, are owned and controlled by large U.S. multinationals that are highly unaccountable and extractive. We have seen continuous evidence of how big tech may compromise the very foundations of our democracy—most recently, for instance, in Elon Musk's acquisition of Twitter.

Blockchains allow Canadians to dethrone U.S. tech monopolists like Elon and others by providing infrastructure that empowers individual Canadians to participate in the governance and ownership of their technology platforms. It enables them to control their own personal data instead of having it sold off by the likes of Google and Facebook. Blockchains make this possible by enabling the coordination and transfer of value at a previously unimaginable scale.

This threat of unaccountable monopolies is part of what led me to embrace blockchains and to pivot my master's thesis to focus on a new consensus mechanism. Published in 2016, my thesis has been cited over 400 times and is widely regarded as an essential introduction to blockchains and proof of stake.

One way I like to think about blockchains is as a kind of computer, but instead of the personal computers we all carry in our pockets and in our bags, a blockchain is what I call a community computer. Logically speaking, a blockchain operates as a single, verifiable computing device, even though it happens to run across many physical computers distributed around the world. What's unique about blockchains is the way those computers all around the world stay in sync with each other, or in “consensus”, as we like to say, providing a single, verifiable source of truth. This is the power of the blockchain consensus. It provides a new kind of compute infrastructure for communities.

There are countless use cases of blockchains in health care, food security, supply chain, ecological health and many more, but I have also heard this committee ask about the use cases of cryptocurrencies. Cryptocurrencies have seen increasing adoption by those living under more authoritarian or inflationary regimes. They offer support for immigrants and for the 15% of underbanked Canadians. They allow Canadians to participate in new kinds of global organizations that can share value more equitably.

I have been building companies for over eight years. I'm an angel investor and an associate at the University of Toronto's Creative Destruction Lab. I know first-hand the kinds of uncertainties that plague entrepreneurs, especially in this industry, as they try to innovate, create new jobs and grow the Canadian economy. We need clarity and support from the government so that we don't, as a country, miss this opportunity for growth.

There are a few areas of regulation I might highlight. First, we need a federal blockchain strategy that provides clarity for regulators and for entrepreneurs. Today it's not clear which regulators have jurisdiction over which blockchains and blockchain products. This is a huge problem for entrepreneurs, who can't possibly know the rules of the road. Too much friction and restriction can greatly inhibit opportunities. A national strategy that's providing significant room for innovation while also thoughtfully balancing regulation is critical for the success of our domestic industry.

The second area is taxation. This industry has created significant new wealth, but the tax code imposes friction and complexity in using cryptocurrencies for payments, donations and other use cases.

The third area is financial services. This technology allows users to engage in non-custodial ways, meaning they don't need to trust a service provider with their data or their value. We need protections for the rights of Canadians to build and use non-custodial wallets and the open source cryptographic software that underlies them. These software tools have become critical in the preservation of international human rights. Cryptocurrencies are extensions of these tools.

Canada has a unique opportunity to be a leader in this field as it spreads across every sector of our society. I'm grateful to offer my help and to answer any questions today or in the future.

Thanks so much for your time.

● (1655)

The Chair: Thank you very much.

Finally, we will turn to the Tetra Trust Company.

Stephen Oliver, you have five minutes.

Mr. Stephen Oliver (Chief Compliance Officer and Head of Calgary, Tetra Trust Company): Thank you, Mr. Chair and committee members.

My name is Steve Oliver, and I am the chief compliance officer and head of Calgary for Tetra Trust Company.

First, I would like to commend the committee for dedicating time and space to undertake this important comprehensive study on blockchain technology and for inviting Tetra to contribute our views.

As a native Albertan with over 20 years' experience in the oil and gas industry, I've been delighted to have the opportunity to transition my career into this exciting and innovative space here at home.

Tetra was founded in 2019 and is Canada's first and only regulated custodian for crypto assets. As a Canadian registered trust company, Tetra has fiduciary responsibility to act in the best interests of its clients. The company meets the requirements with respect to custody of registered entities as a qualified custodian under rules NI 31-103 and NI 81-102.

Tetra was established as a special-purpose trust company incorporated under the Loan and Trust Corporations Act of Alberta. It received its licence from Alberta's Ministry of Treasury Board and Finance in 2021. Tetra is Canada-wide, with offices in Calgary and Toronto, and has a diverse board of directors with deep financial market expertise. They range from our accomplished chairwoman, who was CEO of a federally regulated trust company, to our Québécois CEO, who joined Tetra from Canada's largest bank.

This committee has heard experts speak to the merits of and use cases for digital assets and blockchain technology. Today I will add to what has already been said and speak to the manner in which digital assets and regulated entities like Tetra can responsibly coexist within our current financial system and Canada's emerging CBDC, the central bank digital currency system.

We feel it is important that this committee have a clear sense of the role that regulated custodians play in these systems. Digital asset custodians are the foundational piece of all risk mitigation strategies related to digital assets, for a very simple reason: They are the guardians of the assets. Just as they are in traditional finance, custodians act as a trusted independent third party to secure the assets of institutions and their underlying investors. The use of specialized third party custodians would have negated the occurrence of most well-known, industry-tarnishing events in cryptocurrency, such as those involving Quadriga and FTX.

As you heard from Wealthsimple in a previous committee meeting, in Canada, and indeed, globally, third party digital asset custody services are in high demand by institutional investors, corporations, regulated exchanges, digital asset miners and individuals. Despite this high demand, Canada is not yet at the stage of having a robust offering of digital asset custodians, leaving a critical void in the digital asset ecosystem. As a result, the majority of digital assets held by Canadian institutions reside outside of Canada and are held by foreign custody service providers. This means Canadian assets are at risk due to extraterritorial jurisdictional issues, and it makes regulation and oversight by Canadian officials difficult.

One very recent example is that involving a U.S. court ruling made on January 4, 2023, in which it was determined that the deposits of now bankrupt cryptocurrency lender Celsius belong to the company and not the clients for certain of the company's products. This is an incredibly important point when considering that three out of the four trading platforms most used by Canadians are headquartered outside of Canada and that only one of Canada's regulated exchanges is using a domestic custodian.

Given the level of consumer risk associated with digital asset custody, it is not enough to simply be a custodian or to have technology that enables custody of digital assets. Rather, this space requires custodians that have achieved regulated status. Regulated custodians, such as Tetra, have undergone significant levels of due diligence by regulatory bodies and are subject to continuing external oversight. Controls such as SOC 2 certification, external proof of reserve auditing, and segregation of assets must be the norm and not the exception. It is these regulatory mandated standards that can build trust within this industry and contribute to less inherent risk and higher confidence levels for all market participants.

In closing, while innovation related to blockchain technology is inevitable, it does not have to come at the cost of market stability or investor protection. Tetra was created to enable such innovation to flourish in a regulated, controlled and sustainable manner. We believe it is imperative and in the best interests of all market participants that Canadians can rely on independent, regulated and domestic custodians to navigate this new ecosystem while minimizing risk and market disruptions.

We look forward to continuing to be part of the evolution in this space and we are happy to take any questions.

Thank you.

● (1700)

[*Translation*]

The Chair: Thank you very much, Mr. Oliver.

To start the discussion, I'm giving the floor to Mr. Williams for six minutes.

[*English*]

Mr. Ryan Williams (Bay of Quinte, CPC): Thank you, Mr. Chair.

Thanks to all of you for coming to the industry committee. This is a fascinating subject.

This is a new and emerging technology. It seems that what we've heard from a lot of witnesses in the past several meetings is that this is something that Canada could lead in and perhaps is leading in. Certainly we follow the news, and I know that today's National Post did talk about how perhaps some of these regulations could deter further development and perhaps cause a decline of this industry in Canada.

I'm going to start with the Digital Asset Mining Coalition and any of you who could answer.

I tried to get more data on this, and I know that it's an emerging industry and not regulated, which might contribute to that, but what is blockchain worth to Canada right now? I'm looking at jobs, GDP and, perhaps in some of your answers, what is the potential for this industry in Canada. What could it mean if we do things in the right way?

Mr. Daniel Brock: Unfortunately, we're kind of at the stage where a lot of this is anecdotal and prospective. The digital asset mining industry is a part of the bigger blockchain story. We can talk about the kinds of economic contributions that those businesses have made and are planning to make in the Canadian economy in terms of jobs and investment, but to say what it is worth or what it will be worth is very difficult to pin down.

Mr. Ryan Williams: Can we say that there are tens of thousands of jobs right now, or a hundred thousand? Do we have an idea of where it's at?

Mr. Daniel Brock: I'll pass this on to Mr. Morphy. Maybe he can talk a bit about that from Bitfarms' perspective.

Mr. Geoffrey Morphy: Sure. Thank you.

I can't talk about the whole industry because I don't have those statistics, but I can talk about our company, Bitfarms.

We have 108 people in Canada working for us. We have more internationally. They are specialized. They are highly trained. They are in the trades, they're highly educated and they're located across the country. To provide a bit of quantitative numbers for you, we have spent, over our five-year history, over $500 million on operations, on capital expenditures, on materials and on construction. It's been a substantial investment.

We are a capital-intensive industry, and it's a major commitment for the types of assets we work in to do this well and to do it at a global scale.

Mr. Daniel Brock: We have created dozens and dozens—hundreds—of jobs across the country.

● (1705)

Mr. Sheldon Bennett: Perhaps I can add to Mr. Morphy's comments.

Mr. Ryan Williams: Yes, please.

Mr. Sheldon Bennett: My name is Sheldon Bennett. I am the CEO of DMG. I've been in the blockchain space for a very long time, going back to 2013 and 2014.

To answer your question, in terms of jobs, the number in our industry is in the thousands. You have to realize that there are other large public companies like Bitfarms. Also, HIVE and Hut 8 are both very large public companies. I'm a smaller public company in British Columbia. I employ only about 30 people; however, I've spent over $60 million in infrastructure with local contractors and electricians.

I see the ability to grow. There's an amazing amount of demand for crypto mining in Canada due to the favourable legislation, as people understand it. Obviously, as part of the consortium together here, we have an issue with some of the federal legislation. However, barring that, if capital were freely available and sites and power were available, we could continue to work with energy providers and grow more, hire more and invest more in Canada.

There's been a dynamic shift of hash rate out of Europe and Asia and into North America, into the U.S. and Canada. That's continuing to happen because of the rule of law, because of infrastructure and because of a well-educated workforce—all things that Canada has and all things that our companies are trying to take advantage of. At the same time, there are costs, and it is very important to be competitive. We compete with the U.S., our closest neighbour, which is very competitive. The only things that stop us are understanding the market dynamics of the rules we have to follow and having access to capital.

Mr. Ryan Williams: I'll ask an inverse question: What will it cost us if we don't get the regulations right for blockchain?

Mr. Sheldon Bennett: I'll let others answer that.

If we don't get it right, business and shareholders will require CEOs like me, Geoff and others to re-evaluate whether or not Canada is a place where we should be doing business. As Canadians, we never want to do that, but if we can't make a business viable in Canada, we would have to continue to try to grow it in a different jurisdiction. Obviously none of us want that.

I have built hundreds of megawatts of crypto mining with participation by many utilities in many communities to do this. I know there's negative publicity around it, but there's also positive publicity. Most of that negative publicity is around U.S. operations, not Canadian operations. The media pick up on a lot of things that are happening with our neighbours. It's not particularly happening in Canada.

What's at risk, just to answer your question, is that we would have to make choices with respect to capital expenditure and the future of our companies operating in Canada.

The Chair: Mr. Williams, that's about all the time you had.

I know Mr. Oliver and Madame Mainville had their hands up. If, going forward, another MP wishes to give them the opportunity to answer, they have manifested an interest.

Mr. Dong, you have six minutes. The floor is yours.

Mr. Han Dong (Don Valley North, Lib.): I completely agree with the chair. I would like to give the first couple minutes to witnesses who raised their hand to comment on the last question.

Mr. Stephen Oliver: Thank you. Perhaps I could just jump in.

I know data has been hard to come by, but we do have a certain amount of data on the jobs front for at least one of the subsectors. Some recent data from FINTRAC does show the number of domestic and foreign money services business, or MSBs, that deal in virtual currency. The statistics reflect that the number of registered businesses tripled between 2020 and 2022. The number of employees at these businesses increased from just over 100 in 2020 to just under 13,000 by 2022.

As I say, that's just one segment of the industry. I just wanted to contribute those stats so you could see that the trajectory for growth is significant.

● (1710)

Mr. Han Dong: Okay.

I'll go to Ms. Mainville.

Ms. Dina Mainville: Thank you, Mr. Dong, for giving me the opportunity to answer this questions.

I think the answers that were provided were excellent, but I also want to encourage the committee to start thinking about the new era of the Internet as being able to unlock value that we are not currently seeing.

If 92% of the Canadian population has access to a cellphone and is online, we're going to have infrastructure in place that allows them to monetize their data. Theoretically you might posit that every single person in Canada who has access to a cellphone or the Internet will be able to see some kind of value generation through this technology. You should probably start thinking about that as maybe not jobs in the traditional sense but rather value creation in this new economy.

Mr. Han Dong: Since I have you on the screen, I want to ask you, from the consumer protection perspective and given what we've seen with the FTX crash, about some of the ethical and legal implications that could rise from cryptocurrency or, by extension, blockchain technology.

Ms. Dina Mainville: I think that's another excellent question.

As I mentioned in my opening statement, I think it's imperative for government to work with industry on creating safe measures for businesses to operate in this space. I have actually had the opportunity to speak with many Canadian regulators and regulators globally to understand their sentiment in the aftermath of FTX. They seem to understand that this is not a crypto-specific problem; this is a business governance problem. It's an oversight problem. It's supervisory problem.

I think the ethical and legal considerations that you're referencing are real. I think that the Canadian government should be working with industry to figure out what those are and how to establish the appropriate safeguards for consumers in Canada.

Mr. Han Dong: Currently, to your knowledge, in Canada or abroad, is there such an oversight body for cryptocurrency from whose experience we might be able to learn?

Ms. Dina Mainville: Is that question directed to me as well, Mr. Dong?

Mr. Han Dong: Yes.

Ms. Dina Mainville: We don't currently have any centralized body that does legal enforcement globally. We do have intergovernmental bodies like the Financial Action Task Force. That body in particular is responsible for setting standards to help combat money laundering globally. Those standards are then interpreted by nation-states and transposed into local law. We can look to bodies like that.

I would also encourage the Canadian government to work with our international partners on creating a harmonized approach to digital asset regulation.

Mr. Han Dong: Thank you.

The same line of questioning goes to Mr. Oliver. I want to hear what you have to say on this subject.

Mr. Stephen Oliver: I will say that, in addition to my role at Tetra, I also teach a corporate governance and ethical decision-making course at the University of Calgary. A large part of our learning in that class comes from reviewing the fraudulent corporate governance and broader corporate governance failures of other companies, of which there is no shortage, and they're certainly not unique to cryptocurrency.

That said, it's an understandable question, obviously given the recent happenings in the industry. I think it's worthwhile. There is a level of traceability in blockchain ledgers that is very transparent. There are numerous companies doing great work in identifying the wallets of bad actors. Once these wallets are identified, they can be traced back and lead to law enforcement agencies being able to recover funds and sometimes arrest the culprits.

As the digital asset industry matures, so too do the fraud detection capabilities.

Mr. Han Dong: First of all, I want to thank Ms. Rozansky and Mr. Brock for coming in person. It is not very pleasant out there. It's cold today.

Ms. Rozansky, I was listening to your earlier remarks about the indirect taxation. Can you expand on that a bit, so that we can all understand what you were talking about?

Are you encouraging the coverage of HST and so on and so forth in the digital or blockchain industry, or are you discouraging it and saying we shouldn't be doing that?

Ms. Tamara Rozansky: Thank you for the question.

I will say that I'm encouraging legislation on the matter, but just legislation that makes sense with the industry. As it exists today, there are limited amendments to the legislation to treat cryptocurrency. There was a definition for “virtual payment instrument” added to the definition of “financial instrument” that captures some of the cryptocurrency, but not all.

Last February, the Department of Finance released proposals for these additional amendments that I spoke about. What those additional amendments are set to do is restrict people in this mining space from claiming their credits on tax paid. That's a significant difference from the large majority of businesses here in Canada, which, as I mentioned, are eligible to claim their credits because they are in taxable or commercial activity.

I could certainly go on for a while on different ideas.

● (1715)

Mr. Han Dong: Would you agree that the same challenge was for the entire blockchain industry, or was it just for cryptocurrency?

Ms. Tamara Rozansky: I would say it's probably most focused on what they're defining as crypto assets in the proposed legislation more broadly than on our typical cryptocurrency. It seems like NFTs, for instance, might be captured under that, but it's definitely more restrictive than blockchain as a whole.

Mr. Han Dong: Also, it's because it's a financial instrument as well as an investment product.

How would you say the volatility is with cryptocurrency, given its recent history?

Ms. Tamara Rozansky: I'm sorry. Could you repeat that?

Mr. Han Dong: How would you describe the volatility of cryptocurrency, given its recent history? Do you think it's a high risk, low risk or medium risk?

The Chair: I'm afraid that's going to have to be a question for another round, Mr. Dong, because you're out of time.

[*Translation*]

We'll now go to Mr. Lemire for six minutes.

Mr. Sébastien Lemire (Abitibi—Témiscamingue, BQ): Thank you, Mr. Chair.

I'd like to begin by pointing out that this will be the final meeting of this committee to be attended by my parliamentary intern, Sonja Tilroe. I'd like to thank her because whenever we manage on occasion to look good in committee, it's because of the people working hard for us behind the scenes. I also would like to thank her for the excellent work she has done for me and my team. I'm also aware that other parliamentary interns contribute to the work of the committee. Sonja will have an opportunity to help other teams.

My question is for Mr. Oliver of the Tetra Trust Company. I met some Tetra representatives in Quebec, who told me that Tetra was the only regulated custodian for crypto assets in Canada.

The issue of assets that remain in the hands of owners, but that have an impact on operations, is a very important one. Indeed, when a company holds its assets in Canada, it deals with Canada's Autorité des marchés financiers, and must demonstrate transparency, comply with audit requirements and provide proof of reserve audits twice a year. That's what I took down in my notes. The end result is that too many Canadian firms send their assets to the United States, where governance is subject to American statutes, which, of course, are not so clearly defined there.

I'd like you to tell us a little more about the importance of leaving assets in Canada and the risks incurred by investors when assets flow through the United States.

[*English*]

Mr. Stephen Oliver: Where the custodian resides really becomes most relevant in a default situation, when things go wrong.

If the private keys reside with a domestic regulated trust company, for example, asset holders can rest assured that the windup of the custodian will follow a predictable course of action as established under Canadian laws. Also, if the custodian is a trust company, the client has certainty that the legal title to the assets remains with the client and will therefore be returned to the client as part of any default proceedings. With international custodians, given that other regulations and legal proceedings would be in play, there's an inherent and unavoidable level of extraterritorial risk.

[*Translation*]

Mr. Sébastien Lemire: Can you explain to us why Canada doesn't require some or all crypto assets to be kept in Canada?

What difficulties do companies point to for not keeping the money in Canada?

[*English*]

Mr. Stephen Oliver: There actually are reasonable reasons that international partners are utilized. It's really a reflection on the development still required in this industry within Canada. There certainly are certain types of investment instruments, such as ETFs, for example, that require significant operational capability to do the large volumes of clearing and settling of activities. That's the value that's currently added by international partners.

That said, Tetra would advocate that Canadian institutions can still hold most assets domestically with limited tactical amounts of assets residing with international custodians as the Canadian marketplace continues to grow.

● (1720)

[*Translation*]

Mr. Sébastien Lemire: If the government wants to strengthen its technological hub, what should it be doing right now?

What are the underpinnings of this new digital era upon which your industry rests? Are we talking about artificial intelligence, quantum computers, the capacity to manage bulk data, or is it more a matter of regulation?

[*English*]

Mr. Stephen Oliver: It would be regulations, primarily. I suppose there are some contrary recommendations we could put forth.

First, as the regulations are considered and developed, we recommend that high priority and focus be concentrated on the area of custodianship.

Second, as it stands, Canadian securities regulations leave it to the best judgment of the institution holding customer assets to determine if a foreign custodian should be used. We believe there should be some guidelines implemented to specify the circumstances and the corresponding controls that would allow assets to be held outside of Canada.

Third, harmonization between—

[*Translation*]

Mr. Sébastien Lemire: I have to interrupt you.

[*English*]

Your voice is not clear for interpretation.

Mr. Stephen Oliver: My apologies. Is that better?

Mr. Sébastien Lemire: Could you speak louder and more clearly, please?

Mr. Stephen Oliver: Sure.

Third, harmonization between provincial and federal standards, and rules for custodians, would be a big step in the right direction.

Finally, we recommend the establishment of some risk management and governance best practices for custodians as well. It's primarily regulatory-driven.

[*Translation*]

Mr. Sébastien Lemire: Since you're talking about provincial regulation, can you give us examples of effective legislation in some Canadian provinces?

[*English*]

Mr. Stephen Oliver: The bulk of the provincial securities regulation is harmonized by the CSA. However, there are differences between the CSA guidance and other federal guidance, such as OSFI and IIROC.

[*Translation*]

Mr. Sébastien Lemire: I've been told that Alberta was the only province to have effective regulation and legislation. Could you confirm this?

Is that why your offices are located in that province?

[*English*]

Mr. Stephen Oliver: I think Alberta has been a bit of a leader. It certainly has put a lot of resources into this at the regulatory level, which I can attest to, so yes, perhaps, at this stage, but there is actually excellent engagement happening across the provincial securities commissions.

[*Translation*]

Mr. Sébastien Lemire: Thank you very much.

The Chair: Thank you very much, Mr. Lemire.

Mr. Masse, you have the floor.

[*English*]

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Thank you to the witnesses.

I think I'll start with you, Ms. Mainville, because you mentioned some of the international agreements, but I invite any other witness to chime in.

With regard to how we deal with international regulations, would we be wiser to start with a more comprehensive partnership in a trade agreement—say, for example, the U.S.-Canada-Mexico agreement—or should we look towards Europe? There could be a practice, at the end of the day, to try to negotiate some of the standard regulations through trade agreements. Aside from that, we would have to be going it alone on this, which could take a long time to do.

I'm just wondering what your thoughts are on that. Is it something for which we should be focusing on setting an example with one trading bloc partner, whether that has European elements or it is domestic or closer to home? In Canada and the United States, we have a lot of integrated industries—such as where I'm from, with the auto industry, for example—for which there are standard regulations. When they're out of whack, it's easier to deal with them individually than it is to deal with more complex issues.

● (1725)

Ms. Dina Mainville: That's an excellent question, Mr. Masse. Thank you for giving that question to me. I actually have a couple of thoughts here.

I think that regulation for crypto assets is a really difficult problem. I've seen regulators trying to tackle it for a number of years. I've seen it come from the top down with, for example, the Financial Action Task Force travel rule that I was speaking to.

That's actually in effect here in Canada, but the complexity with it is that you're doing cross-border transfers with organizations that may not be following the same regulatory standards, so if you're talking about something like data exchange, it becomes very difficult to actually make sure those things are followed through on.

I think I would like to see Canada working internally first. I would like to see us collectivize. I would like to see better collaboration among the provinces. I really do think we could work collectively through a regulatory framework. It wouldn't mean it would have to be 500 pages long; i could just be some structure we could work on collectively.

I do think there are other jurisdictions that have gone in directions we can benefit from in terms of learning. I do think the new MiCA regulation in the EU is much more comprehensive than many of the regulatory moves we've seen previously.

I think Bermuda has something to offer. I think even the Cayman Islands and the correspondence that the regulator has had with industry there is something we could benefit from learning from.

To concisely answer, I would suggest we start internally first, but international co-operation, I think, is absolutely the way we should be going for the long term.

Mr. Brian Masse: Do you have any suggestions on time frames that are necessary for this? I don't disagree that we have to have a plan and then bring that forward.

These are just hearings of the industry committee. This is very much an entry-level study in many respects. The chair brought this forth, which is excellent. It's the first time we've even had this brought up. I've been on the committee for a long time, so I thought this was a really welcome opportunity. What are our time frames looking like here in terms of getting a response to the minister?

Alternatively, in the past, the country has gone to a white paper or something like that, but then you're getting into comprehensive consultations across the country, which could take a long time.

Then parliamentary elections have been rather difficult to predict, and on top of that, quick, so what are we looking at in terms of a goal? Do you have advice for us with respect to a time frame to get this to the minister and to get a response for us and to get something more official done?

Ms. Dina Mainville: I think I have seen other jurisdictions move inside a one-year time frame.

That being said, I think Canada has the resources to move at our own pace. I think, on the industry side, we have resources that are willing to lend expertise. I know there are resources within the provincial regulators at the CSA, at OSFI and at the Bank of Canada that are ready to mobilize as well.

I think what we need is collective action. I think we just need a forum within which we actually discuss these matters, reach consensus and have folks who put pen to paper, and I think we can get it done at our own pace.

Mr. Brian Masse: Does anybody else have any comments on that? I just want to double-check before I go to my next question.

Go ahead, Mr. Bennett.

Mr. Sheldon Bennett: Just to add to that, I've been invited, as a member of the accounting standards board, to work on federally updated accounting standards across Canada for crypto assets and crypto accounting, so there is some action happening. It's very positive, especially for public companies, to see that on the accounting side the regulatory body is looking at this seriously and is looking at giving guidance to auditors and to companies. If we could find more areas of government and government interaction, I think this would really help Canada move forward.

I would say that Canada should take this on itself first, before looking to its favoured partners. We could set the example by getting control of this, understanding it, talking it out and figuring out what regulations make the most sense to develop this industry. If you bring on a lot of other partners, you do get a lot of extra knowledge, but it is slow, and the movement of the financial institutions that are involved in crypto, crypto businesses and this whole new industry is very fast.

As Mr. Morphy said, the median age is 33. We can't find enough IT developers to meet the demand in many parts of the industry, This industry is going to move quickly, whether Canada wants to or not. I think there is a bit of urgency in getting national policies, national regulations and a national path forward.

I was encouraged to see that the federal government put out a very good policy for clean energy across Canada and that provinces put out their policies as well. It would be great to see something similar with digital assets and where that's going to go in the future.

● (1730)

Mr. Brian Masse: Thank you. I think that's my time.

The Chair: Yes, it is, Mr. Masse, but we'll get back to you. Thank you.

We'll now turn to Mr. Perkins for five minutes.

Mr. Rick Perkins (South Shore—St. Margarets, CPC): Thank you, Mr. Chair.

My first question is for Mr. Oliver. I'm following up a bit on Mr. Lemire's questions.

Earlier we heard from a number of the witnesses that there weren't custodial services available in Canada, and that is one of the barriers to the development of the industry, so I'm pleased to learn that you exist.

Are there other custodial trusts developing? Are there Canadian banks interested in looking at getting into the custodial business at all?

Mr. Stephen Oliver: At the moment, the situation is that you do have custodians that have a primary focus on digital assets but are not regulated, and then you have custodians that are regulated but don't have a primary focus on digital assets. At present, Tetra is only one that meets both criteria.

Yes, the banks are considering entry, but I think that they're definitely skittish to jump in, of course, and then there would be—

[*Translation*]

Mr. Sébastien Lemire: Mr. Chair, I'd like to report that the sound has been cutting out.

[*English*]

The Chair: Okay.

Mr. Oliver, I apologize. I think we have too big an issue with the quality of the sound, and the equipment has been tested. Unfortunately, I will have to ask you to send us the answers in writing. It's a problem for the interpreters. I apologize for that. Perhaps someone else from the coalition or any of the other witnesses can answer .

Mr. Perkins, I'll let you continue.

Mr. Rick Perkins: Is there anyone else who wants to continue on that same question? If not, I'll move on to the next one.

Mr. Geoffrey Morphy: I'd like to comment on the Canadian banks.

It has been commented on twice already in this session that the Canadian banks are not supporting this industry. There is a lot of education that is necessary in this industry, everywhere. We spend a considerable amount of our day educating investors and people who are interested in doing business.

The banks—for whatever reason; maybe it's directed by the federal government—don't want to engage in our business. Opening a current account is challenging, yet there is such opportunity for the Canadian banks in foreign exchange, which they're already big in.

The cryptocurrencies are already trusted. We have among the best banking systems in the world. The banks can add depository accounts. They can broaden their business. They can get into additional products, which they already do and have the systems to control very, very well. I think we ought to be encouraging them to take a more proactive stance in terms of education and applying the assets and resources that they have to the sector.

Canada has a huge number of people who are experts in this industry, up and down, in custodial roles, in regulatory areas, in mining, in technology. We need to take advantage of that. The Canadian banks really need to step up here. It's not just the private Canadian banks; it's also EDC and BDC. We've gone to them numerous times, and they just say they can't help us.

It's very frustrating being a Canadian company that is not taking any subsidies whatsoever and is working hard on the global stage to become successful without local help. They give that to every other industry.

It's a frustration point for us. We're hoping that the government could take some leadership in promoting this industry. It's coming, and it's going to get bigger and bigger.

Mr. Rick Perkins: I see that there are two other hands up.

Along the same line, maybe I'll throw in a commentary. We have a protected oligopolistic banking system, which has been good and bad for consumers. They are slow and they are protective of their competitive framework.

I'm wondering how much of that is the issue, or is it that they are massive bureaucracies that move slowly? Also, what are your views on the custodial services?

The Chair: I'm sorry, Mr. Perkins, is there—?

Mr. Rick Perkins: There are two witnesses with their hands up. I thought they—

● (1735)

The Chair: No, you direct it. You're the master of the room.

Mr. Sheldon Bennett: I'll take a stab at it, if you'd allow me to go first.

On the the banking side, it's been very difficult, as Mr. Morphy said, even for our company. We do nothing illegal. We follow all of the laws. We pay our taxes. We are very transparent. We're a public company. All of our crypto is audited. Everybody can see it on public blockchain. There's nothing nefarious in anything we do.

BDC has told me directly that they have a mandate not to support crypto companies. They can support all sorts of other companies. It makes no sense that we're discriminated against in this manner by BDC.

EDC is another challenge. However, I think their mandate is a little bit different for us. I would love to get EDC's help. One of my board directors in my company sits on governance and compliance on EDC. He definitely understands some of the frustrations that our company has.

If the Canadian government's BDC won't support crypto, it's really hard to get other commercial banks to support crypto—not even support it, but do business with it. It's not even about supporting it and giving it anything special; we just want to be treated like any other business that's legal in Canada.

With regard to companies like Tetra, I sit on the board of a company called Brane Trust. It's also in Alberta. It is not a qualified custodian like Tetra. It's working towards that. It is having a lot of problems doing this. It is difficult to pass all of the thresholds. However, it's encouraging that there are other Canadian entrepreneurs out there who are trying to bring more companies into the custody side of the business for consumers and businesses. Hopefully, there will be more in the future. I think the more there are the better it is for giving the industry choice and helping the industry develop.

I encourage Brane, as a board director and an investor in their company. I hope for their success. I'm sure that Mr. Oliver would say the same. He knows them very well as well.

It's not really about competition as much as choice in developing this industry. If you talk to exchanges, custodies, crypto miners or people who work in compliance in Canada, they're all trying to help this industry grow. It's really difficult with the situations that we're facing right now.

The Chair: Thank you very much.

[*Translation*]

I'm sorry, Ms. Mainville, but that's all the time we have.

Ms. Lapointe, you have the floor for five minutes.

Ms. Viviane Lapointe (Sudbury, Lib.): Thank you, Mr. Chair.

[*English*]

My question is for Mr. Buchman.

In your opening comments, you talked about how Canada needs a federal blockchain strategy that would provide clarity and establish the right balance between innovation and regulation. What key elements do you think should be considered in order to successfully achieve this balance?

Mr. Ethan Buchman: Thanks for the question.

One thing being talked about is the ability of companies in this space to get bank accounts. A strong statement from the federal government in support of that would go a long way to giving companies the ability to do business.

There are other complexities. For instance, the tax code makes it difficult for companies in Canada to understand what tax liabilities they're going to face in certain kinds of blockchain transactions, because they don't exactly know how to account for them. These companies want to pay their taxes, but it's very complicated. Certain simplifications or exemptions could go a long way.

There are also a lot of risks that entrepreneurs face because they're not sure what kind of liability they might have for writing open source software that will be used in ways they can't control. Protections and guarantees that it's safe to write and contribute open source code would be extremely helpful. It would help position Canada as a safe haven for developers and highly skilled workers. Some of the top-paid jobs in the country are, obviously, in the tech industry. That could help attract a lot more talent.

Those are a few things we face regularly. I've seen companies shut down, leave or go offshore simply because they can't get clarity. They're tired of spending thousands of dollars on lawyers to try to get answers, and they just can't get them.

Ms. Viviane Lapointe: Your website states:

> We are a core developer of the Cosmo Network, where we focus on sovereign, interoperable technologies for more sustainable communities. We believe that system scaling is as much a social problem as it is a technical one, and that fixing the exploitative monetization of the internet may require a renewed understanding of money itself.

Can you expand on the idea of “sustainable communities” and “exploitative monetization”?

● (1740)

Mr. Ethan Buchman: I would love to. I appreciate your looking at the website and asking the difficult questions.

The way we organize entrepreneurship in Canada, broadly, is around corporations and shareholder value. We encourage, through a variety of means, very rapid growth and an extractive approach to building companies. This has resulted in large amounts of financialization and foreign ownership, and a lot of difficulties for smaller communities and more local capital formation.

At Cosmos, we focus more on co-operative approaches to building companies. Informal Systems is structured as a worker co-operative; it's a one person, one vote system. After you've been an employee for nine months—because nine months is the gestation period of a human being—you get one share in the company. That entitles you to one vote. We believe pushing those kinds of ownership models forward—which are more democratic and equitable in governance—can go a long way to improving the structures of the Internet and the ownership models.

Currently, on all the major social media sites and many other Internet platforms, the business model is purely extractive. The contributors of all the value are the users, who don't get compensated at all, because they have no ownership stake. Unless they buy shares on the public markets, they're not otherwise compensated for the incredible amount of value they contribute. It's all just extracted away from them. We're particularly interested in ownership models and corporate models that restore that kind of value to the stakeholders who actually make the contributions.

Ms. Viviane Lapointe: I know we touched upon actions the government could take around a strategy, but I would be very interested to hear your opinion on this: What do you think the role of government should be when it comes to blockchain technology?

Mr. Ethan Buchman: I think one of the most important things we can do is continue to investigate it and promote education.

We've seen the Canadian government take an active role in promoting artificial intelligence research. There's a huge community in Canada, and Canada is widely known as a leader in that space and for starting lots of companies.

I used to be in AI when I started my master's, but I got nervous that the corporate and social structures we have in place aren't strong or mature enough to handle what's coming with AI. That's why I pivoted to blockchain. I think we need to upgrade the social fabric and distribute ownership more equitably.

Having the government take a strong, supportive stance for that kind of application with respect to this technology, the distribution of ownership, and education in the power of participating directly in governance.... This is bringing a pro-democracy approach to the structure of not just our governments but also our economies and corporations.

Ms. Viviane Lapointe: You mentioned how we have some people leaving Canada. What are your thoughts around not only attracting but retaining some of that talent here in Canada?

Mr. Ethan Buchman: Providing regulatory clarity would go a long way towards doing that, as well as simplifications of the tax code. There are a number of countries that make it easier for folks to use cryptocurrencies without having to pay taxes on every payment. Simple things like that could really help to both attract and retain talent here.

[*Translation*]

The Chair: Thank you very much, Ms. Lapointe.

Mr. Lemire, it's over to you now for two and a half minutes.

Mr. Sébastien Lemire: I'm going to continue on the issue of where cryptocurrency money ends up. The fact that more money is stored in the United States than in Canada, except for what's stored at Tetra, is seriously problematic, in my view.

My question is for Ms. Mainville, but other witnesses could also answer it.

Are there concerns about the fact that our money is going to the United States?

What reservations do people working in cryptocurrency have about this, or what consequences might they point to?

Or, in the end, is it not really a problem?

[*English*]

Ms. Dina Mainville: I think it is a serious issue. One of the projects that I made reference to in the opening statement—and I apologize for its being maybe too fast for everyone to hear—was a project that started here in Canada, Ethereum, which has a realized market cap of about $240 billion. That went elsewhere. There's Binance. The CEO of that company grew up in the western part of Canada, went to school in Montreal and did business elsewhere.

I do think that the risk of losing Canadian entrepreneurship to other jurisdictions that maybe afford better clarity or have better incentives for bringing that entrepreneurship elsewhere is a real risk that we need to address as a community here in Canada.

● (1745)

[*Translation*]

Mr. Sébastien Lemire: So there are barriers and they need to be identified.

What impact does a bankruptcy like the one at FTX in the United States have on the money we send there?

Is that one of the known risks?

[*English*]

Ms. Dina Mainville: Yes, and could I clarify?

When you talk about the money that's sent to the United States, are you referring to the business that's leaving Canada and going to the United States?

[*Translation*]

Mr. Sébastien Lemire: I'm only talking about the money that is sent there. In traditional banking operations, every amount requires a level of liquidity to allow the money to be distributed, but this money is sent to the United States. If a company goes bankrupt, the likelihood of people in Quebec or Canada recovering their funds is accordingly almost zero.

[*English*]

Ms. Dina Mainville: Yes. Thank you for clarifying.

I would say that the other complexity in a case like that is the inability for law enforcement to effectively resolve those investigations. If you have digital assets that are sitting in a jurisdiction like the United States....

Let's say that the RCMP is conducting an investigation. They have to engage in an MLAT process, which could take a very long time to do. They're very bureaucratic, and it's much easier if those assets stay within the Canadian borders.

[*Translation*]

The Chair: Thank you.

Mr. Masse, you have the floor for two and a half minutes.

[*English*]

Mr. Brian Masse: Thank you, Mr. Chair.

I'm trying to see a way through this. One of the things that were really effective—and I always refer to something I'm more familiar with, the auto industry—was back in 2002, when then minister Allan Rock convened a summit, so to speak, in Toronto that was one and a half days. It took the auto sector—not only the manufacturers and the OEMs but also the aftermarket, the dealers, a whole bunch of environmental groups, some of the new mould-makers, tool and die makers—all the different components. There were probably 200 of us who were then put into distinct areas to develop a Canadian auto policy.

The organization exists on paper right now; it isn't really what it was before. What it did was give us an interesting framework. Green light was the stuff we were doing well. Yellow light was the caution that we had some stuff going and it was okay, and red light was the big problems.

Are we at the point to pull all this stuff together on a strategy similar to that? I'd like to hear if anybody has any thoughts on that.

Here's what I worry about. We have these committee hearings. We have recommendations. We table the report in the House of Commons. Then it has a period of time for the minister to respond. Then, from the response, we wait to see what happens next. I want to caution all the witnesses that if we lose traction on this committee, then we really don't have any other place to go at the moment unless the finance committee takes it up.

Are there any thoughts from anyone, please? I only have about a minute to go. You can also submit them to us. We need advice on how to go forward.

Mr. Daniel Brock: I would say, from our vantage point, having met advocates for the digital asset mining sector, it's as though you're confronting a major perception problem. There's a massive amount of education that has to happen for regulators and for decision-makers such as yourselves, and you're doing it in the context of a media portrayal of the industry that is just so negative these days.

In trying to resolve this tax amendment issue with the Department of Finance, it's frustrating because just in interacting with the department, with department officials.... They're very smart, capable people, and they're doing their best, but there hasn't been any meaningful interaction between those officials who are drafting the laws and government decision-makers who are having these laws passed to really understand what's happening in the industry, and it is a rapidly changing industry.

Your idea of bringing together a comprehensive government approach to looking at many facets of this is very appealing, because it's something that you can focus on, that government officials and lawmakers can focus on, as the place where this discussion can be advanced, and advanced in a meaningful way.

What's happening now is very transactional. We're trying to put out fires here and solve problems there, and it's a challenging environment for stakeholders who are trying to engage effectively with government.

Mr. Brian Masse: It almost feels like we can't find a starting line.

Thanks, Mr. Chair.

The Chair: Thank you very much, Mr. Masse.

[*Translation*]

Mr. Généreux, you have five minutes.

Mr. Bernard Généreux (Montmagny—L'Islet—Kamouraska—Rivière-du-Loup, CPC): Thank you, Mr. Chair.

I'd also like to thank the witnesses for being here.

I'm going to continue in the same vein as Mr. Masse.

I agree with him. I think we need to be educated about this, as Mr. Brock pointed out. Organizing a summit in Ottawa would be very complicated. Unlike the witnesses, we are not all specialists in this area.

Ms. Mainville said that her organization was represented by various associations. I think that a summit should be organized in Ottawa, where people could meet their Canadian industry counterparts as well as government officials. We're talking about things that could be interrelated. Many meetings on bitcoin and other topics have been held in the United States, in Texas I believe. Parliamentarians are interested in more than just cryptocurrency.

● (1750)

[*English*]

The blockchain itself is very important.

[*Translation*]

There will be all kinds of opportunities in this area, moving forward.

Ms. Mainville, I'd like to ask the various associations you represent, as well as you yourself, to consider the possibility of organizing something in Ottawa as soon as possible. I believe it would be in your best interests.

I personally feel that this will become a part of the economy in the future. We do need to look forward. It didn't even exist 25 years ago. Things have progressed at lightning speed. We're already talking about ChatGPT, OpenAI and quantum technology. All of these are interrelated in a way, at least to some degree. We'd be happy to host you here in Ottawa.

Mr. Buchman, I understand that you established your company in 2016. You smiled when I mentioned OpenAI and ChatGPT. I'm 60 years old and know almost nothing about all these apps, but I do understand their potential. What I'd like to know is how Canada can become a global leader in this field. I'm thinking about Montreal in particular, which is already well ahead of the curve in artificial intelligence. What do you think, Mr. Buchman?

Mr. Morphy, you would appear to be an anglophone, and you have facilities in Brossard and Sherbrooke.

[*English*]

Why is that? Is it the price of electricity? What are the reasons you located in Quebec?

Thank you.

Mr. Geoffrey Morphy: Yes, I'm absolutely in favour of convening a meeting with the politicians. Education is so important.

We've been advocating for a long time that we need regulation. It's going to help the industry. We have a lot of smart people, both within the company—our advisers—and I talk to and engage with many people across the country who know this industry very well and have great ideas.

I commend you for this idea. I think we should, as a group, pull together public and private parties and engage in these discussions, and I think good ideas will come out of it. I think we can take a leadership position. Other countries are not as nimble as we are. We have a great system. If we pull people together and put those people in this room together, you're going to get good output and you're going to get constructive ideas whereby you can then craft regulation and ideas and the types of things that will make politicians, consumers and businesses a lot more comfortable to do business.

Mr. Bernard Généreux: Mr. Buchman, would you comment?.

Mr. Ethan Buchman: I don't want to give the impression that I'm against AI as a technology. It's obviously very powerful and has tremendous potential. My concern is about who's going to own it, who's going to own the data that powers it and who's going to own the benefits it generates. Right now, who's going to own it means Google, Meta, Amazon and so on. These are all American multinationals that are highly unaccountable and extractive—that's the term I used in the opening statement—and the promise of this technology that we're talking about, blockchain technology, is that we can democratize ownership of potentially any technology, whether that's artificial intelligence, quantum computing or otherwise.

The opportunity that's present for Canada to start to repatriate so many of the brilliant Canadians who have gone to the U.S. to work for these companies or for others is to invest in the blockchain cryptocurrency industry at home. Tell the banks, give us bank accounts and pass other regulations that make it easy for companies to get started and build this stuff so we can democratize the ownership and mitigate the risks of these very powerful technologies like AI and others. That's really what I'm advocating: that we invest in education and in enabling companies to be set up and to be successful within Canada and grow in Canada.

● (1755)

[*Translation*]

Mr. Bernard Généreux: Ms. Mainville, I'd like to hear what you think about the possibility of organizing a meeting in Ottawa with all the industry stakeholders, or even perhaps to hold a trade fair where people could talk to various suppliers. We really need to understand and learn more about this field.

Personally, I need to know that a glass is really a glass and I want to hold it in my hand. Everything is so virtual these days that it's important to be able to meet people in person and actually shake hands.

[*English*]

Ms. Dina Mainville: You have my absolute commitment to participate in and help organize something like that.

I did some work for the World Economic Forum several years ago when they were looking at developing frameworks that governments could take. I think the committee that I was on was blockchain specifically for financial inclusion, and the approach that they took was taking individuals of varying expertise from different companies and representatives from different parts of the globe, putting them together in a room and then giving them problems to solve that they had to document.

Rather than just having a summit where we can mingle and talk about things, I would also go one step further and propose that we also look at coordinating some breakout sessions, working groups, where we can put pen to paper on some of these issues.

Mr. Bernard Généreux: Well, you don't have to do that now; you have ChatGPT. ChatGPT is going to solve your problem.

[*Translation*]

The Chair: Thank you, Mr. Généreux.

Now that we know how fond you are of ChatGPT, we'll have to check from now on to determine whether your questions were prepared by the system.

It's my turn to speak now, because my colleague Mr. Gaheer kindly gave me his speaking time.

I'll begin by openly admitting that I have some digital assets, as do a good many millennials like me, who understand the interest and value of the underlying technology of things like bitcoin and various other digital assets.

[*English*]

It's a topic that I take a keen interest in, and I think this discussion with thoughtful witnesses like the ones we have today is really important in dispelling some of the myths and some of the intellectually lazy ways in which this technology has been portrayed in the media, so I appreciate your efforts to educate us and the Canadian public on blockchain.

Considering that we have the Digital Asset Mining Coalition with us, the way I understand it, mining bitcoin, for instance, which is the digital asset that requires the most energy because of its its proof of work mechanism, allows, for instance, provinces or Hydro-Québec to never waste electricity, given that you can turn it on and off as you wish, which is very different from other industries. The way I see it, you monetize the energy that would otherwise be lost.

Can you expand on that? We keep hearing that it consumes a lot of energy and that it's bad for the environment, so I'd like to hear your take on that.

Mr. Daniel Brock: It does consume a lot of energy, but if it's clean energy. It's not bad for the environment, and many industries consume a lot of energy. Canada has a decided advantage because we have an abundance of clean, renewable energy. This idea of a load that you can turn on and off is very important; it adds to the efficiency of the grid. It's load that you contribute to the base, and you're shrinking the delta between the base and the peak. The people who run grids are worried about peak demand, but if you shrink the delta between those two, you're making that grid more efficient, you're monetizing the power, and the grid's able to reinvest in improving distribution and transmission of the grid. It is actually a positive story. I mean, Bitfarms had the experience just today.

Mr. Morphy, maybe you want to talk about what you were telling us before.

Mr. Geoffrey Morphy: Certainly.

We have 148 megawatts operating in the province of Quebec. This morning, when we woke up, it was -22°C in Brossard and -29°C in Sherbrooke. Hydro-Québec had already given us the heads-up that for a number of days this week there would be something called *délestage*, which is curtailment. It's part of our arrangement with them. It's part of our co-operation that when the grid needs this type of power, it can be elastic, with people like us operating in good faith with it.

This morning, all our power in Quebec, with the exception of 1.52% of it, was curtailed, and we shut down our operations. Between about six o'clock and slightly after nine o'clock this morning, that power was directed back into the grid to where it was needed for households and industries that needed critical power to stay warm. Then, when that surge of power was balanced again—somewhere between 9 a.m. and 9:30 a.m.—they gave us a signal, and we started turning back on again. We're back in operation. I think it's supposed to be a little warmer tomorrow morning, but Friday and Saturday are supposed to be very cold, so I expect they'll ask us again and we will shut down again. That's what is possible.

Just to expand that, we would like to have more co-operative discussions with Hydro-Québec and some of the other hydro utilities to go to where they have surplus power—stranded power, as we call it—and set up our facilities closer to the dams that would otherwise spill water that would never go through the turbines. We want to monetize that. We want to improve the grid. We're a baseload, so if we take X amount, we're going to take it 24-7 and we're going to pay for it.

There's a real gain for everybody in optimizing grids by having people like us as part of them. I think those co-operative discussions to have us go to where the power is generated and where it's needed and where it can be maximized are important. That's what we can do; the old industry couldn't do that, but we can.

I think that's where we also need some leadership and open conversations, because, as I said, education is needed here. There are a lot of closed minds. We can be very beneficial to the grids and to the value in Canada.

Dan, do you want to continue?

● (1800)

The Chair: Thank you very much.

Just quickly, do you have any idea of the percentage of bitcoin mining that is sourced in clean energy worldwide and in Canada?

Mr. Geoffrey Morphy: The Bitcoin Mining Council is a collective group of, I think, 52 bitcoin mining companies. They're primarily American and Canadian. Some are public and some are private. It represents about half of the global network, about 48%.

In the bitcoin mining network, 63% of the members utilize renewable power. For Bitfarms, our global footprint is over 95%. In Canada, we are over 99% .

The Chair: Thank you.

I'll give myself just a bit more time. I've been generous with everyone, so I'll be generous with myself as well.

I have a quite open-ended question for Madame Mainville.

You mentioned in your remarks that blockchain provided innovation in game theory. Can you expand on that?

Ms. Dina Mainville: Yes. It's a great question.

Without getting too technical on the matter, the way I'll explain it is we have seen with this technology the availability of a new monetary system in which incentives look very different from the traditional monetary system. The reason you typically use intermediaries is that if you have two parties in a transaction, you want to make sure they both could be honest, so you have someone in the middle who's kind of mediating between.

With blockchain technology, because of the way the systems are designed, you can actually have code that is basically executing decisions for you. It creates these wonderful new value-generating opportunities. This is what I was talking about when I was referencing that.

The Chair: Okay. Thank you very much.

I'll go for one last question, because I see that my colleagues agree with my taking some more time.

Mr. Buchman, to go back to your introductory remarks, this morning Beirut announced it was devaluing its currency by 90%, which is not even representative of what the reality is on the ground. It's much worse than that. What's the interest for someone, say, in Lebanon, to transact in digital currencies?

I'll just highlight that the IMF recently said that 60% of emerging economies are at risk of default in the coming months.

What can be the interest for people in Lebanon, and other countries as well, for using digital currencies?

Mr. Ethan Buchman: Yes, we've seen a number of reports of folks in Lebanon and other countries, where their currencies are being devalued, turning to bitcoin and other cryptocurrencies as a store of value.

Of course, these are highly volatile instruments, as we all know. This committee has talked about the volatility of cryptocurrencies many times, but we're also talking about extremely volatile and unstable national currencies as well. We've seen a lot of volatility even in supposedly gold standard bonds and other kinds of securities. We've seen tech stocks drop huge amounts. Currencies all over the world and all kinds of different securities are experiencing this kind of volatility.

Cryptocurrencies offer an opportunity. They offer a way to escape certain authoritarian regimes, ways for families in these countries to try to protect their wealth and potentially to escape with it. We've heard reports that refugees fleeing Afghanistan when the Taliban took over and fleeing Ukraine when the war started were using cryptocurrencies as a means to safely transport and secure their wealth.

There is huge potential. This is why I tried to emphasize that these technologies are really extensions of base tools to preserve international human rights, and that's really the way to think about them and the way to think about Canada's support for them.

● (1805)

The Chair: As Madame Mainville pointed out, you have a trustless asset that doesn't require a third party.

That's much appreciated.

I will let you go, Mr. Bennett—quickly, though.

Mr. Sheldon Bennett: Thank you.

About two years ago I wrote an article in Accounting Perspectives about the unbankable that is being banked by cryptocurrencies. The idea of that article was to show that developed countries perhaps don't need bitcoin or other cryptocurrencies to live and to function; but when you look at third world countries and non-western nations that don't have the infrastructure, you see there's a huge gap for people to even have the income and the ability to open a bank account, or just get to a bank to get a merchant account and be able to run a business.

What cryptocurrencies do is enable anybody with a mobile phone to be bankable. That's a big part of the technology. A lot of the technology that's being built is technology built here in Canada and in other countries, but if you're going to look at human rights, you're going to look at bankability and at how you can help economies grow. This is a main part of what cryptocurrencies and blockchains can do.

They can bring things that may not be economically viable for business to bring, such as bringing banking to certain individuals in different countries. Blockchain can bring it and can give safety and security in assets that people can own and bank. I think that's an important part.

We've done a lot of work in this in our forensics division. We have done a lot of work around the unbankable and tools they can use. A simple phone that can use SMS can actually transact in bitcoin on various different exchanges and platforms.

[*Translation*]

The Chair: I'm giving the floor to Mr. Williams now.

[*English*]

Mr. Ryan Williams: Thank you, Mr. Chair.

Despite being a new industry, blockchain is having incredible impact on lots of different industries—finance, medical records, real estate and investing. The possibilities of the industry seem to be endless.

I'm wondering if you can tell the committee where the industry is going. We look at Canada doing the regulations right, ensuring that we look to how we can get banks and the BDC to invest in this industry. Where do we see the industry going? What is the potential of the industry in the next 20 years?

I will start with anyone in the Digital Asset Mining Coalition.

Mr. Sheldon Bennett: There's an old saying that money goes where it's wanted and stays where it's appreciated. I think that sort of saying could work here as well.

Investment went into crypto companies, small start-ups and large public companies because people were excited about it. They can see it's going somewhere, whether it's us in digital mining or people doing different things with blockchains. It's going to stay and keep growing where it's appreciated.

Canada as a country has to appreciate the technology that's being built, the companies that are being built, the people who are building this. We partner with SFU as well, and the technology we get out of big data in SFU is paramount to our growing our business.

When you ask where it is going to go, well, it's going to grow well in Canada if we understand the rules and if there's co-operation with the government to work with business, both private and public. If not, if we continue to have problems, then the business will go where it's appreciated—somewhere else.

Right now a lot of it's going to the U.S. It doesn't have to be that way. Canada is just as competitive, and in some ways more competitive when you look at our business in crypto mining. We are a much better jurisdiction than the U.S. for many reasons, but it's really about what Canada decides it wants to do with this industry. Does it want to foster it and grow it? Does it appreciate the technology, the jobs, the investment that are coming into it? Does it want to grow that, or does it want to sit back and see what other countries do and how they manage it?

I think this is what's happening right now, and this is why our coalition is here. We really believe Canada can be at the forefront in this industry, just as it is in the forefront in many other industries around the world.

● (1810)

Mr. Ryan Williams: Mr. Buchman, you spoke about international companies and American companies that have been involved in investing in this industry in Canada. Do we know of other countries that are also investing, like China? Do we have any other state actors that seem to be investing in Canada? If Canada isn't, do we have other foreign nationals investing in it?

Mr. Ethan Buchman: Do you mean investing in Canadian companies and blockchain?

Mr. Ryan Williams: That's right, yes.

If we don't have banks and the government investing in it, are we seeing other nations investing in Canadian companies?

Mr. Ethan Buchman: Yes, certainly from America, but there's a lot of interest and capital coming from Asia as well. There are a number of firms that span between North America and Asia to bridge that capital divide. There are investing companies on both sides. There's capital from all over the world flowing into this industry and into Canada.

Mr. Ryan Williams: Are some of those other investors getting controlling interest of Canadian companies? Is there a danger of seeing more Canadian companies being bought up by those entities?

Mr. Ethan Buchman: I think that's definitely a danger, yes.

Mr. Ryan Williams: We talk about tax credits. In regulation, we also talk about tax credits, regulations, or new tax incentives.

I'll go to the coalition. What ideas do you have for investment tax credits, or different incentives that would allow more investment in Canada and in Canadian companies around blockchain?

Mr. Daniel Brock: I don't know that I would point to specific ideas about incentives. It's more a general perception that this is an industry that's worthy of support.

What we're seeing now is this disjointed transactional treatment of the industry. Our coalition exists because of one of those incidents: The tabling of this change to GST purports to treat digital asset mining like some kind of obscure business that needs to be treated almost like a pariah within our economy. The GST is not an instrument of moral determination; it is an instrument of taxation. If you do something for profit or revenue in Canada, you should be taxable and be able to claim input tax credits. The Department of Finance seems to be going out of its way to come up with an obscure solution to what it perceives to be some kind of a problem with the industry.

We are at an important time. We've talked about the possibility of having a larger meeting of industry in Ottawa and getting the associations together. There are some associations. The coalition exists because there wasn't an association that was specifically advancing the interests of digital asset mining in Canada, so we have this coalition. Those things are starting to happen now.

If this one specific tax policy is allowed to stand and be implemented.... The companies in the coalition are all being courted by Oregon, Texas, upstate New York and Arizona to bring their operations there. This is becoming a highly competitive environment.

Canada has all sorts of natural benefits. We have clean power, the rule of law, a cold climate and talented people to fill those jobs, yet we don't seem to be able to get out of our own way to allow these businesses to flourish. There probably are a suite of specific policies that could be developed to promote the industry.

It starts with government believing that it's an industry that needs to be supported. As others have said on the panel, that requires education, and a bit of seeing the industry differently by looking past the headlines and avoiding the lazy opinion-making that the chair mentioned earlier. That's happening all too often in the industry here in Canada.

The Chair: Thank you, Mr. Williams.

I have the honour of going again. I'll follow the same line of questioning that Mr. Williams started.

How much tax revenue and how many jobs are represented by digital asset mining in Canada?

● (1815)

Mr. Daniel Brock: It would be guesstimates.

The larger companies are investing hundreds of millions of dollars in infrastructure. They're generating profits, which they're paying taxes on. They're paying other forms of taxes as well. They're generating economic activity, which itself is generating taxes. A comprehensive study of what contributions the industry is making to the Canadian economy probably needs to happen. It hasn't happened yet. It's something that would certainly clarify things.

I guess I would turn to Geoffrey or Sheldon. Do you want to add anything on this from the jobs, investment, or taxes point of view for the industry?

Mr. Geoffrey Morphy: I'll go first.

We have seven farms—we call them farms in Quebec—most of which are in smaller towns. The largest one is in Sherbrooke. In Sherbrooke we have three facilities. We have, as I mentioned, over 100 employees working in these facilities. Sherbrooke is the lion's share. We have co-operations with the schools for education, for helping students come out of the schools and internships to get jobs with us. We're really getting into the ecosystem, if you will. They want to come to work for us. We're a coveted job for many millennials, as was mentioned here earlier. If you look at LinkedIn, you'll see there are close to 400 people looking for jobs in our industry across the country right now.

Have we paid taxes? Yes. We pay GST. A year ago when we were profitable—well profitable, because bitcoin prices were up—we paid cash taxes. We have been an active contributor to the economy.

We have contracts with Hydro-Québec. We have contracts with some of the regional municipalities, and when we pay them, those revenues go into the local municipalities and help balance the budget and help operate the grids in those areas, and we have heard anecdotally that it's helped to balance their budgets so that they don't have to raise local property taxes.

We give, and we hear that it benefits the social programs in those areas. We regularly meet with the towns and the mayors and councils and exchange ideas. We've talked to some of the towns about getting involved in some of the CEGEP programs.

We have a lot of involvement throughout, and if we are given support from the banks, from capital, and can move into areas in which we can get good electricity contracts where we can benefit the grid and get benefit from lower-cost power, then we can do a lot more. I'm really excited about that.

[*Translation*]

The Chair: I believe, Mr. Brock, that it would be worthwhile to do this work in order to have a better idea not only of the number of direct and indirect jobs it would represent for the entire country, but also the revenue, whether for municipalities, provinces or the federal government. I believe that having an overview would help support your claims.

What do you think the changes being proposed by the Department of Finance would have on the industry?

[*English*]

Mr. Daniel Brock: They make these businesses uncompetitive globally in Canada. They add a drag. It is effectively a hidden 5% to 15% tax on the businesses themselves that their competitors in other jurisdictions are not going to confront.

I don't want to overstate the impact, but these are companies that are now considering how just the tabling of the legislation has had a chilling effect on investment decisions that these companies have to make to reinvest in their equipment and to grow their businesses. We are already seeing the impact, and this is just by a tabled proposal.

I don't want to overstate what the consequence will be, but in a highly competitive environment where these other jurisdictions are actively recruiting these types of businesses to come and set up in their jurisdictions, our concern is that there could be a serious negative impact on the future growth and sustainability of these businesses in Canada.

The Chair: Maybe, Madam Rozansky, I'll cede the floor to you, but is there any other industry that's faced with a similar inability to claim credit on taxes paid, to your knowledge?

Ms. Tamara Rozansky: It would be anyone who is touched by this legislation, and the legislation is incredibly broad. It's referring to crypto assets, which by definition is anyone who has a publicly distributed ledger—I'm paraphrasing—so it goes well beyond bitcoin, well beyond that definition of a virtual payment instrument that I mentioned before. It seems to be far-reaching, and it's not only that: It seems to attract anyone who's using computing resources within the mining activities, so it may be reaching not just to the miners themselves but could even be potentially interpreted to be those who provide inputs into the actual crypto mining.

● (1820)

The Chair: As it stands, is there any other industry that has the same kinds of rules imposed on it that is not related to cryptocurrency or mining or anything like that?

Ms. Tamara Rozansky: The closest I would assimilate this to would be the financial services sector. Their legislation is written completely differently from this. It's exempt and not non-commercial activity, which is a new concept. With that, there is a zero-rating provision. Notably, for financial institutions that have some activities with non-residents, that's considered to be zero-rated and not exempt, which means it gives them the opportunity to claim their input tax credits.

I would also add that there is specific legislation for refining in the mining industry of precious metals that equally gives the refiner the ability to claim back the input tax credits, recognizing that this is the most expensive part of the process. After that, it's simply passing along that precious metal.

On Dan's point, just quickly, I would add that the legislation is not only unfair because it limits input tax credits, as we mentioned; it's also unfair to certain provinces because it limits the input tax credits you're paying depending on what province you're in. For instance, in you're in Quebec or if you're in the Atlantic provinces, the 15% rate will discourage mining in those provinces versus provinces with a lower tax rate.

The Chair: That's interesting.

If you have any additional numbers or information that you want to submit, please do so in writing. We'd be happy to have a look at it.

[*Translation*]

It's over to Mr. Lemire now for two and a half minutes.

Mr. Sébastien Lemire: Mr. Morphy, I really liked your presentation on the Quebec ecosystem. I'd like to give you the opportunity to tell us even more about how rich it is.

I'd like to ask you another question. We sometimes hear about the possibility of bitcoin mining in church basements, which has the twofold advantage of bringing our heritage to life and providing a solution to heating problems. The large surface area is ideal for mining.

Is that something you've looked into at Bitfarms?

[*English*]

Mr. Geoffrey Morphy: I don't want to repeat myself, but one thing we get into in bitcoin mining is the fact that we have residual heat. We have this cool climate, which makes it very efficient and a great place to operate bitcoin mining. You asked where some of the industry is going; it's in the technology to try to reclaim that heat or take advantage of that heat so that you get a double cycle. While we're cooling our machines and operating at high performance, we capture that residual heat and then apply it to industry, such as greenhouses. There's a big initiative in Quebec to grow vegetables and the like there. We could push this heat into greenhouses. In other areas, lumber is very big, as is forestry in Quebec.

There are also drying operations. If it could be done co-operatively, we could push that heat into the drying operations and save them considerable BTUs in natural gas or electricity wherever heat is necessary. We could push it into a district heating and cooling type of system as well. There are lots of additional things. We talked with one city that's looking to set up a fish farm. We could push our heat into their pools of water on an aquaculture basis in the wintertime when they need to warm the water.

There are lots of different applications that, if we were given a chance to talk and think outside the box and be in the right places, we could do more for.

[*Translation*]

Mr. Sébastien Lemire: I don't have much time left, but I'd like to say that you'd be welcome in Abitibi-Témiscamingue if that's of interest to you.

Thank you very much.

The Chair: It's apparently cold there as well.

Mr. Bennett, please go ahead if you'd like to add any comments.

[*English*]

Mr. Sheldon Bennett: Thank you.

On Mr. Morphy's comments about other economic activity specific to bitcoin mining, there is a Canadian start-up in Vancouver that works with the City of Vancouver and BC Hydro on bitcoin heat that's generated. It's being used in district heating. It's been very successful. It's already demonstrated this in the spirits business, working with manufacturers of different alcohols. It is now doing this in co-operation with BC Hydro, which is a provincial government company, and the City of Vancouver. These are the types of areas in which we're taking one technology and its energy consumption and turning it and using it again for the benefit of people, which is a great thing.

I think that if we stifle the industry with restrictive laws or things like this taxation issue that we're representing here, it will stop the small start-ups that can become great companies and grow into providing great solutions using blockchain energy and the resource constraints that we have in building infrastructure.

There's one more comment that I would like to make before we end. We set up in British Columbia. We are very close to the U.S. border. We sit on the Columbia River. Most of the power that's not consumed in our region is sold down to the U.S. and Washington state. The load that we now take was a load that was lost, unfortunately, to a previous company that was there and was not able to get through the timber issues with the U.S. countervailing duties. The power that we consume now is power that's not being shipped down to the U.S., where most likely it would be in bitcoin mining.

There's a lot of bitcoin mining in Washington state. Our decision to set up in B.C. has brought jobs to an area that was closed down, and it has enabled me to create a software platform company—not just a bitcoin mining company—that has high-paying jobs and is developing great technology.

I really hope that through these meetings, we will have another, larger meeting and take on these challenges, because innovation is here. As I said already, SFU is our big partner in innovation around blockchain. I know universities are very interested in this technology, because their students are very interested in it. My own son is in computer science at SFU, and he is very interested in blockchain and energy efficiency. Everybody is interested in this as well.

We have the ability to take on these challenges and grow this technology for Canada and for the world to see what we can do.

● (1825)

The Chair: Thank you very much, Mr. Bennett.

[*Translation*]

Over to you, Mr. Masse.

[*English*]

Mr. Brian Masse: Thank you, Mr. Chair.

I'm convinced by what I've experienced through the Canadian Automotive Partnership Council meetings that we had that the minister really has to take the bull by the horns.

The meetings that we had broke into subgroups. They had follow-up measurables and specific timelines. It was a real business strategy. We did pretty well on a number of different things. It led, in part, to the new international border.

To Mr. Bennett, I'm going to raise that exact point. In Ontario, not only do we shut down feeding the grid with clean energy because it doesn't need it at that moment in time, but we ship it to Ohio and other places under cheap contracts. Have any metrics been done to show how much we're losing out economically, or is it too early for that?

There's a good example. I know people who are not allowed, at certain points, to feed into the Ontario grid because it's not necessary. It's from solar energy. It's basically getting wasted away.

Has anybody done that type of analysis, or is it too early just yet?

Mr. Sheldon Bennett: I think it's a bit early.

At our location in Christina Lake, which is a small community of about 4,000 people, our local utility is not BC Hydro. It's FortisBC, which is another utility in British Columbia. They were ecstatic to have us come, because it's very difficult for a utility to acquire a new ratepayer and have new load. Unless you can find a forestry factory or some type of forest operations or a mining client or a steel processing facility—Teck Cominco would be one that's in that area—it's very difficult to get new load. Without that new load, the capital cost of running utilities increases, and that goes down to the ratepayers. For us, picking up load that has become vacant and is not used anymore is helping the ratepayers of that community in that area. Bitcoin miners taking load is a good thing.

Just like Mr. Morphy, we get a call from FortisBC saying it's cold in the winter and they're looking at curtailing our load. We have no issue with this. We work with Fortis very closely on this. It's not a problem for us. It's very important to understand that unlike pulp and paper, for example, when you start the pulping process, you don't stop it for eight to 10 hours. If you turn the power off, you lose that whole batch.

Bitcoin miners have the opportunity for revenue every 10 minutes. Every 10 minutes, we may or may not make revenue. From our point of view, if we were to give up two or three hours or a day, we're only giving up a small portion of revenue. In return for that, we're helping to stabilize the grid, we're helping the economy and we're helping people.

I don't think any of the CEOs of public companies would have any issue with that.

● (1830)

The Chair: Thank you, Mr. Bennett.

Mr. Brock, I think you wanted to add to that.

Mr. Daniel Brock: I was just going to say that in the Ontario context it's mostly anecdotal, so research needs to be done on this as well.

If you can imagine, for hydro power, Ontario, unlike Quebec or B.C., doesn't have the capacity to store power. It has to shed power and sell it at discounted rates to neighbours who could use it when it's there. Any load in Ontario that's used for digital asset mining is load that's creating value in Ontario, as an alternative to exporting it at sometimes negative prices, so again, it's almost axiomatic.

Work has to be done. I don't want overstate its potential, but the mining companies in our coalition that are operating in Ontario say that when they have those conversations with the local utility officials, they hear, “Oh, this is great. We want more of this.” As you go up the food chain—the decision-making chain—things cool off pretty quickly, and the organizations struggle with making the commitments necessary for the industry to really thrive.

The Chair: Thank you very much, Mr. Masse and Mr. Brock.

Mr. Dong, I know you have one more question. Please make it a brief one, because we're—

Mr. Han Dong: Okay. I'll just ask about the taxation or the ability to claim input taxation. If I purchase a bitcoin, do I have to pay HST on it?

A voice: No.

Mr. Han Dong: No? Okay.

My logic is that when you purchase something or purchase a service and you pay HST on it, there is the input taxation on the shipping or the component that's put into it. An end consumer like me will be paying the same tax twice, which is double taxation. That's why, to limit the embedded tax, the producer in this case would be able to claim the tax back, but as the end consumer of a bitcoin, or when I purchase it as an investment, I don't pay HST.

Wouldn't it make sense that during the making or the farming of this bitcoin.... Doesn't someone have to pay HST for hydro, for equipment or whatnot? Just help me to understand that logic. If we agree with that.... I think your earlier claim was that you would not be able to claim back the HST in the making of the bitcoin. Am I right?

Ms. Tamara Rozansky: I would contrast that, as I mentioned before, with the mining of precious metals. With the refining, the mining is fully taxable. The refining is why I called it “zero-rated”. You're eligible to claim back those credits, and then, upon sale, not charge the tax on the precious metals. Equally, the printing of our own money here, as I understand, is a taxable activity that is recoverable, and then it goes on to be—

Mr. Han Dong: The precious metal cannot consumed as the precious metal, so it will be made—

Mr. Daniel Brock: The precious metal is a physical store of value. Cryptocurrency is a digital virtual store of value, but it's every bit as real.

Mr. Han Dong: It's a chunk of gold nugget, or something like that.

Mr. Daniel Brock: That's right.

Mr. Han Dong: But that gold nugget will be made into something at the end or—

Mr. Daniel Brock: Two-thirds of the global gold supply goes into bars and ends up as a store of value in a vault somewhere, but one-third of the world's gold supply ends up in jewellery. The gold value of jewellery is probably a small portion of its value. Jewellery is taxable as a work of art or as a product. It has gold in it, but its overall value is typically far in excess of what the gold component would be.

Mr. Han Dong: It's good that I have this clarification. What you are saying is that the bitcoin should be treated as gold bars—

Mr. Daniel Brock: They call it “crypto mining”. We think the mining analogy is a good one. It is: Digital mining is what's happening, and this cryptocurrency—bitcoin, in this case—is being created as a result of this process.

Mr. Han Dong: If we were just talking about bitcoin, I would agree with you, but there are so many different types of cryptocurrencies that in a sense it's unlimited. Gold mines are limited.

● (1835)

Mr. Daniel Brock: It's best to think of it.... This is computing services.

Mr. Han Dong: Right.

Mr. Daniel Brock: It's like providing services to the cloud. Those computing services are taxable. They're taxable on the provision of them, and they're used for all sorts of purposes.

The work of digital asset mining is the providing of computer services. They are high-end, specialized and energy-intensive computer services. Those services are taxable, they should be taxable and the businesses that do them should be able to claim an input tax credit.

Much of the work that's being done to mine is work that is being done by pools. Some of those pools—many of those pools—are outside of the Canadian jurisdiction. Like any service provider, you provide the service, and when you provide the service to someone outside of Canada, that service is zero-rated. It's what makes our Canadian businesses competitive. You're not adding a tax on the service you're providing to a foreign company. The goods, the value-added tax, would be the issue for the jurisdiction—

Mr. Han Dong: To be clear, you're saying you should be able to claim back the tax paid on inputs in making the bitcoin or the cryptocurrency.

Mr. Daniel Brock: You're paying taxes on inputs. When you provide those services, you're charging tax.

Mr. Han Dong: However, in the creation of this coin, there is not a single period of time when the government will be able to tax the creation of this coin. Is that what you're saying?

Mr. Daniel Brock: Yes. That's correct.

Mr. Han Dong: All right. Thank you.

Mr. Daniel Brock: We're using the GST, of course. The creation of the coin is taxed. Corporate taxes and other taxes are paid by these businesses, but on the goods and services tax, you wouldn't be claiming that tax on the creation of the coin on our model. It would ultimately be on the provision of services to an end customer.

Ms. Tamara Rozansky: Of course, tax will be collected once that coin is used to purchase goods and services, if it's in Canada.

Mr. Daniel Brock: It's not on the trading of the coin; when the coin is used to purchase services, those purchases are taxed.

Mr. Han Dong: Okay. I have it.

The Chair: Like the infamous shawarma that Mr. Poilievre bought with bitcoin.

Voices: Oh, oh!

The Chair: Thank you very much to all of our witnesses. It's been very informative, so thank you for taking the time.

[*Translation*]

This was probably our final meeting on the topic. I believe it's an excellent conclusion to this study. With the help of our analyst, we will now be able to prepare the report.

Thank you for your time, and take care.

I'd also like to thank the interpreters, the clerk and the entire staff.

The meeting is adjourned.