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**GARY GENSLER:** We're going to turn back to ICOs and spend a little bit more time on initial coin offerings in the markets and the regulation of initial coin offerings today. But before I did that, I was going to talk about one short announcement that happened. In the US, we've talked about how fiat currencies are accepted for taxes.

**AUDIENCE:** Ohio!

**GARY GENSLER:** Ohio. James, what do you want to tell me about Ohio?

**AUDIENCE:** They're taking Bitcoin for taxes, right?

**AUDIENCE:** Yes.

**AUDIENCE:** Yep.

**GARY GENSLER:** Yeah. What's that? So do you want to say a little bit more about it, Hugo, or Ross?

**AUDIENCE:** Go ahead.

**AUDIENCE:** Sure. Yeah, so they're accepting Bitcoin for taxes through BitPay, which means that it's instantly transferred into fiat. But still, that's a pretty big thing. You know?

**GARY GENSLER:** Yeah, so the state of Ohio, I guess it was the--

**AUDIENCE:** Treasurer.

**GARY GENSLER:** --treasurer. Tom, you're shaking your head.

**AUDIENCE:** Oh, as an Ohioan, just Ohio today breaks my heart, not related to this-- unrelated.

**GARY GENSLER:** So Ohio breaks your heart because they're accepting Bitcoin for taxes?

**AUDIENCE:** Unrelated.

**GARY GENSLER:** Unrelated. Do you want to share for the class, or?

**AUDIENCE:** I'll let [INAUDIBLE] and his next four years of policy speak for itself.

**AUDIENCE:** Oh, yes.

**GARY GENSLER:** Oh, I see. So the state of Ohio has announced, the state treasurer-- is this an elected office, the state treasurer? So he saw that it would be good for Ohio, for the economics and for the job creation in Ohio, and maybe for his politics, to move forward and say the state of Ohio would accept Bitcoin for taxes.

It's the only US jurisdiction that I know that has done that. Now, you can think of them as a vendor, like they're saying they will take it. And they've arranged it, as Hugo said, through BitPay.

BitPay is an application where, whether you're Starbucks or the state of Ohio, you can take a cryptocurrency like Bitcoin, and they will take that Bitcoin, sell it quickly on an exchange, take some price risk- BitPay takes a little bit of price risk-- and for a 1% fee, give you fiat currency.

Now, it's 1% and whatever exchange rate, because I don't know how much VIG, or margin, is in the exchange rate transaction. But their stated fee is 1%. Hugo?

**AUDIENCE:** I think the big question is whether or not that's a taxable event, too.

**GARY GENSLER:** Is a taxable event for who?

**AUDIENCE:** For the person who's paying their taxes in Bitcoin, if any transaction from Bitcoin to fiat is a taxable event.

**GARY GENSLER:** All right. So Hugo's raised the question, is the sale of the Bitcoin to fiat-- because the fiat is, in essence, being used to pay the state of Ohio taxes-- is the sale of that Bitcoin a taxable event? And I think somebody in the class will know. It's knowable.

**AUDIENCE:** If you sold Bitcoin to acquire fiat, it would be. But if you use fiat to acquire Bitcoin, which I think the big application here is the marijuana industry in Ohio, if they're not able to back the bank-- if they are acquiring Bitcoins and then paying them to the government, I think they don't have to pay taxes.

**GARY GENSLER:** What if you bought Bitcoin at \$3,700, and the day that you sent in your taxes it's valued at

\$3,800 bitcoin?

**AUDIENCE:** Congratulations.

**AUDIENCE:** Yeah.

**AUDIENCE:** You would pay taxes on the profit.

**GARY GENSLER:** That's correct. So at least here in the US-- the IRS has spoken to this-- if you acquire Bitcoin and then you use the Bitcoin in commerce, if you're using it to fulfill an obligation, in this case a debt to the Ohio government, and if it moved from \$3,700 to \$3,800, you would, yes.

You would have a short-term capital gains on the \$100 difference. Whether everybody will comply and report properly is another thing. But that is certainly my reading of US law at this time. Ross?

**AUDIENCE:** This rate-- I saw this, and I looked up a couple of things-- it strikes me it would be taxable given what you've said about the US thing. And it really is just changing it for fiat. It's just the structure, really.

But what might make it seem more interesting or gain a little traction is if, Ohio, if they have a state income tax, agreed not to tax the gain. Ohio could agree not to do it. You split the pay on the federal side. But then they could make it more like a real transaction if you're paying Bitcoin.

**GARY GENSLER:** And how many of you are from Ohio here other than Tom? Tom, as an Ohioan, would you want them to not charge the taxes? You're one voter, I know.

**AUDIENCE:** So there's [INAUDIBLE].

**GARY GENSLER:** Oh, [LAUGHS] OK.

**AUDIENCE:** So they charge the state income tax. But I don't know if they charge a state capital gains tax.

**AUDIENCE:** But that's the question. I'm just saying that's how they could make it more real than-- like Hugo was saying. It's not real right now. We're just converting it to dollars and taking the dollars.

**GARY GENSLER:** They did, in this announcement-- if you read the fine print as I was want to do because I was fascinated by this-- for the first three months of the program, Ohio negotiated with BitPay that BitPay would charge a 0% fee for the first three months.

But this was BitPay foregoing-- it appears that that was their bonus to the state of Ohio-- 0% fee for three months, again, not knowing exactly what exchange rate you're getting and so forth. And you think that it would be the cannabis industry?

**AUDIENCE:** Yeah, so Ohio passed a state constitutional amendment two years ago.

**GARY GENSLER:** We're talking about Ohio that's now accepting Bitcoin for taxes. And Tom is our resident Ohio expert.

**AUDIENCE:** I guess so. So yeah, Ohio will legalize-- the state voters passed an amendment to allow marijuana legalization. It's subject to, I think, some time delay or regulatory approval.

But the expectation is it will be approved. And the marijuana industry is still restricted from accessing the federal banking system. So an alternate way for them to avoid carrying large sums of cash--

**GARY GENSLER:** Is carry the value in cryptocurrency. And do you think that's what motivated the Ohio State Treasurer? I see. Shawn?

**AUDIENCE:** I was just curious. So if that's the case, and if I may-- well, look, I don't know of capital gains, but if we can cut losses on Bitcoin, does that part of loss get carried forward that allows you to upset some of your income?

**GARY GENSLER:** Yeah, it's a capital loss, just as if you bought Apple stock and had a loss on Apple stock.

**AUDIENCE:** So this cannot be carried forward to offset the future--

**AUDIENCE:** Yeah.

**GARY GENSLER:** Under US law-- I can't speak to other jurisdictions' tax-- but you can apply losses against gains. And to the extent you have greater losses than gains, you can actually take some of those losses against your income-- I don't remember the limit any longer; it's 3,000 US dollars-- and then, otherwise, carry it forward.

So for most citizens, they would just take that loss. If you had greater than that, you would carry it forward. Any other thoughts on Ohio? I mean--

**AUDIENCE:** Yeah, I'm just wondering, sort of philosophically, Ohio isn't actually carrying the price for this. But given they're converting it to fiat instantaneously, philosophically are they really accepting

Bitcoin as payment for taxes? Or is it just a marketing gimmick?

**GARY GENSLER:** I don't know. I mean, any other views on that? So the question is, is Ohio really taking cryptocurrencies, Bitcoin, or is it just marketing?

**AUDIENCE:** I think it's marketing because if you have BitPay, the whole point of BitPay is turning it back into fiat, which is why I think they should pay taxes on it. If the state of Ohio had a wallet with Bitcoin and they would accept those bitcoins into their wallet and hold those proceedings in their wallet, then they would be formally accepting Bitcoin for taxes. And you will not need to pay taxes on that transaction.

**GARY GENSLER:** But I would raise the question, with all respect, what's the relevance? Why does it matter to a taxpayer in Ohio if this facilitates my paying my taxes, whether it's in the cannabis trade or some other trade? They're facilitating another means of paying my taxes, fulfilling my obligation to society.

**AUDIENCE:** Yeah. So my response to that would be in how we define what a currency is. And one of those criteria is, are they accepted to pay taxes? I think it's relevant to that distinction.

**GARY GENSLER:** All right. Tom, do you want to defend your fellow Ohioans?

**AUDIENCE:** No. I mean, I think it's relevant. I mean, the Ohio State Treasurer doesn't take pork bellies or cotton or even corn as paying for taxes. I don't know if they take gold.

**GARY GENSLER:** No. To the best of my knowledge, no.

**AUDIENCE:** Yeah, so even for the short-term transfer, I think it's relevant.

**GARY GENSLER:** So it's a bit of a hybrid, I guess, is what Tom's saying. Ross?

**AUDIENCE:** There's a real question about whether they could take it directly for taxes, because under the Constitution, the states cannot make anything legal tender. Only the federal government can make that determination.

Only the federal government can establish legal tender, not the states, other than gold. So it would actually be a question about whether Ohio could-- who would object is another question. But it's an issue. What they're doing is marketing, I think. But they could, for example--

**GARY GENSLER:** Though I'm not studied in the law of legal tender, I could see a case that says, this is not

making it legal tender. This is just saying you can pay your taxes in another form of property.

**AUDIENCE:** That's the question.

**GARY GENSLER:** You know? Does that make it legal tender? No. It just makes it that we, the government of Ohio, will accept it for taxes. But it doesn't mean that we are saying that Starbucks has to take it for a cup of coffee.

**AUDIENCE:** I also see it as a gateway as taking it in a few years, having their own wallet. So testing it out, see how many people actually use it.

And if they want to eventually avoid the fees of the processing service, they could eventually rule that out of it. If they set it is a precedent now, and whether or not they're converting it immediately, doesn't really have an effect as to whether it sets a precedent for future years to actually use it as legal--

**GARY GENSLER:** Right.

**AUDIENCE:** --tender, as their own wallet, as [INAUDIBLE] was saying.

**GARY GENSLER:** And they might just be testing it out. James?

**AUDIENCE:** I guess, reverting to Ross's point, in legal tender, the money is different. Right? So the criteria here, where you're talking money, you could pay taxes, which, in this case, I think this is verging on to the hybrid situation where it's not a cow. It's not some corn. But it certainly can pay the taxes via [INAUDIBLE]. So they kind of make it more and more like money. Where about this legal tender, that's money, [? well, ?] [? 2.0. ?]

**AUDIENCE:** I think it's--

[INTERPOSING VOICES]

**AUDIENCE:** --a question of whether you can get to a hybrid using bits. I agree with that.

**GARY GENSLER:** Yeah. And they're testing it out. And maybe this state treasurer feels that it's good for his politics, it will appeal to some portion of the electorate, whether it's millennials, whether it's Bitcoin maximalist, whether it's the cannabis trade.

Or maybe he just looks more tech savvy, that they can put out an announcement saying we are the only state in the land. The website says that they're promoting it to lower fees.

Now, I don't know how many people would pay their taxes in Ohio using the credit card rails. But literally on the website, they talk about, well, this has lower fees than the 2 and 1/2% or 3% you get charged on your credit cards. But I think that that would only be a very small portion of taxpayers.

And they're accepting it for sales tax. They're accepting it for all forms of tax. It's not just income tax. So it's all the small transactional taxes as well as income tax and real estate tax. So it's just an interesting thing. Jake?

**AUDIENCE:** What's the actual benefit for it, because can't they just go sell the Bitcoin on the market and pay the taxes in cash?

**GARY GENSLER:** So benefit for?

**AUDIENCE:** For the taxpayer.

**GARY GENSLER:** For the taxpayer? This is a good question. What's the benefit for the taxpayer? It's the same question of, what's the benefit for any consumer if I want to use Bitcoin, maybe, to buy a Starbucks?

So any vendor could say, we'll accept Bitcoin here. The benefit for the consumer or taxpayer is if they find it more convenient, if it's lower fees, if this is where they're storing their value rather than fiat.

Not many people are. But that would be-- and maybe as Tom pointed out, that there is a specific idiosyncratic thing in Ohio that they've just moved forward. And they legalized the marijuana trade in Ohio?

**AUDIENCE:** I don't think it's fully legalized. It's been authorized to be legalized. But I don't think that they--

**GARY GENSLER:** So they're in the process. And Tom has a theory that maybe there's some that can't access the banking system, the fiat. In essence, they're off fiat rails. So here's, at least, Tom's theory of the case.

So those might be some of the-- anyway. So what else happened in the last week, by the way, since we came together? Anything else in the crypto space?

**AUDIENCE:** 30% drop in Bitcoin.

**GARY GENSLER:** 30% drop. I haven't checked recently, but yeah. Do you have any theories on that before we go to crypto exchanges and ICOs and everything?

**AUDIENCE:** Not that come up.

**GARY GENSLER:** No. No theories. Oh, well, Brotish we haven't heard from Brotish. You have a theory as to the 30% drop since we were last together?

**AUDIENCE:** I have a different point about what happened recently. We saw the news article [INAUDIBLE] postponing the launch of the Bitcoin future to February, which was supposed to happen in November.

**GARY GENSLER:** Do you think that was because they were here to talk with us? I mean, your questions were good. Do you have any views on-- Sean, we'll come back to the back.

**AUDIENCE:** Because of the hard fork, there was a hard fork that happened last Saturday, a week ago, on Bitcoin Cash. And then people, kind of, caused the skepticism in the market to say which is going to be the majority of the consensus for the currency.

**GARY GENSLER:** So there was a hard fork in Bitcoin Cash, that Bitcoin Cash split into, yet, Bitcoin Cash. And is it now settled as Bitcoin SV? S-- what's that?

**AUDIENCE:** Satoshi's Vision.

**GARY GENSLER:** Satoshi's Vision, so SV. I couldn't make this stuff up. But that hard fork was, timing wise, right at the center of a break in the markets. And so there's some that have written, well, is that the reason?

I've been around markets long enough to think that might be a news event. But I don't think that was the reason there was such a softness in demand, that a news event like that comes along, and then the market breaks and finds no support, and it drops from, what was it around, \$6,300 all the way through to \$3,700 or \$3,800? I don't know where it's trading right now. But it's somewhere in that range.

**AUDIENCE:** \$3,714.

**GARY GENSLER:** I'm sorry.

**AUDIENCE:** \$3,714.



**GARY GENSLER:** The Ohioan has spoken-- \$3,714. So that type of not finding a price support, there's other reasons, I would think, which really goes back to the heart and soul of valuation. Yes.

**AUDIENCE:** What about, we were talking about tax stability earlier. It is approaching December, so tax-loss selling for people in taxable [? jurisdictions. ?]

**GARY GENSLER:** So maybe tax-loss selling. [INAUDIBLE].

**AUDIENCE:** [INAUDIBLE] [? for a ?] company and news about Visa and MasterCard [INAUDIBLE] anything related to cryptocurrencies and initial coin offering, so any transaction related to them. So there was something in the news about it.

**GARY GENSLER:** There is also news, which we're going to review today, that the Securities and Exchange Commission took two additional actions in the initial coin offering space. But these actions were a little different than the past actions.

So they've already taken about a dozen enforcement actions, or settlements, or orders, in the initial coin offering space. But these two, Paragon and--

**AUDIENCE:** Airfox.

**GARY GENSLER:** --Airfox were different in that, one, they weren't surrounded by obvious scam or fraud. I'm not going to speak to their motivations. But they were more traditional, \$12, \$15, \$18 million raised in each of them, situations.

Two, they're about a year old. And here they are finally coming to a settlement where the entrepreneurs, the venture capitalists behind it, said, all right, we get it. We're going to come into compliance.

We're going to do an offering statement. We're going to put out the full and fair information about this. But also, we're going to be willing to give back money to people who were-- so they're not fighting in a court. Some have gone into court against the SEC.

But here, also, the other thing was the first time they paid penalties, I think they were modest, relatively modest-- quarter million dollars, if I saw. But that also happened in the midst of this. The SEC for the first time actually assessed penalties, had settlements.

They were also not the, sort of, clear, obvious scam and fraud cases. They were simply, hey,

you didn't register, and you were supposed to register. You're, in essence, an illegal securities offering. But now, come into compliance, pay a penalty, move forward, as well. So a lot going on.

So today, we already did Ohio, which was more fun than the rest of this stuff. We're going to talk a little bit about the Howey Test again, which we talked about about a month ago. But I wanted to bring it back into the discussion about initial coin offerings.

We're going to talk a little bit about some realities. Ernst & Young put out a recent report that wasn't in your readings. It just came out last week. But I want to review some of the findings that Ernst & Young did on, what they call, the class of 2017.

They look at the top 140 ICOs from 2017, and where are they as of the end of September of this year, not even speaking about the last six or eight weeks. Some SEC enforcement actions I want to walk through just to give you a flavor for, at least, this country's approach to initial coin offerings, how you can actually comply with securities law.

I promise you that I'm not going to go deep diving. But I want to give you a little bit of a flavor for, if you were to be involved in an initial coin offering, how to do it in a compliant way. And some personal thoughts on the path forward in ICO [INAUDIBLE]. So that's what we're going to do.

The study questions, we'll get to. But I just want to ask the class the middle question, which is the easiest, or maybe the hardest. Why is this market so rife with scams and fraud, whether it's Christian Catalini's work that said 25% of the market or the smaller survey status group that was part of today's readings, up to 80%? Why do you think this market has so many scams? Aline what do you--

**AUDIENCE:** It's so easy to con.

**GARY GENSLER:** What's easy? The question's easy, or scamming the market's easy?

**AUDIENCE:** It's so easy to scam people. Like, why wouldn't you do it? It's so damn easy.

**GARY GENSLER:** I'm sorry. The first part I got. Remember we're on video. All right.

**AUDIENCE:** It's a rhetorical question.

**GARY GENSLER:** It's a rhetorical question. It's so easy. And thus, it's easy for bad actors. Jihee.

**AUDIENCE:** I thought there were two main reasons. One is because it's such a new thing, there is lack of the regulatory environment that happens with the IPO and other ways of raising funds.

And I think the second one is it's, as Alin pointed out, I think it's very easy to just go say, I'm going to do ICO when there is only an idea. So I think that's why a lot of investors or consumers just fall into these scams and fraud.

**AUDIENCE:** And I mean, the fact that you're just publishing a white paper, that no one actually is interacting with you unless it's on a blog or something like that, they're publishing a white paper that could have this grandiose idea, and then all of a sudden they just run. And there's really nothing stopping them from doing that. So it's just difficult.

**GARY GENSLER:** So I've heard it's easy. It's not yet in a regulatory space. It's at a distance. It's just the publishing of a white paper.

**AUDIENCE:** And there's simply demand because of immediate--

**GARY GENSLER:** So demand.

**AUDIENCE:** Yeah, there's just a lot of demand. With the media around Bitcoin going up towards \$20,000 last year, there's demand to get into the bottom of one of these ICOs to hope to get the same kind of returns.

**GARY GENSLER:** So there is tremendous demand and, related to demand, fear of missing out, so whether it's greed-- the animal spirits, the human spirits of market's around fear and greed. So the greed of participating or the fear of missing out was certainly part of late 2017 and into 2018. Kelly?

**AUDIENCE:** We could talk a little bit more about what Jihee said about the lack of a regulatory environment. That sort of leads to-- because a lot of these ICOs are not in compliance with securities acts and regulations that allows them to sort of skirmish around investor protection. So investors, they're not necessarily privy to material information about the financing and what they might reasonably expect as a return. So it kind of--

**GARY GENSLER:** Right.

**AUDIENCE:** They're just taking advantage of it a little bit.

**GARY GENSLER:** I agree, but I think the court-- Kelly is touching on one other thing. Guillermo.

**AUDIENCE:** I had one question on this. The scams are defined as a company that you can no longer reach or see if they came out with a product.

But I was wondering, given that this is a very early-stage venture, how much, really, do people maliciously run away with the money, or just tried something and failed? Do they just raise money, and because they did it with a PowerPoint, they realized this is not going to be a good business case, and they just abandon it, not as a scam but as a new venture that failed?

**GARY GENSLER:** I think Guillermo raises the right question. It's why one study says it's 5% to 25% scams or frauds, and another study says 80%. It's what's in the definition.

A good-faith actor could say this is easy money. A good-faith actor could say this is cheap money. I can raise money fast just on the backs of a white paper in the middle of a bull market, maybe even a bubble, and then find out three months later that their idea doesn't work out.

And I accept that there are probably a lot of good-faith actors that raised tens of millions of dollars. And I wouldn't necessarily personally call that a scam. But nonetheless, somebody else might call that a scam.

So Telegram raised \$1.7 billion in February of this year. I don't know-- how many people have ever read the white paper, I mean, not that it was ever assigned? All right, all right. So all right, I've read the white paper.

I couldn't figure out in February when they raised the money what they were going to use that \$1.7 billion for. Now, it's a remarkable technology. And they have, I think, somewhere around 200 million users in their non-blockchain use.

And so they were able to raise a lot of money with a lot of fancy words. But they still haven't gone live. They haven't taken the \$1.7 billion and created a network.

Filecoin seemed to be a good-faith concept about using a token to motivate the exchange of file storage. Assume for a moment it's good-faith actors.

They raised the money in October of 2017. It's 13 months later. They still do not have a live network. And the latest announcement says it will come either in the first or second quarter of 2019. Some people might call that a scam. I wouldn't.

But so I think you're right. There's a range of activity. But there's one other thing about why I think this has been an easy place for scams and frauds. And it's the technical nature of it, as well.

Like, I hope at the end of this class, whatever you think of the lectures, whatever you think of the assignments, you come away with some critical reasoning skills, that the 80 or so of you who have been on this journey together will leave and say, all right, I get it.

But for most, for the hundreds of thousands or even millions of people that have invested, there's a lot of technical-- whether it's hash functions or digital signatures. And so I think it's easier to scam the public when it's shrouded in jargon.

And so maybe it's a lesson for all of us to always be careful about our own investments when something is shrouded in jargon. And it doesn't have to be cryptographic jargon. It could be other types of jargon, as well.

I think that's also one of the reasons why it's been easier to scam and fleece the public in the midst of a bubble, in the midst of a nonregulated space, in the midst of, just throw a white paper up. Jake?

**AUDIENCE:**

It's also the nature of it just being, we're investing in such an early stage. So plenty of tech that ends up IPOing and has public investors when it's early on, it's only VCs investing. And they understand the tech.

But you don't have regular consumer retail investors actually putting money into those really early-stage companies, where with ICOs, we're investing at the white paper. So regardless of whether it's blockchain or a robotics company or whatever, it is very confusing that early on.

**GARY GENSLER:**

Right. So it's also very early-stage investing, which is a good point. So I'm going to skip over the reading. So investor protection. I found in a conference in Paris, an OECD conference-- we got into a debate.

And there were regulators-- I was not a regulator at the time; this was earlier this year-- regulators from 30 or 40 countries. And we got in a debate of, what's the difference between investor protection and consumer protection? And so these are just some thoughts.

But investor protection, which has been the hallmark of the US markets that's in the 1930s, and in other jurisdictions, other decades it's been adopted, I think is part of why the US capital

markets were really at the forefront of this incredible economy for 70 or 80 years here in the US. And it's helped other economies subsequently.

But it's four big things. Investors do take risk. But they get full and fair disclosure from an issuer. And there's a concept that there's asymmetric knowledge, that an issuer has a bunch of information and an investor does not.

Through the laws of the land, can we balance that a little bit? Investors still have every opportunity to take risk. But can we address the asymmetry of information?

And that's really a core part of investor protection, a little bit different than consumer protection. You still want to be protected that a crib that you buy is not going to hurt your child or that the clothing you put on an infant isn't instantly flammable.

Those are important consumer protections. And often, we protect them in the laws, as well. But information asymmetry and the difference between information between an issuer, somebody raising money, and an investor is something we try to embed in securities laws around the globe.

Two is the concept of sales practices. Various fraud and sales practices are prohibited. Sometimes you hear this around securities laws about the marketing information, what information you need to provide.

So the first and second are principles that go into why there's information statements. Or securities offerings come with all that boilerplate, and sometimes you might say it's too much. But all of that is to address information asymmetries and try to lessen or make it harder to have fraud and deceptive practices.

Then we have something called secondary markets, where buyers and sellers meet, like on the New York Stock Exchange or on a crypto exchange, and the concept being, can we promote market integrity? Can we promote those markets either through transparency-- transparency is really being able to see what buy orders and sell orders-- what's the price that people are willing to pay?

What's the amount they're willing to buy or sell? So pre-trade transparency says, I'm going to share in the marketplace, that there's not somebody over here, some high frequency traders, that get transparency, but retail public does not get transparency. It brings it into one market.

And some rules against manipulation. Now one person's manipulation's another person's market practice. I respect that, too, just like the word "scam."

But there's traditional things about manipulation that have come to be, no, we should forbid certain practices. Front-running is one, where a customer gives you a sell order, and you say, well, the customers sell order, good, I'll sell in front of them because I know that when they sell, it's going to be market pressure, either up pressure with a buy order or down pressure with a sell order.

So one is address asymmetries through information. Prohibit or limit fraud and deceptive sales practices and marketing-- lying, sort of. Promote the integrity of the secondary markets through, first, price transparency and, secondly, antimanipulation.

And then, lastly, recognizing that all financial markets have conflicts. And we are not going to repeal conflicts. Anytime any one of you goes to a broker, that broker does want you to transact so that they earn more money.

But by the way, when you sit down at a restaurant and they ask you if you want a drink before you order, there is a bit of a conflict, too. They want you to buy the drink because your tip amount is a percent of your final bill, well, in most countries. I can't speak for every country here.

But in finance, those conflicts are so evident that there are sets of rules, usually, that promote some transparency that you know what the advisor is getting. But some practices are prohibited.

So these are some of the core things that, at least, I think are embedded as concepts in our securities laws, and not just here in the US but around the globe. Any questions on that before-- Brotish?

**AUDIENCE:** So on the first point, if we are saying that we have some sort of a minimum disclosure requirement for ICOs, do you think in this kind of a field, do we have the regulators who have the expertise to judge whether those requirements are met or not? Like, they can say that--

**GARY GENSLER:** Are you asking whether the investors will have the expertise, or the regulators?

**AUDIENCE:** Regulators.

**GARY GENSLER:** It's a good question. I think that the concept is that issuers should share a certain level of material information with potential investors, and then investors assess the risk, not that the regulator assesses the risk but the investors.

So the question is, what is material? And what needs to be shared in what readable fashion? And maybe it's the case in this ecosystem that the information should be a little different.

Historically, you'd have to share three years of financials or two years of financials. But what do financials mean if it's a new concept, a new idea? So I think you raise a good point that it might need to shift a little bit.

But the core concept is that the material information to make an investment decision should be shared, and then investors have an opportunity to assess that risk. And you're right. The regulators are less experienced in this space to say what is a material bit of information beyond here's the team, and here's the concept.

The Howey Test. So there is an individual in Florida. He ran for governor twice in Florida and lost twice, just a little background-- William Howey. He was also very successful in real estate, and he had a hotel.

And he had something called Howey on the Hills. And he started buying a bunch of land. And then he thought, well, I'll sell some of the land and grow orange groves. And when he sold the land, he gave the opportunity to investors in the land to enter into a separate contract with a company he had, but it was not required.

You could buy the land, you know, an acre, three acres. But he said, if you want, you can enter into a contract with my affiliate-- Howey on the Hills, I think, was the affiliate, as well-- and we'll grow your oranges for you and give you the revenues from growing the oranges.

So there was a new law in the US in the 1930s. He was doing this in the late 1930s. And the new law was called the Securities Laws of '33 and '34. The question was, was what William Howey was doing-- and then he passed away-- was his estate and what they were doing a security under the US Securities Law?

Well, in the US, the word "security" was defined by our Congress to include equity, bonds, options, and there was a comma, and said, "investment contracts." So the real question was, what was the definition of this, two words, "investment contracts?"



In 1946, it went to our US Supreme Court. And this was the four-part test. And this four-part test is going back to the US Supreme Court three or four times since then. And it's been affirmed every time, in the *Edwards* case and other cases and so forth over 70 years.

This same four-part test went to the Taiwanese high court in 2011, and they adopted it. I don't know enough about Taiwan law. But it was adopted in Taiwan in 2011. And it's a similar test as in Canada. So there's three jurisdictions that basically have this.

Is it an investment of money or assets? Is the investment in a common enterprise? Do you have a reasonable expectation of profits? And is it based on the efforts of others?

So they determined that William Howey, and then his estate afterwards, was basically a common enterprise growing all these oranges, and so it was the expectation of profits. That's the Howey Test.

I've talked to you before about the Duck Test. But when I see an investment that walks like a duck, swims like a duck, and quacks like a duck, I call that investment a security, in a way. But that's really it, you know, using your common sense.

Ethereum, when it was first promoted in 2014, I believe passed this test. And the word "passed" means that you are a security, just a little vocabulary thing. You want to fail the Howey Test, by the way. Like, if you are a venture capitalist and don't want to be regulated, you want to fail this test.

But to pass the Howey test, Ethereum, in 2014, exchanged Bitcoin for an ETH. It was an investment in a common enterprise at that point in time, a 20- or 21-year-old Vitalik Buterin running Ethereum Foundation out of Switzerland. It was one group.

An expectation of profits-- they had no functioning network. It was just an idea and a white paper-- a really good idea-- and good-faith actors. And it was reliant on whether Vitalik and his team of coders were going to stand this project up.

To me, I don't even think there's much doubt what this was in 2014 when they raised the \$18 million. Now, it was the largest ICO done at the time. There hadn't been anything of its size, at \$18 million.

And our US Securities agency and others around the globe really weren't looking and watching until the DAO happened in 2016 and raised \$160 or so million. And then that sort of caught the

attention. So regulators start to wake up and think about it after that.

So initial coin offerings, we've already talked about this. But the proceeds are used to build networks. And purchasers anticipate profits through appreciation. So that's like the core of the Howey Test.

Now, some jurisdictions don't have the Howey Test. And some jurisdictions don't have those two words in the definition of security-- "investment contract." So I actually think, in a lot of jurisdictions, an initial coin offering may not be a security because it's not defined in their statutes.

It's not some legislative body like ours in the 1930s included it in a definition. But I believe if this market were to grow, and it might not grow, but if it were to grow, other countries might want to address that and change their statutory language because investors still have an asymmetry and could benefit with more disclosure.

As we've talked about, the tokens are usually prior to being functional. What was the statistic? Does anybody remember? In the third quarter of 2018, what was the percent that was functional? Anybody? What's that, Alpha? 5%? You're a little high.

**AUDIENCE:** 2%-- 2% or 3%?

**GARY GENSLER:** Yeah. 1.4%-- 1.37% was fully-ready product. Or 1.7 was code, so we'll round up. But 76% were on ideas. And this is in the third quarter of 2018 by CryptoCompare.

And here are some large tokens offerings that have yet to go live. And I just picked five really big ones. That doesn't mean that all big ones haven't gone live.

But you were asking me about Filecoin in our last class. I think Filecoin-- I went back, and I looked at the white paper; I've looked at a lot of things about Filecoin since last Tuesday-- Filecoin is basically coin that says you can use this coin when we go live, which hopefully will be by the second quarter of '19, to buy file storage from others that are on the network.

Their business model-- Filecoin sold 10% of the token. So if it was truly worth \$257 million at the time, they, in essence, had a total value of \$2 and 1/2 billion. Some of the tokens were kept by the company. Some of the tokens were kept by founders. But it, in essence, capitalized the total stock 10 times that.

So in that model, the usage of the coin was amongst the community, to answer-- I think that was a question you asked me to go back. But that's not the case for every ICO.

There's two stark variations. One is one where you use the token to buy a good or service from a service provider. Let's, in the case of Filecoin, say it's directly from Filecoin. Or you use the token to buy a good or service from other people in the community.

The Filecoin white paper suggests-- it's a year since they wrote it-- that it's a token to be used amongst the community, which I think was your-- it's a little confusing because they haven't gone live. We don't really know. Hugo?

**AUDIENCE:** So I have a question about Ripple--

**GARY GENSLER:** Yes.

**AUDIENCE:** --and if you have an opinion on whether XRP is a security that was sold by Ripple, or currently continuing to be sold by Ripple, as they own, like, 55 billion of the clients, because, also, their product, what they want XRP to be used on, xRapid, isn't really live.

xCurrent is the thing that they're using most right now. And that's just an alternative for SWIFT that doesn't even use their coin.

**GARY GENSLER:** So Hugo has asked about the token XRP and whether I think it's a non-compliant security. I've spoken publicly. Yes, I do think it's a non-compliant security. But this will not be resolved just by the Securities and Exchange Commission. It will be resolved by some courts, whether it's appellate courts or the Supreme Court.

So what I believe is just that. It's a belief. But why would I say that? I think back to the Howey Test. I think they are exchanging XRP.

Ripple, the company, is exchanging XRP for something of value. And they're using it right now. They sell it every month. It's in a lock-up. It's in an escrow. And they sell XRP every month.

Ripple, the company, initially did the genesis block back in 2013 but kept 80% of the tokens. Now they have about 60% of the token. But they sell it on a continuous 100 million to 200 million or so a month of value.

Two, I think it is reliant on a common enterprise. I think Ripple, the company-- XRP investors are very much reliant on Ripple, the company, and that if Ripple, the company, went away, as

you noted, there's not much use of XRP.

In fact, for the first three or four years, or five years even, there was no use. And then they prototyped something called xRapid. xCurrent, the main product of Ripple, the company, is a messaging-- and apparently a clever one that's competing with SWIFT.

But xRapid, the prototype, doesn't have a large community right now. So it's highly centralized around Ripple, the company. The development, the node network-- the ownership is 55% or 60% owned by them. They're promoting it as such.

But it will be settled in some court at some point in time. And there might be regulatory forbearance. And maybe they'll be determined not to be. But I've expressed my thoughts. I don't own any of this stuff. I don't have any particular conflict. I'm just speaking as I believe. Catalina?

**AUDIENCE:** Regarding how do you determine where the ICO took place--

**GARY GENSLER:** Where, what?

**AUDIENCE:** Where the ICO took place, what is the jurisdiction? Like, which will be the regulator if they are under the laws of the US or everywhere else, because the blockchain--

[INTERPOSING VOICES]

**GARY GENSLER:** No, it's a very good question. So jurisdiction. When does any country have jurisdiction? Or maybe I should ask it differently. When do you think countries try to exert their jurisdiction in the context of capital markets?

We're not talking about the context of consumable goods. But in terms of the capital markets, where do jurisdictions usually exert their jurisdiction?

**AUDIENCE:** I think that this should be a [INAUDIBLE] which investor will take the ICO.

**GARY GENSLER:** OK.

**AUDIENCE:** So even if they're not majority of investor, it will be a US person. So it should be a US regulator who handles this.

**GARY GENSLER:** So one approach theory is it's where the investors are. And you even used the word a "majority" of investors, or just where the investors are?

**AUDIENCE:** Yeah, that's correct.

**GARY GENSLER:** All right. So where the investors are. And then the question is, how many investors-- minority, majority, de minimis, so forth. Another point of view, any, just, counter--

**AUDIENCE:** Where the company was incorporated.

**GARY GENSLER:** All right. So where the company's legal jurisdiction is. Maybe the company's incorporated somewhere. So in essence, where the issuer is. And there's a third one.

**AUDIENCE:** Tax considerations.

**GARY GENSLER:** What's that?

**AUDIENCE:** Tax considerations.

**GARY GENSLER:** Tax considerations, you know, can you collect taxes?

**AUDIENCE:** Where the team is physically located.

**GARY GENSLER:** Where the, what?

**AUDIENCE:** Where the team is physically--

**GARY GENSLER:** The team, the physical team. So you might legally incorporate in the Cayman Islands, but your executive team might be in New York or in Beijing. And the one other, which I think all of these go in--

**AUDIENCE:** The exchange.

**GARY GENSLER:** The exchange. All right. The secondary markets. So all of these things somehow influence the concept of jurisdiction. And there's various laws. And each country has their own different-- I'm not going to do a whole review of this.

But usually countries want to exert their jurisdiction if their citizens somehow are affected or if their tax base is somehow affected. So in the US securities laws, if it's affecting US citizens or if the exchange or secondary markets are in our physical jurisdiction, in the 50 states and so forth, or the issuer, so it's all three of these, often there's some exertion of jurisdiction. And it's upheld in the courts.

And then you get to some issuers who have to deal with multiple jurisdictions. And almost every large corporation that has investors in multiple jurisdictions has to deal with the investor laws in multiple jurisdictions. So initial coin offerings, if they want to tap into US 328 million people to buy some of these, it's more than a de minimis.

It's not a majority. US law doesn't need a majority. It just has to be more than a handful. US Securities and Exchange Commission might exert its jurisdiction. It doesn't always. So please.

**AUDIENCE:** So some of these ICOs, Filecoin, I think, included, only sold to accredited investors. In my mind, that doesn't really change the definition of security or highly taxed or jurisdiction. So what is the benefit of only selling to accredited investors?

**GARY GENSLER:** Can I hold that, because I'm going to slide on that? But it's a very good question. So the Ernst & Young study-- and I promise we'll get to it. So one year later, they looked at the top 141 ICOs of 2017.

I haven't looked at the whole list. But I think they pretty much got the top end. 86% are trading below listed price as of September 30. This does not take into consideration the last week. But the number would go up-- 86% nine months later.

30% have lost substantially all their value, and not necessarily scams and frauds. But it's interesting to compare that to Christian Catalini's 25% scam or fraud number. But these are the top 141 in size. These aren't the small riff-raff size.

Collectively, the portfolio is down 66%. I didn't go back to compare what that would be versus Bitcoin because some of these were issued in October, some December. But collectively, if you invested in the port-- it's not January 1 to September 30. It's from investment day. And only 13% have working products and 16% have prototypes.

Another interesting thing is the 13% that have working products, which is about 25 of these. Is that right? Roughly, yeah, about 25 or so, 20 to 25. Seven of them have decided subsequent to launch to accept fiat currency to get the good or service. So literally, if you dig into the Ernst & Young report, they've chosen to take something else.

And Hugo, back to your question about XRP, as I understand it and as I studied it, I might be mistaken, but xRapid, you can actually use something other than XRP as the bridge currency. It has to be another crypto.

But 7 of 25 live projects that Ernst & Young followed have decided subsequently maybe to take a fiat currency for the good or service, as well. So that kind of gives you the sense this was a note about the Catalini report and that status report, as well.

What's going on on Ethereum? This is the most recent report. I summarized something from a site. These are exchanges. There's 179 DApps. This is just looking at Ethereum.

But there's only 25,000 uses a day for 179 sites. 17,000 in gambling. But it's exchanges, gambling, games, finance fourth. And then you can go down. The other category, which only has 275 daily uses, covers governance, identity, security, energy, insurance, and health.

Of six of those use cases-- 218 DApps, which means they're all being used zero or once a day. I believe I pulled this for the month of October. I think all these stats are-- yeah, this was for the month of October. So it might be September, but it's all current information.

So what has the SEC done in this space? Well, they brought the DAO report in July of 2017. If you remember, this was the big \$150, \$160 million big ICO in 2016. A third of it was hacked. It led to the break in the Ethereum network between Ethereum Classic, the hard fork, and Ethereum.

DAO actually shut down. It didn't take off. And a year later, the SEC did not bring an enforcement action. They chose not to penalize anybody. But they laid out in pretty good detail as to why these things were securities.

I don't think they had planned for what was going to happen next. But the ICO, boom, took off, I don't think because of the DAO report. But it's an interesting coincidence whether this kind of gave a bunch of lawyers and entrepreneurs a sense, all right, if I avoid doing what they did specifically-- and the DAO, they actually paid part of the revenues to the token holders, and they gave a sense of voting rights.

So it was so security-looking because there were a form of participation in governance and a form of participation in profits that everything took off. Then then the SEC did two other things. One was-- the REcoin complaint was a real fraudulent player, and the Munchee order in December last year. I read that in January or February. And I thought, well, that's pretty clear.

And Jay Clayton, who runs the SEC, has said in congressional testimony in February that he hadn't met an ICO that he didn't think was a security. His words were a little different. But I

thought between the Munchee order and Chairman Clayton's statement in February, he had really said it. But it wasn't quite enough.

And the Munchee order, again, they didn't assess penalties. But it was an offering-- I can't remember the size-- \$20 to \$30 million. They knocked on Munchee's-- Munchee, by the way, does anybody know what the coin did? It was for restaurant reviews-- munchie, food. Yeah.

But they knocked on the Munchee folks' door right as they were doing the offering. And they basically shut down the offering. But then they did a whole bunch of-- there's five or six of these, almost all of which are really scammy, fraudy-type things.

I mean, I can't speak to each one. But they'd have some celebrity that was paid a lot of money to go out to hawk the coins. And there wasn't much behind it, and so forth. Asset freezes, filing complaints in courts, emergency court orders, one settlement-- it takes a long time to build a case.

Having been the chairman of a smaller regulatory agency, I can tell you it just takes a long time to build cases. It's not, like, three months. Sometimes it's a year. Sometimes it's even three years.

But the last two, Airfox and Paragon orders, were two offerings that were done 12 to 15 months ago, so a long time to bring it together. But they were settlements. And Paragon and Airfox, which each raised, I don't know, \$12 or \$18 million each or \$15 or \$18 million each, appeared on the surface to be more good-faith actors.

I can't speak-- I don't know for sure, but the first time the SEC has gotten penalties, the first time they've gotten somebody to say yes, if somebody wants their money back a year later, we'll do that. And yes, we'll come into compliance, and we'll do offering documents.

So now I'm going to talk a little bit about, what can you do? And I think Zhenyu asked this question, what can you do? And I'm going to do it in two different charts.

But the first one is called restricted offerings. And this is not a securities law class. This is just to give you a sense of what are the potentials. A restricted offering, which came out 30-plus years ago at first, was the concept of, I'm not doing a public offering, I'm only selling these securities in a private placement.

In my day, when I was on Wall Street, we called these private placements. But a restricted



offering-- and there's three different ones. The most likely one is the 506(c) which came out of a recent law passed in 2012 called the JOBS Act in Congress. Don't you love how we name our laws in the US? The JOBS Act.

Accredited investors only. And an accredited investor-- and every jurisdiction is different-- the concept is you have a little bit of net worth, or a lot of net worth, depending upon your view about money, but you have enough net worth that you supposedly are sophisticated or accredited or you can have less protection under this securities law, unless you need less information.

So 506(c) says, "accredited investors." If that's all it is, it's a restricted security, "restricted" meaning you cannot sell it publicly for either six months or 12 months depending upon how you structure these things.

And the big thing about all of the restricted offerings is you don't have to do one of those detailed information statements. So the SEC says, all right, if you keep it restricted, it's only accredited investors.

Or the 506(b)-- accredited investors, but 35 people can be sophisticated rather than accredited. Please don't challenge me on the definitions of what's sophisticated and not accredited. It's basically, you can show sophistication even if you don't have money. Accredited is about how much money you have. Sophisticated is knowledge but not money, roughly speaking.

And then there's a small thing for small offerings. Regulation D is what most of them-- Telegram did a Regulation D. [INAUDIBLE], to let you know, I think Filecoin did a Reg D offering.

Generally speaking, it's, quote, "accredited investors," meaning they have enough money. They have over, I can't remember, a million bucks or whatever that number is.

Regulation A is offering statement. So you have to give a statement. You have to give something with the financials. Not many ICOs want to do a Reg A offering. But if you were doing a startup, if you're thinking about, like, you're in one of the wonderful venture classes, fintech ventures or other venture classes, you might consider doing a Reg A offering rather than a Reg D.

The benefit of Reg A, Regulation A, is you can go to any investors. You don't have to only limit

to accredited investors. So Regulation D, only accredited investors, generally, with a little footnote about sophisticated investors. Regulation A, you've got to give them more information. You have to address some of that information asymmetry.

There's two tiers-- \$20 million and \$50 million. The \$50 million offering, you have ongoing reporting obligations. The \$20 million, you just have to get yourself around doing something at the beginning. But how do you do financials for an ICO when there's-- oh, I guess you just say you have no revenues, no income, et cetera.

There's something very new called Regulation CF, or crowdfunding. Unless you're raising less than a million dollars, you wouldn't put it on your list. So almost no initial coin offerings are looking at Reg CF.

They're basically looking mostly at what we used to call private placements or restricted offerings, Regulation D. That's where most of them are. And you have to use good-faith efforts to make sure that every one of your investors is, in fact, an accredited investor. And that's where it is. Questions.

**AUDIENCE:** Do all of these regulations, D, A, and CF, entail KYC and AML?

**GARY GENSLER:** Yeah, so the question is, do you have to know your customer and any money laundering? And the answer is yes because over the last couple of decades what's happened is finance ministries around the globe, and this is not just here in the US, have kind of layered on top of securities laws, hey, we need your help here because there's this public policy goal of making sure that you can't money launder. So yes, but in varying degrees.

So in the Regulation D requirements, you have to make the good-faith efforts when you do the initial sale. And purportedly, it's restricted. And it's not supposed to be resold for either six or 12 months. But on the resale, the issuer doesn't have the same obligations, where some of the others, you would have more continuing obligations on the resale.

So I think that some have tried to get around this in doing a Reg D offering and then said, can I get some crypto exchange to list this ICO? And I'm going to turn a blind eye-- I think it's bad legal advice they're taking-- but turn a blind eye as to where it gets sold on that.

I wouldn't recommend it. But I think some are doing that on the resale and not, maybe, doing KYC or AML on the resale. At least that's what some tell me. Please.

**AUDIENCE:** I've heard some crypto folks argue that the definition of the accredited investor is not particularly relevant in this ICO space. And actually, having investable assets doesn't make you well-placed to understand whether an ICO is a good product.

And actually, having technical skills and being able to read a white paper is a more relevant qualification to allow you to invest and that by having these regulations, in a way you're restricting access. And that promotes inequality, that only rich people are getting these investment opportunities. So I've heard crypto people make this argument. So I guess, what would your response to that be?

**GARY GENSLER:** And I will hear your classmate's response.

**AUDIENCE:** Yeah, I would say that rich people don't know how to handle money, necessarily, anyway. So there isn't a direct correlation between having wealth and knowing how to use it.

The law exists the way it does because of diversification and because of asset allocation theory and the idea that people don't understand that. And I think that even if you have technical expertise in crypto, you may not understand asset allocation theory and be able to balance what you need when.

And basically, the law is set up such that you can lose all of that. And even if you're very savvy, you can be very savvy and still be wrong, and you've lost more than you own. And that wouldn't be OK. So I think from the government's perspective, it is what it is.

**AUDIENCE:** I would just respond to say that I don't know if it's the government's role to police that.

**GARY GENSLER:** Sorry, can you speak up?

**AUDIENCE:** I think both of the points are right. It's my opinion that it's not the government's role to decide that you don't get to invest in something that you believe in or worked on because you may not understand portfolio theory, just because you don't have a two-year track record of making \$200,000 a year.

**GARY GENSLER:** No, it's a very good question. And there's this public policy debate as to, if you have a belief that investor protection helps promote markets and investor protection is about addressing some information asymmetries and protecting against fraud and bad actors, do you tier it?

Now, in the US, we've decided on some multiple-decade-- Republicans and Democrats alike,

somehow we've come to a tiered system, meaning that there's more investor protection, more rules and regulations, for what's usually called the retail public than some tiering of usually higher net worth individuals, this term "accredited investor."

And that tiering, you could come to a point of view that we shouldn't have any tiering, that everybody should have the same protections, and it should be, maybe, somewhere in the middle of the two. Or you might be more pro-protection or less pro-protection.

But we have come to a place in the US over multiple decades of this tiering, where the, quote, "accredited investors" get a little less. They're allowed to risk their capital with less information. That's, in essence, what happens in the system.

And Congress even pressed harder because the Regulation D, restricted offerings, the 506(c) was added in this thing called the JOBS Act in 2012. Some of the politics behind it was a venture capital space and a lot of entrepreneurial space were saying, we'd like a less-regulated, restricted offering exemption.

Remember, these are all called exempt security offerings. They're exempt from the traditional roles. And there was a coalition that came together in Congress with the support of President Obama, actually not with the support of the head of his Securities and Exchange Commission. Mary Shapiro at the time was not in favor of some of this.

So it was an interesting event in 2012. But I think 506(c), if I remember, was either expanded or was added, to say, well, if it's accredited investors, there will be no limitation on general solicitation.

If you see, 506(b), traditionally, there was a limitation on general solicitation. And the thought was, in 2012, now with the internet, we should be able to-- and crowdsourcing had started. And Kickstarter and GoFundMe had started. So maybe we can have, quote, "general solicitation" if it's only accredited investors.

So it was a bit of a legislative and policy compromise. But you could take the other side and say everybody should have the same, one way or the other.

But whether you're thinking about blockchain or you're thinking about all the other wonderful things you're thinking about as startups, these are your three main ways. And really, probably, Regulation D and Regulation A more than the small million. I have high hopes for all of you that you'll be raising more than a million dollars in your startups.

This is a much more detailed-- I'm not going to go through it. But it's going to be in Canvas. I decided to throw it in the slide deck so you have it. But this really is a much more detailed review of the CrowdCheck put together. And I thought it was a good review of all these.

So what do I think the path forward is? And then we'll wrap. So I think we're going to continue to see high failure rates. Something like 3,000 ICOs have raised some bits of money. I mean, some of them only raised \$200,000.

But you can only find about 700 or 800 of them listed on various websites, if you want to see where they're traded. But there's probably more than 700 that are still around. But I think you're going to continue to see high failure rates like the Ernst & Young study showed.

I think it's going to lead to a further decline in funding totals. We've already seen that we were running \$1 and 1/2 to \$3 billion a month earlier this year. And now we're less than a billion dollars a month. But I think high failure rates will probably lead to lower funding totals. It's just Gensler's view. Predicting markets is always a treacherous thing to do.

I think that there'll be an increased number of enforcement cases and private litigation. We've seen only 11 or 12 actually at the SEC. These cases are hard to put together. They take a long time.

A lot of evidence and a lot of paper trails to put together and so forth. And even a civil law enforcement agency like the SEC-- I don't know their headcount right now-- the whole agency might be about 4,000 people. Their enforcement arm might be 1,000 people.

They can't dedicate-- you know, what are they dedicating to this? I don't know the number. It's not a public figure. But could it be 50 or 100 people at most to this whole world, which probably has hundreds of frauds and scams and a couple thousand of unregistered, basically illegal, offerings?

But I do think the enforcement actions will pick up, and also private litigation, which is also what you have in the XRP case. But you have it in other cases, as well. I think regulators and courts will bring greater clarity to the security definition.

At some point in time, things like XRP will decide it. It might be decided it's not a security. You know? But I think that's going to roll out over the next 18 to 36 months. It's not like the next three weeks or six weeks.

But I think that even the Securities and Exchange Commission will speak more definitively than Bill Hinman's speech he gave in, was it June? Yeah, June. That was one of the readings, right-- Director Hinman's. I like that he used my name in his speech, the title. He was talking about Gary, Indiana, though.

But I do think, just like what happened with Airfox and Paragon, more ICOs will be brought into compliance either by registering in the US under Reg D, or maybe Regulation A. Or they'll just come into compliance even if they didn't earlier come into compliance.

I think that the early tokens will be tested as some platforms become functional. Most will fail. Most we'll never hear from. But what happens when Filecoin actually-- they raised a quarter of a billion dollars.

Let's at least for now presume they will become functional sometime in 2019, or Telegraph. That will be interesting to see what the test of these large-cap ICOs are. We'll learn from that.

I also think markets will better differentiate viability. They'll go through, when do you need an append-only log, consensus among multiple parties, and a native token on a distributed ledger? That wasn't happening, probably, enough in late 2017 and early 2018.

I don't think they had to take this class, even though we'll put it out live, and people will be able to see it. But I think markets will start to differentiate viability by CO use cases a little better than they have the last 12 months. So any questions? Eric?

**AUDIENCE:**

Yeah. There's a bunch of startups we've been checking out. They're going through a new approach. There is actually a lot of venture capital firms that are doing a financing stage pre-ICO to help these startups build the actual network.

And in that case, when they go to post-ICO, you could argue that that helps, building the network before the ICOs can actually make them fail the Howey Test, because there's no-- in a sense, you have a network, a decentralized arrangement, that you don't have the single enterprise--

**GARY GENSLER:**

So I think, Eric, you're raising two questions. Are there ways to stage your financing to help build a network, just as a pure money and finance? And secondly, what is the regulatory implication, because I think it's two-part.

I think, like in any form of venture, you might stage your financing and, in this case, sort of address the network possibility before you do the regulatory. And it may be enough.

I mean, the US Securities and Exchange Commission and Hinman's speech sort of said you could be sufficiently decentralized as Ethereum. They, in essence, had some regulatory forbearance.

And there's a key sentence in that speech as to, I think the words were, regardless of what Ethereum might have been in 2014-- like, Hinman kind of pushed that to the side and said, I'm not going to address that question implicitly. But it's sufficiently decentralized.

That's the debate that's going on now between a bunch of venture firms and the SEC. When are you sufficiently decentralized? And so that form that you just mentioned might get us there-- might. I don't know. Did you have one last question? And then we're going to--

**AUDIENCE:** Maybe, just on the second point about likelihood of [INAUDIBLE], [? which I ?] obviously agree, is there any research on--

**GARY GENSLER:** This is just a prediction.

**AUDIENCE:** Yeah. I'll bet on it. How much of the ICO funding was crypto to fiat to crypto, people selling appreciated bitcoins--

**GARY GENSLER:** Terrific question. Almost all ICOs are priced crypto to crypto. So if you look at whether the initial ones, all the way back when the Ethereum was priced vis-à-vis Bitcoin or, the most recent, iOS that raised \$4.2 billion, their actual pricing mechanism-- I'm not familiar with any that priced versus fiat.

Their pricing mechanism in their auction or offering, it's almost always crypto to crypto. But somebody might be funding it fiat to crypto. But I think, to answer your question, you should assume 99% the actual exchange is crypto to crypto.

**AUDIENCE:** So I mean, just the decline in the price of Ethereum to Bitcoin, Bitcoin to cash almost has to--

**GARY GENSLER:** It has to put pressure on it. But I also think it is likely that the decline in the ICO market has put price pressure downward on Ethereum, for sure. And so Ethereum was the second-most valued crypto. And now it's third.

And it's had more price decline than Bitcoin or XRP. And I think part of that's narrative. Part of

that story is the decline in ICO space is likely to put a little decline on that.