**16. What impediments or risks exist to the reliable conversion of Ether to legal tender? How do these impediments or risks impact regulatory considerations for Commission registrants with respect to participating in any transactions in Ether, including the ability to obtain or demonstrate possession or control or otherwise hold Ether as collateral or on behalf of consumers?**

The conversion of Ether into fiat carries risks, as does any conversion of any virtual currency into fiat. The first being that virtual currency exchanges do not guarantee that they can always exchange a virtual currency for USD. Second, the high volatility in the virtual currency market, including Ether, makes transacting in Ether difficult. With such volatility, it may necessary to determine the value of a transaction or what collateral needs to be staked using USD instead of Ether. This will ensure that both parties receive the amount originally agreed upon. Additionally, since Ether is a global virtual currency, any transaction that encompasses a conversion from fiat to Ether back to fiat will have conversion issues due to the rapid price fluctuations.

The infancy of Ether and the exchanges it is offered on, makes custody of virtual currency difficult. Due to the virtual currency being represented in digital form, there has been significant exchange hacks that have cumulative losses in the hundreds of millions of dollars. Without consumer protection mechanisms, investors could lose an entire investment if the exchange experiences a hack.

The exchanges that trade Ether derivative contracts may have custody issues since there is a physical delivery component in true futures contracts. Custody has been and remains an issue since the virtual currency market is highly unregulated. Without controls, there may be theft of the Ether in custody of the exchanges or the escrow account it is being held in. This issue is highlighted with the bitcoin futures. No exchanges are currently offering the physical delivery futures contracts in part because of custody risks.

**18.** **Given the evolving nature of the Ether cash markets underlying potential Ether derivative contracts, what are the commercial risk management needs for a derivative contract on Ether?**

In 2018 the Ether cash market was extremely volatile with the virtual currency at one point losing 94% of its value from its January 2018 peak. With such volatility, it may be necessary for the Commission to implement additional safeguards to ensure that bad actors are not using the underlying cash market of Ether to manipulate derivative contracts market.

In addition to the existing risk management practices governing derivative contracts, the Commission may need to take a more aggressive role in monitoring the collateral/margin staked to deal with market volatility risks and counterparty risks. For example, the Commission could mandate that exchanges and dealers in OTC markets take additional collateral, or even full collateral, before the investor is permitted to trade derivatives. The Commission could also require capping the loses/gain, so that the parties understand from the outset the best-and worst-case scenario. Further, if a transaction is materially amended, or if the margin spread becomes greater than the initial margin/collateral posted, the short seller may be required to post additional collateral/margin. Requiring additional collateral and constantly monitoring the spread of the current margin and the initial margin may deter bad actors who own Ether in the underlying market from manipulating Ether’s price to gain a more favorable settlement in a derivative contract as it nears its expiration. Alternatively, the Commission could require exchanges to adjust an investor’s margin account balance for profits and losses on daily basis. For even greater protection, it may be necessary for cash to be used for the initial margin and any future settlement amounts instead of other assets, like Ether.

The illiquidity of the Ether market also creates risk management issues. The price of Ether is provided by the exchanges. However, with so many exchanges that operate in different global markets, it will need to be determined which exchanges can be relied upon. For this analysis, the size of the exchange, the exchange’s vulnerability to financial and cybersecurity hazards, and the KYC requirements of the exchange all must be considered to ensure the stability of the exchange.

The Commission may also need to take measures to ensure exchanges are offering both vehicles associated with futures, the physical delivery of the underlying asset futures and speculator futures. Over the past two years, the bitcoin futures market only encompassed cash settled futures. This permitted bitcoin holders to hedge their exposure. Cash-settled derivatives require an index to settle against, with no consensus on what the “true” price of Ether is or if the inputs forming the index become prone to manipulation and influence by those with vested interests. Given that a cash-settled future involves no transaction of the underlying asset itself, anyone with a large enough position in the underlying asset can impact the price in the futures market by buying and selling in the physical market. Bad actors with large positions in Ether could create activity in the price of Ether prior to the expiration date of the futures contract. This is especially true because the virtual currency market thus far is highly unregulated. Mandating exchanges participate in the physical delivery of Ether futures will require participants to use futures in the manner they were intended. The shorting investor should be required to place the Ether to be delivered in storage to send to the buyer on the expiration of the contract. Thus, prohibiting that short seller from using that Ether to separately create buying pressure in the physical market. Despite such safeguards, with the market volatility there is a high likelihood that one of the investors will always lose a large amount in the transaction, but regulations cannot substitute for investors’ own judgment and due diligence.

**19. Please list any potential impacts on Ether and the Ethereum Network that may arise from the listing or trading of derivative contracts on Ether.**

Listing or trading of derivative contracts on Ether may drive the Ether market into even more of a bear market. As alluded to in Request No. 18, many believe that bitcoin futures were instrumental in the rapid decline of the bitcoin price. Virtual currency is an unregulated market. Without oversight of the underlying asset in a derivative contract, the market is subject to manipulation by investors and traders who want to play with Ether’s price.

Next, Ether is still a new asset and the market will take time to stabilize. Many question whether introducing new players into the market via derivative contracts will benefit or harm the market. In fact, there is already enough speculation surrounding digital assets like Ether, evidenced by the price swings.

The additional regulations surrounding listing or trading derivative contracts on Ether may also be an issue for the community. Those within the blockchain community are split on whether virtual currency should be regulated. The decentralized nature of blockchain technology goes against having centralized authorities create rules and regulations. While most agree some regulation is necessary for virtual currency, there is also a strong fear of overregulation by governmental entities.

**21. What other factors could impact the Commission’s ability to properly oversee or monitor trading in derivative contracts on Ether as well as the underlying Ether cash markets.**

Solvency risks could impact the Commission’s ability to oversee trading of derivative contracts on Ether. With Ether’s current volatility, it is unknown whether Ether prices will rise or fall rapidly. If a large amount of Ether derivative contracts are sold and a price rally occurs, brokers will lose a lot of money. As with all derivative contracts, there are investors who will go long and those who will go short. With a rapid price increase, brokers may not be able to recover the money from investors going short, but still be required to payout the money to investors who went long. This instability has the potential to threaten the solvency of brokers. To combat this, many brokers are creating separate legal entities for bitcoin futures in the event of bankruptcy.

The privacy and anonymous features of the Ethereum Network may also impact the commission’s oversight being that transactions can be completely private. Thus, there will be transactions in the Ether cash market, that the Commission will be unable to view, including the identity of the parties involved. Such privacy is vital to the success of the Ethereum Network, however it will prevent the Commission from being able to regulate the transaction, until the transaction is converted to fiat. The same holds true for all virtual currencies.

The amount of Ether that can exist is limitless. On the other hand, Bitcoin has a limited number of bitcoins that can ever exist, 21 million. Many argue that having a limit provides slightly more stability and that Ether by its underlying structure will always be more volatile.