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## **Blockchain and Cryptocurrency as Digital Assets Requiring Special Attention in Your Estate Plan**

### [Brief History of Blockchain, Cryptocurrency and Bitcoin](#)

Just before World War II, the United States Government began backing the mortgage market. Seventy years later, the attacks on the Twin Towers happened. The Federal Reserve imposed low interest rates to prevent a recession. Investors and financial institutions alike weren't seeing high-yields and the yearning for higher-profits became intensified. Unable to meet a higher demand for higher-yielding investments, the United States made a decision that changed the financial world: mass-producing securities backed by mortgage payments. American consumers bought homes at a record-pace and banking institutions made record profits on securing these mortgages. That is, until the overextended American consumers began defaulting on their loan payments. Unable to collect on loans, banks (such as Lehman Brothers, Merrill Lynch, and AIG) collapsed. On September 29, 2008, the Dow Jones Industrial Average had its largest single-day loss in its history. With distrust for both banking institutions and government-issued securities at an all-time high, an idea was born: a new, decentralized infrastructure for financial transactions. This was the creation of blockchain and cryptocurrency as we know it.

### [Article Preview](#)

1. [Glossary of Key Terms](#)
2. [Blockchain: The Future of Data and Digital Assets](#)
3. [Cryptocurrency: The American Dollar's First Domestic Competition](#)
4. [Estate Planning with Digital Assets](#)

## Glossary of Key Terms

1. Bitcoin:
  - The first, most popular “decentralized” form of currency utilizing blockchain. Like other cryptocurrencies, it operates without the need for a banking institution or government “middleman.”
2. Block
  - A series of transactions grouped together on a “blockchain”. Each block refers to the block that precedes it, creating an organized sequence of transactions. Put simply, it’s the digital asset equivalent of a page of a bank ledger.
3. Blockchain
  - A series of blocks, linked together on a verified, shared digital ledger. Think of it as the digital asset version of the bank ledger itself.
4. Cryptocurrency
  - A digital currency that uses blockchain. It’s encrypted, secure, and cannot be unlocked or viewed without a “key”, which is a digital access point.
5. Distributed Ledgers
  - A ledger immediately accessible to anyone on the network with a key access point. Each member of the network has their own copy, so information cannot be deleted/altered by one member without leaving a digital footprint.
6. Distributed Networks
  - A network where data and processing power is spread out over multiple “nodes” (see below), rather than a centralized network.
7. Genesis Block
  - The first block of a blockchain. Think of this as the initial page or transaction in a bank ledger.
8. Initial Coin Offering (“ICO”)
  - The cryptocurrency version of a stock’s Initial Public Offering (“IPO”).
9. Mining
  - The process of utilizing computing power to solve math equations that validate transactions on a blockchain. Think of it like a bank “verifying” a transaction, but it’s much faster and costs less to the consumer. Data

miners often receive cryptocurrency in exchange for verifying the transaction. Think of that like a bank taking a small transaction fee.

10. Node

- Any computer that has access to a particular blockchain network.

## Blockchain: The Future of Data and Digital Assets

### Introducing Blockchain

At a base level, blockchain has **three components** in that it's (1) a distributed ledger, (2) stored on an encrypted network, (3) verified by data miners on a peer-to-peer network. Put simply, blockchain keeps compartmentalized data on monetary and other digital transactions. Blocks store information on the transaction's parties and information, but not in a way that's susceptible to identify theft. For example, blocks contain information on the date, time, and purchase amount of the currency, but the information on the parties themselves is merely an assigned address. This discreet labeling is called the "cryptographic digest" of a transaction. Like other databases, blockchains can organize data by factors such as purchase amount, date, time, party history, etc.

Because blockchain can be accessed by anyone on the shared network, it's considered "decentralized" and instantaneous. Unlike transactions at a banking institution, blockchain transactions are completed within minutes, involve lower fees, and carry less "pending transaction" risk. With traditional American Dollar currency, it's possible for consumers to perform duplicate transactions before a banking institution notices. In Blockchain, however, funds are transferred/withdrawn immediately. Performing a duplicate (not repeat) transaction is impossible on blockchain, as the system cannot allocate funds that are already accounted for. For example, if Person A has only 10 Bitcoin Tokens, the system won't let them send 10 coins to Person B twice. Once the first transaction is completed immediately, the system broadcasts it and prevents it from being duplicated. This system is helpful in preventing fraud. Further, there are no "bank hours" or "hours of operation". As soon as a transaction is verified by data miners, it's live.

## The Future of Blockchain

As mentioned in the opening, the market crash of 2008 created an opportunity for a decentralized currency. Cryptocurrency will be discussed in-length in the next section, but utility for blockchain does not stop there. Absentee and online ballots are the hot-topic discussions for the 2020 U.S. Presidential Election. You won't hear a conversation on the topic missing the words "fraud" or "hacking". Although the technology won't be integrated in time for this election, blockchain offers promise for future elections. Blockchain eliminates common voter participation deterrents such as: susceptibility to hacking, an unreliable central institution, a lengthy voting process, the potential for tampering or voter intimidation, and a lack of confidence in the integrity of the voting system. These factors are of particular importance in countries with history of corruption.

Blockchain also has promise with respect to estate planning. Because blockchain transactions are immutable and immediately-viewable to anyone on the network, they can be helpful in the documentation and storage of data in mortgage, lending, and title transactions. Some companies, such as Proof of Existence, are using blockchain to notarize documents in real-time.

## Cryptocurrency: The American Dollar's First Domestic Competition

Cryptocurrency is digital currency created ("mined") using blockchain technology. Cryptocurrency is not tangible. You can't even see it. Cryptocurrency is the data access to blockchain networks. The ability to access a decentralized network is valuable. This ability is referred to as a "token". Different cryptocurrencies have different values, ranging from pennies to thousands of dollars. The household name in cryptocurrency is Bitcoin. As of May 29<sup>th</sup>, 2020, Bitcoin was trading at \$9446.55 per token, with a supply of 18.39 million and a market cap of \$173.71 Billion U.S.D. Based off those numbers, it's clear there's a present demand for virtual currency. Cryptocurrency—unlike U.S. Dollars—is not susceptible to inflation or deflation. However, it carries its own risks. For example, cryptocurrency is traded like stocks. Thus, its value is fluctuating and can be overvalued or undervalued on the basis of speculation or fear. The following is an illustration of a typical cryptocurrency transaction:

1. Person A sends funds to Person B.
2. Miners broadcast the transaction on the distributed network through data mining. The miner (or miners) aggregate and validate the transaction(s). This adds a block to the existing blockchain. If it's the first transaction on a blockchain, this creates the genesis block. In return, they collect a small amount of the cryptocurrency mined.
3. Person B instantly receives funds.

As mentioned earlier, cryptocurrency provides certain advantages over traditional dollar-backed financial transactions. It's quick, transparent on a shared network, and can be completed anytime or anywhere without the need for government or central banking institution involvement. Unlike foreign exchange rate transactions, there's no need to convert it to a different currency when dealing with foreign parties. For example, you wouldn't need to worry about the power of the U.S. Dollar vs. the South African Rand when conducting a foreign exchange transaction. However, some cryptocurrencies are offered on multiple exchanges, which presents the opportunity for "crypto arbitrage". That is, the act of buying a cryptocurrency on one exchange and selling it for a higher price on another exchange.

## [Estate Planning with Digital Assets](#)

### [Legal Guidance with Fiduciary Duties](#)

The same structure that provides opportunities for blockchain also presents the existence of legal unknowns, fraud, regulations, and non-compliance with those regulations. Cryptocurrency is essential to estate planning, as all consumers need to know their legal duties as fiduciaries when marshaling assets. Knowing the prudent investor rules, duties to diversify, and duties to manage are necessary in mitigating the chance of economic loss or adverse litigation. As if this weren't complicated enough, Federal privacy and anti-hacking laws complicate the typical fiduciary role. Even those with lawful access to a private blockchain network can be prosecuted for federal crimes under the Computer Fraud and Abuse Act if the fiduciary's actions are outside of the access granted to them. Thus, knowing your fiduciary limitations is as important as knowing your fiduciary duties.

### A Myriad of Further Compliance Challenges

The legal challenges presented by blockchain don't stop at fiduciary challenges. The Internal Revenue Code, Uniform Transfer to Minors Act, The Uniform Transfer on Death Security Registration Act, Uniform Commercial Code, Securities Exchange Commission, and Commodity Futures Trading Commission are just a few examples of legislations/commissions that govern blockchain transactions. They govern issues such as cryptocurrency tax fraud, reported payments on 1099 forms, determining which state's state and sales tax apply in a multi-state cryptocurrency transaction, determining which virtual currencies are "securities", and determining which virtual currencies are "commodities". Many of these determinations are fact-based and not strictly defined, which makes the need for a qualified estate-planning attorney critical.

*This publication is intended for general information purposes only and is not to be construed as providing legal advice. You must consult an attorney to discuss how the laws apply to your specific situation and how to best implement a plan that will meet your individual goals and objectives. If we can be of assistance in that regard, please call us at (757) 969-1900 to schedule a consultation appointment.*