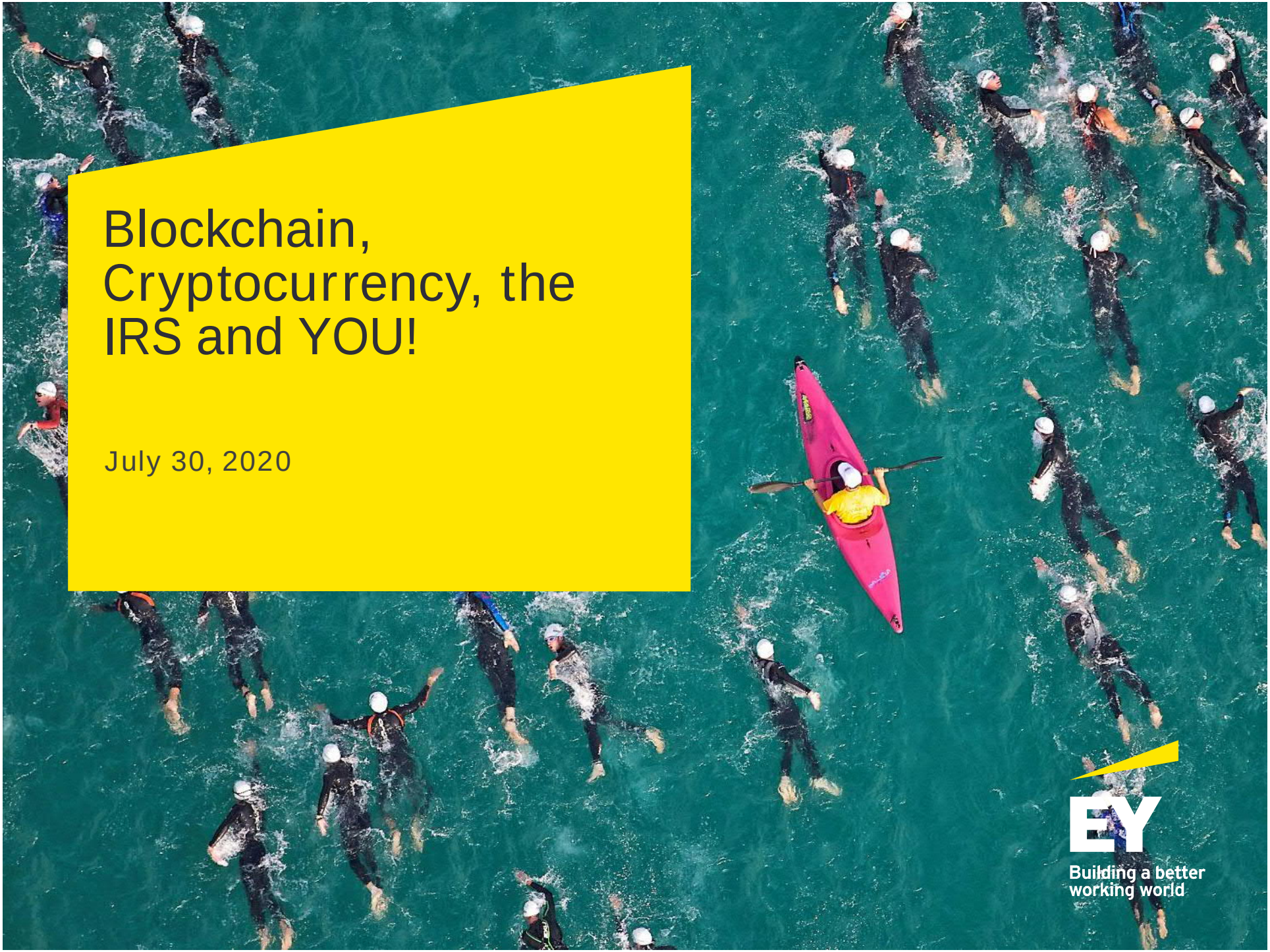

Blockchain, Cryptocurrency, the IRS and YOU!

July 30, 2020

Building a better working world

Agenda

- Basics of Blockchain and Cryptocurrency
  - What is Blockchain?
  - Cryptocurrency – Bitcoin and Beyond
  - Non-Cryptocurrency Applications of Blockchain
- Blockchain and EY
- The IRS and Cryptocurrency
  - Civil
  - Criminal

Your Presenters

- Laura Prendergast
- Bob Ratchford
- Cory Ellenson
- Paul Mayberry
- Heather Maloy
- Melissa Wiley

Earning an EY Badge

- Education requirement
  - 15 hours of learning – online, classroom or self-study (videos and books) training that provides a solid understanding of the fundamental concepts
- Contribution requirement
  - Internal activities (delivering training, thought leadership, knowledge/GTM, coaching or working/aligning with GDS); and
  - External activities (industry conferences/forums/communities, social media/press engagements, client presentations)
- Experience requirement
  - Demonstrated application of the subject matter; can range from articulating key concepts and demonstrating a basic understanding of the area to delivery on internal projects/client engagements.

Basics of Blockchain and Cryptocurrency

The better the question. The better the answer.
The better the world works.

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What is Blockchain?

- Blockchain was first introduced in 1991
- Consists of digital information (block) stored in a public database (chain)
- Simplest description: distributed ledger
- Most widely known as the record-keeping behind Bitcoin
- Three types of information stored in Bitcoin blocks:
  - Transactions: date, time, and dollar amount
  - Participants: digital signature, not actual name
  - Distinguishing “hash”: unique code to tell it apart from other blocks
- Single block in one blockchain can contain a few thousand transactions
- Blockchain can also execute “smart contracts”

Safety Features

- For blocks to store new data and be added to the blockchain:
  - Transaction must occur
  - Transaction must be verified
  - Transaction stored in a block
  - Block must be given a hash
  - Once a new block is added, it becomes public for anyone with access to the blockchain to view
- Blockchain can be public or private
  - Only authorized users can access private blockchains
  - Even with a public blockchain, however, users can view contents but not identifying information
- Blockchain is secure: hash, trust, near impossible to hack
- The goal of blockchain is to allow digital information to be recorded and distributed, but not edited

Cryptocurrency Basics

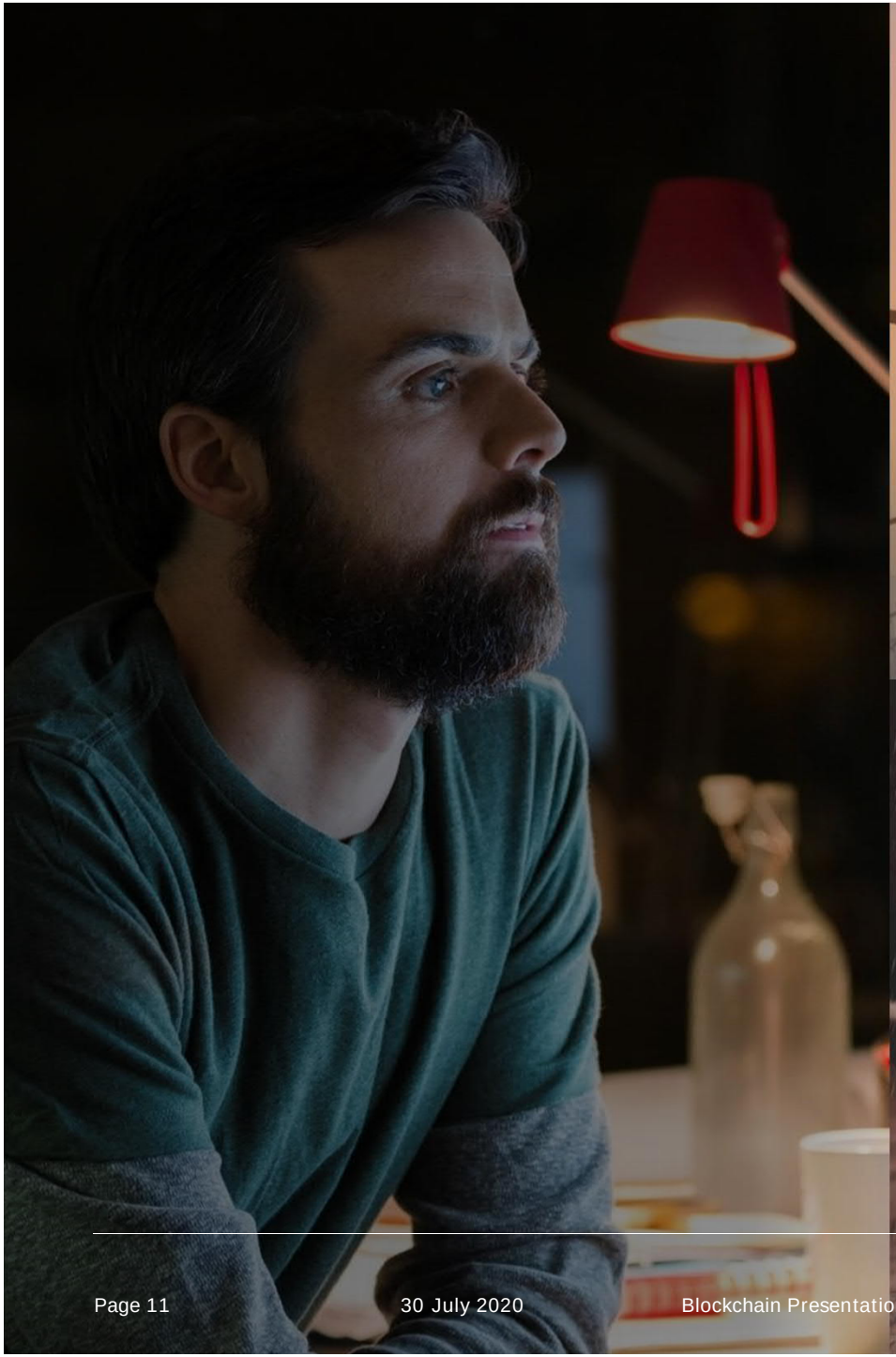
- A cryptocurrency is a decentralized, digital currency that is not issued by a central government
  - Exists outside the traditional banking system
  - Blockchain provides the trust needed to replace the middleman in our current monetary system
  - Uses cryptography to secure and verify transactions, as well as to control the creation of new units of a particular cryptocurrency
- Cryptocurrencies are truly digital because the assets themselves are digital
  - Unlike Venmo and PayPal, which run on the traditional banking system and transmit fiat currencies backed by governments
- Digital Wallets are used to store and transfer cryptocurrency
  - Uses a public key (a public address for your cryptocurrency) and private key (used to access your public key and provide a transaction signature)
  - If you lose your private key, there is no way to recoup your cryptocurrency

Bitcoin

- Launched in January 2009, Bitcoin was the first widely accepted cryptocurrency
  - Introduced the concept of using technology to send money directly from one person to another, rather than going through a bank
  - First time you could send something digital to someone over the internet that wasn't a copy of something - it is the original and only copy and cannot be duplicated
- Bitcoin has value because it represents a slice of the Blockchain and the number of tokens is limited (21 million tokens)
- Top three cryptocurrencies, by trade value, as of July 15th are:
  - Bitcoin – $9,176.75
  - Ether (by Ethereum) – $237.58
  - Bitcoin Cash (an off-shoot of Bitcoin) – $226.68

Why Use Bitcoin?

- The benefit of using Bitcoin over traditional, fiat currencies lies in the security of the blockchain and the ease of its use
  - Every transaction from the beginning of the network is recorded in the distributed ledger and every computer on the network has a copy
  - Once verified and added to the blockchain, transactions are tamper-proof and virtually impossible to reverse
  - Bitcoin is fungible, divisible into smaller units, and easily transferred
- Bitcoins are created through a process called mining
  - Bitcoins are released by the software with the creation of each new block
  - A bitcoin reward for creating the block is awarded to the first miner (usually a developer) that solves a complicated math problem that occurs with the creation of each new block
- ICOs (initial coin offerings) or token sales are a way for entrepreneurs to raise money without having to go through venture capitalists
  - For an investor, an ICO is a way to get in early at a low cost and participate in the returns that are typically reserved for wealthier investors



Non-Cryptocurrency Applications of Blockchain

- Goal is for blockchain to do for business operations what Bitcoin did for virtual currencies
  - Supply chain management
  - Inventory and asset management
  - Track custody, location, end-user, and history of products
  - Consumers gain access to production process and history (e.g., QR code scan)
- Added benefits to the global economy
  - Recalls
  - Liability
  - Counterfeiting
  - Ensuring social practices are followed (e.g., child labor laws)

Real Life Examples From Haiti

- Paper Records
  - 7.0 magnitude earthquake in 2010 killed over 200,000 and damaged enormous amount of property. Historic paper documentation stored in municipal buildings were all destroyed. No way to determine who owned what and had to reconstruct land registries. Each piece of property was claimed by competing people.
  - Prime Minister moved land registries to the blockchain. Ownership of property represented by a blockchain token enables simple, error-free, and non-repudiable transfer of ownership, conceptually as simple as sending a dollar through PayPal. This will make titleholders feel more secure in their property and confident they can pass it down through generations.

Real Life Examples From Haiti

- Foreign Aid
  - Red Cross very publicly raised $500m in funds to help with reconstruction. Funds never made it to Haiti. Prime Minister brought a delegation to meet with Red Cross in New York. Red Cross was unable to explain where the $500m had gone. When pressed, Red Cross said maybe they could scrape together $1m to send.
  - Blockchain offers an interesting solution here for rebuilding trust in charitable groups. Using blockchain crowdfunding tools, groups can raise money transparently for public good projects. Then, blockchain governance tools can democratize the process of fund allocation by allowing donors to directly vote on how money gets spent. Finally, blockchain general ledger tools will show donors where each bit of value goes, ensuring that their votes translate into money spent on desired initiatives.

Blockchain and EY

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Blockchain and EY – an Introduction

- https://www.youtube.com/watch?v=zIFW0AJtdaA

- Paul Brody is the EY Global Blockchain practice leader and is recognized as one of the leading sources of knowledge, information and understanding of the world of blockchain, its practical uses and its future.

Blockchain and EY – the Present and Future

- EY has made a significant commitment of resources to the development of applications of blockchain
  - Market-leading Global Blockchain practice with resources located virtually worldwide
  - Main focus is on building a repeatable, scalable asset-based business for EY for the future with client facing locations worldwide
- EY is the only Big 4 accounting firm investing in blockchain technology on this scale
  - Built a data-driven enterprise software product for blockchain (Opschain) that is currently in use by EY clients
- EY Blockchain practice is recognized as a global leader in the development of blockchain audit and software applications
  - Second only to IBM in terms of overall blockchain activity, and the leader in the audit of crypto businesses/uses worldwide with up to 125 clients
- https://www.ey.com/en_us/blockchain

Current EY Blockchain Applications/Solutions

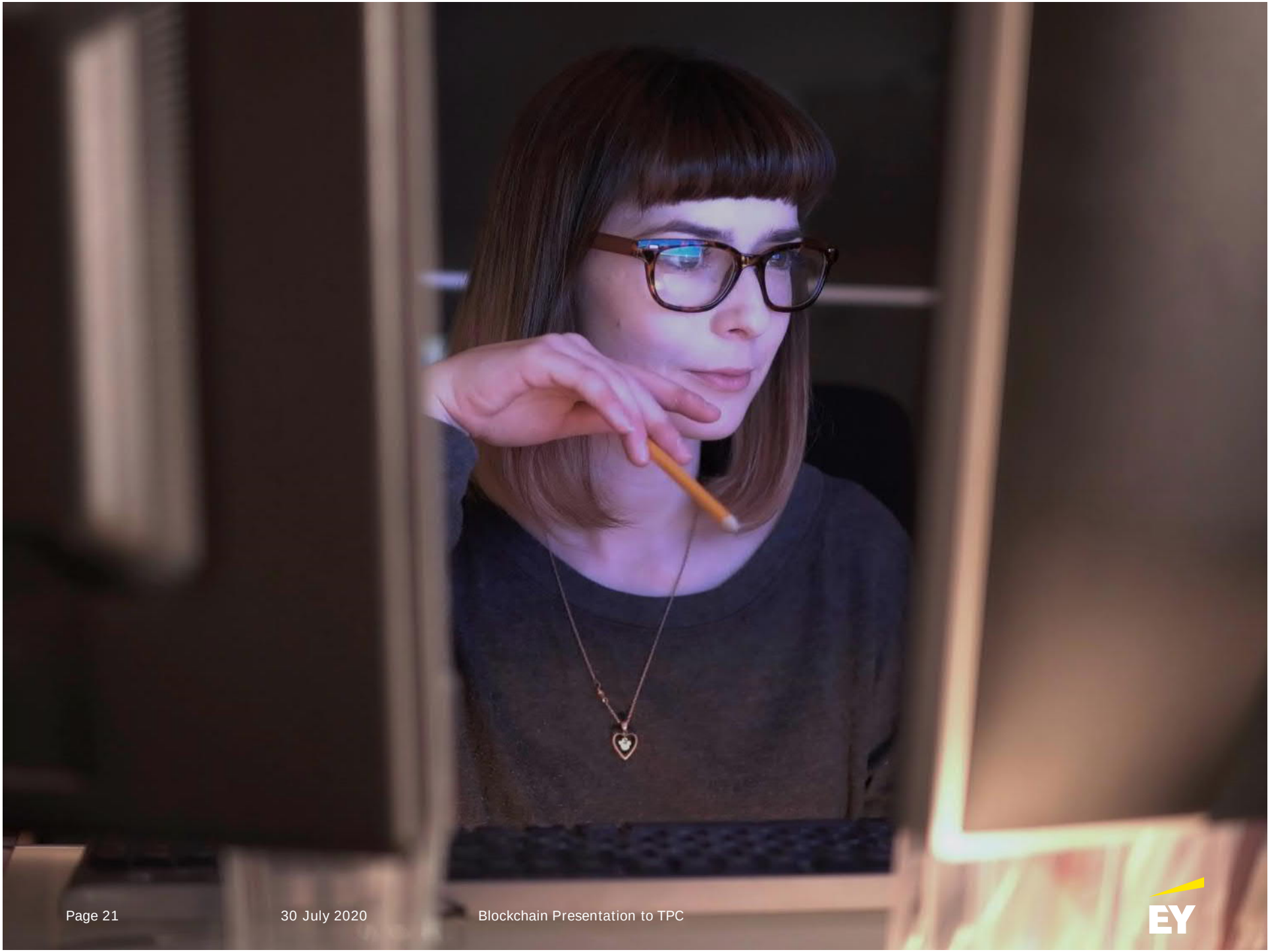
- OpsChain
  - Supply Chain Management
  - Food Traceability
  - Intercompany Transaction Analysis and Tracking
- Distributed Contracting Network
  - Designed for Microsoft Xbox to manage the calculation and payment of royalties due to game developers
- Tesseract
  - Smart, connected asset management in use in Australia to track share equipment contracts
- Blockchain Analytics
  - Audit and assurance foundation and applications
- Public Blockchain Analytics
  - For analysis of any public blockchain

Blockchain Offerings within Existing Service Lines

- Blockchain strategy and operations consulting
- Risk management and security assessments
- Implementing EY-developed solutions for Assurance and Advisory
- Implementing third-party solutions for blockchain environment
- Custom blockchain software development
- Securitization and token registration – certify tokens/assets
- Tax computation analytics
- Smart contract testing and review

The Future of Blockchain at EY

- EY's focus is on public (versus private) blockchain
  - 75% of enterprise users/executives see public blockchains as the path forward
- After 3 years of rapid growth, however, enterprise blockchain has hit a roadblock in revenue and market share gain
  - Not unexpected for an emerging technology in the marketplace/industry
  - Following the "Gartner curve" for emerging technology hype/maturity, we are in the "trough of disillusionment," when the market realizes that application of the great idea is harder than it looks
  - The curve typically turns back upward when there's more mainstream adoption (inflection point)
  - Typically, the market leader at the time of the trough goes on to win when the inflection point turns things around
- Now is the time for EY to build a lead to position the firm to be the go-to practice for blockchain applications and solutions for the future



The IRS and Cryptocurrency

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IRS Cryptocurrency Highlights - Civil

- March 2014 – the IRS issued Notice 2014-21 in Q&A format concluding that cryptocurrencies are property, not currency, for tax purposes and reminding taxpayers that
  - A payment made using virtual currency is subject to information reporting to the same extent as any other payment made in property.
  - Payments using virtual currency made to independent contractors and other service providers are taxable, and self-employment tax rules generally apply. Normally, payers must issue Form 1099-MISC.
  - Wages paid to employees using virtual currency are taxable to the employee, must be reported by an employer on a Form W-2 and are subject to federal income tax withholding and payroll taxes.
  - Certain third parties who accept virtual currency from their customers are required to report payments to those merchants on Form 1099-K, Payment Card and Third Party Network Transactions.
  - The character of gain or loss from the sale or exchange of virtual currency depends on whether the virtual currency is a capital asset in the hands of the taxpayer.

IRS Cryptocurrency Highlights - Civil

- November 2017 – the IRS prevails in enforcing its John Doe summons against Coinbase
- July 2018 - LB&I announces a Virtual Currency Campaign in the Withholding & International Individual Compliance Practice Area
  - Addresses noncompliance related to the use of virtual currency through multiple treatment streams including outreach and examinations.
  - The compliance activities will follow the general tax principles applicable to all transactions in property, as outlined in Notice 2014-21.
  - The IRS will continue to solicit feedback in education efforts, future guidance, and development of Practice Units.
  - Taxpayers with unreported virtual currency transactions are urged to correct their returns as soon as practical.
  - The IRS is *not* contemplating a voluntary disclosure program specifically to address tax non-compliance involving virtual currency

IRS Cryptocurrency Highlights - Civil

- July 2019 – the IRS began sending over 10,000 letters to U.S. taxpayers who may have failed to report, or properly report, virtual currency transactions
- October 2019 – the IRS issued Rev. Rul. 2019-24, addressing the tax consequences of "hard forks" and "airdrops" of new cryptocurrencies, and released a draft 2019 Form 1040 that asks taxpayers whether they received, sold, sent, exchanged or otherwise acquired any financial interest in any virtual currency during the taxable year
- May 2020 - IRS solicits contractors to audit cryptocurrency gains or losses
  - "Specialized technology and infrastructure is required to digest, contain, and analyze virtual currency data"

IRS Criminal Investigation Activity

- IRS-CI has identified the use of digital currencies to commit tax evasion, money laundering, and related offenses as a primary focus
  - Viewed as the next version of offshore bank accounts
  - IRS-CI has particular expertise in “following the money”
- Mid-2018 – the IRS joined tax agencies in the U.K., Canada, Australia, and the Netherlands to form the Joint Chiefs of Global Tax Enforcement (or the “J5”) to "reduce the growing threat to tax administrations posed by cryptocurrencies and cybercrime“
- November 2019 – the IRS announced its intent to station agents in Singapore, the Netherlands, and Dubai to address virtual currency money laundering and tax evasion

Virus? What Virus?

- June 2020 – the new IRS Fraud Enforcement Office established an emerging threat mitigation team, one of the key focuses of which will be financial crime and fraud involving virtual currency
- July 2020 – the IRS issued an RFI regarding “investigative resources for tracing transactions involving privacy cryptocurrency coins, Layer 2 network protocol transactions, side-chain ledger transactions, or transactions on distributed ledgers that are adopting signature algorithms that provide privacy to illicit actors.”

IRS-CI Successes

- August 2018 – “Welcome to Video” investigation, led by IRS-CI, resulted in a global takedown of a the largest darkweb child pornography website in history, its South Korean administrator, and its customers
  - Proved that cryptocurrencies are only “pseudo-anonymous”
  - IRS-CI reportedly used highly advanced bitcoin surveillance techniques to track down and de-anonymize the site’s main server
- March 2020 – two Chinese nationals were charged with laundering over $100 million worth of cryptocurrency obtained through cryptocurrency exchange hacks

Conclusion

- Blockchain is gaining adoption quicker than the Internet did during its developmental phase
- Much broader application than just Bitcoin and other cryptocurrencies
- EY is a market leader in developing blockchain solutions
- The IRS is looking at cryptocurrencies, in both audits and criminal investigations

- Questions?

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