



Graduate School of Management and Economics Sharif University of Technology

#### Business of Blockchain Technology & CryptoCurrencies

Spring 2020

Instructor Dr. Mohsen Bahramgiri Dean of MBA-Finance and Faculty at GSME



Lecture Series Zero Introduction, Motivation and History; The 2008 Crisis



# About the Instructor

Dr Mohsen Bahramgiri, received <u>PhD from MIT</u>, United States, in 2007, and worked at some <u>Hedge</u> Funds in Wall Street (Now York and Boston) for a couple of years.

He is now (since ten years ago) **Dean of MBA-Finance** Program and Faculty Member in Graduate School of Management and Economics at Sharif University of Technology.

- He has 13 Years of work experience in Finance; including
- ✓ Advisor to Minister on International Finance
- ✓ Senior Investment Manager
- ✓ International Financial Advisor
- ✓ Corporate Financial Consultant



He is also the <u>Gold Medalist</u> of International Mathematics Olympiad (IMO 1997, Argentina).









# Bitcoin, The 2008 Mysterious Birth

- In the three months of August to October, 2008: •
  - ➤ In the middle of Financial Crisis, Bitcoin.org was registered (Aug 18)



- $\blacktriangleright$  Sep 12 to 16 (Fri to Tue), Financial Armageddon
  - The Domino of Bankruptcies reaching Huge Banks (Lehman and Merrill) (Fri)
  - $\triangleright$  Bank of America bought Merrill Lynch for \$50 billion (Sun),
  - $\triangleright$  US and Britain do NOT support Barclays to buy Lehman (Sun),
  - $\blacktriangleright$  Lehman Brothers filed for the largest bankruptcy in American history (Mon),
  - Then to Stop the Domino, the U.S. Government established the \$700 billion Troubled Asset Relief Program to Support AIG and other huge companies (Tue)













## The 2008 Mysterious Birth

Sep 12 to 16 (Fri to Tue), Financial Armageddon



And while the Crisis was going on, on Oct 31, some nobody (Satoshi Nakamoto) published a Super Smart Article that founded a new "Alternative" for current Money, **Bitcoin**.

Wall Street Journal;"This day in Crisis History: Sep 12"



...









#### Satoshi Nakamoto (Oct 2008)

## "

It's completely decentralized, with no central server or trusted parties, because everything is based on crypto proof instead of trust ... "



# The 2008 Financial Crisis,

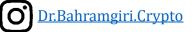
- The new derivative in Market: **CMO's**
- Role of different organizations in crisis •
  - Bank
  - Investment Bank
  - Insurance
  - ...
- What is happening to the **Trust**?

> The 2015 Movie "The Big Short" based on the book The Big Short: Inside the Doomsday Machine by Michael Lewis













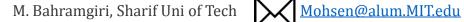


# An Alternative Financial System

- Cost of Financial Crisis for U.S. Government: \$2.5 trillion
- Any better time for the birth for one (or The) Alternative?

Bitcoin, A New Generation of Money!











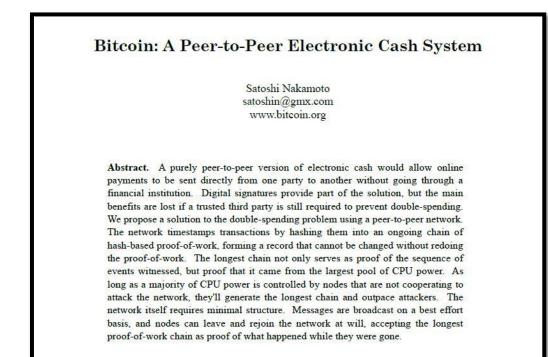




## **Birth of Bitcoin**

- On October 31, 2008: Bitcoin whitepaper released by "?"
- The Genesis Block, Block 0, is released on Jan 3, 2009, at 21:45, by "?"
- Who is "him/her/them/it" (Satoshi Nakamoto) by the way?

"We have proposed a system for electronic transactions without relying on **TRUST.**"







Mohsen-Bahramgiri

Dr.Bahramgiri.Crvpto





## An Alternative Financial System

- The first ever transaction using bitcoin took place between Satoshi and Hal Finney (Block 170).
- On May 22, 2010, the first exchange for bitcoin was set:

10,000 Bitcoins for Two Pizzas! in Florida

(Laszlo Hanyecz's on Block 57043) May 22, Bitcoin Pizza Day Celebrating the \$100 Million Pizza Order!

60-min CBS News on Behind the Bitcoin Pizza Dav















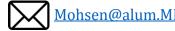
# SuperSmart Innovation: Is it really a "New Generation of Money"?

- Gold-Based Money
- Fiat Money

What is **Money** by the way?

- > Fungibility
- > Scarcity
- > Divisibility
- $\succ$  Durability
- $\succ$  Transferability
- > Liquidity
- > Legitimacy













# Really "New Generation of Money"?

- Gold-Based Money
- Fiat Money

Is new Crypto-Innovation, The Next Generation of Money?

It holds almost all the properties of Money, Just One Step Left:

#### **Public Agreement!**

(Trust in Something other that Governments to Publish Money!)

Reading the Textbook: CryptoAssets, Chapter One











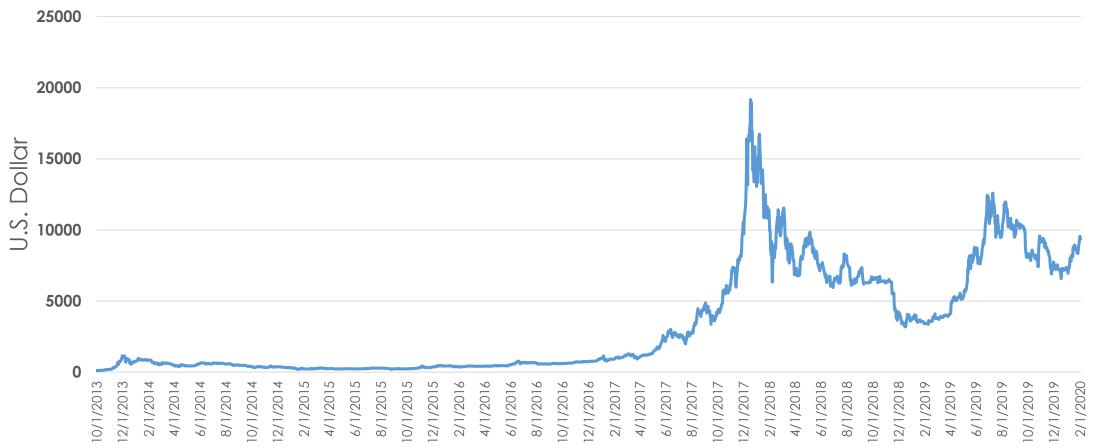






#### Bitcoin, birth date to now ...













# Welcome To The World That **Bitcoin** Created



Crypto Asset	Monero	um		
Fork	Ho	ısh	51% Attack	k.
Elliptic Curve	Blockc	Blockchain		
S	egwit	t Digital Signature		
Private Key		Stellar Dash		
	Proof of Worl	< M	Mine	
		-	$\sim$	

M. Bahramgiri, Sharif Uni of Tech



IIT.edu

<u>Mohsen-Bahramgiri</u>



Dr\_Bahramgiri\_Crypto



#### ... and now, the Course Outline ...

