

**Modern Day Siege:
Sanctions and
Alternative Payment Systems**

**LSE SRC, DSTL
London
2 December 2019**



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Based in London, UK

- Serial blockchain entrepreneur focused on connecting blockchains & regulated finance
- Contributor to the Bank of England's RTGS renewal programme
- Contributor to EBA policy on innovation and regulatory sandboxes
- In previous career implemented trading & risk management platforms at banks around the world

What is a Siege?

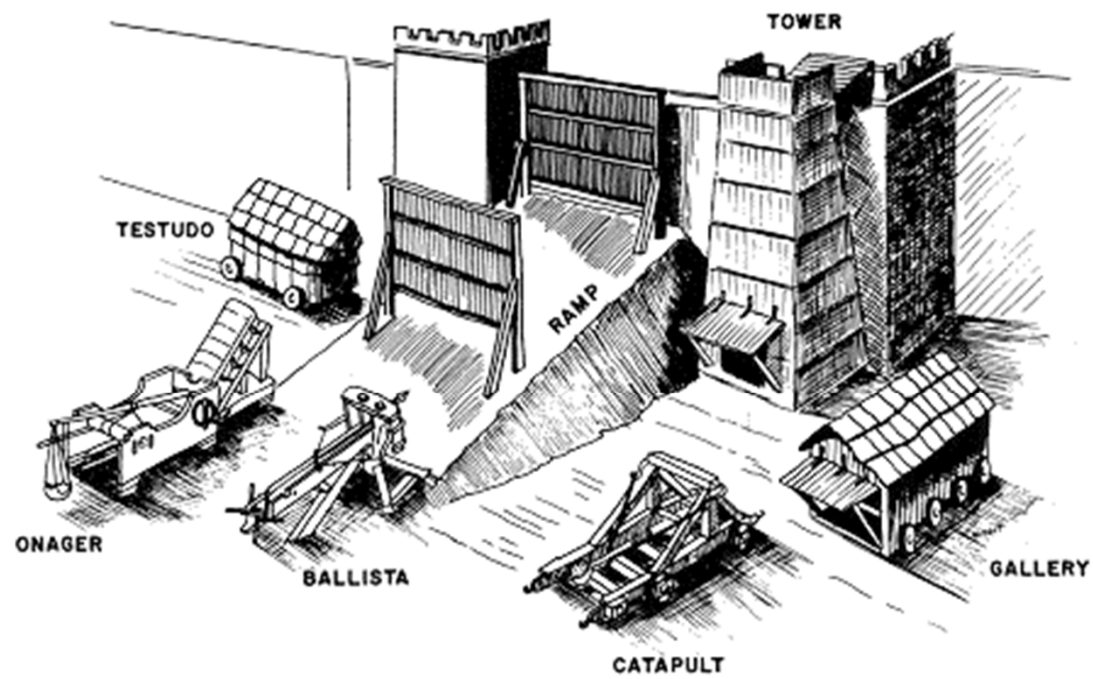
Google: “a military operation in which enemy forces surround a town or building, cutting off essential supplies, with the aim of compelling those inside to surrender.”

Famous Ancient Sieges

Example Sieges: Troy (c. 1200 BC), Samaria (9th century BC, referenced in the Bible), Babylon (689 BC), Carthage (149-146 BC), Jerusalem (several times), Rome (several times), Constantinople (several times), Fifth Siege of Gibraltar (1449–1450), Tenochtitlán (1521), Ishiyama Honganji (1570 – 1580), Rancagua (1814), The Alamo (1836), Vicksburg (1863)



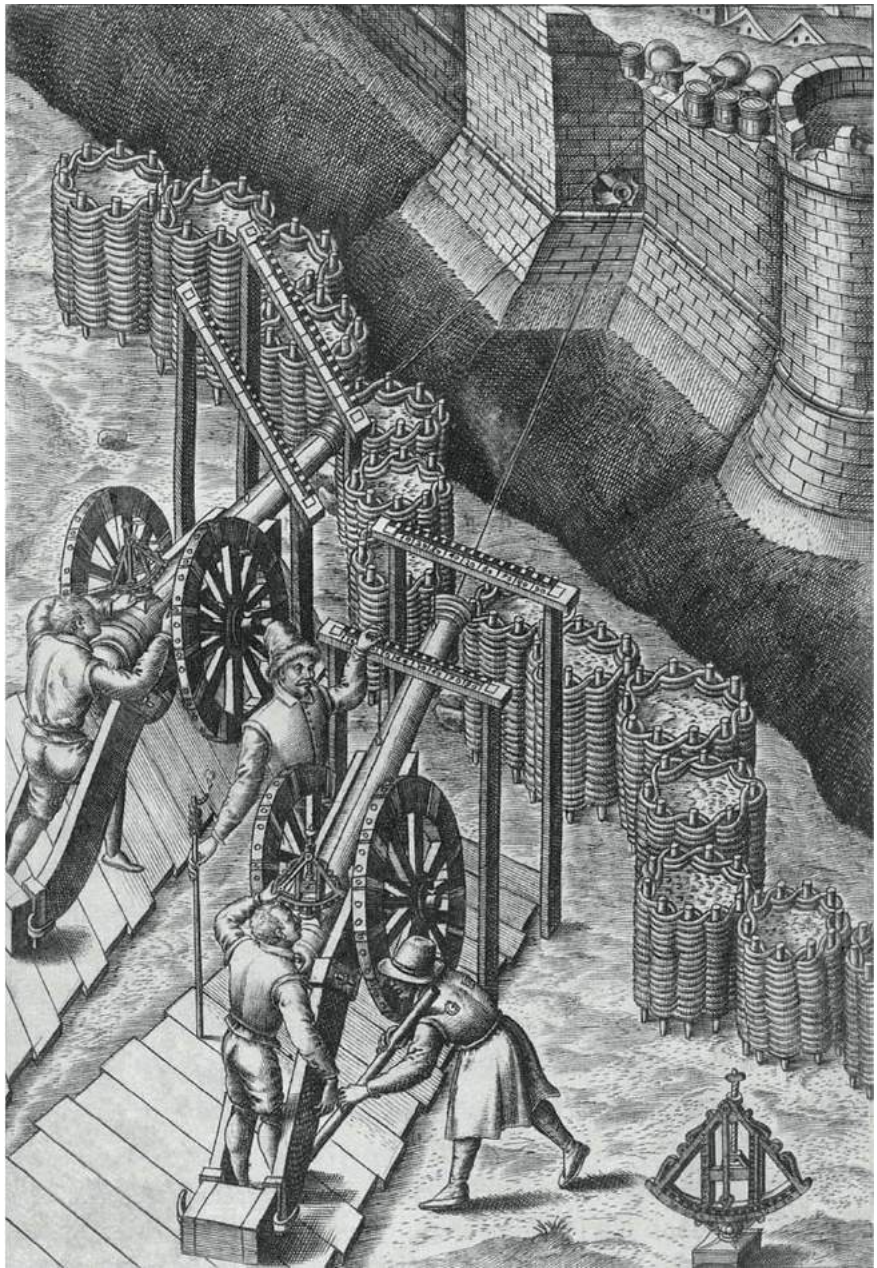




ROMAN SIEGECRAFT AND WORKS













More Recent History

Example Sieges: Leningrad (1941-1944), Berlin Blockade (1948-1949), Cuba (1962), Sarajevo (1992-1996), Homs, Kobani, Marawi (2017)

Different Outcomes Possible

- Besieged surrender without a fight
- Besieged put up a fight and lose
- Besieger lose fight
- Besieger lift siege

Have Things Changed?

What is a Siege?

Google: “a military operation in which enemy forces surround a town or building, cutting off essential supplies, with the aim of compelling those inside to surrender.”

What is a Siege?

Google: “a ~~military operation in which enemy forces surround a town or building~~, cutting off essential supplies, with the aim of compelling those inside to surrender.”

**Modern Day Siege:
Imposed on Nation-States Rather Than Cities**

Modern Day Siege: Economic Sanctions & Embargoes

**Commercial and financial penalties
applied by one or more countries
against a target state, group, or individual**

Trade Barriers, Tariffs, Restrictions on Financial Transactions

Examples of Western Sanctions Directed at Others

- The Cold War
- Yugoslavia break-up
- Myanmar/Burma
- Iranian Revolutionary Guard
- Cuba
- DPRK (North Korea)
- Post-Crimea Russian entities
- Syria

Less Obvious Examples

The Case of Japan and South Korea

Japan-South Korea dispute imj x +


cnbc.com/2019/07/23/japan-south-korea-dispute-impact-on-semiconductor-supply-... ☆





MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV

TECH

The Japan-South Korea dispute could push up the price of your next smartphone

PUBLISHED MON, JUL 22 2019 8:45 PM EDT | UPDATED TUE, JUL 23 2019 4:17 AM EDT

 Yen Nee Lee
@YENNEE_LEE

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KEY POINTS

- Japan has restricted exports to South Korea of three chemicals that are being used for making semiconductors and display screens.
- Tokyo's global dominance of those materials will make it difficult for Seoul to find alternatives when their supplies are disrupted by the curbs.

“Japan announced on July 1 [2019] it would restrict exports of three chemicals to South Korea: fluorinated polyimide, resist and hydrogen fluoride.”

South China Morning Post

No OLED screens for Japan if trade dispute is 'pushed to extreme', South Korean engineering expert warns

- A block on OLED screen exports could mean Japanese electronics firms 'would not be able to sell high-end TV sets due to a shortage of panels', said chips expert Park Jea-gun

South Korea to invest ¥679 billion

South Korea to invest ¥679 billion to cut reliance on Japanese imports

AP, REUTERS, STAFF REPORT

PRINT SHARE ARTICLE HISTORY | AUG 5, 2019

SEOUL - South Korea said Monday it plans to spend 7.8 trillion won (¥679 billion) over the next seven years to develop technologies for industrial materials and parts, in hopes of reducing dependence on Japan amid the escalating trade row.

FT Japan approves S Korea chip material exports but tensions remain

ft.com/content/58a4be3a-b97e-11e9-8a88-aa6628ac896c

FINANCIAL TIMES

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Donald Trump's struggle to revive the US rust-belt S Korea set for one of worst growth periods in half a century Asia stocks decline on US-China trade war concerns

Trade disputes [+ Add to myFT](#)

Japan approves S Korea chip material exports but tensions remain

Move will ease concerns that new curbs by Tokyo would disrupt supply chains

Feedback

Restrictions on Financial Transactions

Makes It Illegal to Send & Receive Money

Results in Financial Exclusion of the Sanctioned

How Do You Pay for Stuff?

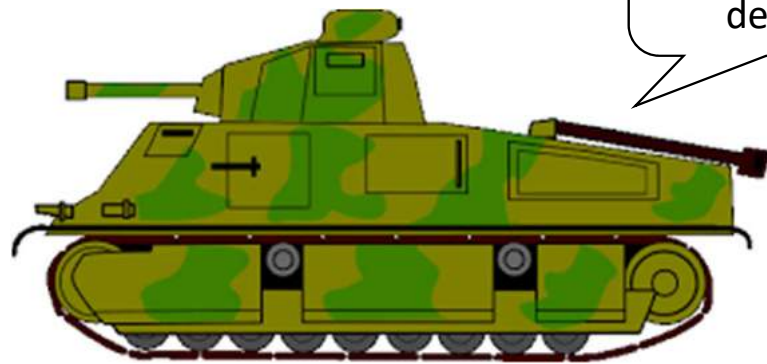
Do You Surrender?

Alternative Payment Systems (APS) to the Rescue

The Oldest APS: Gold



Some Countries Allegedly Settle Trade in Gold



That is for last month's oil delivery




Thank you friend

The Kilobar = 1 kg of Gold

Buy 1KG Gold Bars - 1 Kilo Gold x +


← → ↻ 🔒 bullionbypost.co.uk/gold-bars/1-kilo-gold-bar/ ☆ ID | N ⋮



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Umicore 1 Kilo Gold Bar
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Buy



Metalor 1 Kilo Gold Bullion Bar
In Stock

from **£37,278**

Buy

Exclusive: Fake-branded bars slip dirty gold into world markets

Peter Hobson 15 MIN READ

LONDON (Reuters) - A forgery crisis is quietly roiling the world's gold industry.

In 3 years fake “bars worth at least \$50 million stamped with Swiss refinery logos” ... found in the vaults of JPMorgan Chase ”



Then There is Good Old Cash



£1.2 million

Somali Shilling: Value Through Scarcity



Hawala

The image shows a web browser window with a dark theme. The address bar displays the URL investopedia.com/terms/h/hawala.asp. The page title is "Hawala Definition". The Investopedia logo is visible at the top. The main content area contains the following text:

What Is Hawala?

Hawala is a method of transferring money without any money actually moving. Interpol's definition of hawala is "money transfer without money movement." Another definition is simply "trust." Hawala is an alternative remittance channel that exists outside of traditional banking systems. Transactions between hawala brokers are made without promissory notes because the system is heavily based on trust and the balancing of hawala brokers' books.

Art: A Cold War Strategy

**Creative Types are Often Non-Conformist
Don't Hold Steady Jobs**

**Foreign Embassy Buys Painting or Sculpture
for Silly Amount of Hard Currency (USD)**

**Artist is Rich & Happy
Looses Creative Muse**

Artist Spends USD on Non-Productive Stuff Recovers Mojo

**USD Trickles Down Through Society
Sows Seeds of Discontent for the Current Regime**

Antiques

The Spy Gone North



**Antiques Smuggled from DPRK
Sold to International Conglomerates for \$1 Billion**

A \$1 Billion Slush Fund for DPRK

Now Lets Go High Tech

Alexa & Lasers

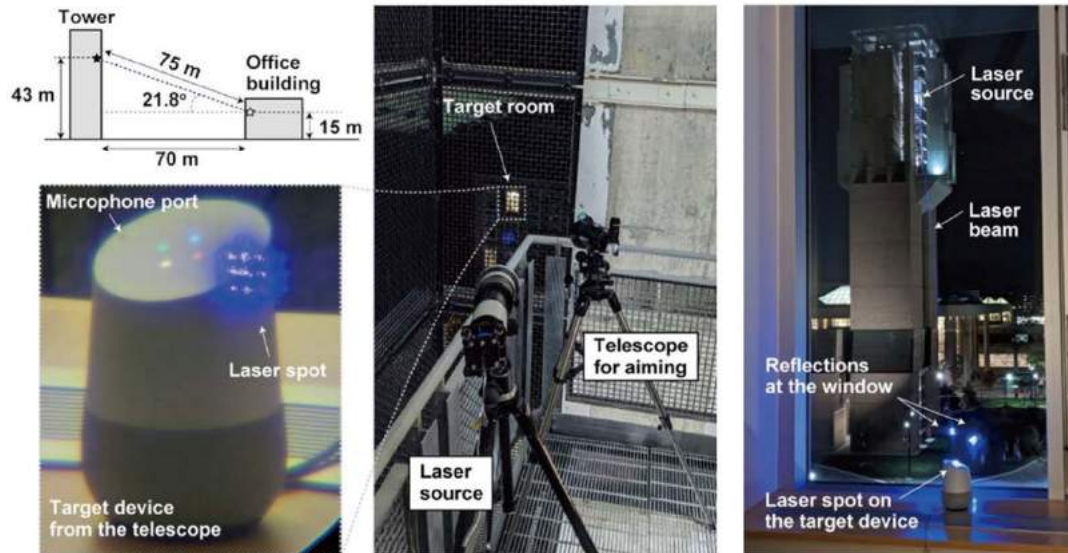


Sara Rampazzi

@sara_rampazzi



After more than half a year of work, check out our latest paper [Light Commands: Laser-Based Audio Injection on Voice-Controllable Systems](https://lightcommands.com). More details at lightcommands.com
Joint work with Takeshi Sugawara, Benjamin Cyr, Daniel Genkin, and [@DrKevinFu](https://twitter.com/DrKevinFu) #lightcommands



2,705 6:01 PM - Nov 4, 2019




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CryptoCurrency

North Korea Set Up a Blockcha x


coindesk.com/north-korea...



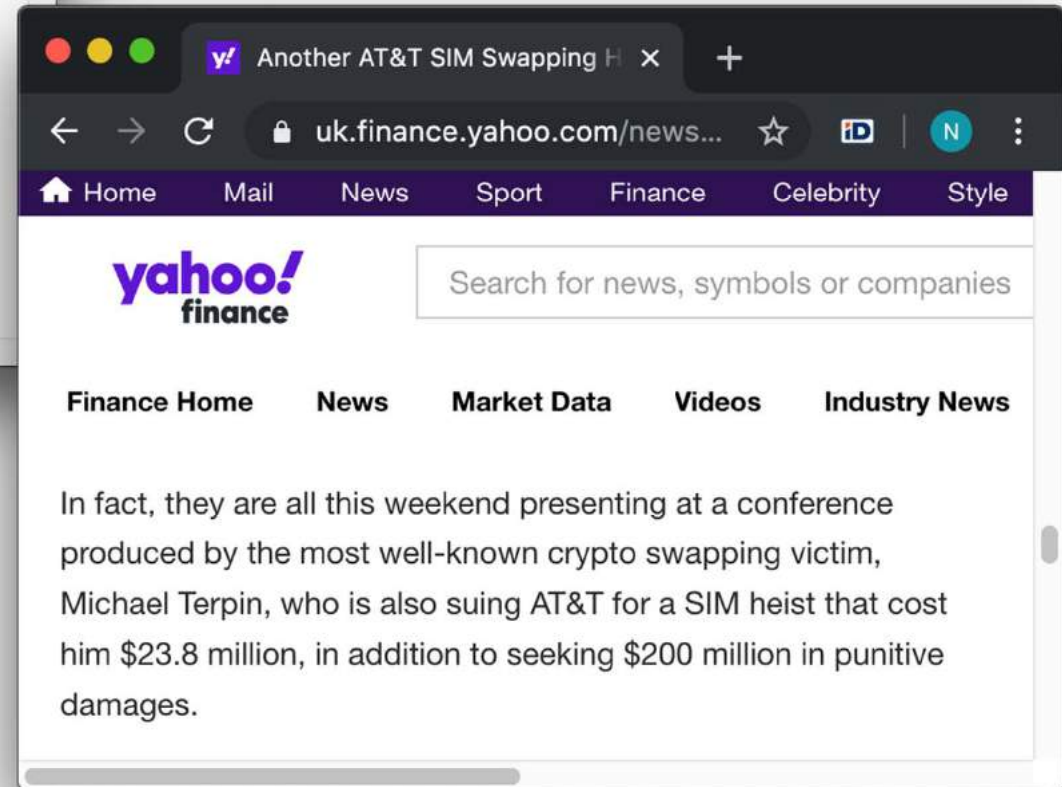
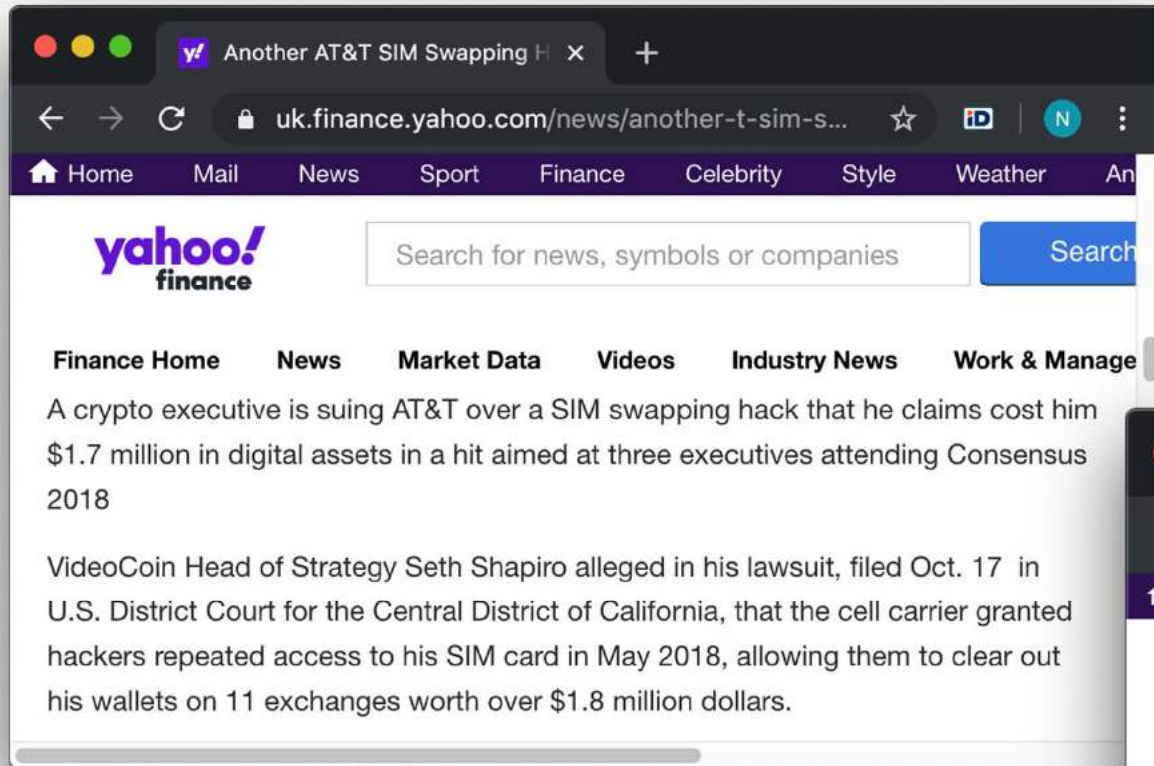
 William Foxley

North Korea has been using a Hong Kong-based blockchain company to launder money, according to a quarterly report from the UN Security Council's Sanctions Committee on North Korea.



SIM Swapping



Are You Using SMS for 2FA?

Smurfing Over LinkedIn

What is Smurfing?

Use multiple individuals and/or transactions to make cash deposits, to buy monetary instruments or bank drafts.

Amounts under the reporting threshold

**The individuals hired to conduct the transactions
are referred to as “smurfs”**

**Example: Drug dealer in Shoreditch was depositing
Pounds into a bitcoin cash machine every day**

**The drug dealer got noticed.
Stopped depositing.**

**Turned his clients into smurfs.
Clients deposit cash and give bitcoin to the dealer.**

Back to Smurfing Over LinkedIn

Fabius Laukaitis
Active now

TODAY



Fabius Laukaitis • 9:32 AM

Hi

I have a client who wants to work with European developer.
Please read the project description and if it sounds great, follow it.

https://docs.google.com/document/d/e/2PACX-1vSQEdi1vjyOuPvnTHtTXmrcOwCBQEk0ziszrOr4jTwxJuna5PuRHEUBst-QvxeBE_OBVfvlOguNPxIs/pub

I hope you feel positive to the details and make the client happy.

Best regards,
Fabius

Collaboration details

docs.google.com



Thanks



Hi, Fabius

Write a message...



Press Enter to Send ...

Intro

“I’m a freelancer from China... I’d like to buy or borrow some US or European upwork accounts.”

Emotional Appeal to Solidarity/Humanity

**“the rate of Chinese account is lower than
European or USA account.”**

“it is very difficult for me to earn more money using Chinese account.”

“if I get the US or European account I could be hired easily with high rate”

Identity Lending

“I need to work on your local via TeamViewer.”

“In order to successfully withdraw money from UpWork out of danger, we have to link your paypal or payoneer account to UpWork.”

**“So every time I withdraw money from UpWork,
you should transfer the money from your account
to my account again.”**

“you don’t mind sharing Paypal or payoneer account login... better to share the credentials with me so that I can do the transfer myself.”

**Offers Decent Financial Compensation
“Profit Share”**

**“I will pay \$200 for European monthly for years.
So you can earn \$2400 per year without work.”**

Adds a Sense of Urgency

“The first month’s payment will be made immediately when the account pass the video verification.”

Many People Fall for the Promise of Free Money

**Recruit 10,000 people (0.002% of EU population).
Move \$600M annually without being noticed.**

Cost of Operation ~3%
Similar to Using Traditional Above-Board Transfers

Barter & Trade Offsets

Oil \rightleftharpoons Potatoes

Doctors & Nurses \rightleftharpoons Processed Sugar

North Summer Potatoes  **South Winter Potatoes**

Blackmail or Hunger Strike

Food & Oil \rightleftharpoons Non-Proliferation

Multi-Lateral Trade

Deliver Rockets to Friend A
Deliver Oil to Friend B

Friend A uses rockets to cut 5.7 million barrels of oil a day or about 5% of global production

**Oil Prices surge 20%:
Biggest move on record since 1980's**

**Friend B can re-sell oil for 20% higher prices
and split the profit**

Several Political Goals Achieved Siege Continues

Plus Get a Bonus



How to Hack a Central Bank?



Bangladesh Bank official's com



reuters.com/article/us-cyber-heist-philippines/bangladesh-bank-officials-computer-...



Bangladesh Bank official's computer was hacked to carry out \$81 million heist: diplomat

Raju Gopalakrishnan, Manuel Mogato

3 MIN READ



MANILA (Reuters) - A Bangladeshi central bank official's computer was used by unidentified hackers to make payments via SWIFT, and carry out one of the biggest-ever cyber heists, a Bangladeshi diplomat said on Thursday at the end of a Philippine Senate inquiry.

Waiting for secure.img-cdn.mediaplex.com...

2016 Bangladesh Central Bank Cyber Heist

Wikipedia: 35 fraudulent instructions issued by hackers via SWIFT to illegally transfer close to US \$1 billion from the Federal Reserve Bank of New York account belonging to the central bank of Bangladesh

5 of 35 Transactions Successful

Wikipedia: The Federal Reserve Bank of New York blocked the remaining thirty transactions, amounting to \$850 million, due to suspicions raised by a misspelled instruction

Bank of England

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Libor: Bank of England implicated in secret recording

By Andy Verity
BBC economics correspondent

10 April 2017 [f](#) [m](#) [t](#) [e](#) [Share](#)



A secret recording that implicates the Bank of England in Libor rigging has been uncovered by BBC Panorama.

Libor rigging inquiry shut down

bbc.co.uk/news/busine...

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Business Your Money Market Data Companies Economy

Libor rigging inquiry shut down by Serious Fraud Office

By Andy Verity
BBC economics correspondent

19 October 2019

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An investigation into the rigging of Libor, the benchmark interest rate that tracks the cost of borrowing cash, has been unexpectedly closed.

“The decision comes despite evidence that implicates the Bank of England.”

“It means no one will now be prosecuted in the UK for so-called "low-balling", where banks understate interest rates they pay to borrow cash.”

Why is This Interesting?

Lower LIBOR Means Inflated MTM, Lower Payments, Inefficient Markets, Asset Bubbles

“An estimated \$200 trillion in notional transactions reference USD LIBOR in the cash and derivatives markets with more than \$35 trillion extending past 2021” -*NY Fed*

**Are Prices Arbitrary?
What is the Real Value of Debt & Derivatives?**

Are We Under Siege? From Whom? A Case of Obsolescence?

A Digital Currency Backed by the Mineral Wealth of a Nation

For example: The Petro – Asset-backed stablecoin backed by
Venezuela's Unextracted Oil Reserves

Initially launched on the NEM blockchain

Cryptocurrencies

Venezuela Has Bitcoin Stash and Doesn't Know What to Do With It

By [Alex Vasquez](#) and [Patricia Laya](#)

26 September 2019, 15:10 BST

- ▶ Central bank to decide if crypto can count as foreign reserves
- ▶ Government hampered by sanctions that limit access to dollars

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People's Bank of China

CBDC → Central Bank Digital Currency

Not crypto. Not blockchain.

Shanghai Securities News: Changchun Mu, Head of the Digital Currency Research Institute

Functional attributes the same as paper money, but it is just a digital form.

Free from the control of the traditional bank account system.

Shanghai Securities News: Changchun Mu, Head of the Digital Currency Research Institute

Main reason for developing the digital currency is “planning ahead” to protect monetary sovereignty and China’s legal currency.



Crisis Simulation Maps Nationa x



belfercenter.org/publication/crisis-simulation-maps-national-security-risks-digital-currency



 NEWS

Crisis Simulation Maps National Security Risks of Digital Currency

Nov. 20, 2019

Harvard Kennedy School's JFK Jr. Forum was transformed into the White House Situation Room Tuesday with Harvard and MIT faculty and former government officials portraying National Security Council members and other officials charged with developing—in an hour's time—options for the president to respond to a national security crisis.

Crisis simulation maps national

news.harvard.edu/gazette/story/2019/11/crisis-simulation-maps-national-secur...

The Harvard Gazette

NATIONAL & WORLD AFFAIRS

Cryptocurrency and national insecurity



The image shows a simulation room set up to resemble the White House Situation Room. A group of approximately 15 people, including men and women in professional attire, are seated around a large, dark wooden oval table. They appear to be engaged in a discussion or simulation. In the background, there is a large American flag on the left and a sign that reads "THE WHITE HOUSE SITUATION ROOM" with the presidential seal. To the right, a digital clock displays the time as 18:31. Below the clock, there are several smaller digital displays showing times like 23:30, 7:31, and 8:31. The room is dimly lit, with the primary light source coming from the table and the background elements.

Non-Alternatives: Money Laundering

Explainer: Danske Bank's 200 billion euro money laundering scandal

NOVEMBER 19, 2018 / 10:19 AM / A YEAR AGO

Explainer: Danske Bank's 200 billion euro money laundering scandal

Teis Jensen

COPENHAGEN (Reuters) - Danske Bank (DANSKE.CO) has been caught up in one of the largest-ever money laundering scandals. Howard Wilkinson, the whistleblower who first alerted Denmark's biggest bank to the problem, testified before the Danish parliament on Monday.


Waiting for prg.smartadserver...

Bankers in Danske Scandal Offered Gold to Hide Client Cash

Business

Bankers in \$220 Billion Scandal Offered Gold to Hide Client Cash

By Irina Reznik, Ott Ummelas, and Frances Schwartzkopf
10 November 2019, 05:00 GMT
Updated on 11 November 2019, 09:57 GMT



Workers remove Danske Bank signage in Estonia Bloomberg

At the height of the Danske Bank A/S dirty-money scandal, the lender started offering gold bars to wealthy clients to help them keep their fortunes hidden, according to documents seen by Bloomberg.

LISTEN TO ARTICLE 4:29

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Standard Chartered Bank Admit... x +

justice.gov/opa/pr/standard-chartered-bank-admit...

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Office of Public Affairs

FOR IMMEDIATE RELEASE Tuesday, April 9, 2019

Standard Chartered Bank Admits to Illegally Processing Transactions in Violation of Iranian Sanctions and Agrees to Pay More Than \$1 Billion

Iranian National Indicted and Former SCB Employee Pleaded Guilty for Criminal Conspiracy to Violate Iranian Sanctions

- Allegations of laundering \$250 billions
- Investigation ongoing since 2004

Annual Money Laundering 2-5% of Global GDP

The estimated amount of money laundered globally in one year is 2 - 5% of global GDP, or **\$800 billion - \$2 trillion** in current US dollars.



www.unodc.org › unodc › money-laundering › globalization

Money-Laundering and Globalization

Thoughts on the Future

“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn” -*Alvin Toffler*

Thank you for your attention!