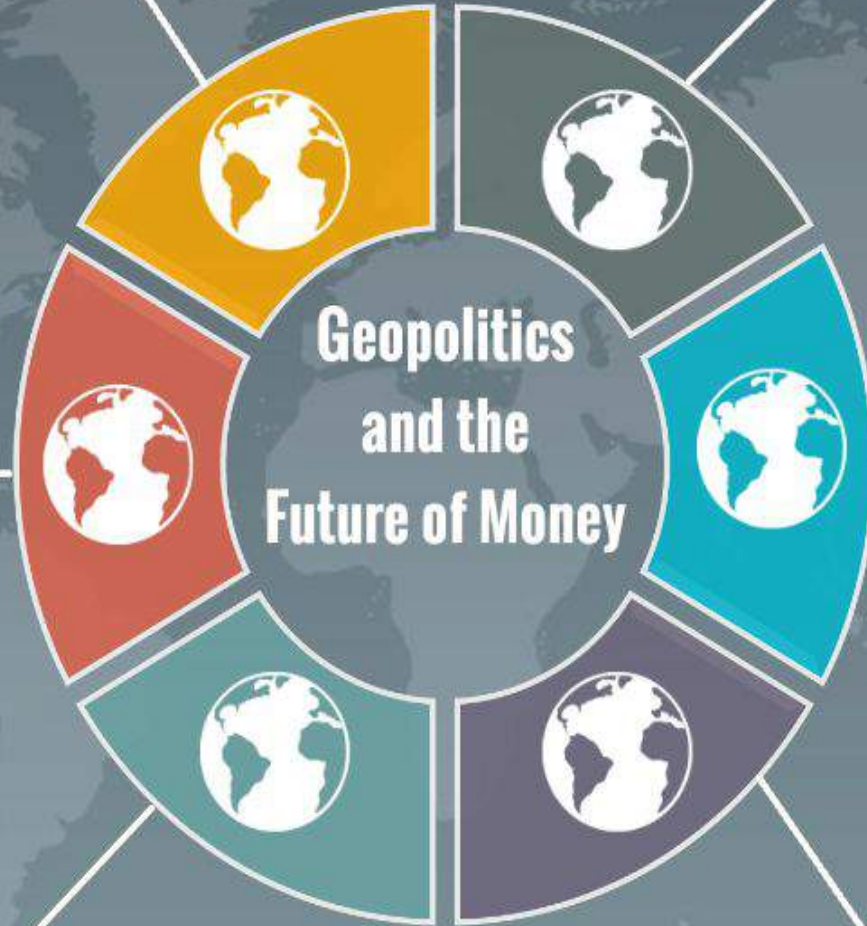


Geopolitics and the Future of Money: CryptoConcerns

by **Girish** Sreevatsan Nandakumar

Introduction



Donovan Futures Focus Areas

	Future of Money	Future of Natural Resources	Future of Influence
Geopolitics	<ul style="list-style-type: none"> • Economic world order • BRICS • Meta-national adversaries • Decentralized cryptocurrency • Dark web analytics • Trust economy 	<ul style="list-style-type: none"> • Water/resource scarcity • Material • Minerals • Energy • Food 	<ul style="list-style-type: none"> • People analytics • Countries of interest • Key leaders • Authority / guiding principles • Regional Dilemmas • Policy / TRACK II (NGO) • Unconventional Power brokers • Decline of Westphalia model
Culture	<ul style="list-style-type: none"> • Alternative compensation • Nudging • Emerging / acceptance of formal and informal value transfer systems • Individual influencers 	<ul style="list-style-type: none"> • Pattern recognition and cyber exploitation • Warming, megacities, slums • Migration / demographics 	<ul style="list-style-type: none"> • Principles / beliefs • Human enhancement tech • Human augmentation • Hunger • Machine-brain interface • Biometrics, retina, and facial recognition • Cover, surveillance
Critical Infrastructure	<ul style="list-style-type: none"> • Blockchain • Telecommunications (5G) • Logistics • Mesh automation • Money laundering • Cost reduction strategy • Additive manufacturing 	<ul style="list-style-type: none"> • Energy production • Network/sensors • Nanotechnology and advanced material • Shipping / LOCs • Mining of space resources • Synbio energy 	<ul style="list-style-type: none"> • Emerging Technology • Health economies • Harvest and delivery of black market human organs • Tracking of radiation sources for homemade explosives • Cloud based

Cryptocurrencies and the Blockchain: A Primer

Blockchains

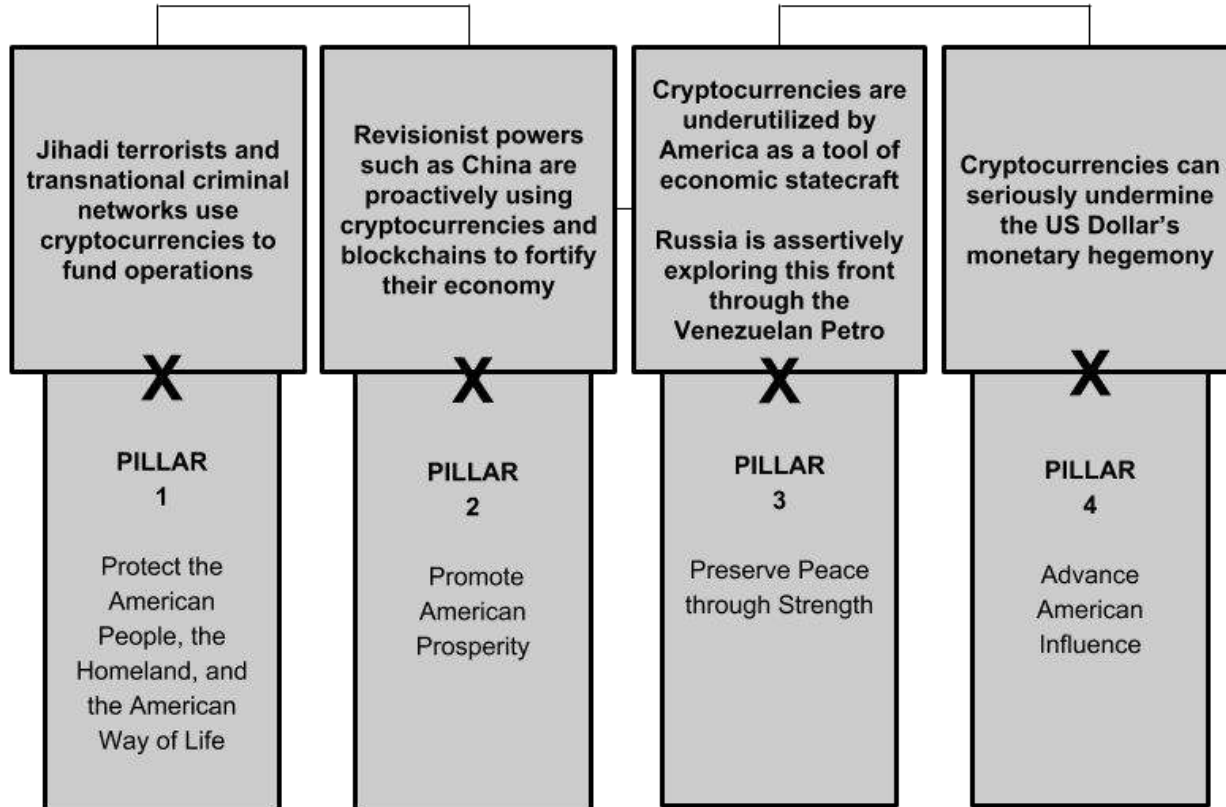
- Immutable digital ledgers
- Decentralized
- Trust generating

Cryptocurrencies

- Bitcoin
- Petro

Applications and Impacts

In the Context of National Security



In the Context of National Security: Pillar 1

Pillar 1: Protect the American People, the Homeland, and the American Way of Life

- Defeat jihadist terrorists
- Dismantle transnational criminal organization
- Keeping America safe in the Cyber Era
- Promoting American Resilience



1 A

Al Sadaqah

An independant organisation that is benifiting and providing the Islamic rebels in Syria with fininacal aid. Donate anonymously with Bitcoin and Monero

 Joined December 2017

Source: Twitter



Selected Episodes of Terrorists Using VCs⁸⁶

January
2015

Haaretz reports first ISIS use of Bitcoin in the dark web. Supporter Abu-Mustafa is able to raise **five bitcoins** (approximately **\$1,000**) before his account was shut down by the FBI.

May
2015

"Abu Ahmed al-Raqqa" appeals to supporters of ISIS for **donations** in the form of **bitcoins** on the **dark web**.

June
2015

Seventeen-year-old Virginian Ali Shukri Amin **pleads guilty** to conspiring to provide material support and resources to ISIS. Amin used **social media** to instruct donors on the use of Bitcoin to provide untraceable financial support to **ISIS**.

August
2015

ISIS-linked computer intruder "Albanian hacker" **demands** two bitcoins (approximately \$500) from an Illinois internet retailer in **exchange** for removing bugs from its computer.

July
2016

The **media wing** of the Salafi-jihadist group Mujahideen Shura Council in the Environs of Jerusalem receives about 0.929 bitcoins (approximately \$540) in two separate transactions after adding the option of **Bitcoin donation** in June 2016.

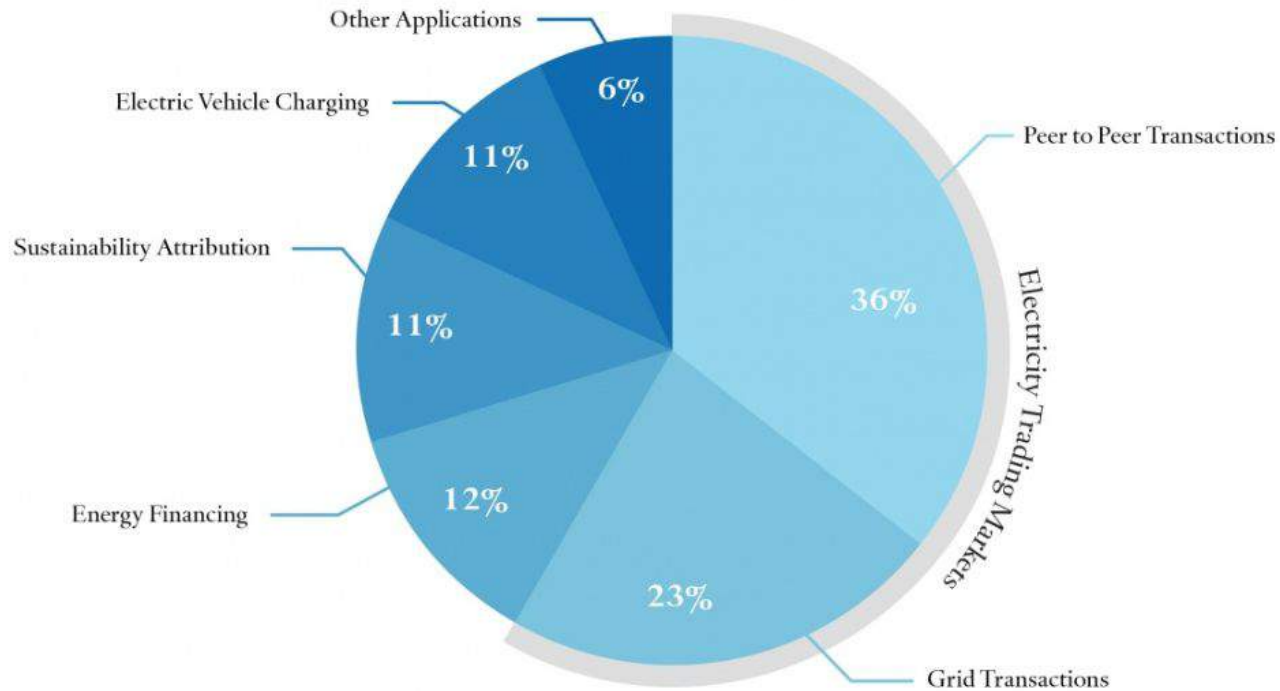
January
2017

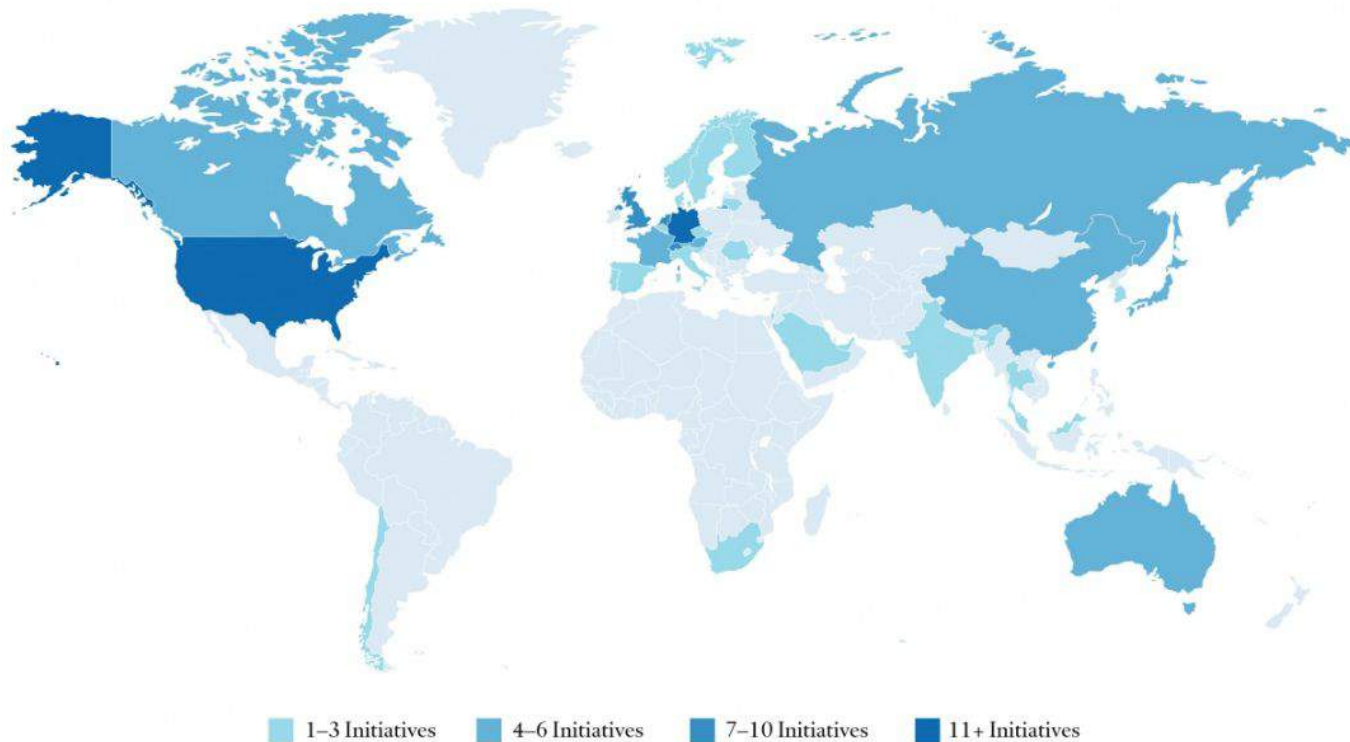
Indonesia's financial-transactions agency announces that **Bitcoin** and online payment services were used by Islamic militants in the Middle East to fund **terrorist activities in Indonesia**.

In the Context of National Security: Pillar 2

Pillar 2: Promote American Prosperity

- Rejuvenating the American Economy
- Lead in Research, Technology, and Innovation
- Embrace Energy Dominance





In the Context of National Security: Pillar 3

Pillar 3: Preserve Peace through Strength

- Renew capabilities in Cyberspace
- Tools of Economic Diplomacy

COMMENTARY

Unleashing Colombia's Full Potential Using Blockchain Technology

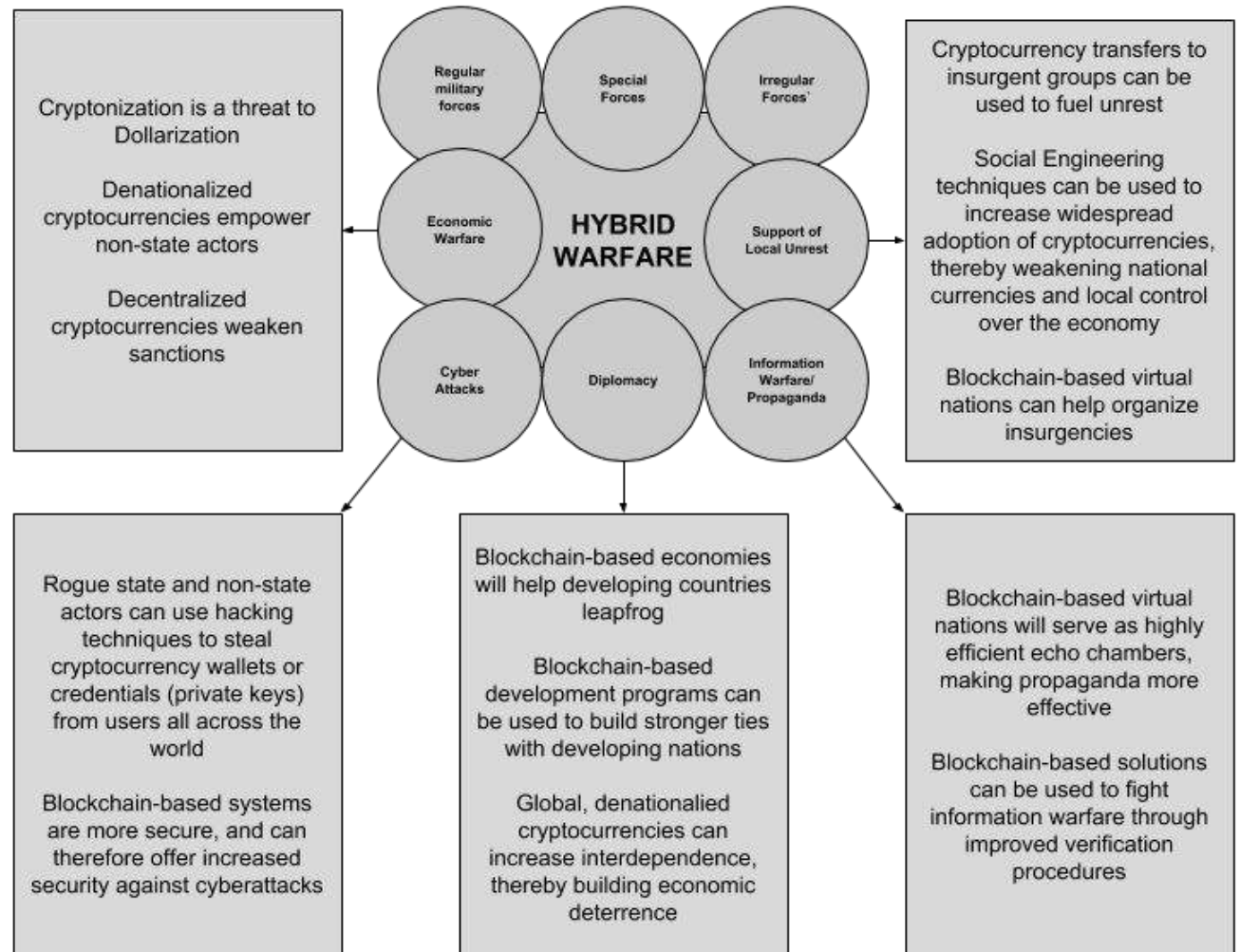
July 25, 2018

In the Context of National Security: Pillar 4

Pillar 4: Advance American Influence

- Encourage aspiring partners
- Champion American Values

In the Context of Hybrid Warfare



In the context of Geopolitics



CRYPTOSTABILITY

Bitcoin is already playing a key role in the unsteady financial systems of some developing markets

By [Commentary](#) • July 4, 2017



Bitcoin Investors Eye Turkey As Lira Plummets 20%



Billy Bambrough Contributor ①

Crypto & Blockchain

I write about how bitcoin, crypto, and fintech are changing the world.



CRYPTOSTABILITY

Bitcoin is already playing a key role in the unsteady financial systems of some developing markets

By [Commentary](#) • July 4, 2017





WORLD

Exclusive: Russia Secretly Helped Venezuela Launch a Cryptocurrency to Evade U.S. Sanctions

ALTCOIN NEWS MAY 14, 2018 22:28

Venezuela's Oil-Backed Crypto Petro Grows Thanks to a Little-Known Russian Bank



BTC/USD

19:32
\$7,554.14Low
\$7,441.37

ALTCOIN NEWS JANUARY 02, 2018 18:03

Putin Orders Work on 'CryptoRuble' to Escape Western Sanctions



WORLD ECONOMY

ECONOMY | WORLD ECONOMY | US ECONOMY | THE FED | CENTRAL BANKS | JOBS

Venezuela's oil-backed cryptocurrency raised \$735 million in one day, president claims

- Nicolas Maduro said on Twitter that Venezuela's petro token raised more than 4.777 billion Chinese yuan, or \$735 million.
- Each unit of the petro is pegged to the price of one barrel of Venezuelan oil, according to Caracas.
- A number of skeptics have raised concern about the country's cryptocurrency ambitions.

Ryan Browne | @Ryan_Browne_
Published 8:02 AM ET Wed, 21 Feb 2018 | Updated 11:44 AM ET Wed, 21 Feb 2018

China to the rescue in a win-win format

Against the backdrop of China seeking lower energy prices for its heavily industrialised economy and Venezuela seeking external investment to help modernise local oil extraction facilities, China has come up with a win-win formula that will see Beijing pump \$250 million into Venezuela's petro-economy while in return Venezuela will pump more barrels of oil than it is currently capable of doing and deliver them to Caracas's all-weather Chinese partner.

CHINA'S SHARE OF INVESTMENT IN LATIN AMERICA

2005-2013

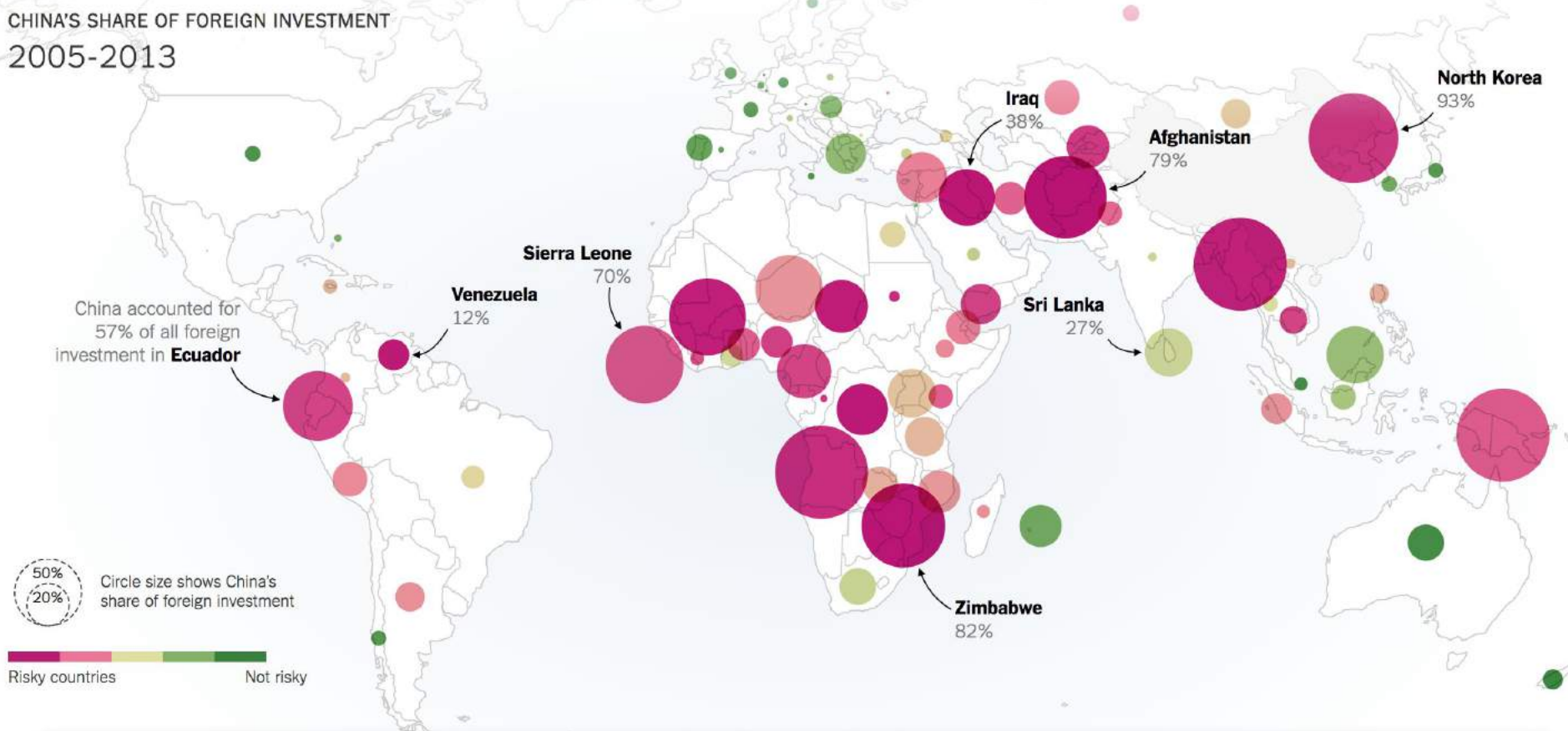


China is a much smaller player in **Chile**, whose economy has been stronger than its neighbors.

State-run Chinese banks have lent more than \$50 billion to **Venezuela**, propping up an unstable regime in exchange for oil.

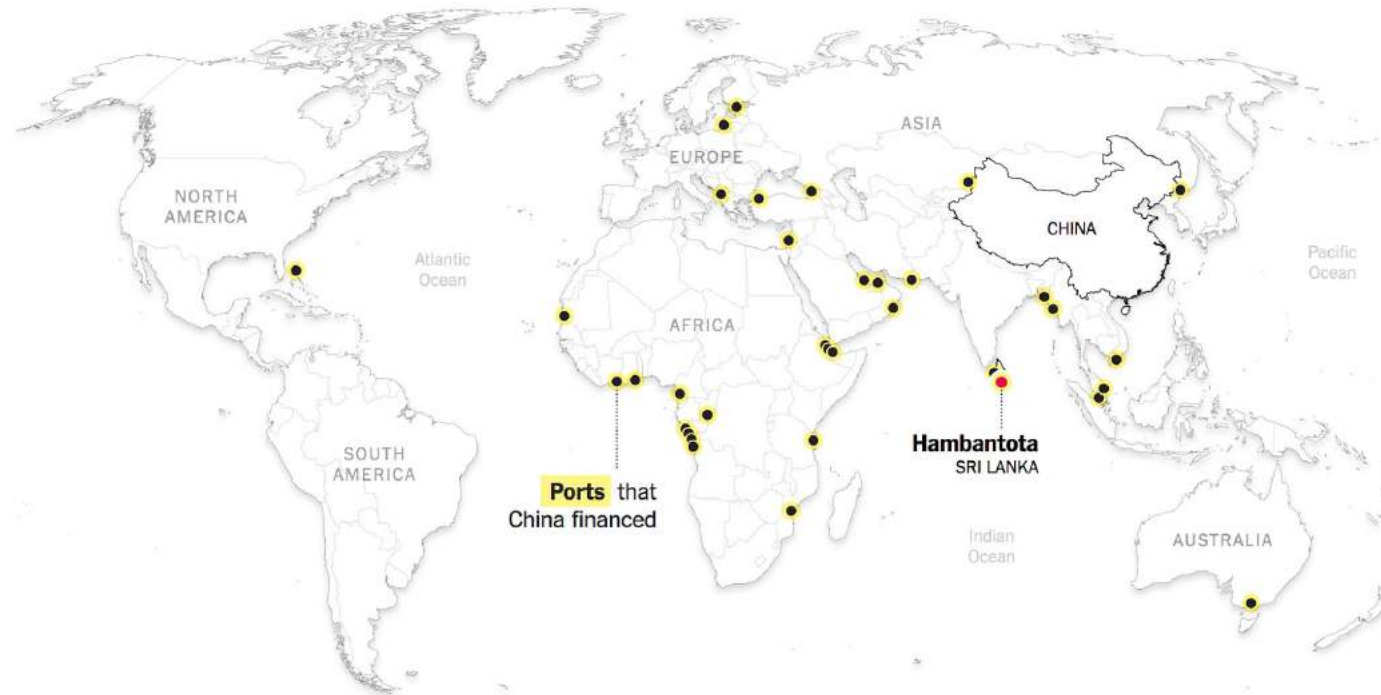
Chinese companies are building dams, railways and nuclear power plants in **Argentina**, which is dealing with high inflation and a volatile currency.

CHINA'S SHARE OF FOREIGN INVESTMENT 2005-2013



China-Backed Ports

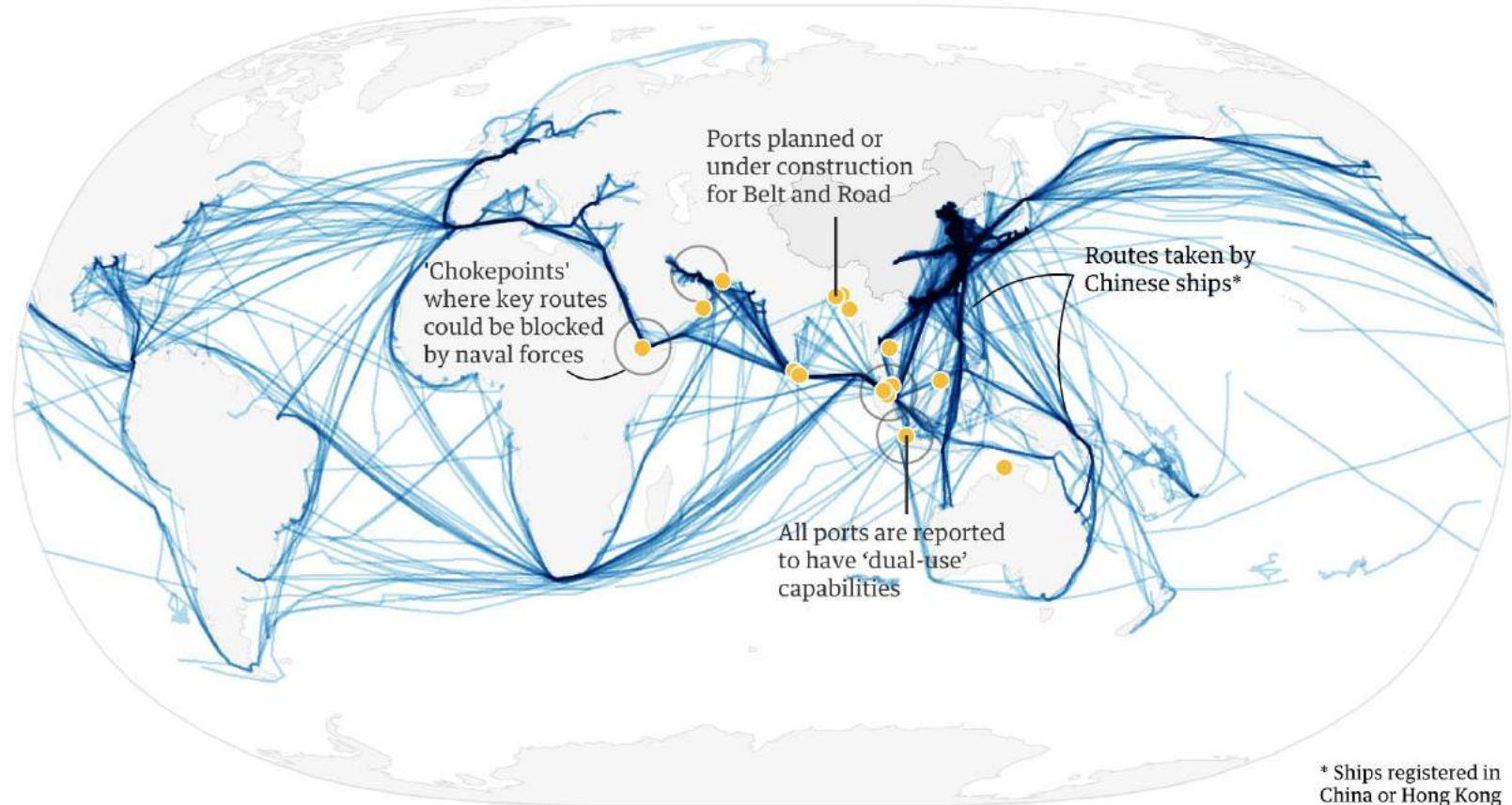
China has helped finance at least 35 ports around the world in the past decade, according to a Times analysis of construction projects.



Note: China provided only partial financing for some ports. | Sources: Construction Intelligence Center; Johns Hopkins University School of Advanced International Studies; Center for Strategic and International Studies; New York Times reporting.

By The New York Times

China's "maritime silk road" also pushes its **strategic advantage** at sea





24,238 views | Jun 28, 2018, 08:17pm

China Is Doing The Same Things To Sri Lanka That Great Britain Did To China After The Opium Wars



Panos Mourdoukoutas Contributor ⓘ
Markets

Possible Future Scenarios

- Russia could overmatch America
- China could overmatch America
- Violent Extremist Organizations could leverage blockchain-based virtual nations

Possible Future Scenarios

- Russia could overmatch America

QUARTZ

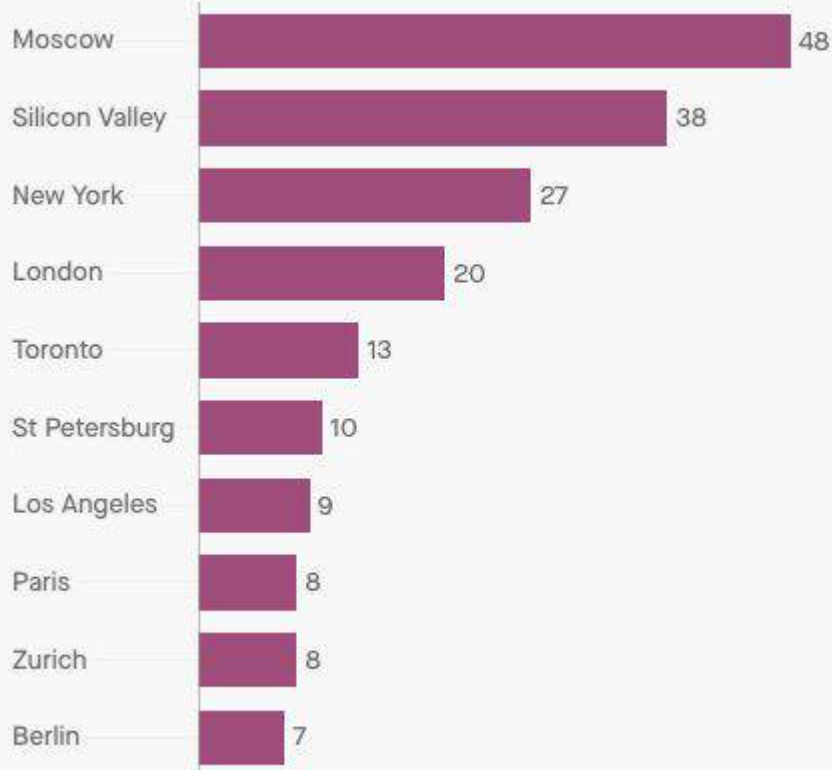
ЗДРАВСТВУЙТЕ

Why are there so many Russians in crypto?

By John Detrikhe • May 21, 2018



Top cities by number of ICO projects based on location of CEO/founder



Blockchain Will Be Theirs, Russian Spy Boasted at Conference



Possible Future Scenarios

- China could overmatch America





BLOCKCHAIN

\$700 Million Investment: Communist Party of China Releases Primer on Blockchain Technology

14-Aug-2018

Possible Future Scenarios

- Violent Extremist Organizations could leverage blockchain-based virtual nations

Screw borders, Bitnation lets you create blockchain-powered virtual nations

by REBECCA CAMPBELL — 5 months ago in CRYPTOCURRENCY



ESTONIA, THE DIGITAL REPUBLIC

*Its government is virtual, borderless, blockchained,
and secure. Has this tiny post-Soviet nation found
the way of the future?*

By Nathan Heller



REPUBLIC OF ESTONIA
E-RESIDENCY

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19880

E-RESIDENTS

138

COUNTRIES

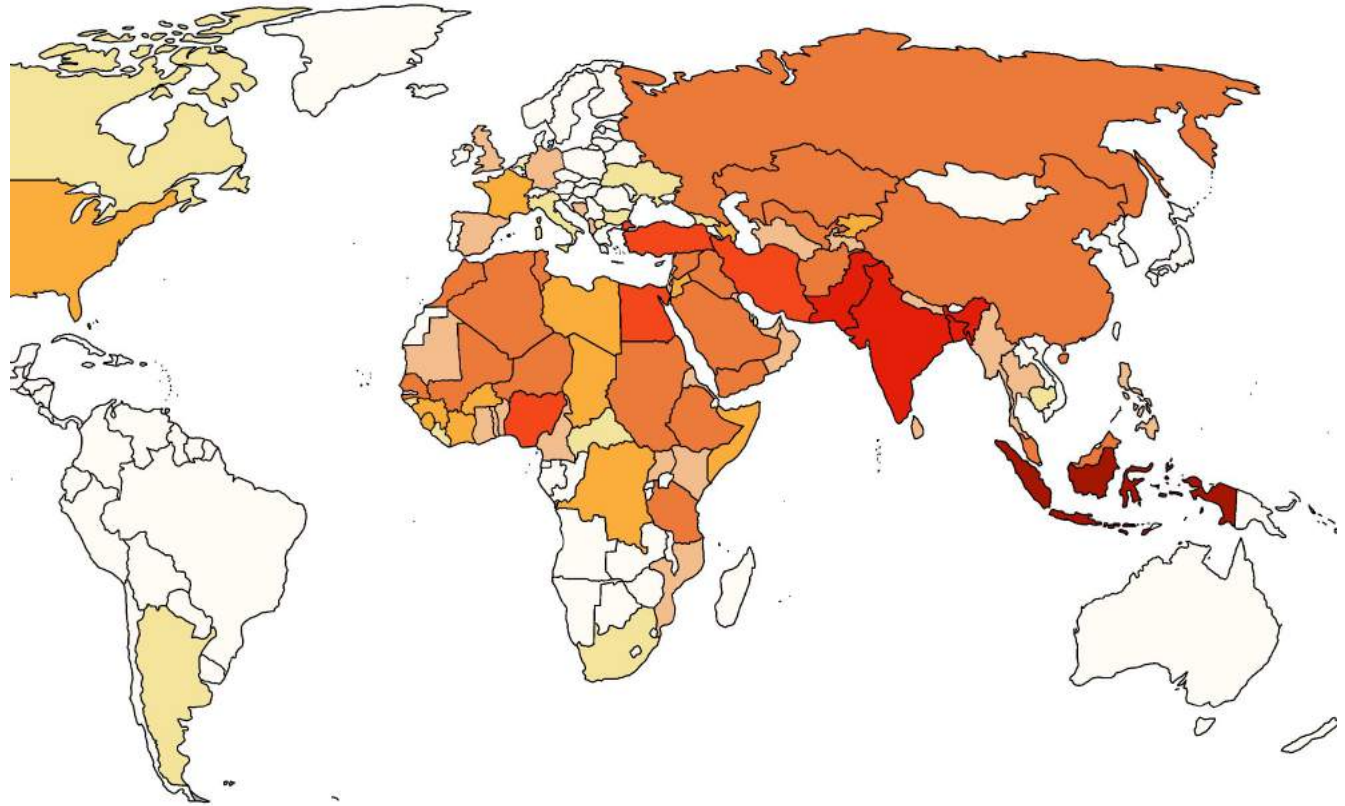
3070

COMPANIES ESTABLISHED
BY E-RESIDENTS

Join the new digital nation

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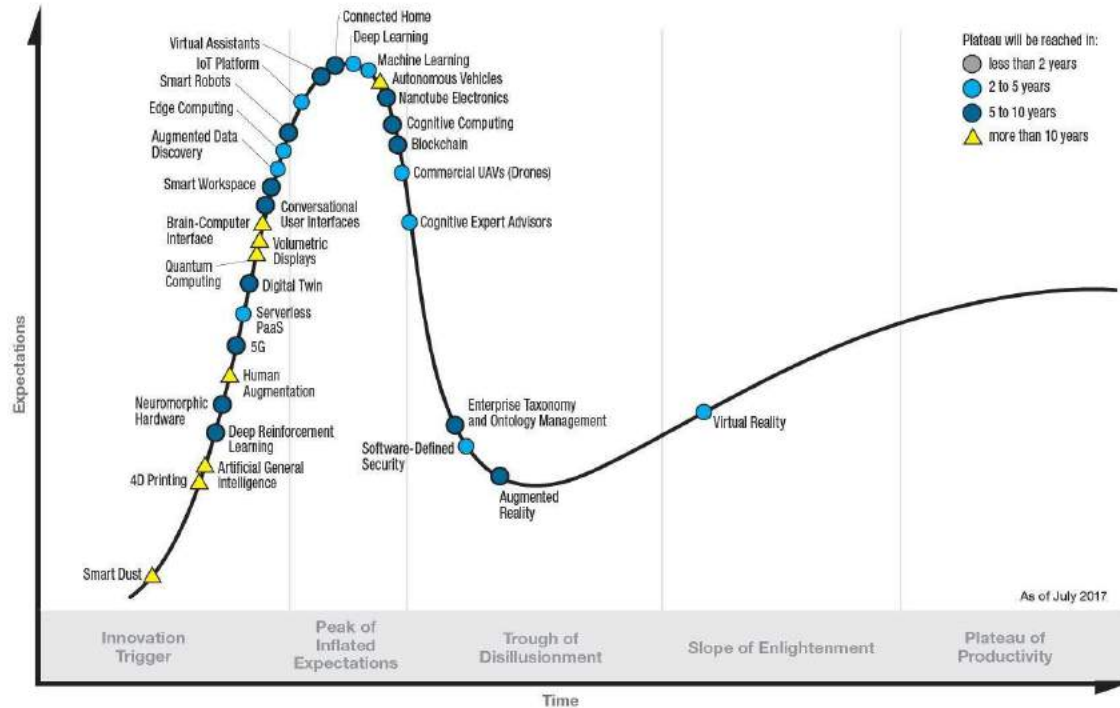
The Islamic State could consolidate its base across the world through a blockchain-based virtual nation/ caliphate



Conclusions

- Need for more R&D
 - More collaborations between academia, industry, and governmental agencies
- Need for a comprehensive strategic
 - One that addresses economic and military/security concerns
- Need for an operational sandbox
 - Russia's experiment in Venezuela might give the former an advantage in operational expertise

Gartner Hype Cycle for Emerging Technologies, 2017

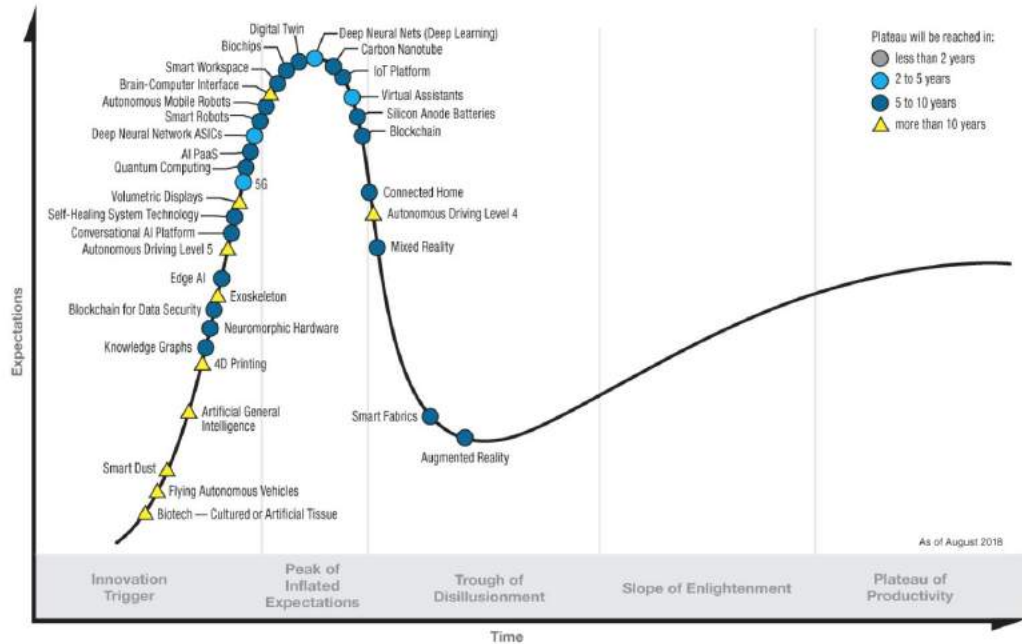


gartner.com/SmarterWithGartner

Source: Gartner (July 2017)
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Gartner

Hype Cycle for Emerging Technologies, 2018



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Source: Gartner (August 2018)
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Gartner.

TECHNOLOGY

The Blockchain Will Do to the Financial System What the Internet Did to Media

by Joichi Ito, Neha Narula, and Robleh Ali

MARCH 08, 2017 **UPDATED** MARCH 09, 2017



ECONOMY

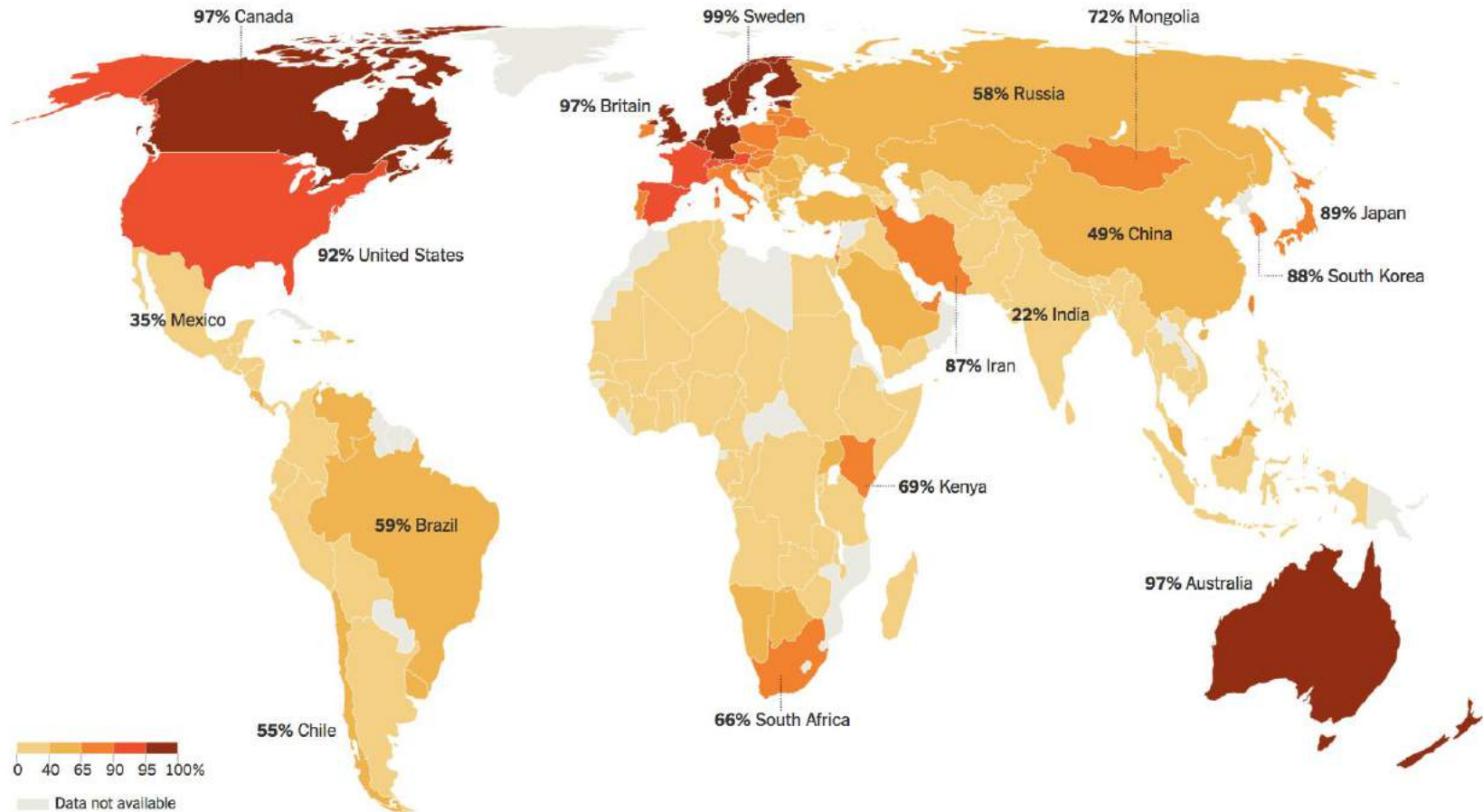
As Cryptocurrencies Rise, Who Needs Banks?

by Antonio Fatás and Beatrice Weder di Mauro

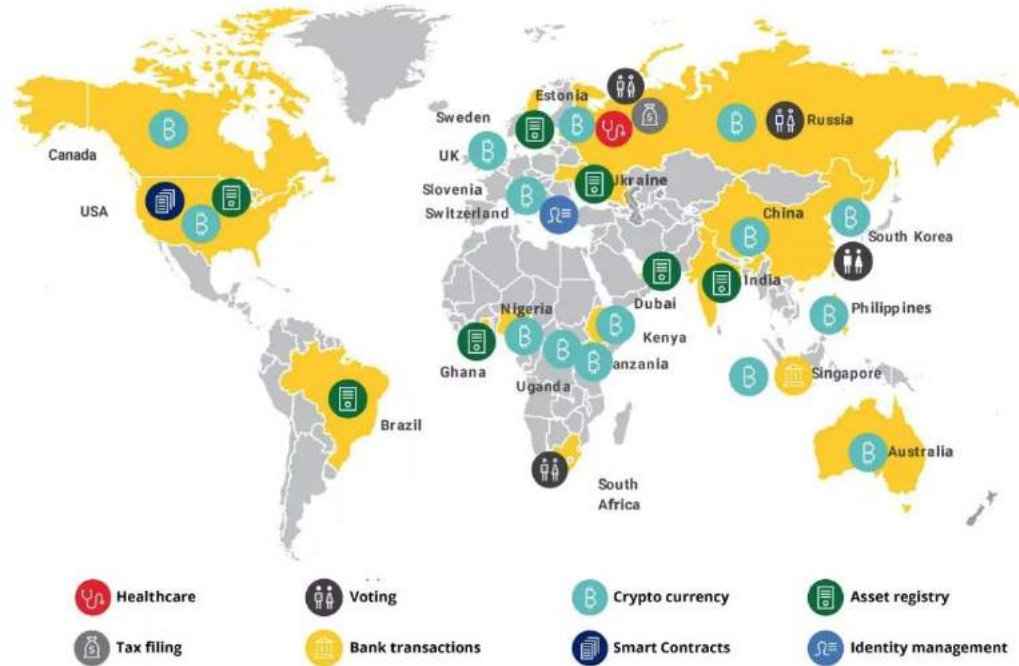
MAY 07, 2018



Share of adults who made or received any noncash payment



PUBLIC BLOCKCHAIN EXPERIMENTS GLOBALLY



Q & A

Thank You

Girish