

Export Enforcement and National Security

Trade School

Pete Mento

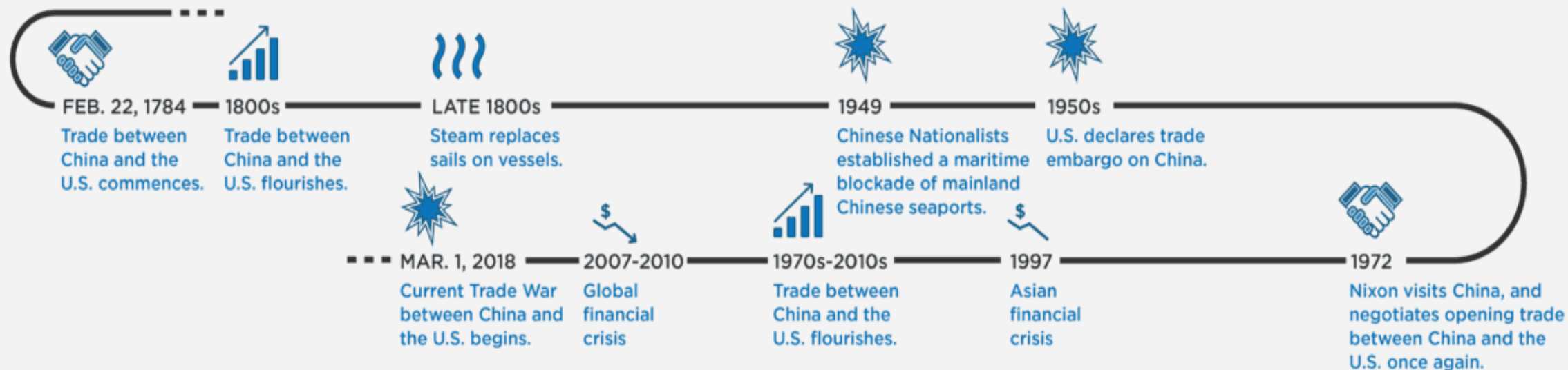
Mento LLC

Friday October 9th, 2020



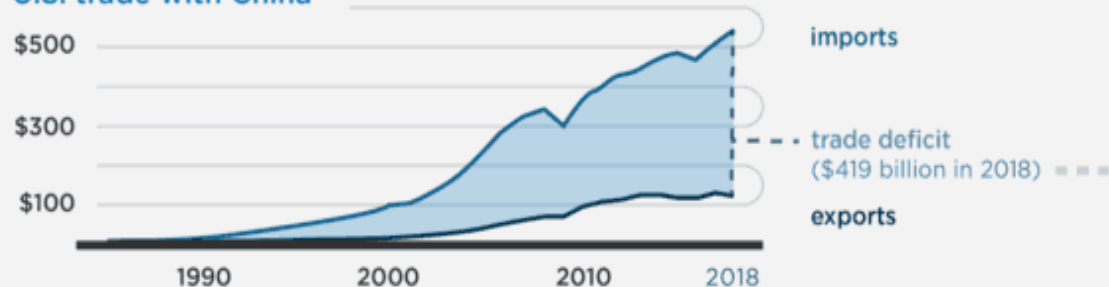
US—CHINA TRADE TIMELINE

The U.S. and China have long been trade partners, but when did it all go sour?



A GROWING DEFICIT

U.S. trade with China



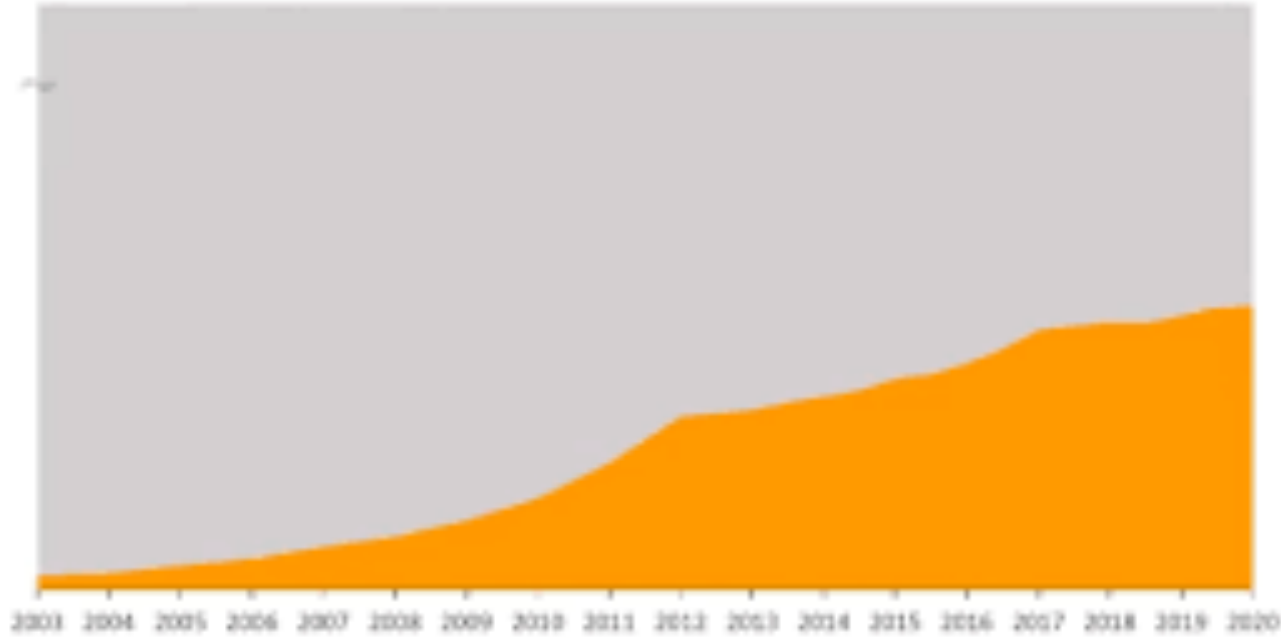
A prolonged deficit can hurt a nation's economy due to **declined spending on domestical products.**

THE TRADE WAR



The trade war has largely been a **series of tariff-driven retaliations** between China and the U.S., **beginning with Trump's Mar. 1, 2018 tariff announcement** on steel and aluminium imports.

FBI Technology Theft Cases Involving China



IP & the US Economy

Strong IPR protection and enforcement are essential to creating jobs and promoting economic prosperity; opening new markets for U.S. goods and services; and fostering investment in innovation and development



IP-INTENSIVE INDUSTRIES ACCOUNT FOR...¹

38%

of GDP

52%

of merchandise exports

27.9

million jobs

46%

wage premiums

IP CRIME'S ANNUAL COST TO THE U.S. ECONOMY²

\$180 Billion

from theft of trade secrets

\$18 Billion

from pirated U.S. software

\$29 Billion

in displaced legitimate sales due to counterfeit and pirated goods

PRC's Tools For Acquiring Technology



- Intelligence Services
- Non-Traditional Collectors
- S&T Investments
- Talent Recruitment Programs
- Academic Collaboration
- Research Partnerships
- Joint Ventures
- Front Companies
- Mergers & Acquisitions
- Legal and Regulatory

Systematic, Expansive and Well Funded

- "They've pioneered an expansive approach to stealing innovation through a wide range of actors, including not just Chinese intelligence services but state-owned enterprises, ostensibly private companies, certain kinds of graduate students and researchers, and a whole variety of other actors all working on their behalf." — FBI Director Christopher Wray

Thousand Talents Plan

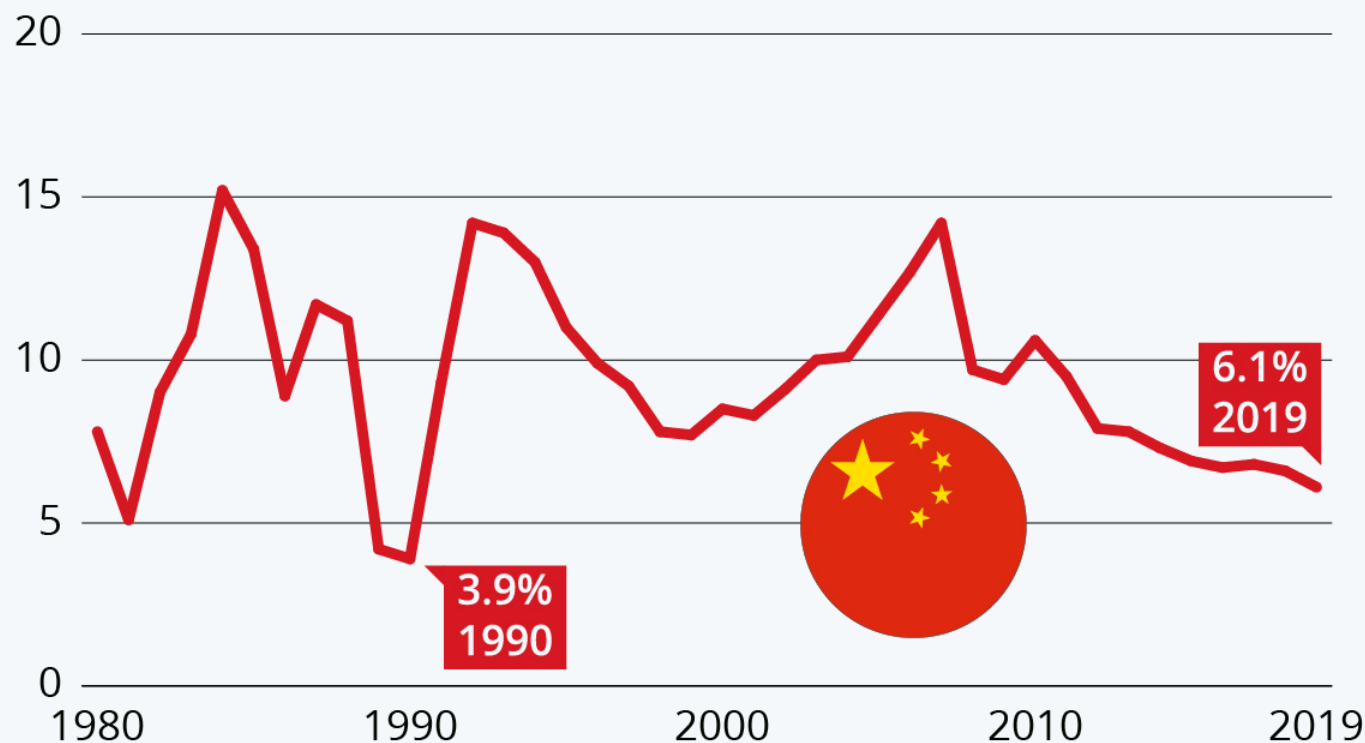
- One of the most prominent Chinese Talent recruit plans that is designed to attract, recruit, and cultivate high-level scientific talent in furtherance of China's scientific development, economic prosperity and national security.
- These talent programs seek to lure Chinese overseas talent and foreign experts to bring their knowledge and experience to China and reward individuals for stealing proprietary information."

RECRUITMENT
PROGRAM OF GLOBAL EXPERTS

“CHINESE TALENT PROGRAM”

China Posts Weakest Economic Growth Since 1990

China's real GDP growth since 1980 (in %)



Source: National Bureau of Statistics of China



Made in China 2025

The 4 advantages



Market



Enterprises



Strategy



Talents

The 10 key sectors



New information technology



Numerical control tools



Aerospace equipment



High-tech ships



Railway equipment



Energy saving



New materials



Medical devices



Agricultural machinery



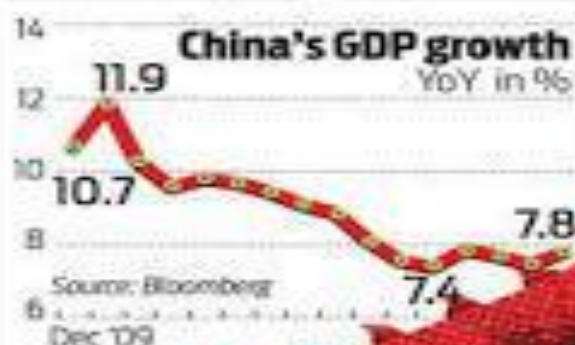
Power equipment

What's up?

China's super-cities are borrowing like mad to build highways, airports to record-breaking skyscrapers

Its shadow banking system, in which banks and finance companies extend loans at high interest rates outside regulation is a big cause of worry

While its central bank is looking to curb debt binge, the govt is forcing easing of credit to keep GDP growing north of 7%



China debt crash may be the next global crisis

For legendary investor George Soros, the main risk facing the world isn't the euro, or a Japanese asset bubble, but a Chinese debt disaster that's unfolding in plain sight

The magnitude

17.9 trillion yuan, or \$2.96 trillion – Borrowings by provinces, counties and townships has reached

63% growth of local debt since 2010, much faster than 40% growth of the economy

69% share of shadow banking of China's 2012 GDP, estimated by JPMorgan

57% of local government debt comes from bank loans, rest from bonds and shadow banking network



How it can go from “Bad to Dead.”

- Lack of management commitment
- Inadequate internal investigations
- Inaccurate, incomplete, or misleading reporting to enforcement authorities
- Failure to promptly implement or improve compliance procedures and other remedial actions, including wind down activities
- Concealment, circumvention or other willful conduct
- New violations during the investigation

Export Violations

Penalties for US Export Violations

Criminal Sanctions

	EAR	ITAR	OFAC
Organization	Up to \$1 Million	Up to \$1 Million	Up to \$1 Million
Individual (PI)	Up to \$250,000 and/or up to 10 years in prison	Up to \$1 Million and/or up to 10 years in prison	Up to \$100,000 per violation and/or up to 10 years in prison

Civil Sanctions

	EAR	ITAR	OFAC
Organization	Up to \$12,000 per violation	Up to \$500,000 per violation	Up to \$55,000 per violation
Individual (PI)	Up to \$12,000 per violation	Up to \$500,000 per violation	Up to \$55,000 per violation

National Security Is the New Trigger

- Temp.Periscope has been blamed for cyberattacks that have resulted in the compromise of sensitive material related to military technology, including plans to construct a new supersonic anti-ship missile to be deployed by American submarines.
- Spending billions of dollars to develop and field new defense technologies, only to have their effectiveness compromised by a data breach, can be costly for developers and for taxpayers.
- More importantly, it can endanger U.S. service members who rely on that technological advantage to accomplish their missions safely.

HOW ARE BIOLOGICAL WEAPONS DEVELOPED & TESTED?



1 CHOOSE AN AGENT

Factors considered in choosing an agent include: Pathogenicity (amount required to cause disease); Virulence (disease severity); Incubation (amount of time to cause harm after exposure); Lethality (how deadly the agent is); Transmissibility (how the disease spreads); and Countermeasures (treatments or cures).



2 ACQUIRE THE AGENT

Agents could be purchased from a microbiological laboratory or bank, or isolated from natural sources such as animals, soil, or water. Agents could also be acquired through scientists or technicians working in other BW programs, or created from scratch by altering an existing pathogen's genetic code.



3 ACQUIRE A PRODUCTION METHOD

The production method produces small quantities that could later be scaled up for mass production. The choice of method would depend on the agent, how it would be used and the quantity necessary. Most agents would require nutrients to grow, many of which are widely available due to use in commercial industries.



4 STABILIZE THE AGENT

Biological agents break down over time and eventually die. Stabilization slows an agent's metabolism so they can be stockpiled. Some agents can naturally slow their metabolism by forming spores, and scientists can emulate this process in others through microencapsulation, applying a layer of protective coating.



5 CONCENTRATE THE AGENT

Concentrating the agent makes it lethal in small doses. This can be done through vacuum filtration, ultrafiltration, precipitation, and centrifugation.



6 CHOOSE A DELIVERY METHOD

Aerosols, tiny particles that can be suspended in the air and inhaled, are the best method for infecting a person with a biological agent. Some diseases are usually carried by vectors like ticks. But these diseases are often more virulent and easier to disseminate when they are aerosolized.



7 FIELD TESTING

Field testing can be done in a laboratory, through open-air tests in controlled environments, or on animals. There are also rare cases of countries using humans to test agents, such as Japan using prisoners as test agents during WWII, and the U.S. testing tularemia and Q fever on human volunteers from 1954-1973.



8 MASS PRODUCTION

Depending on the agent, large quantities may be needed to carry out a successful attack. Devices such as bioreactors or fermenters can grow cells on a large scale. Environmental conditions inside these devices, such as temperature, pH, and the presence of gases, must be carefully controlled to keep the cells alive.



9 STOCKPILE AND MOBILIZE WEAPONS

Once stabilized and loaded into a delivery system, the weapons can be stockpiled. Even stabilized biological agents will decay over time, so stockpiles do not last indefinitely.



WHO'S INVOLVED?



272 SCIENTISTS

INCLUDING ENGINEERS, COMPUTING, AI EXPERTS
AND ROBOTICISTS IN 37 COUNTRIES HAVE CALLED
FOR A BAN ON THE DEVELOPMENT AND
DEPLOYMENT OF FULLY AUTONOMOUS WEAPONS.

AT LEAST

6 STATES

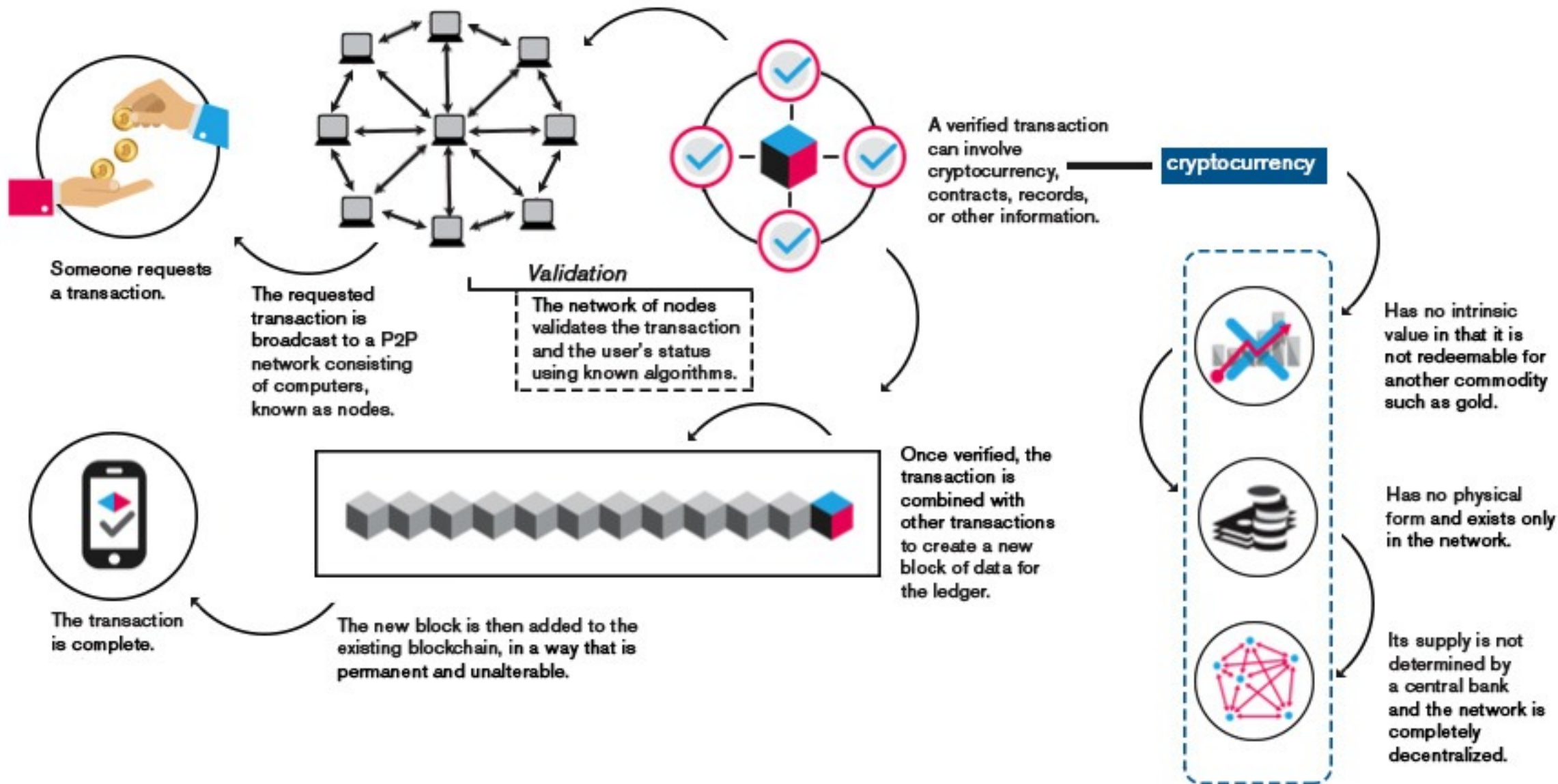
ARE KNOWN TO BE RESEARCHING,
DEVELOPING AND TESTING FULLY
AUTONOMOUS WEAPONS:

THE US, THE UK, CHINA, ISRAEL, RUSSIA
AND SOUTH KOREA.

44 STATES

HAVE SPOKEN PUBLICLY ON
FULLY AUTONOMOUS WEAPONS
SINCE THE HUMAN RIGHTS COUNCIL
DEBATE ON 30 MAY 2013.





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With Your Host Pete Mento