19 COVID Lessons and a Social Contract for Resilience

Markus Brunnermeier

Princeton University

Based on New Book

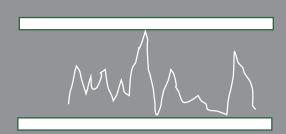
Based on webinar series http://markusacademy.Princeton.edu

Resilience



- Risk management
 - Variance
 - Tail Risk Analysis

- squeezed between concrete wall

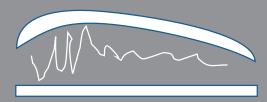


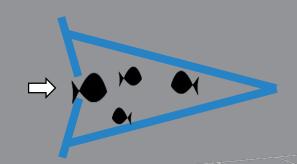
- Resilience management squeezed between rubber wall
 - Mean-reversion bounce back



roly-poly toy

Trap Avoidance Analysis



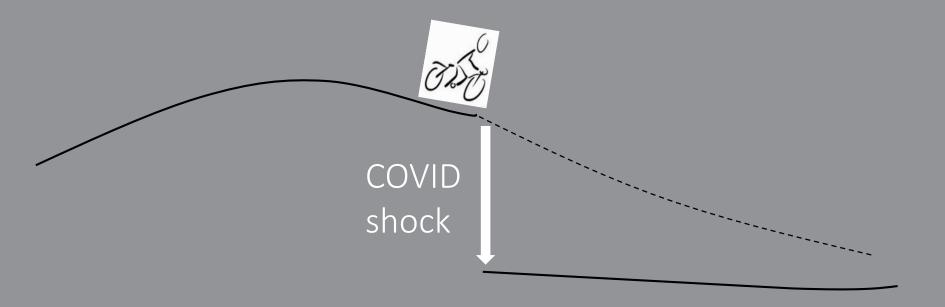


COVID as Naked Swimmer Moment and Trend Accelerator M



- Health externalities
 - No universal health care
 - No sick leave
 - Death rate across minorities

- Trend accelerator
 - Optimal speed growth vs. disruption (human capital)



Social contract



- Thomas Hobbes, (Leviathan, 1651), John Lock, Jean-Jacques Rousseau
 - An externality interpretation



- Social contract to limit
 - Externality from others
 - Shocks (externalities from mother nature)
 - John Rawls and the "veil of ignorance"
 - Not insure, but provide resilience
 - Ladder to get out of the hole not universal basic income
 - Dignity and limits moral hazard

Diversity, Flexibility, Growth, and Resilience



Diversity vs. Monoculture

- Shocks are more idiosyncratic than symmetric
- Reduced willingness to insure each other (Alesina)

Flexibility



- Growth
 - Bicycle analogy



"A social contract that boosts inclusive growth stabilizes the social contract."

Implementing Social Contract



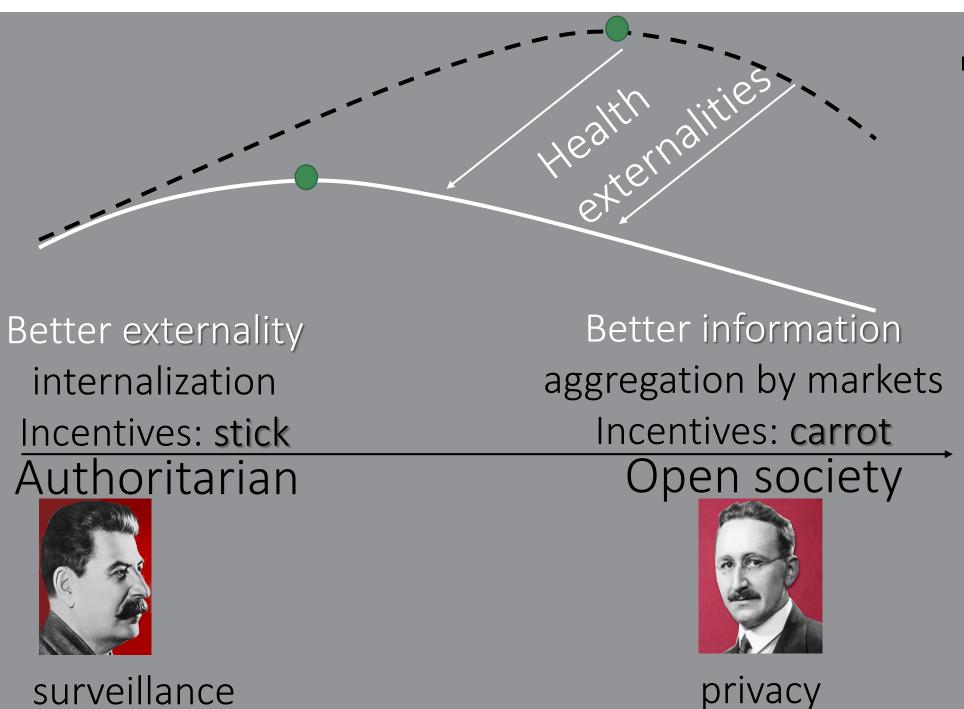
- Social Norms
 - Japan as example
 - Common identity, sense of community, (homogeneity)
- Government enforcements
 - Command and control
 - Pigouvian taxes/subsidy

"stick/carrot"

- Surveillance vs. privacy
- Markets (+ property rights)
 - Information aggregation
 - Explicit insurance contracts
 - Limited liability, defaultable debt
 - Growth stabilizes social contract

Temporary or permanent shift?





Will we return to the pre-COVID social order?

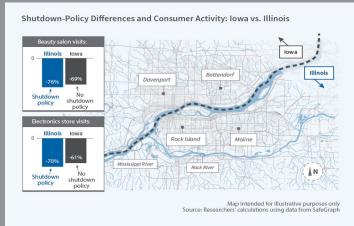
What changes people's behavior (social distancing)?



1. Wave: COVID Fear

- Sweden vs. Denmark
- Wisconsin vs. Minnesota

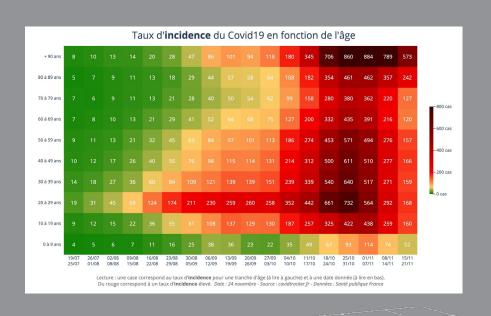




Chetty et al. (2020) Gooldsbee & Syverson (2020)

2. Wave: COVID Fatigue

- Endowment effects
- Optimal Expectations (Brunnermeier & Parker, 2005)
 - Optimistic beliefs if it doesn't distort behavior
 - Government limits choice
 - Externality



Illusory Health-Wealth Trade-off



In AE: Dynamic trade-off

- Lock-down now
 - 1. Wave: Reduction in GDP would happen anyways due to fear
 - 2. Wave: Fatigue
- Better future health and wealth

In EMDE:

COVID death vs. starvation

Lives vs. visible lives

(power of accounting)

"What is measures

"What is measures

"What is managed"

- Side-effects of lockdown
 - COVID starts as a crisis of the rich/travelers airport in big cities (connection to China)
 - COVID spread first in big cities
 - Lock-down:
 migrant workers returned to home (to country side)
 - Spreading across regions to the poor who are especially hard hit

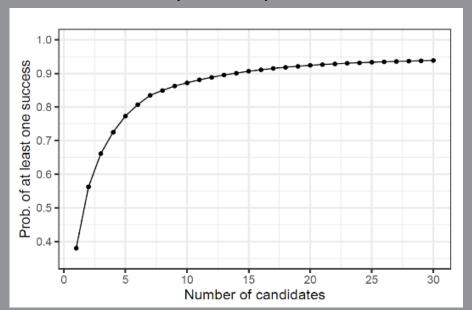
Cost of testing/vaccines tiny compared to lockdown



Weekly cost: US \$80bn, World \$200bn,

need >> efficiency

- Testing, testing, testing
- How to fund vaccination development?
 - Don't: normal profit margin, fail lost your money
 - Way 1: X prize/excess profit margin, but commitment problem
 - Better Way: insure against failure
- 14 vaccine development in parallel (redundancy)
 - How many? Depends on correlation



Vaccine distribution

The Future of **Globalization** (Slowabilization)



- From **cost minimization** to **Resilience**
 - Just-in-Time







- Cheap
- Cheapest supplier/country

Reliable/sustainable

3 different suppliers (dual sourcing) from 3 different continents



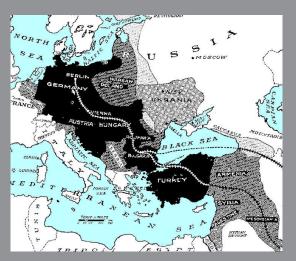
How Great Powers Compete Economically



Brunnermeier, Doshi, James

Washington Quarterly 2018

1. Global infrastructure – power projection -





Berlin-Bagdad Railway

Belt Road Initiative

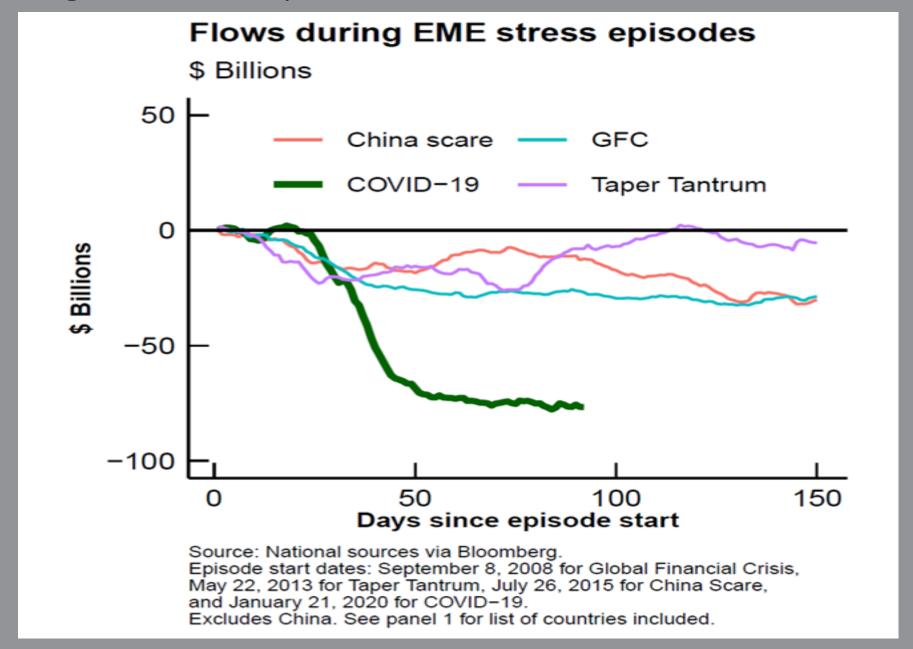
historical comparison: Imperial Germany vs. UK – China vs. US

- 2. Finance: Weaponization of dollar, digital money tech (digital RMB, Libra, ...)
- 3. Standard setting: GSM, 5G, ...
- 4. Digital borders privacy considerations

Global Financial Crisis – just avoided in March 2020



Flight to safety in the US dollar

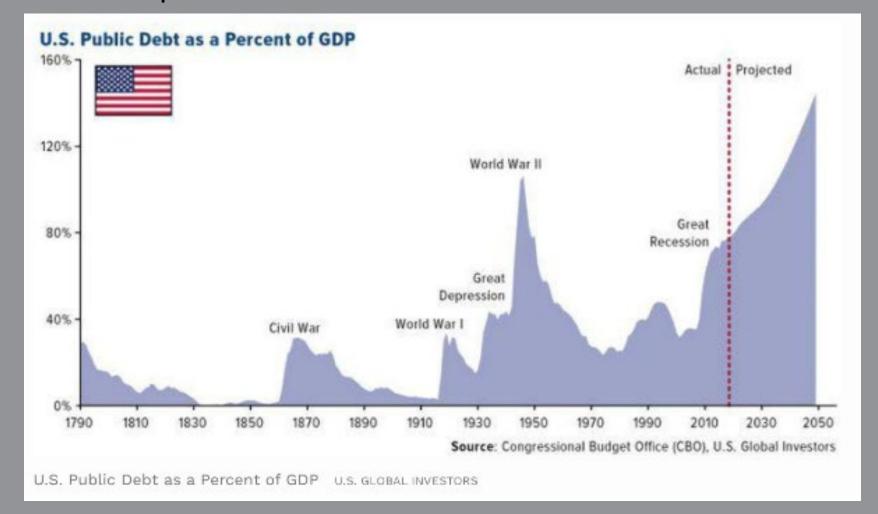


Fed interest rate cut and repo facility

Public debt and interest burden



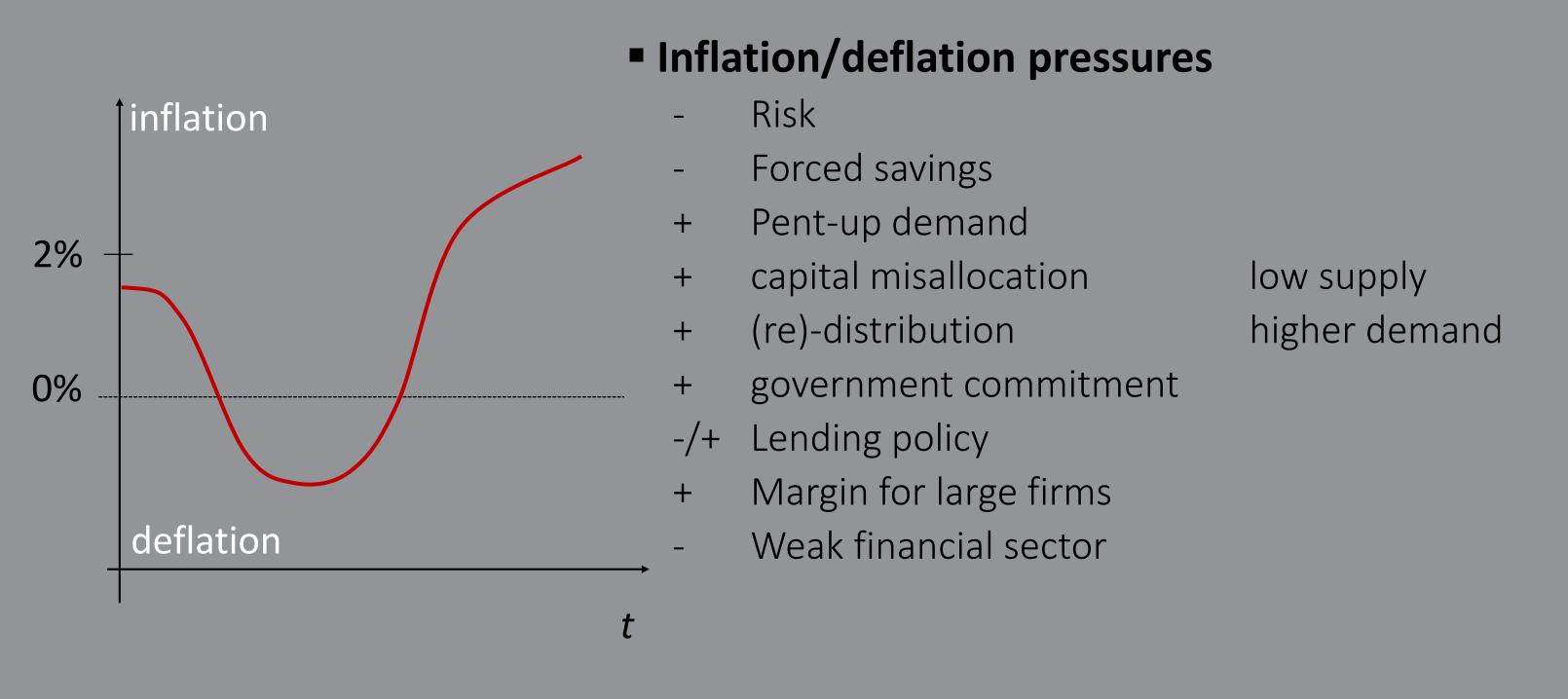
Fiscal space



- Vulnerability to interest rate spikes
- Who benefits from social programs? Who should pay for it?
 - Credit card receivables

Tail/Trap Risk: "Inflation whipsaw"





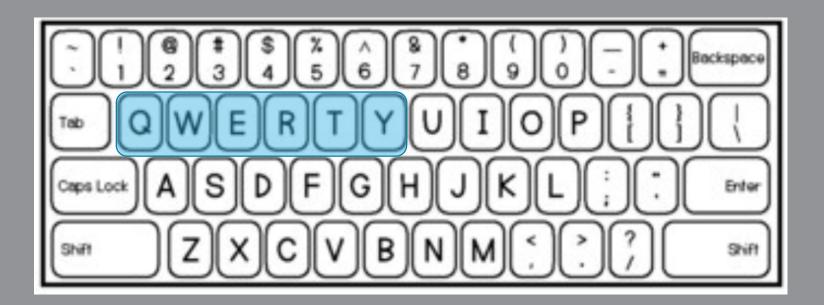
Innovation boost



Innovation

Overcoming cannibalization, QWERTY problem, and regulatory shackles

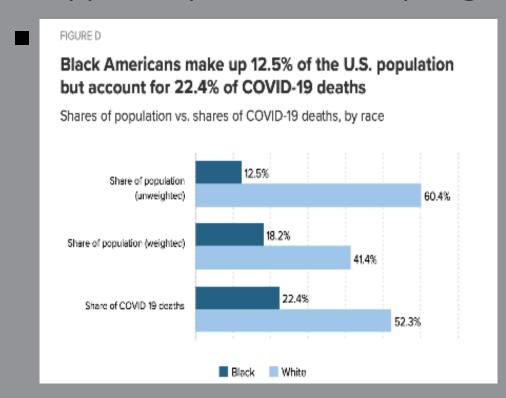
- Tele medicine
- Home office and urbanization reversal
- Online learning/conferencing
- Digital Money
- Virtual world



COVID as inequality enhancer



Typically wars and plagues are inequality levelers



- GIG economy and job security
- Residential inequality: poor in rich neighborhoods
- Online learning by high(low)-income schoolkids

2020 is not 2008



	2008	2020
Pre-crisis	Build-up of imbalances - Run-up of credit/housing - Thinly capitalized (shadow) banks	Well balanced - US gov. debt expansion - Corporate debt
Trigger	Re-evaluation: real estate - Regional correlation	Corporate cash flow crash
Amplification	HH & banks' balance sheets	Corporate sectors balance sheets
Fin-sector	Shadow banks (part of banks)	FinTechs for mortgages Banks still for SMEs
Structured finance	CDOs	CLOs
Policy objective	Demand stimulus	Survival
Speed	Fast	Extremely fast

Brunnermeier & Krishnamurthy 2020

19 COVID Lessons and a Social Contract for Resilience

Markus Brunnermeier

Princeton University

Based on New Book

Based on webinar series http://markusacademy.Princeton.edu