

BIG SHIFTS / DISCONTINUITIES

(& Surprises)

Poll: Give you \$1 million how?
PEOPLE WANT MOLECULES

KE.

NEW GLOBAL IMBALANCE

Peter Saffo / Stanford

CARDS
75 &
DISCONTINUITIES

STEVE WEBER

UC Berkeley

HOW WILL KNOWLEDGE ECONOMY GENERATE VALUE?

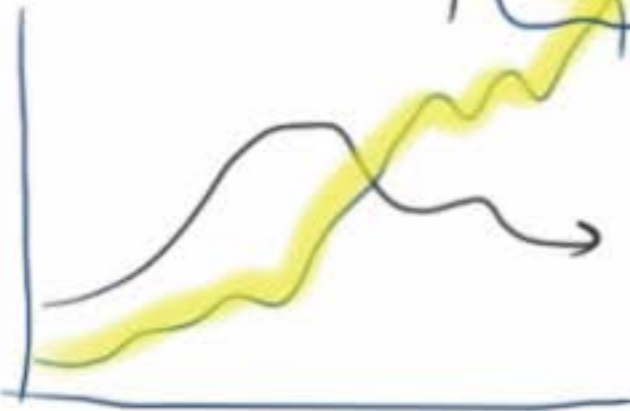
JOBS

- Slender demand / Over supply
- International competition
- Mobile & flexible human capital
- Uncertain IP Rights
- Maximal Demand volatility

- long amortization
- Distillated "young"
- " " with US led
- Corruption be zar
- Investment corrosion
- Challenge to democracy
- Who will fix the PIPES

Prison - 50K/yr
Stanford - 50K

STORY
Knowledge has value



WHAT IF WRONG?

- YouTube
- Facebook
- Genencs
- free



BAD DEBT

In college loans
- doubling down on BIG BETS



University NATION

Can economy soak this up?

TERTIARY EDUC IS BASELINE

Russia +200% investment

BUT: Returns to High Ed is falling

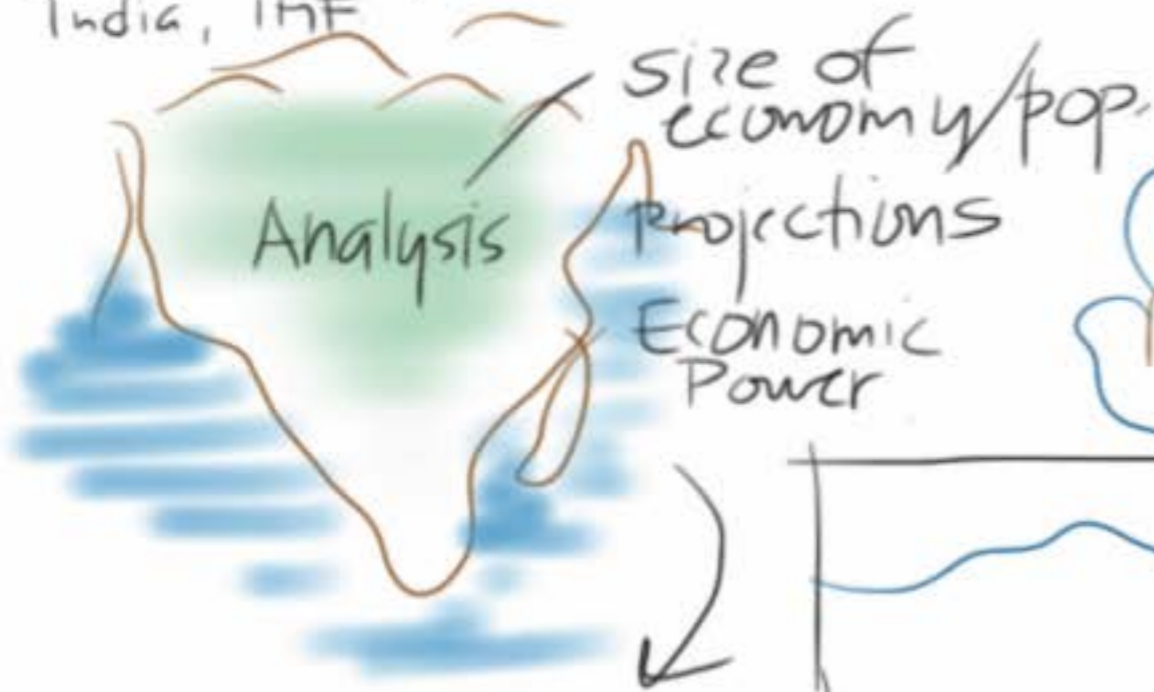
30%
PESSIMIST

46%
OPTIMIST

BIG SHIFTS-2

ARVIN VIRMANI

India, IMF



But Chinese investment model can't be sustained

Unipolar to Bi-Polar

Bi-Polar to Tri-Polar

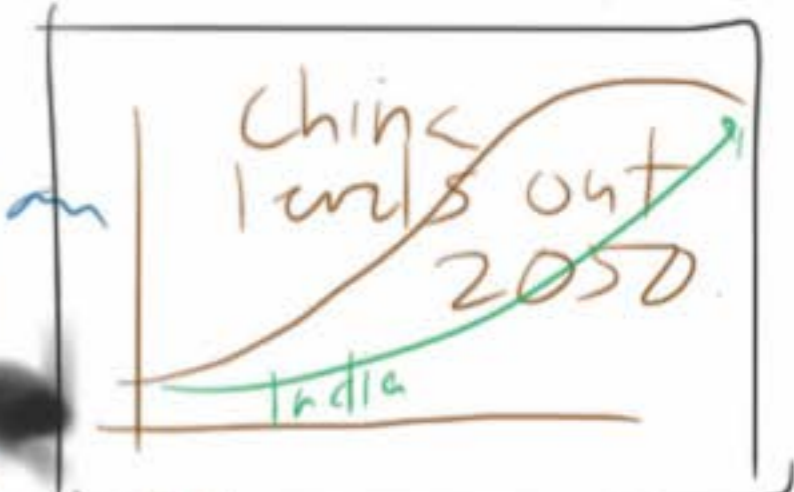
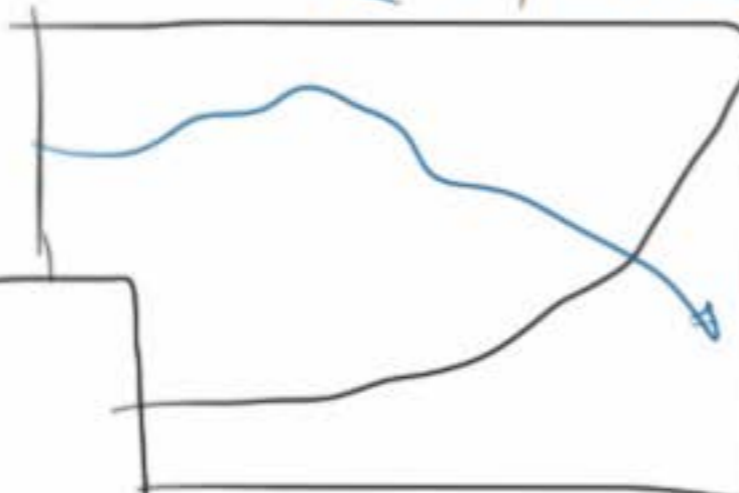
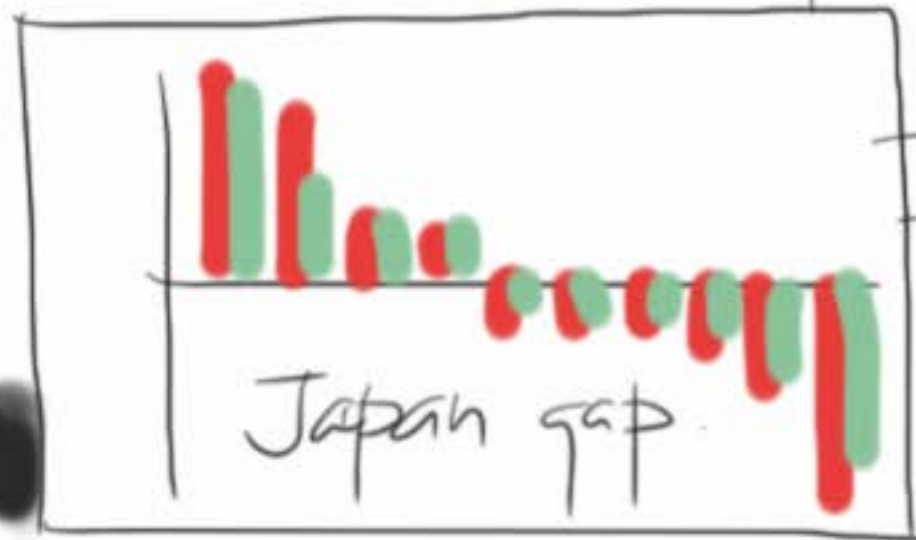
China = US 2035

- OLD ESTIMATE 2025
1. US
 2. China
 4. India
 5. Japan

China 2nd by 2020
India 3rd by 2035

Oil Crisis 2008 (China)

2011 Same (model held up!)



VIP 2 India will catch up!



BUILD NEW INSTITUTIONS

- Risks of / might conflict / is right
- BUILD INCLUSIVE INSTITUTIONS / Shared rule

BIG SHIFTS-3

JIA QINGGUO

School Int'l Studies, Peking Univ

EXCITEMENT
CAUTION
ANXIETY

History
counsels
caution

new over-
taking old

cautious

Regain
former
GLORY

EQUAL
RIGHTS?

RISING
Fascinated
with own rise!
NOT WEST
wealth through TRADE

- Conflict/competition
- US
- compete

REALIST NATIONALIST

LIBERAL INTN'LIST

- Benefit from
cooperation
- Peaceful
develop-
ment

• Liangjian
Be fearless
Be tough

• Taoguang
yanghui
Low
profile



- cost of
energy
- shrinking west
mkt.

- aging

BAD
STORIES

UN. cost.

CHINA

US

Int'l
challenge

Not that strong

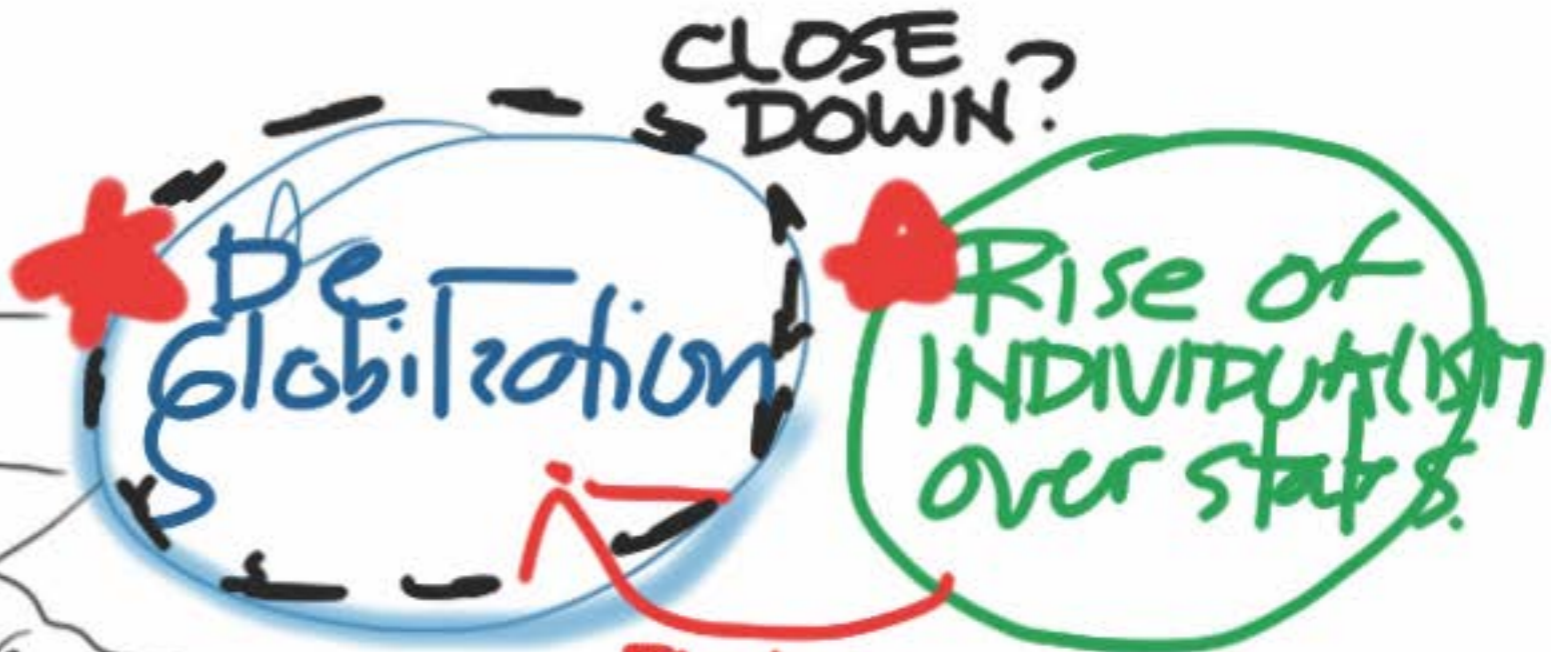
- Tech lag
- Financial moment
- military weak
- Philosophic influence
lost

- Inflation
- Food
- social unrest
- corruption

BIG SHIFTS-4

DR. IAN GOLDIN

Oxford Martin School



HUGE BENEFITS

- system works
- Better outcomes than history
- New Renaissance

sweeping all the assets

TECH SYSTEMS

Flakes
Small players
WACKOS

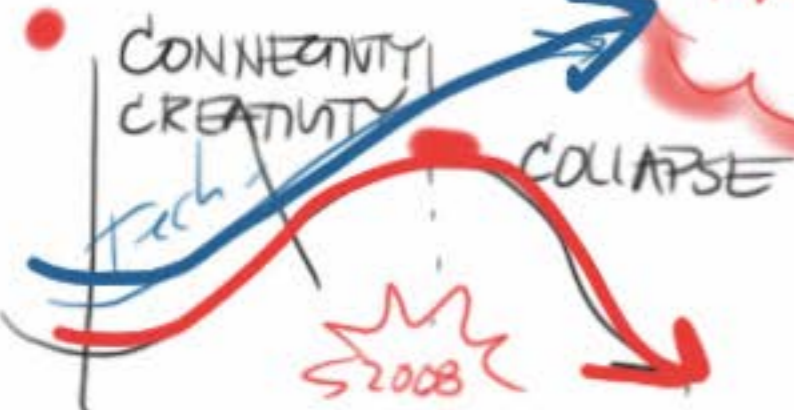
Dwides

- Consequences
- TOTAL SURVEILLANCE

BIO-PATHOGENS

OUTSTRIP CAPACITY

Homogenization



RESILIENCE & MITIGATION

RESPONSIVE
worry about identity of disenchanted

Complexity SCIENCE is key.

- Big PIPES → Int'l & domestic
- more connections more strength

Tech will outstrip ability to regulate or absorb



SLOW INT'L INST. EVOLUTION

BIG SHIFTS-5

RICHARD SAMANS

J. World Econ. Forum, Dr. Green Growth Inst.

Leaders not engaged beyond silos



? POLITICAL COALITIONS



2. DOMESTIC

• Social Insurance

Exhaustion of Chicago school efficiency

3. GOVERNANCE LAGGING

International Coalitions as well



- Growth deceleration
- Stimulus withdrawal
- New equilibrium w/o consumer
- Double digit debt rate rise (% debt service →)
- NOT in position to do the deficit

→ TOP LINE GROWTH CONSENSUS falling apart

→ **changing US Role**
X Chicago school
Resource Constraints
 — water — warming — politics

TOP LINE LEVERS



BOTTOM LINE

Agree on BIG GROWTH
POLICY AGENDA MISSING.

Balanced Inclusive Green.

NEEDS

• Institutions Bldg standards, regs, etc

monetary, trade, Financial Dev, Institution

Labor, corruption, Infrastructure, Investment, Educ

Planning, EE, Innov. Finance, Sectoral Indus

NEW PARADIGM ??

BIG SHIFT-6

LENNY MENDONCA

McKinsey Dvr

INCREASED PRODUCTIVITY

- 100% of growth will have to come here
- JOBSS challenge + InnoV. Game

GREAT REBALANCING WEST → EAST

- Urban explosion China
 - Declining WEST econ
 - Consumption shift to east
- (6E-25% developed for/in India)

Resolve constraints



RECOVERY TIMES EXTENDING

GLOBAL GRID

- Need same scale of innov. as Indust. Rev - 20yrs

BIG DATA opportunity

Extreme Capitalism

Extreme Democracy

Need big Public sector step up

PRICING the PLANET

MKT. STATE

2. EMERGING MKT3 DERAIL

13%

63.2trn

1. WORLD REBALANCED

77.6trn

18%

4. GLOBAL STALL

15%

4. 54.8trn

3. DECADE OF DRAGON & TIGER

3. 66.9trn

40%

IRATHSS →

GUARANTEED UNCERTAINTY

29%*

EXICIS poll.

4%

BIG SHIFTS - 7

DISCUSSION



BALANCE OF POWER

Jan

Challenge EDUCATION ROI

Brazil ↑ Bangalore ↑
Return in developing economies

Around Lack of intermediate skills

Steve it's helpful now, but falling
I'm saying we're OVER -
INVESTED → consequences coming

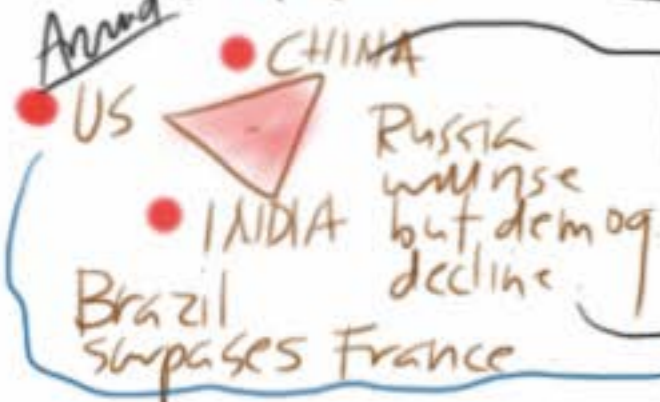
Steven CORP ANALOGY
More likely to see innovation from Non-polar countries i.e. Turkey

Lehny won't necessarily hold
→ Role of non-state
→ Role of citizens vs. companies

Lot of interest in coming out of central power slump. It will come out in next century.

Tri-polar? China struggle within? / what if econ. collapses?

Peter
If US is declining, likely to misbehave
I'm worried about WAR.



Chaos & Conflict

Jig
In past predictions wrong

ANYTHING COULD HAPPEN!

china is adaptive, will slow down
hist collapse

EXCEPTIONS

- Rise of US
- Rise of Germany & Japan

ALL TRUE OF CHINA

- 1) No territorial sanctions
- 2) Support intl world order
- 3) Growth thru trade

No terrorism
Rule of law
support new
accept met

China will have to lighten up on one-child

♂♀ imbalance?

not a serious problem yet - Vietnamese women marrying Chinese men.

BIG SHIFTS-8

Q. REVOLT FROM BOTTOM?

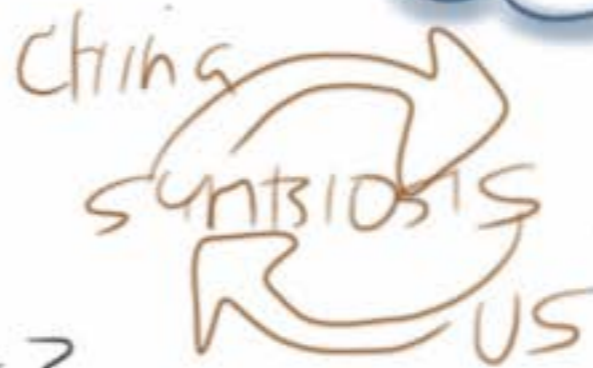
Chances for French style revolution?
 Discontent by well educated?
 Rethinking economic systems?

Ian
 No revolution
 Democracies in trouble economically - no generational continuity
 Already thinking of new models

Richard
 • Level of risk expectations for leaders in decline
 • HYPER-SPECIALIZATION - can't put together good agendas for change.



China running scared in a controlled fashion



Jia Collapse of manuf. tech. in west has lot to do with it



Lenny Tech. is DISRUPTIVE for orgs. that need it. Will it become CON-STRUCTIVE?

Steven Time when democracies were legitimized on promise. Judged now on process / not much appetite

→ WHOSE DEBT GETS WRITTEN OFF - who PAYS?
 Get this wrong & we'll have some VERY ANGRY PEOPLE

Reaching END OF MOORE'S LAW

Ian @ Oxford. optimistic 20 yrs Moore's law
 → Double power for same price every year

• Innov. = creative disruption

OPTIMISTIC high innov. thru connectivity

Q. TOP PLACE TO MOVE TO ACTION? →

Q. AUTOMATION? HOW CAN ECON BE STABLE?

In 1990s jobs eliminated but also came back.

Cyberstructure → unemployment

Lenny Need productivity to increase job growth

Challenge - NEED INNOV. in SERVICE PRODUCTIVITY

Arund Actor Bias in tech change
 CAPITAL COSTS ↓

Jia Less demand, less jobs
 GROWING INEQUALITY locks the system

BIG SHIFTS-8

BIG

Arnold

INSTITUTIONAL
ATTITUDE change
Int'l & Domestic

Jian

PEOPLE
FLOW FREELY

Lenny

RETHINK CHINA/
US "CONTRACT"
Invest in business —
not + bills

Rick: THREATS
parallel focus on
Efficiency/Equity

Ian

understand
COMPLEXITY
— INSTITUTIONAL DEV.

Shaw

PRODUCTIVITY
CYCLE Deal w/ Debt

TOP ACTIONS