RAPID TRANSITIONS IN THE GLOBAL ECONOMY:
OPPORTUNITIES AND MAJOR CHALLENGES

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ISEO
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SOME MAJOR TRENDS IN THE GLOBAL ECONOMY

• BREAKDOWN OF THE MULTILATERAL ORDER
• CONVERGENCE
• ADVERSE DISTRIBUTIONAL TRENDS IN GROWTH PATTERNS IN ADVANCED ECONOMIES
• GROWTH OF ECONOMIC, POLITICAL AND SOCIAL POLARIZATION
• RISE OF ANTI-ESTABLISHMENT PARTIES AND THEIR INFLUENCE:
• WEAK AND LENGTHY POST CRISIS RECOVERIES
• EXITING FROM 10 YEARS OF MONETARY POLICY DOMINATED RECOVERY PATTERNS
• RISING IMPACT OF DIGITAL TECHNOLOGIES ON SECTORS, JOBS, SUPPLY CHAINS, ENTIRE ECONOMIES
• GROWING AWARENESS OF THE RISKS AND VULNERABILITIES ASSOCIATED “THE INTERNET”
TOPICS

• The post WW-2 Global Order
  – Developing Country Growth
  – Low risk of specialization
  – Asymmetries tolerated as price of peace and stability

• Overall Performance
  – Distributional aspects of growth patterns
  – Year 2000 inflection point

• The internet and Digital Technologies
  – Regulation and Balkanization of the Internet
WEAK RECOVERIES IN DEVELOPED COUNTRIES
GDP Per Capita
Advanced Economies Output Gap
China Grew with Little Growth in Major External Markets

That is about a 63% increase
BUT

• China accumulated a pile of debt
• Some of that debt was used to finance assets whose value is less than the cost of creating them – hence excess capacity in heavy industries
• Growth held up because
  – Rising incomes and middle class demand
  – Growth of service sector businesses
  – Innovation across a wide range of private sectors
Exhibit 33

China’s debt reached 282 percent of GDP in 2014, higher than debt levels in some advanced economies.

Debt-to-GDP ratio

<table>
<thead>
<tr>
<th>Country</th>
<th>Government</th>
<th>Financial Institutions</th>
<th>Non-financial corporate</th>
<th>Households</th>
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<tr>
<td>China</td>
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<tr>
<td>Canada</td>
<td>70</td>
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<td>92</td>
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</tbody>
</table>

Total debt in $ trillion:
- 2000: 2.1
- 2007: 7.4
- 2014: 28.2

NOTE: Numbers may not sum due to rounding.

SOURCE: MGI Country Debt database; McKinsey Global Institute analysis
Figure 1. Cross-Country Average Labor’s Share in National Income (Ratio of labor income to national income)

Source: OECD, Structural Analysis Database.
Figure 4: Employment in Occupational Groups: 1967 – 2011

Non-Routine Cognitive

Non-Routine Manual

Routine – Manual and Cognitive

THE TREND IS THE CYCLE:
JOB POLARIZATION AND JOBLESS RECOVERIES

Nir Jaimovich
Henry E. Siu
3D Printing

[Image of a 3D printed building and a 3D printed shoe]
Robot revolution helps Adidas bring shoemaking back to Germany

James Shotter in Ansbach and Lindsay Whipp in Chicago

In a small factory in Bavaria, Adidas is about to do something that it has not tried for three decades: bring shoe production back to Germany.
Adidas share price
3 year to Jun 7

2013 2014 2015 2016

Markets data delayed at least 1.5 minutes

Thomson Reuters

RELATED TOPICS: Adidas, stock market, economics
“There’s no hiding it, it’s a race to see who can revolutionise the manufacturing process first,” says David Weiner, an analyst at Deutsche Bank in New York. “They’re all going to get there, and that means combining the automation of footwear manufacturing with localising production. It’s the Holy Grail.”

One big advantage of Adidas’s robot-led factory is efficiency. Adidas says it will need to carry out larger production runs before it can quantify the gains precisely. But the consultancy BCG estimates that by 2025 advanced robots will boost productivity by as much as 30 per cent in many industries, and lower total labour costs by 18 per cent in countries such as the US, China and Germany.
Figure 2
Change in Employment by Major Occupational Category, 1979–2012
(the y-axis plots 100 times log changes in employment, which is nearly equivalent to percentage points for small changes)
Figure 3
Change in Occupational Employment Shares in Low, Middle, and High-Wage Occupations in 16 EU Countries, 1993–2010
USA Income Distribution Trends

Income Inequality and Political Polarization
1947 - 2009

$r = 0.93$

Gini Index

House Polarization

Polarization Index

Gini Index

MEAN AND MEDIAN HOUSEHOLD INCOME USA
USA: Employment Creation

U.S. Total Change in Jobs, 1992 to 2010

- Nontradable: 21.0
- Tradable: -1.7
- Total: 19.3
USA: Value Added and Growth

Total Change in Value Added, 1992-2010

<table>
<thead>
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<th>-- Change in Value, in Billions</th>
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</table>
USA Value Added per Worker

US Weighted Value Added per Job, 1990-2010

Real 2005 USD

- 150,000
- 100,000
- 50,000
- 0


142,534.70
82,259.36

Nontradable
Tradable
Figure 3: Percent Change in Employment Shares by Occupation Group

- Non-Routine Cognitive (29% to 39%): 8.6, 10.6, 9.2
- Routine (58% to 44%): -5.6, -6.6
- Non-Routine Manual (13% to 17%): 4.6, 0.9, 16.1

Legend:
- Green: 2001-2011
Figure 1

Source: Based on Katz and Margo (2014), table 1.6, panel A, which is based upon the 1920 through 2000 Census of population IPUMS and 2010 American Community Survey.

Notes: Observed long changes in US occupational employment shares over 1940–1980 and 1980–2010 are scaled by the number of intervening decades to yield average change per decade. Occupations are classified into occupational groups based on 1950 occupation codes using the consistent coding of occupations in all years into 1950 codes (the OCC1950 variable) in the IPUMS. Additional details are found in Katz and Margo (2014, p. 46).
Labour participated fully in rising productivity in the pre-globalization era, but under globalization productivity gains and losses have first and foremost benefited capital—reducing labour shares in industrialized countries.

Source: Gascia (2006), based on OECD.STAN database.
USA MEDIAN HOUSEHOLD INCOME

in 2012 dollars

- 1967: $42,934
- 1989: $51,681
- 1999: $56,080
- 2012: $51,017
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INCOME OF THE RICHEST 10% OVER THE POOREST 10%</th>
<th>INCOME OF THE RICHEST 20% OVER THE POOREST 20%</th>
<th>GINI COEFFICIENT</th>
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<td>8.4</td>
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</table>
Europe

Nominal Unit Labor Costs, Whole Economy

Source: Eurostat. Figures are normalized to 100 in 2000.
Europe: Labor Cost Divergence
2014 STUDY BY RODRIK et al

Figure 9. Decomposition of productivity growth by country group, 1990–2005.
Productivity: Multidimensional Measurement of Economic and Social Progress

• Captures the specifics of growth patterns
  – Income, health, security, environment, distribution/fairness, social interaction and connectivity

• Social Media

• Science Budgets (NIH $32 billion) (NSF+DOE science $12 billion)

• What if productivity is slowing because there are more important priorities

• And society (via markets, individual choices, social choices and policies) is allocating most value resources to other important dimensions

• The China Case
GLOBAL FLOWS IN POST WAR PERIOD

• Globalization and global flows
  – Goods and services (declining barriers)
  – Capital (increasingly free)
  – People (the least mobile but substantial mobility)
  – Data, Information, Technology and Knowledge (free and unregulated)

• All of them are in some incomplete process of major revision, driven by political and social forces

• Expanding Centrifugal Economic, Political and Social Forces
TRADE

• WTO ran into trouble
• Trump
  – Renegotiating terms or just undermining the institutions and norms that were the foundation of the post war system
  – Asymmetries no longer tolerated to same extent
  – Case (China is no longer a vulnerable early stage developing country)
• Bilateralism replacing multilateralism
  – Because you have to renegotiate and in the WTO it is too hard
• Smaller and poorer countries highly vulnerable
CAPITAL

• Free flows are beneficial – no longer the prevailing norm
• Some flows are better than others – FDI versus hot money
• Challenges of managing the capital account in the face of instability and highly accommodative monetary policy
• A decade of suppressed interest rates and volatility – now coming to an end
• A subset of EM’s at risk.

• And there is a mountain of incremental debt in the global financial system
People

• Immigration has become one of the central issues in political and social fragmentation
• Citizens have become more anti immigration than the the establishment parties – even for those who support these parties
• New anti-immigrant parties on the rise
• Generally anti-establishment political outcomes are the major trend
• Probably because the policies of the est. parties diverged from where the base was located
• Elites, money, corporate influence, and incomplete economic theories contributed to this divergence
• People are an important channel of knowledge and technology transfer – and these are being called into question
Information, The Internet and Digital Technologies

• Brief History
  – WWW
  – Mobile internet
• Global and Lightly Regulated (mainly for standards and domain name order)
• Astonishing array of positive effects and opportunities
Short List

• Crushing of the digital divide
• Automation of routine jobs
• Creating and expanding markets and market access
• Integration of global supply chains
• Reducing informational asymmetries and shifting power to the buying side
• Trade in services
• Platforms as major new structures
• Digitally enabled eco-systems
• AI and Machine Learning
  – Codifiable versus learnable
  – Data driven and computation intensive
  – Dramatic increase in what is automatable
  – Efficiency of match-making in “markets”
• The entire global economy is increasingly sitting on a digital foundation
But There Are Very Major Issues

- That will lead to the regulation and balkanization of the internet and with it the global economy
- Cyber security and cyber warfare
  - Note there are no treaties that limit this
- Digital technologies key to military, defense and national security
- Close to being in a digital arms race
  - That will surely disrupt trade, cross borderer investment, and perhaps flows of people
- Automation and jobs
- Monopoly Power and Its Abuse in controlling access to markets
More

– Intellectual Property Issues
– Data security and privacy
– Data as the fuel of AI
– Platforms have the data – hence are at the forefront in AI applications
– But these are key to national security (ZTE, Ant and Moneygram, Huawei, Microsoft and others in Beijing, Alibaba and others in Silicon Valley)
In Addition

• China and US are the major players in AI and Machine Learning - and home to all the mega platforms
• This is a major challenge for Europe

• There are issues and some research on the impact on cognitive and emotional development – especially among children
• Political and social structures and processes are changing
• Issues of democratic process
• Fake news
• Foreign interference in elections, and news
Initiatives to Date

– GDPR in Europe – individuals own and control the data
– By implication it has to be secure
– ? About impact on trade, AI etc.
– In USA, self-regulation with no policy guidance
– In both Europe and NA no entity is legally mandated to screen content – except in extreme cases
– In China, data has to be kept there: the government has the right to see it and use it: government has the right to screen content for alignment with public interest as the Party defines it.
– Internet content control is much heavier
– These regulatory approaches are fundamentally inconsistent
The Double-edged Sword of Digital Technology

• Digital Technology has the potential to increase economic integration, expand markets, support growth and productivity and make growth patterns more inclusive.

• But the fragmented pattern of regulation, underpinned by different principles of governance, combined with the more zero sum national security issues, will lead us in another direction.

• A somewhat balkanized and fragmented internet and a less open global system of trade and investment.
The Developing Country Growth Model

- Resource rich countries and issues
- For early stage non-resource rich countries, the post war growth model has been largely some version of the Asian Growth Model
- Key element is specialization in the tradable sector in labor intensive process oriented manufacturing.
- Digital technologies, specifically robotics and 3D printing may soon nullify this growth model.
- Alternatives:
  - Digitally powered platform based eco-systems
  - Trade in services
Global Supply Chains and Digital Technology

• Labor continues to be the least mobile resources
• Labor less essential in manufacturing costs – robotics
• Manufacturing – three forces
  – Localize: move toward toward the market
  – Move to ecosystems of high innovation
  – SME trade will expand enabled by mega platforms
• Trade in services will expand
Why Globalization Stalled
And How to Restart It

By Fred Hu and Michael Spence

FRED HU is Founder and Chair of Primavera Capital Group. MICHAEL SPENCE is William R. Berkley Professor in Economics and Business at New York University’s Leonard N. Stern School of Business. He received the Nobel Prize in Economics in 2001.
Global Growth Patterns

• Occurred under the post war architecture
• Produced war recovery, high growth
• Distributional aspects of growth patterns were largely benign
• That changed in the late 1970’s

• Since then, growth held up until 2008 crisis.
• But Distributional aspects of growth patterns deteriorated
• That trend accelerated post 2000
The Year 2000 Was a Turning Point

• Survived Y2K scare for computers/dates
• China entered WTO
• Eurozone came into existence and expanded
• Digital technology impact on jobs, economic structure, the complexity of global supply chains accelerated dramatically
• Multifiber agreement expired – end of 2004
• Internet Bubble
• 911 – followed by war in middle east
Globalization and Growth Patterns Now

- Global economy is characterized by flows of
  - Goods and services
  - Capital
  - Information/data/ knowledge and technology
  - People

- Today virtually every aspect of this framework is under assault or in question now, creating tremendous uncertainty about what the future holds in terms of opportunities and risks.
Goods and Services

- Trump – some form of rejection of multilateralism
- Brexit
- Anti-Europe and anti-Euro parties in Europe
- NAFTA, TPP, TTIP, WTO, PARIS
- “Renegotiate” the terms of engagement

- China and Europe remain committed to some form of multilateral structure
- China has become a principal sponsor
- AIIB, OBOR, Development banks, swap agreements
Capital

• It has become clear that unrestricted capital flows are at best a double-edged sword.
• Especially in a world of highly unusual and potentially distortive monetary policies
• Developing countries have had to try to protect themselves from volatile tourist capital flows
• China has had to partially shut off outbound capital flows to maintain stability (in the short to medium term)
People

• Immigration is a major challenge
• In Europe, the absorptive capacity with respect to Africa and middle east refugees is not large enough to absorb the flow
• More generally, immigration has become a symbol of lost of sovereignty and cultural identity
Data Information and Technology

• Cyber security threats in multiple dimensions have simply blown away the earlier naïve notion that a globally open internet based system was the new normal
  – Privacy
  – Cyber warfare
  – Industrial espionage
  – Terrorism
  – Fake news and related manipulation
The Bottom Line

• Powerful forces causing fragmentation and polarization within societies and across countries
• This polarization is caused in part by a failure by elites and governing bodies to address the problematic aspects of growth patterns as outlined above
• Yet global cooperation is crucial
  – For sustainability
  – For specifically climate change
  – For early stage developing countries
Key Elements in Sustain Global Cooperation

• Restore inclusiveness to growth patterns
  – Investment in human capital
  – Enhanced social security systems
  – Income redistribution
  – Where needed, removal of obstacles to growth
• Accept that international structures can get outdated and need cooperative revision to reflect an evolving reality
• The major players are now a mix of countries at various stages of development. They will have to work together.
SAVING GLOBALIZATION
Predictions that the era of globalization will soon end are too pessimistic. To be sure, the rapid expansion of trade, rising cross-border capital flows, and, above all, the spread of new technologies have transformed the global economy. They have created difficult challenges, and countries will continue to struggle to increase growth and productivity, while reducing inequality and creating good jobs. But there are also enormous opportunities. Turning back the clock to restore the old frameworks is impossible. The challenge is to build new ones that work.

Waving the banner of protectionism and nationalism may attract popular support, at least temporarily. But history has shown that, ultimately, it may well threaten global peace and prosperity. The United States, China, and the world at large would be far better off if they could find a path to a more sustainable globalization, reforming the existing global order rather than tearing it down completely. 

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