

RIETI International Workshop

Long-term Growth and Secular Stagnation

Handout

Chris Papageorgiou

Division Chief

International Monetary Fund (IMF)

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World Trade in Services: Evidence from A New Dataset

PRAKASH LOUNGANI (IMF), SAURABH MISHRA (U. OF MARYLAND),
CHRIS PAPAGEORGIOU (IMF), KE WANG (IMF)



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Research Institute of Economy
University of Tokyo

Big Picture

Structural transformation – Many countries are transitioning fast from manufacturing to services. Services account for about 70% of global GDP and 50% of world employment.

Technological changes – Technological innovations provide a wide array of services to be carried out in one location and consumed in many other places. In global supply chains digital services power all the ports, planes, trains and highways.

Globalization – Expanding interlinkages between countries and the current juncture. Globalization may be upset with goods trade slowdown but services can save the day.

Outline

- Data: **Data construction | BOPS | IMF BMP 6**
- Stylized Facts: **World | Income groups | Countries cases**
- Research Applications: **Modern services | Transformation | Resilience**

Data Construction

Countries report services data to STA as part of the balance of payments data collection for re-dissemination in publications (IFS/BOP database). These data are world-partner only, following the BOP standard classification, which can be found in the BPM6 Manual. Partner-country data for services (EBOPS categories) with the largest coverage are published by WTO, as part of their mandate. For convenience, users can refer to the classification of services as in BPM6 and the extended EBOPS as presented in the MSITS 2010.

BOP data: <http://data.imf.org/?sk=7A51304B-6426-40C0-83DD-CA473CA1FD52>

The process of compilation and validation of services data, this is done individually by the responsible agencies in each country and may differ according to the available source data by category of service. For more information on the compilation of services, we advise researchers to consult the BPM6 Compilation Guide (see link below), Chapter 12 on Services and Chapter 14 in the MSITS Compilers Guide (also including country examples), but also other relevant chapters, as needed.

BPM6 Compilation Guide: <http://www.imf.org/external/pubs/ft/bop/2007/bop6comp.htm>

Countries publish relevant information in their metadata (attached the BOP metadata questionnaire; please see country description at the above metadata link). Regarding the validation process of data undertaken by STA provides the following input:

“SI validates mathematical consistency of the components and totals of the reported services figures (as reported in the standard BOP report form). Data not reported in US\$ are converted using the period average exchange rate for publication.”

BPM6 Classification

1.A.b.1 Manufacturing services on physical inputs owned by others

- 1.A.b.1.1 Goods for processing in reporting economy
- 1.A.b.1.2 Goods for processing abroad

1.A.b.2 Maintenance and repair services n.i.e.

1.A.b.3 Transport

1.A.b.3.1 Sea transport

- 1.A.b.3.1.1 Passenger
 - Of which 1.A.b.3.1.1.1 Payable by border, seasonal, and other short-term workers
- 1.A.b.3.1.2 Freight
- 1.A.b.3.1.3 Other

1.A.b.3.2 Air transport

- 1.A.b.3.2.1 Passenger
 - Of which 1.A.b.3.2.1.1 Payable by border, seasonal, and other short-term workers
- 1.A.b.3.2.2 Freight
- 1.A.b.3.2.3 Other

1.A.b.3.3 Other modes of transport

- 1.A.b.3.3.1 Passenger
 - Of which 1.A.b.3.3.1.1 Payable by border, seasonal, and other short-term workers
- 1.A.b.3.3.2 Freight
- 1.A.b.3.3.3 Other

1.A.b.3.4 Postal and courier services

For all modes of transport:

- 1.A.b.3.0.1 Passenger
 - Of which 1.A.b.3.0.1.1 Payable by border, seasonal, and other short-term workers
- 1.A.b.3.0.2 Freight
- 1.A.b.3.0.3 Other

1.A.b.4 Travel

1.A.b.4.1 Business

- 1.A.b.4.1.1 Acquisition of goods and services by border, seasonal and other short-term workers

1.A.b.4.1.2 Other

1.A.b.4.2 Personal

- 1.A.b.4.2.1 Health-related
- 1.A.b.4.2.2 Education-related
- 1.A.b.4.2.3 Other

For both business and personal travel:

- 1.A.b.4.0.1 Goods
- 1.A.b.4.0.2 Local transport services
- 1.A.b.4.0.3 Accommodation services
- 1.A.b.4.0.4 Food-serving services
- 1.A.b.4.0.5 Other services
 - Of which 1.A.b.4.0.5.1 Health services
 - Of which 1.A.b.4.0.5.2 Education services

1.A.b.5 Construction

- 1.A.b.5.1 Construction abroad
- 1.A.b.5.2 Construction in the reporting economy

1.A.b.6 Insurance and pension services

- 1.A.b.6.1 Direct insurance
- 1.A.b.6.2 Reinsurance
- 1.A.b.6.3 Auxiliary insurance services
- 1.A.b.6.4 Pension and standardized guarantee services

1.A.b.7 Financial services

- 1.A.b.7.1 Explicitly charged and other financial services
- 1.A.b.7.2 Financial intermediation services indirectly measured (FISIM)

1.A.b.8 Charges for the use of intellectual property n.i.e.

1.A.b.9 Telecommunications, computer, and information services

- 1.A.b.9.1 Telecommunications services
- 1.A.b.9.2 Computer services
- 1.A.b.9.3 Information services

1.A.b.10 Other business services

- 1.A.b.10.1 Research and development services
- 1.A.b.10.2 Professional and management consulting services
- 1.A.b.10.3 Technical, trade-related, and other business services

1.A.b.11 Personal, cultural, and recreational services

- 1.A.b.11.1 Audiovisual and related services
- 1.A.b.11.2 Other personal, cultural, and recreational services

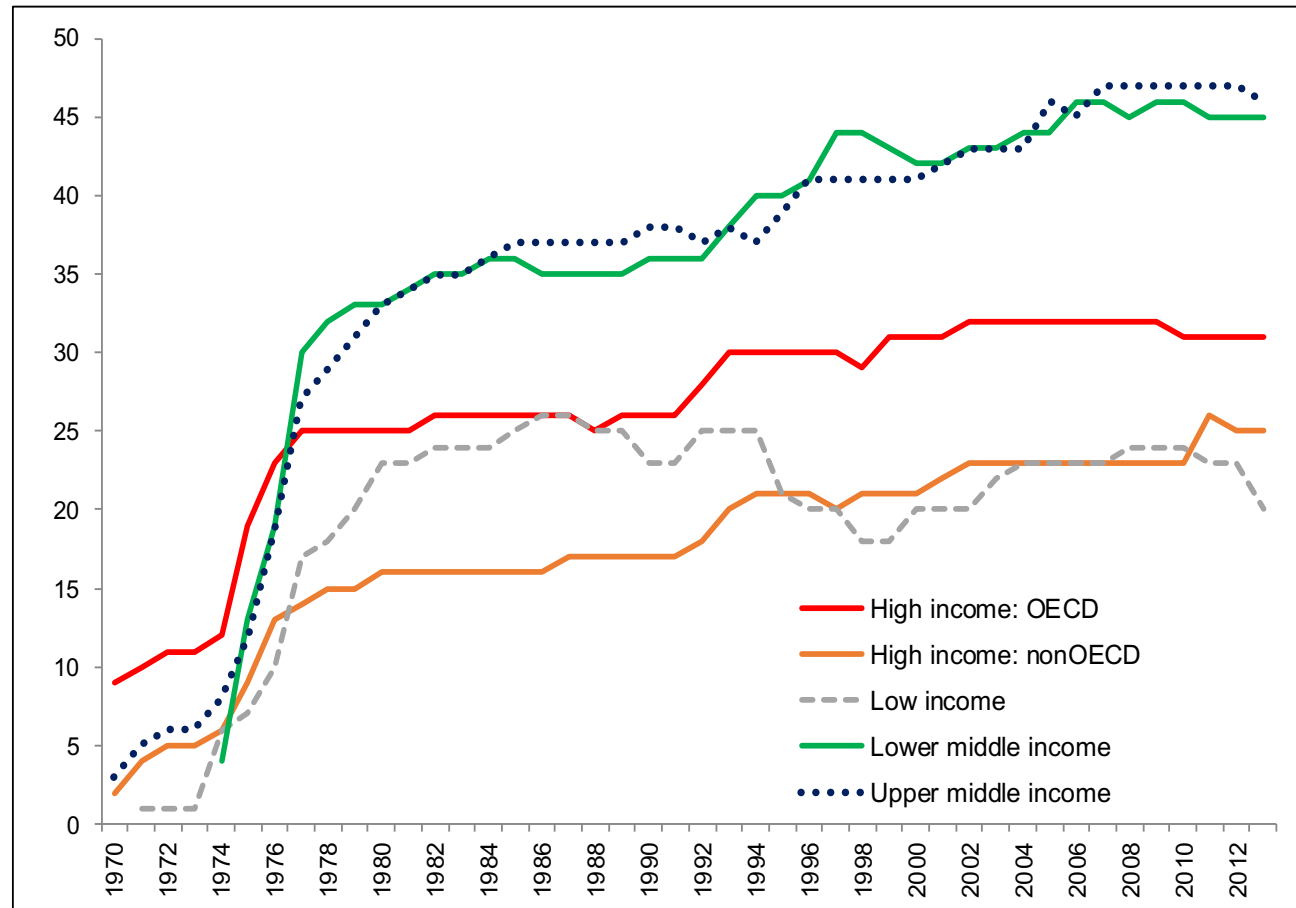
1.A.b.12 Government goods and services n.i.e.

1.A.b.0.1 Tourism-related services in travel and passenger transport

BPM6 Service Credit Account Categories

Service Sector: 1 digit level	2 digit level
Charges for the use of intellectual property n.i.e.	--
Construction	Construction abroad Construction in reporting economy
Financial services	Explicitly charged and other financial services Financial intermediation services indirectly measured (FISIM)
Government goods and services n.i.e.	--
Insurance and pension services	Auxiliary insurance services Direct insurance Pension and standardized guaranteed services Reinsurance
Maintenance and repair services n.i.e.	--
Manufacturing services on physical inputs owned by others	Goods for processing abroad Goods for processing in reporting economy
Other Business Services	Professional and management consulting services Research and development services Technical, trade-related, and other business services
Personal, cultural, and recreational services	Audiovisual and related services Other personal, cultural, and recreational services
Telecommunications, computer, and information services	Computer services Information services Telecommunications services
Transport	Air Transport Other mode of Transport Postal and courier services Sea Transport
Travel	Business Personal

Number of Countries Reporting



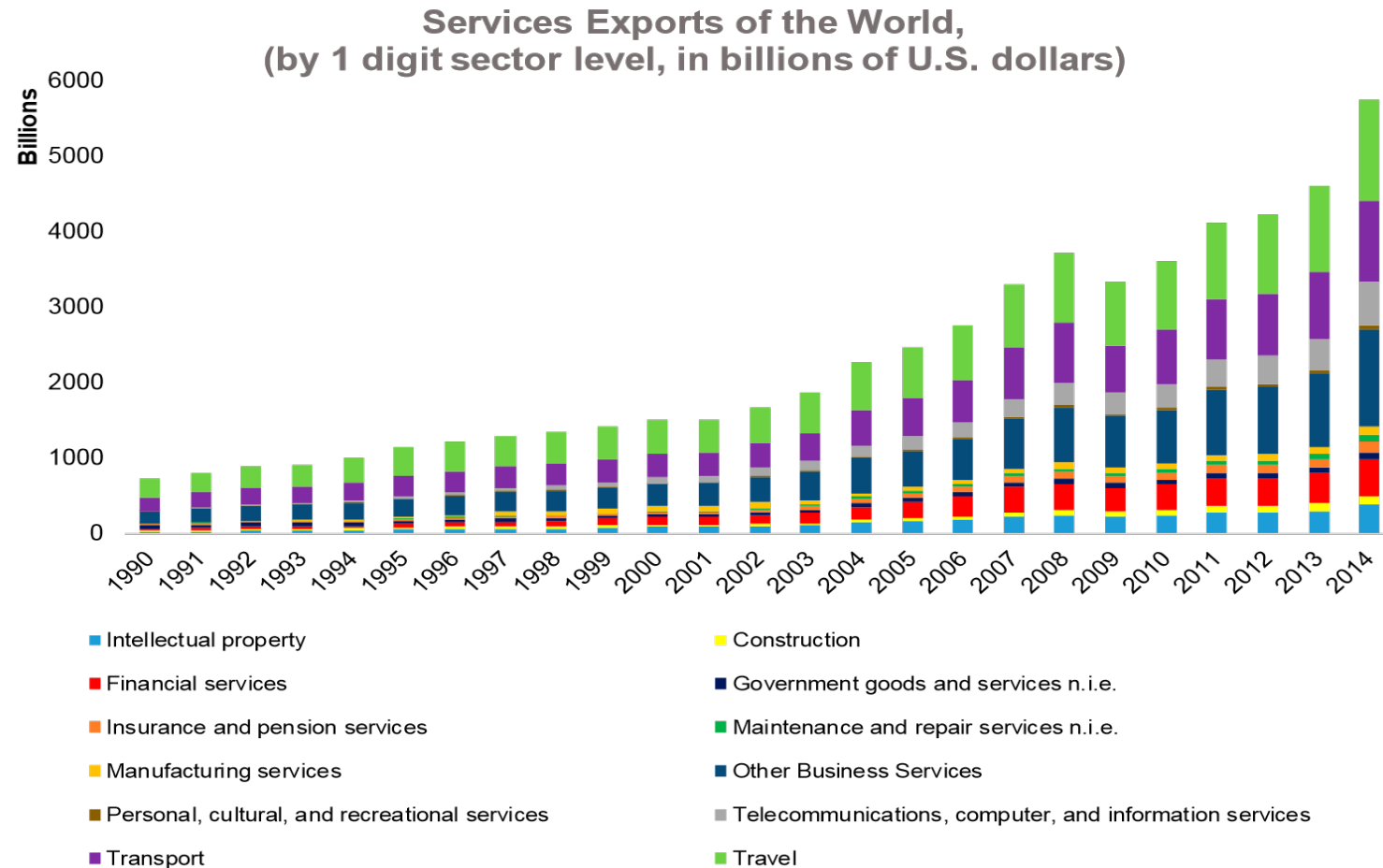
World

Stylized Facts

Rise of Service Exports in World Trade and GDP



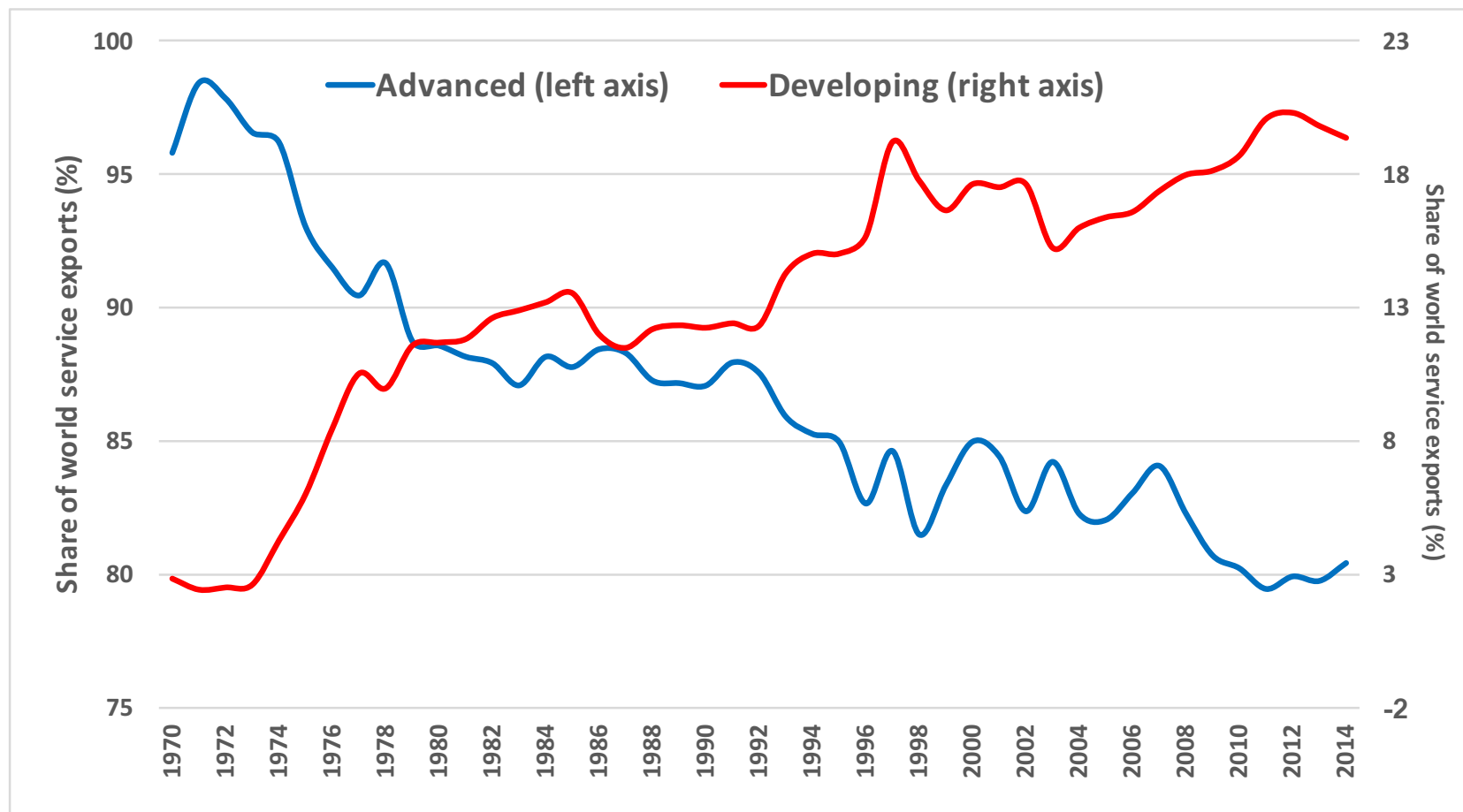
World Service Exports by Sector



Income Groups

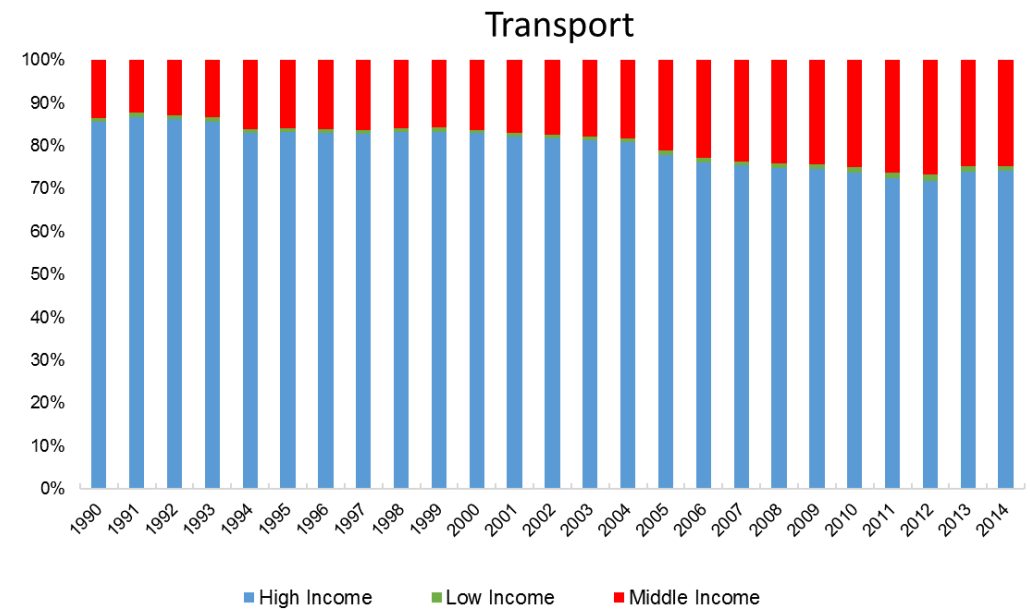
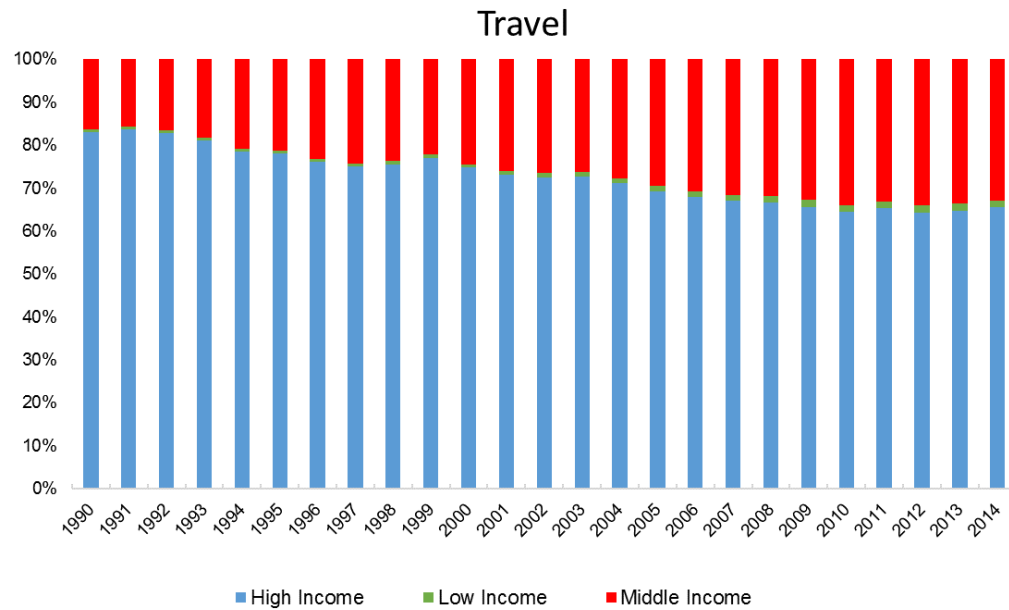
Stylized Facts

Developing Countries Taking Over Market Share of World Service Export Market

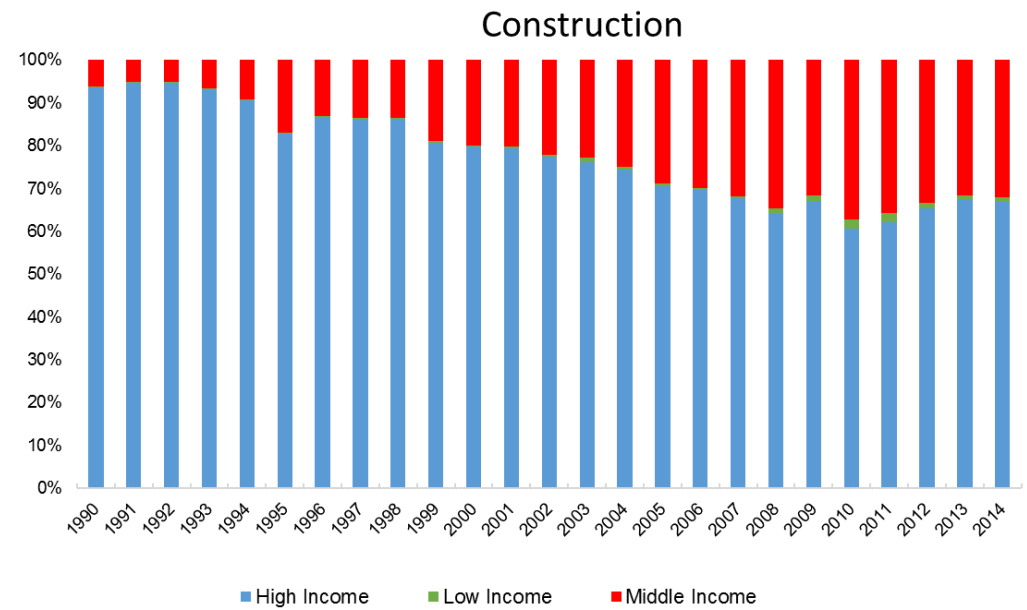
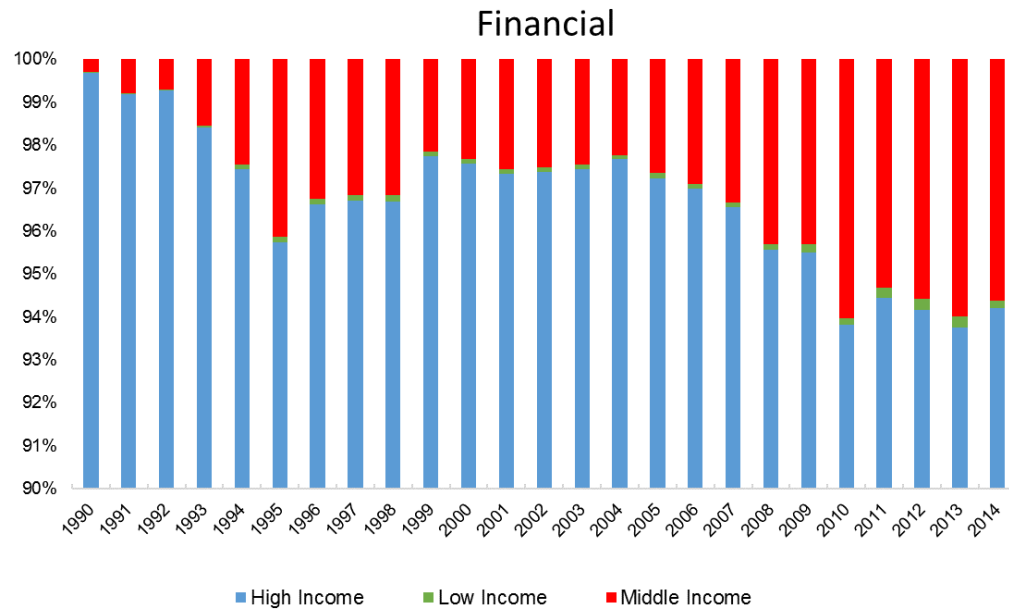


Developing countries are defined as low income, lower middle income and upper middle income countries.

Emerging countries are growing in traditional sectors...

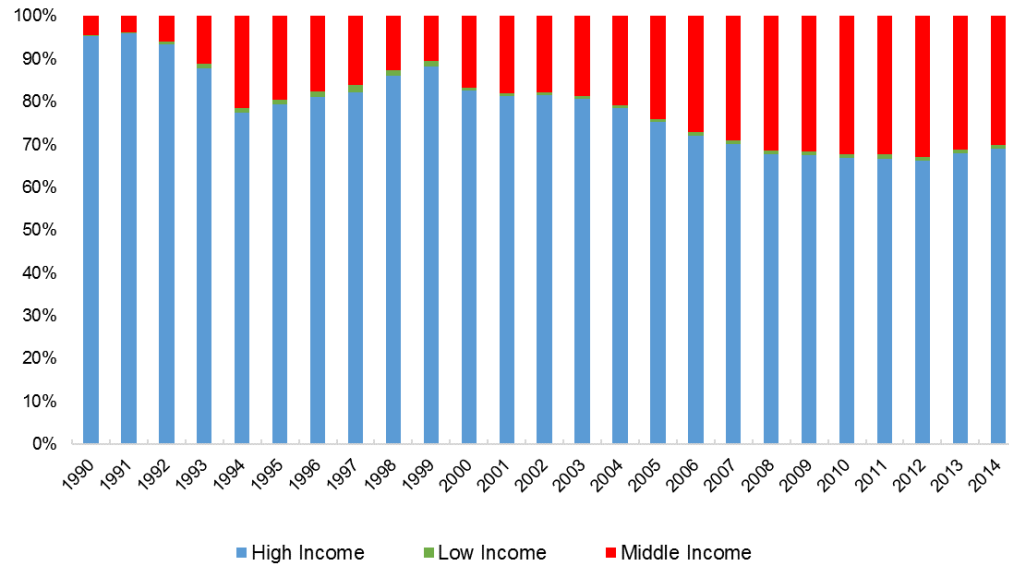


..and in financial services and construction..

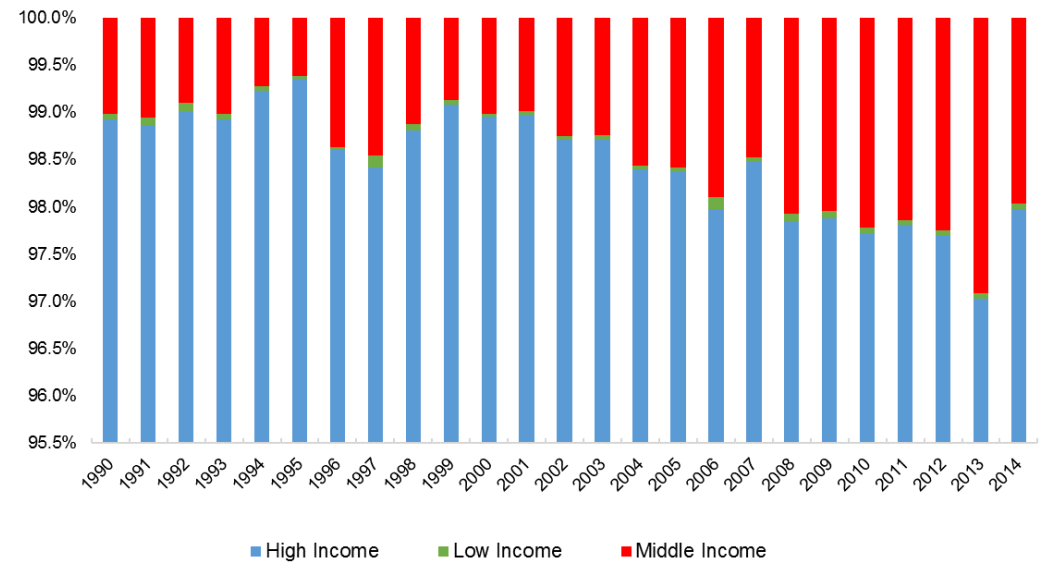


..also in technology exports

Computer and Information



Intellectual Property



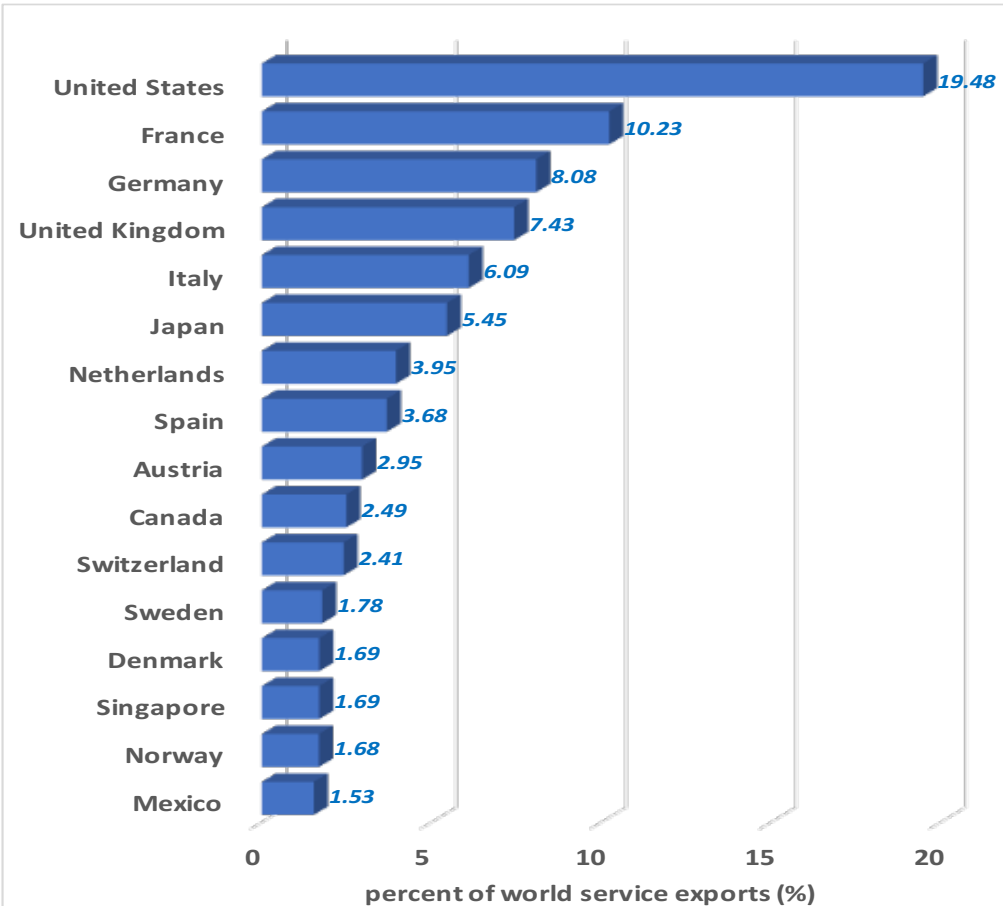
Country Cases

Stylized Facts

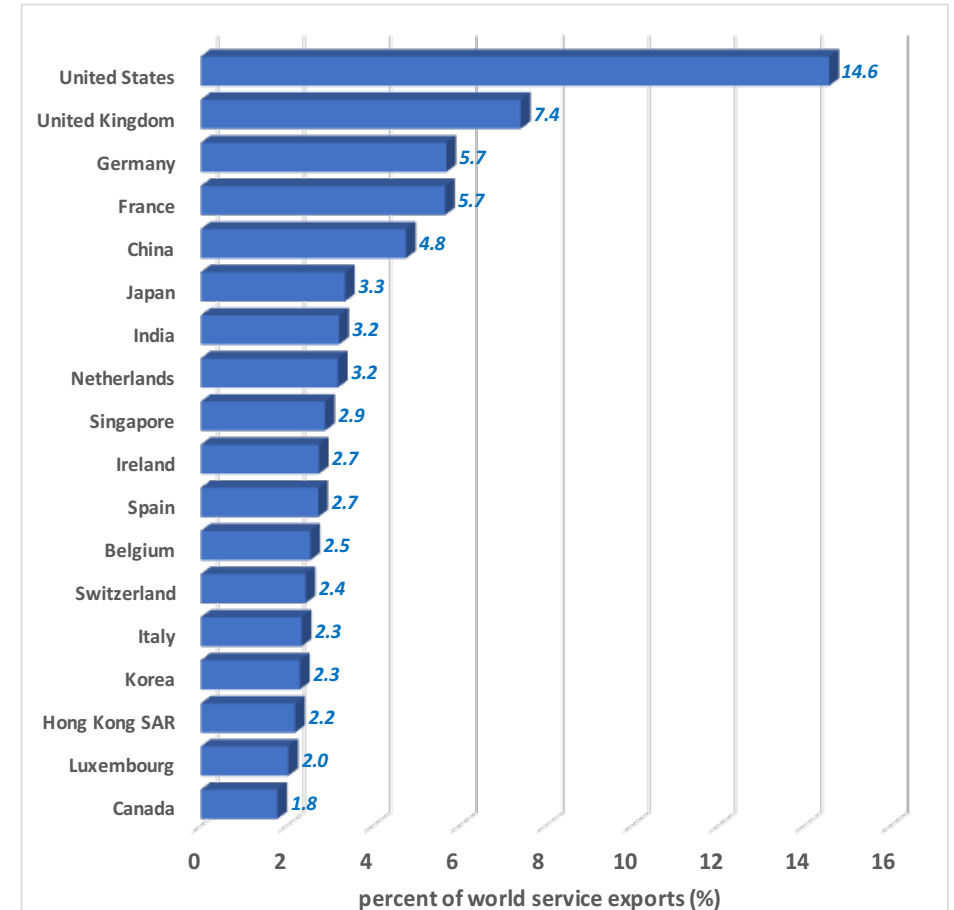
Top Service Exporters, 1990 vs. 2014

(in share of world service exports)

1990



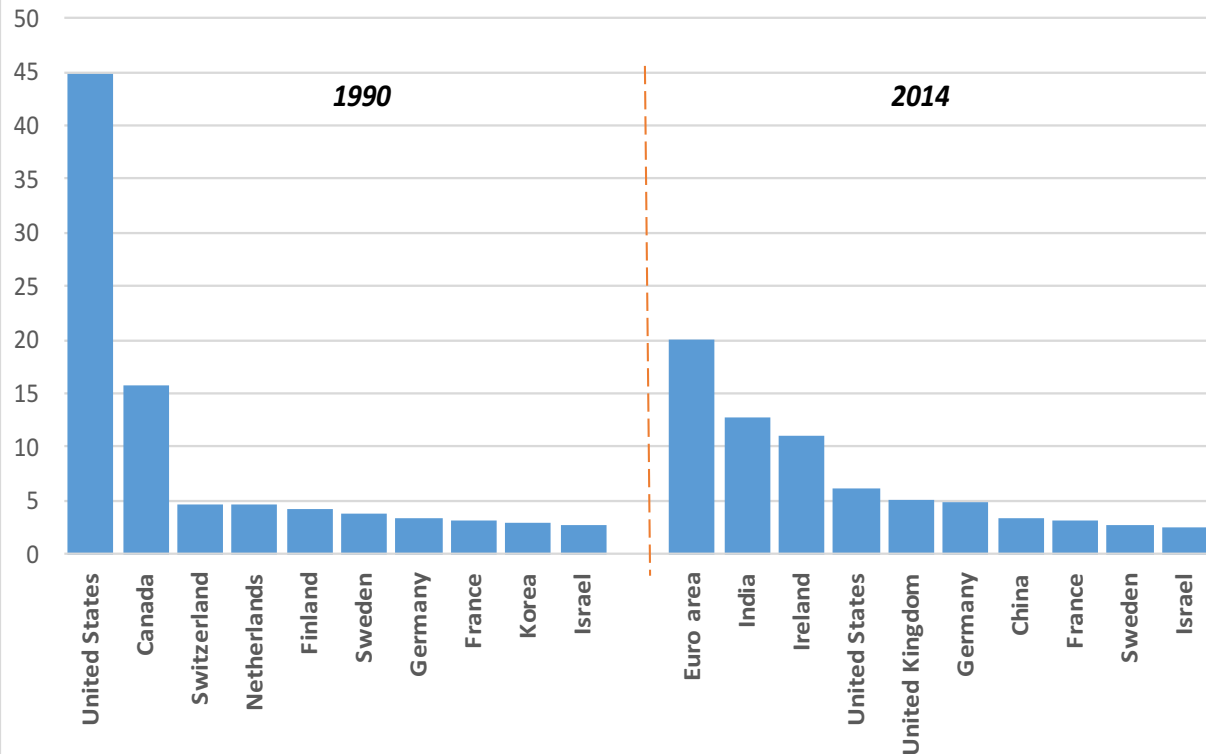
2014



Top Service Exporters of Selected Sectors

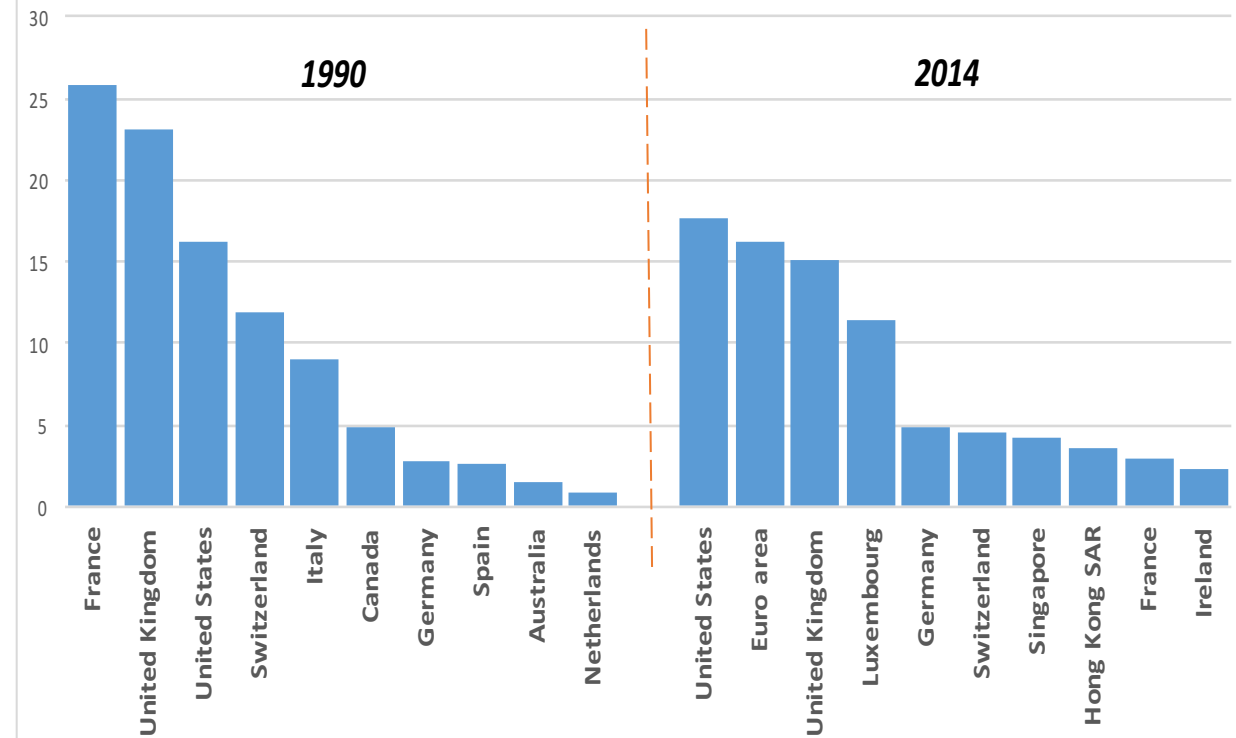
COMPUTER, INFORMATION

Top IT Exporters in the World

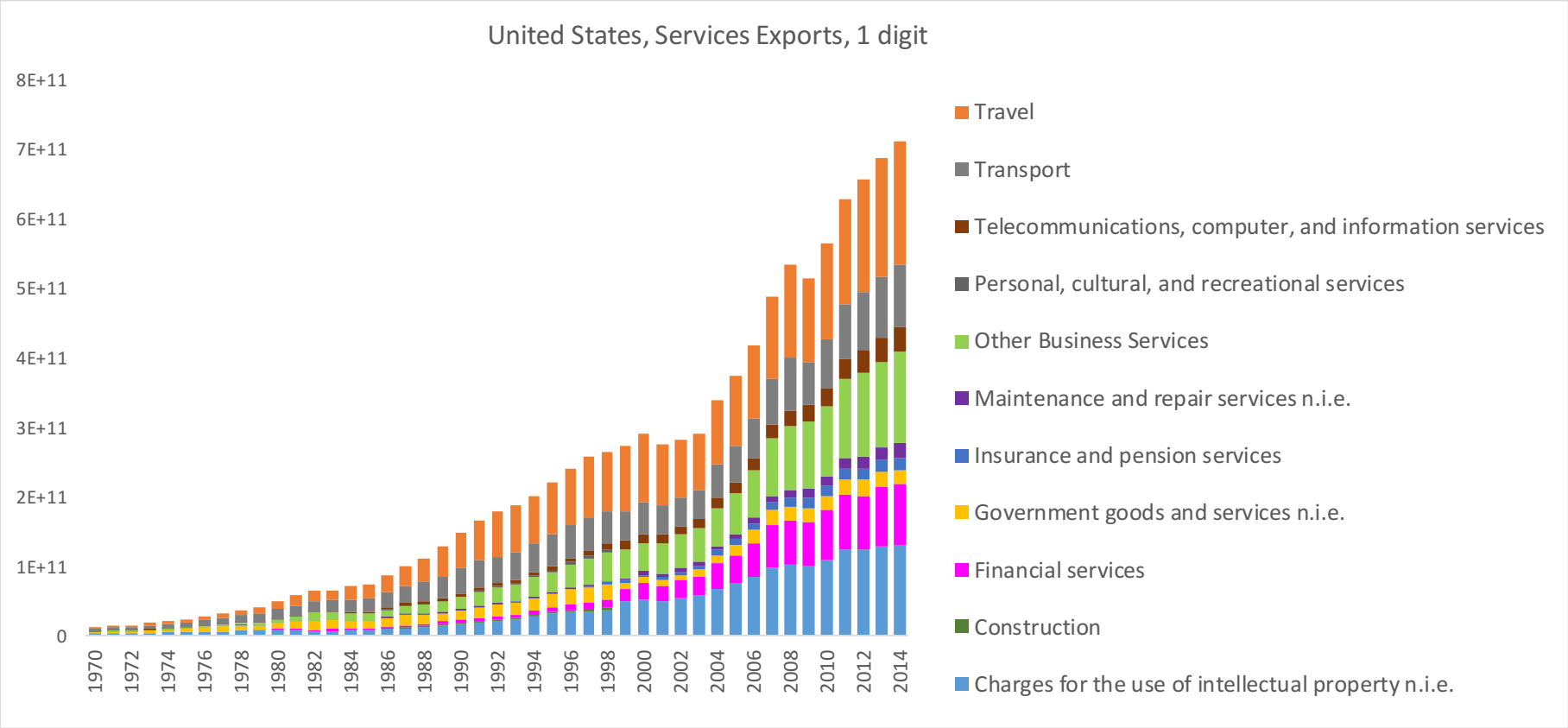


FINANCE

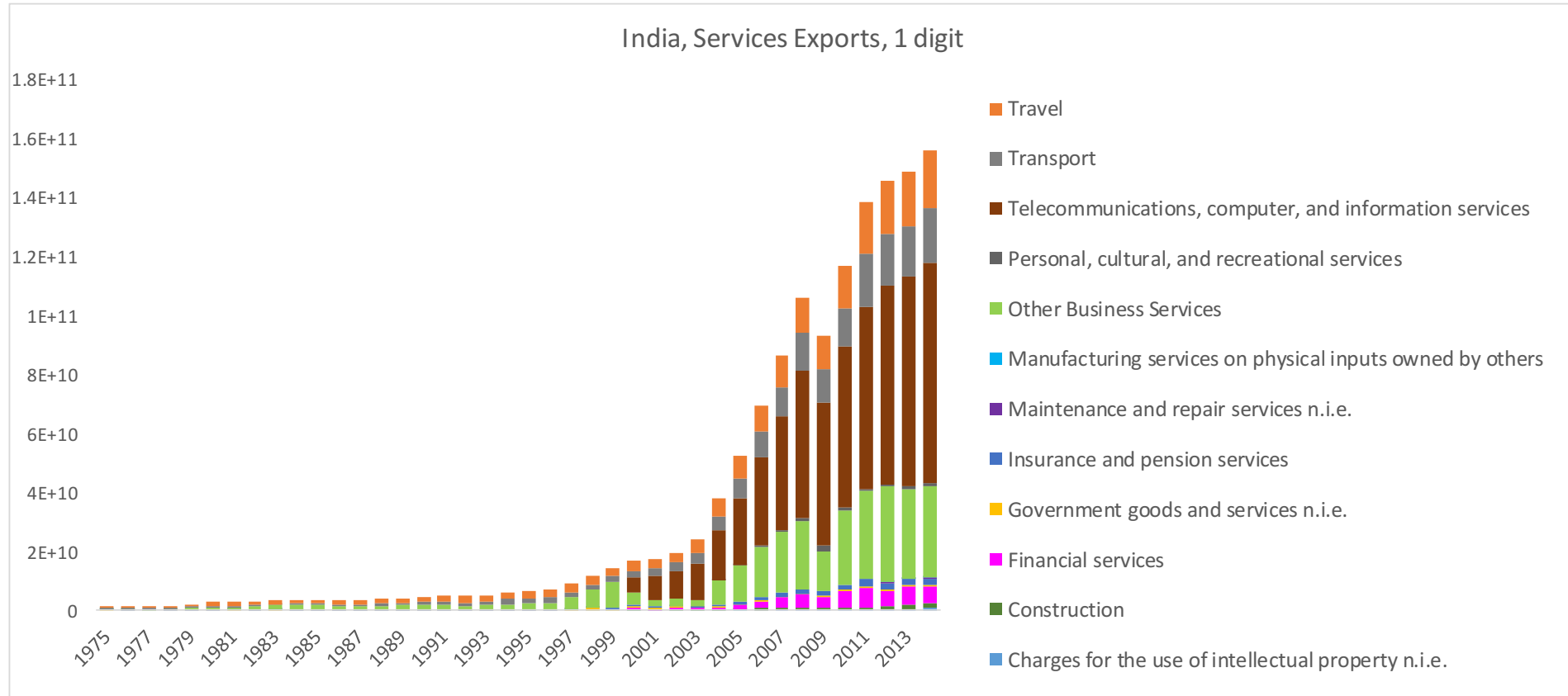
Top Financial Service Exporters in the World



USA Service Exports, 1 digit



India Service Exports, 1 digit

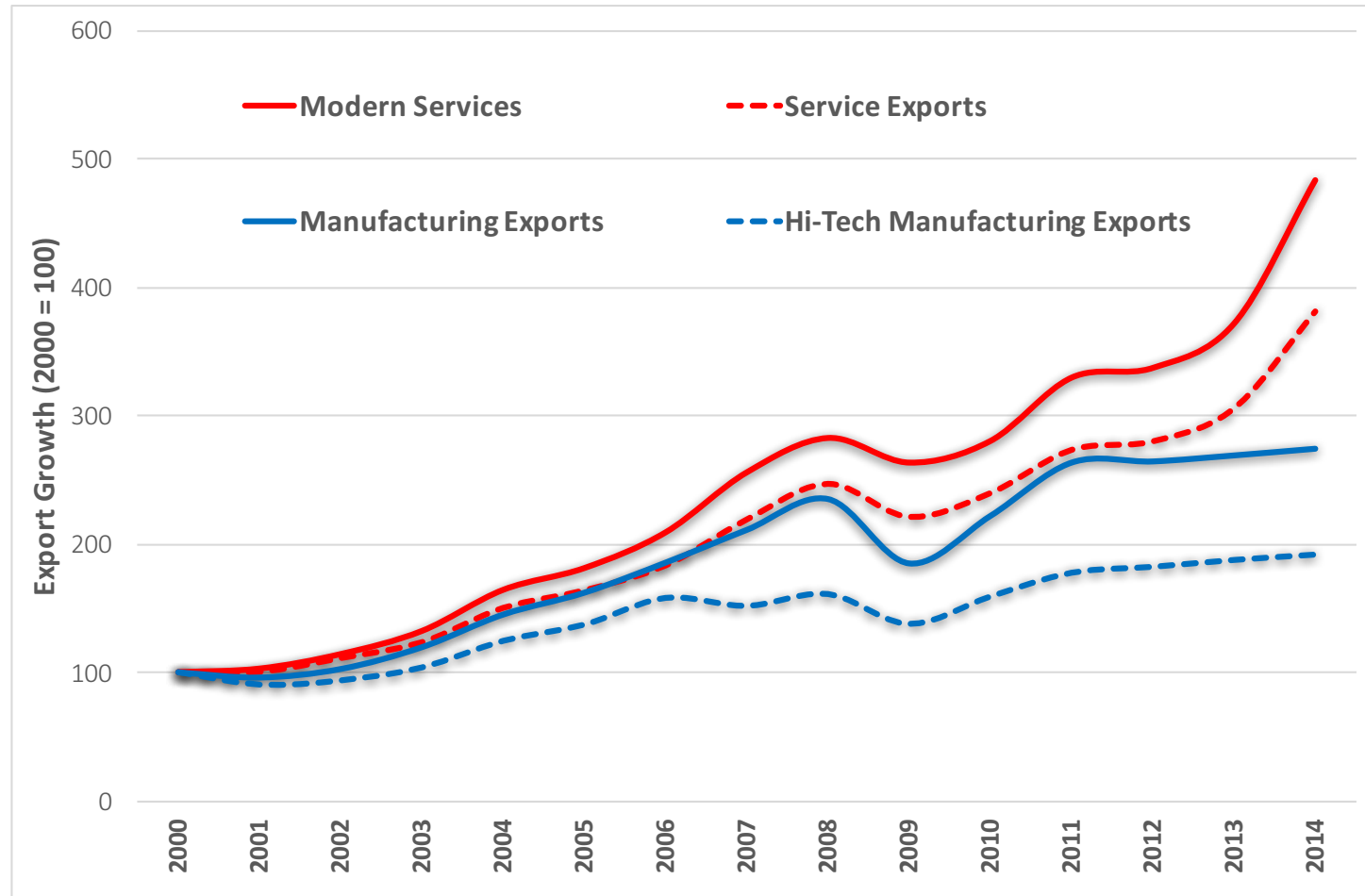




Modern services

Research Applications

Modern Service Exports are One of the Fastest Growing Sectors



Modern Services are Business, R&D, Computer, Information, IP service exports.

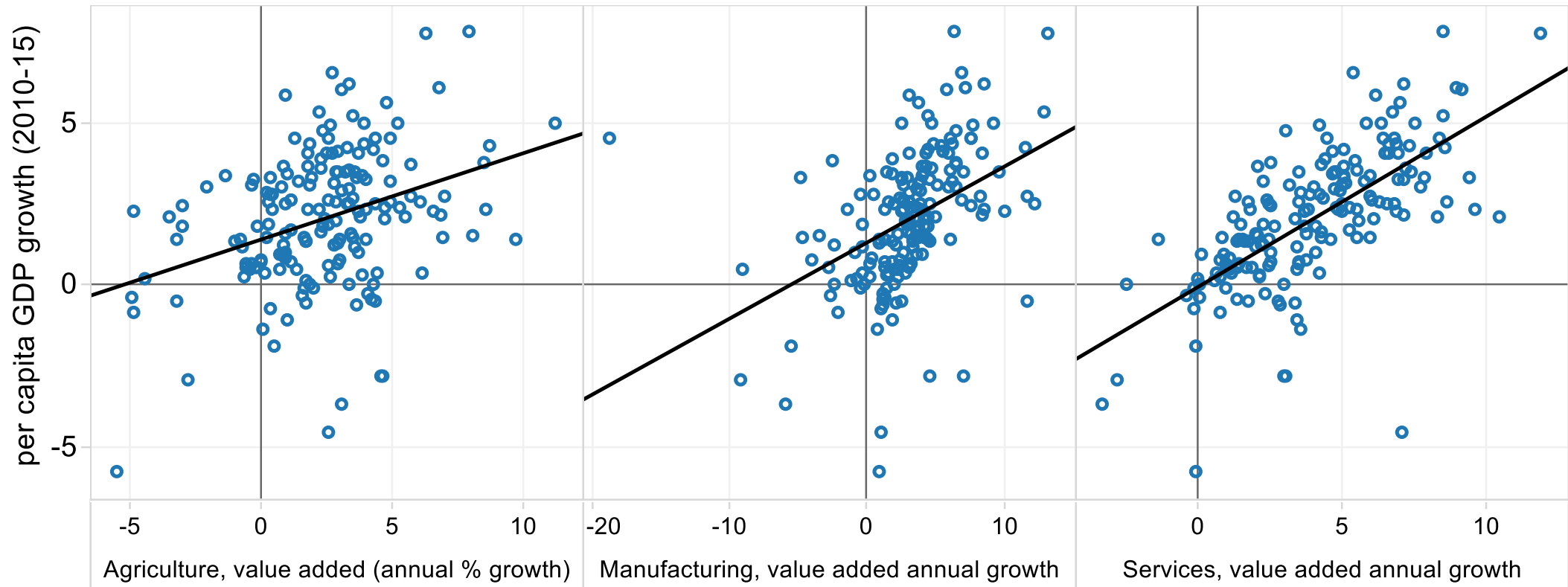
Structural Transformation

Research Applications

Economic Growth and Sectoral Value added Growth

(Steeper slope for service and GDP Growth)

The chart below plots the average annual growth in service value added and manufacturing value added against GDP growth for almost 200 countries between 1990-2015.

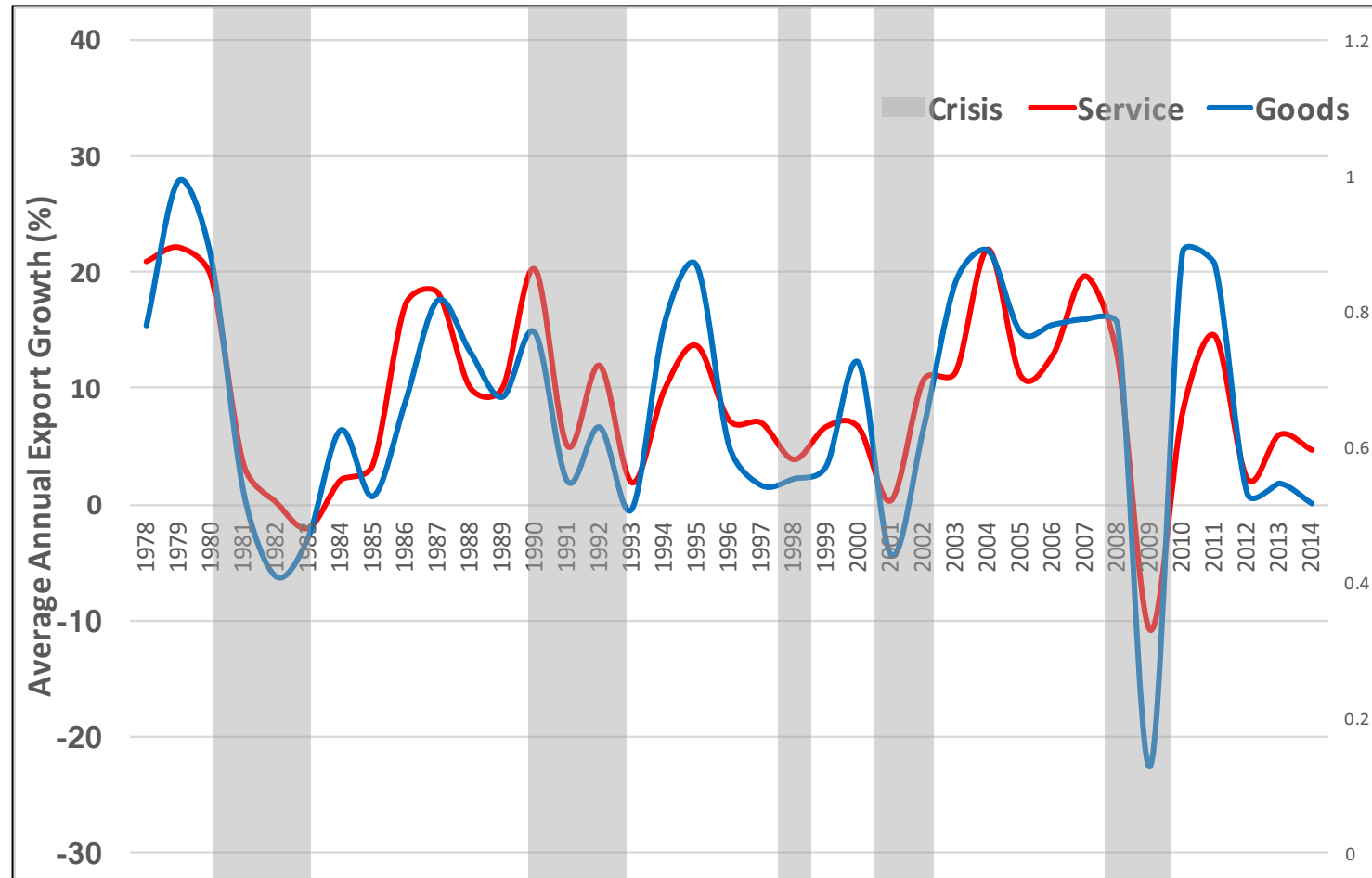


The R-sq for service value added plot is 0.51 and the R-sq for manufacturing value added is 0.25. Furthermore, the magnitude of coefficient is higher for service growth-GDP growth at 0.61 versus 0.24 for manufacturing growth-GDP growth. All the results are statistically significant at p-value of 1%.

Resilience

Research Applications

Resilience of service exports



Data Portal

<http://data.imf.org/its>

International Trade in Services and the Comparative Advantage of Nations

Latest Update Date: 02/12/2016

API



At a Glance

Stories

By Country

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GO

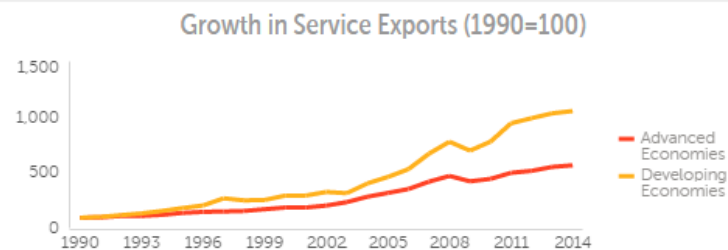
Have the drivers of growth convergence shifted away from manufacturing and into services? Is technology leading to tradability of services and faster adoption in developing countries? Can the late comers to development benefit from better access to improved technology—mobile phone, internet, big data, internet of things—which activities are affected by technology in country context? Thanks to technology, services can now be unbundled and splintered in a value chain just like manufactured goods and they can be electronically transported. Services are the trade of the 21st century. The growing tradability of services is critical for competitiveness of advanced economies. The rise of services trade is a particularly crucial engine of trade, growth and jobs in developing countries.

The statistics provided here are the first of its kind providing a compilation of detailed historic and new data on world trade in services. This can be a useful resource for researchers, policymakers and businesses for decisions in macroeconomic competitiveness and understanding how technological forces are affecting rapid resource reallocation in specific sectors. The attached IMF working paper provides more detailed account of the data, mathematical methods and breadth of analysis for future research direction.

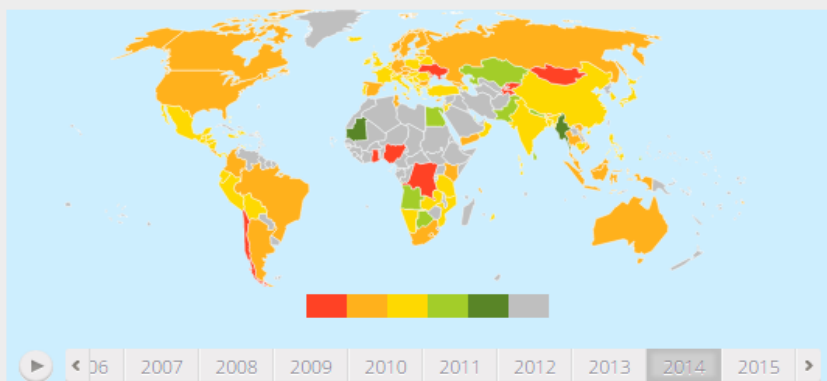
DOWNLOAD: "The Future Wealth of Nations: World Trade in Services and Comparative Advantage"

[Paper](#) | [Presentation](#)

Country (Advanced Economies)



Indicator (Service Exports Growth)



Ranking of Countries by Service Export Growth				Ranking of Countries by Service Export Growth			
1	United States	14.64		1	United States	14.64	
2	↑ 13.. Bhutan	12.50		2	↑ 13.. Bhutan	12.50	
3	↓ 1 United Kingdom	7.35		3	↓ 1 United Kingdom	7.35	
4	Germany	5.97		4	Germany	5.97	
5	↓ 2 France	5.53		5	↓ 2 France	5.53	
6	↓ 1 China, P.R.: Mai...	4.14		6	↓ 1 China, P.R.: Mai...	4.14	
7	↓ 1 Japan	3.33		7	↓ 1 Japan	3.33	

Thank you!
