McKinsey&Company

Investment and Industrial Policy: A Perspective on the Future

UNCTAD TRADE AND DEVELOPMENT BOARD, SIXTY-FIFTH SESSION

Panel Discussion | October 1, 2018

Contents

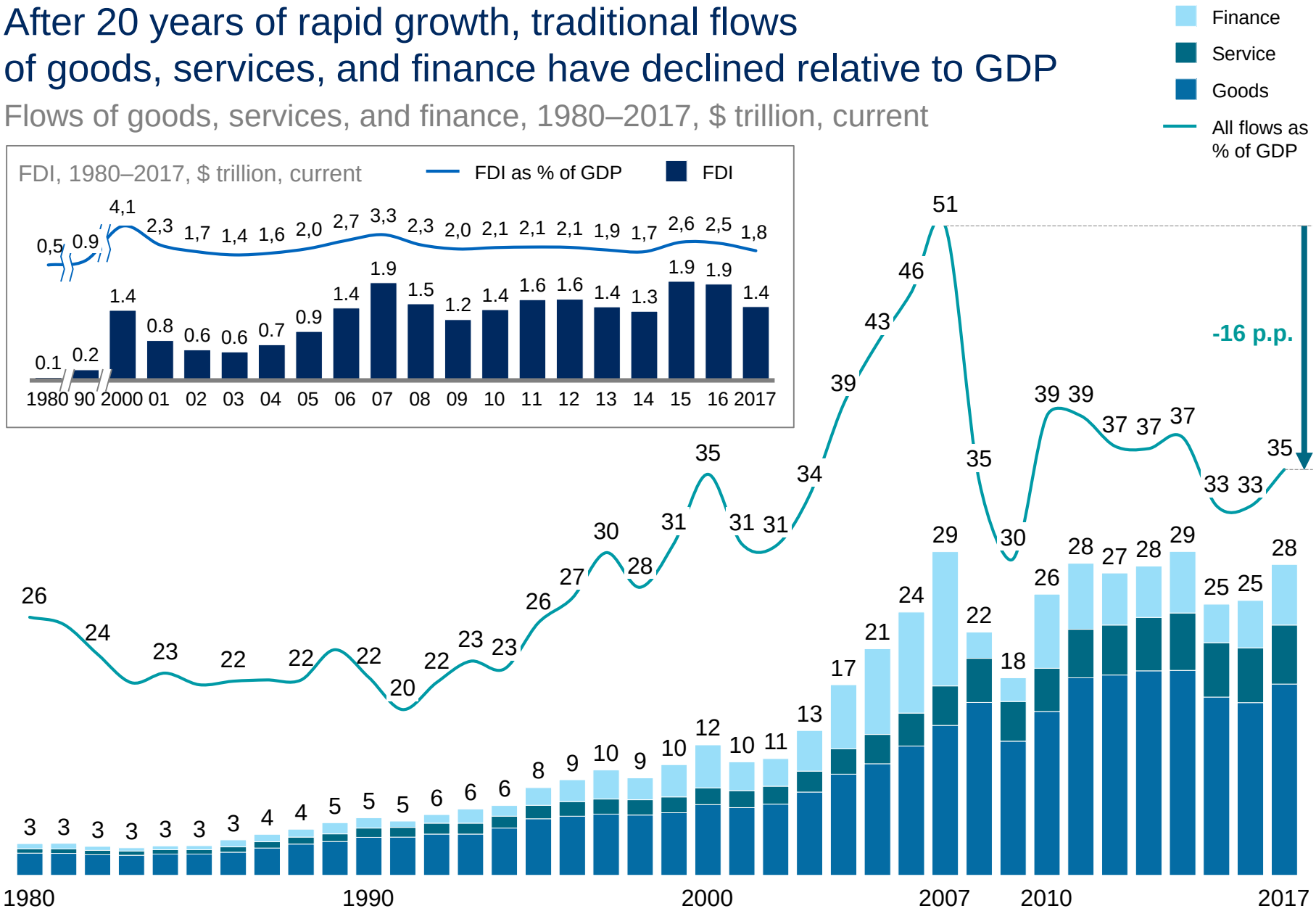
New era of global flows

New opportunities for economic growth

New world of policy challenges

After 20 years of rapid growth, traditional flows of goods, services, and finance have declined relative to GDP

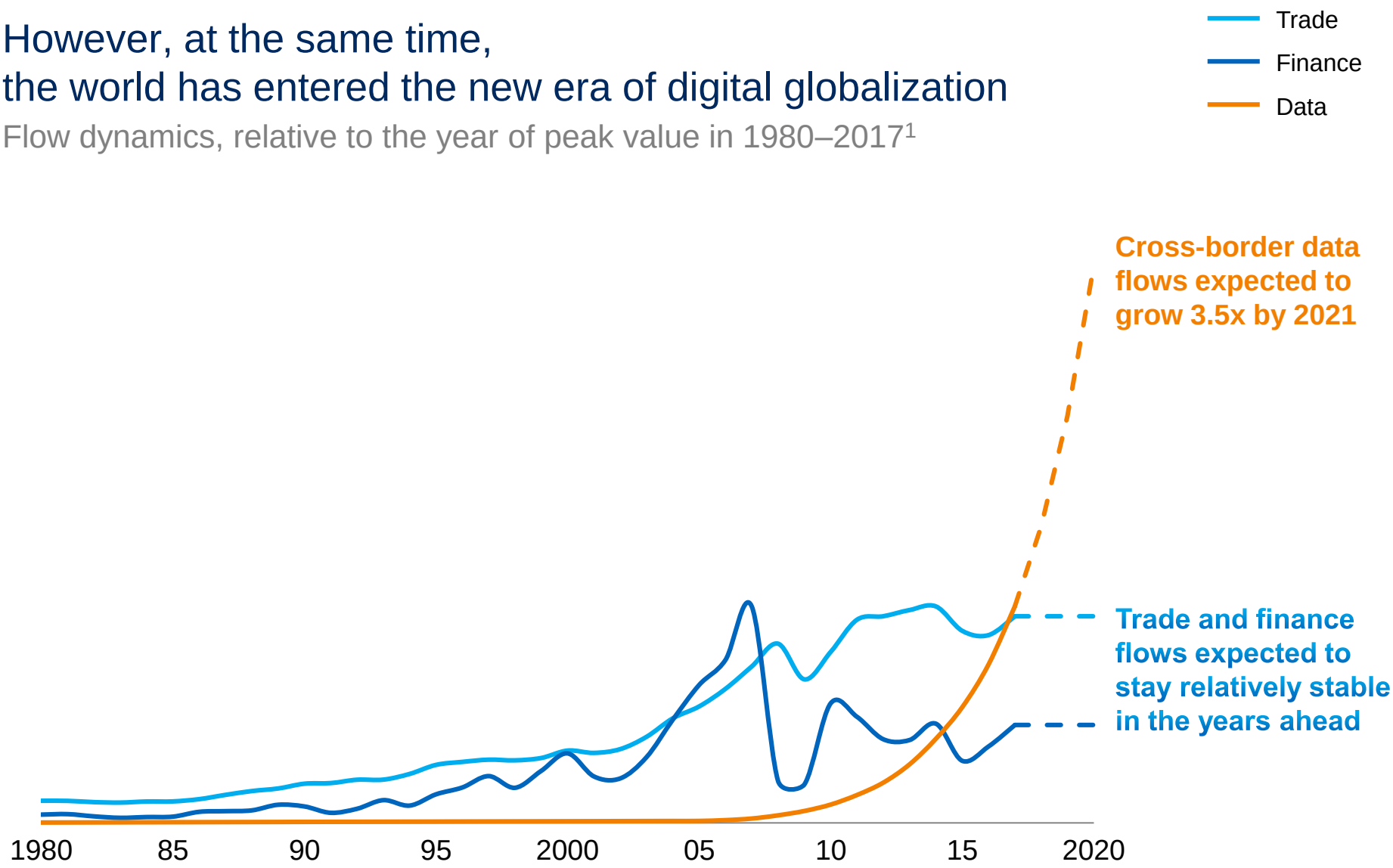
Flows of goods, services, and finance, 1980–2017, $ trillion, current



SOURCE: UNCTAD; IMF Balance of Payments; World Bank; McKinsey Global Institute analysis

However, at the same time, the world has entered the new era of digital globalization

Flow dynamics, relative to the year of peak value in 1980–2017[1]



1 Finance = 2007 ($12.2 trillion), Trade = 2013 ($23.5 trillion), Data = 2017 (estimated 543 terabits per second of cross-border bandwidth used)

SOURCE: McKinsey Global Institute's "Digital Globalization: The New Era of Global Flows"

Globalization: Then vs. Now

SOURCE: McKinsey Global Institute's "Digital Globalization: The New Era of Global Flows"

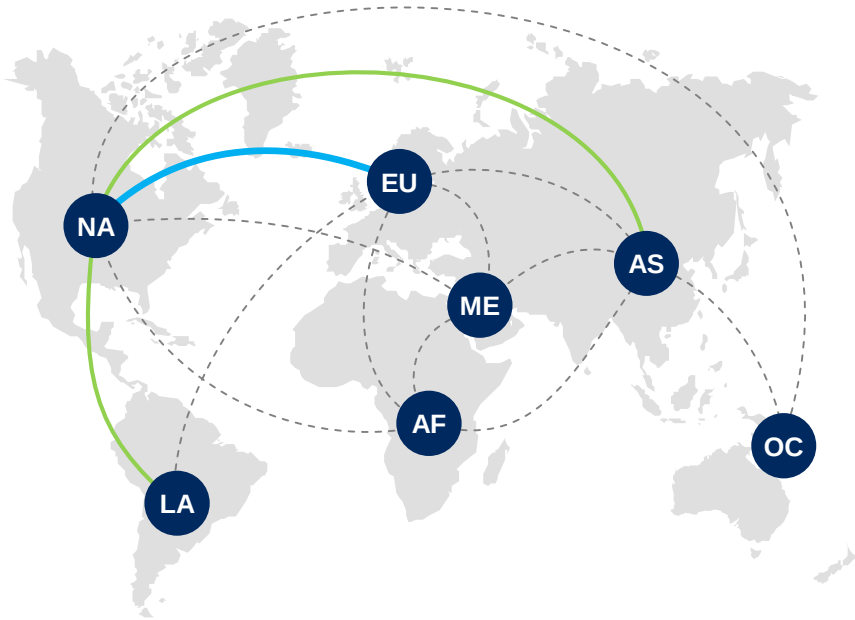
Cross-border data flows are surging and connecting more countries

Used cross-border bandwidth

Regions	NA United States and Canada	EU Europe	AS Asia	LA Latin America	ME Middle East	AF Africa	OC Oceania

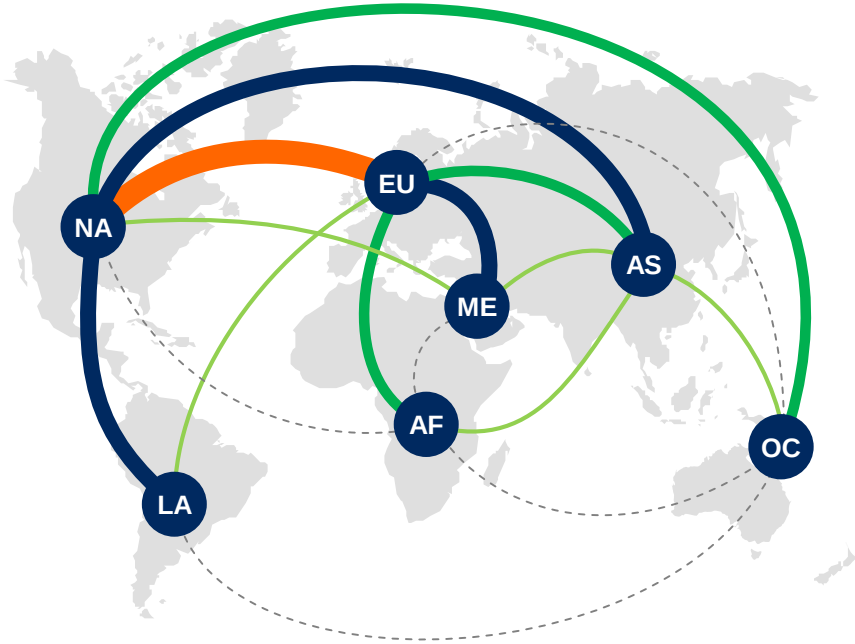
Bandwidth Gigabits per second (Gbps)	<50	50–100	100–500	500–1,000	1,000–5,000	5,000–20,000	>20,000

2005
100% = 4.7 Terabits per second (Tbps)



2014
100% = 211.3 Tbps

45x larger



NOTE: Lines represent interregional bandwidth (e.g., between Europe and Africa), but exclude intraregional cross-border bandwidth (e.g., connecting European nations with one another).

SOURCE: TeleGeography, Global Internet Geography; McKinsey Global Institute analysis

Digital technologies are changing how business is done across borders and broadening participation

Large multinationals

Attain truly global scale with new markets and suppliers

New strategies for products, assets, organization

SMEs

Use digital platforms to find customers and suppliers abroad

50M on Facebook, 10M on Alibaba, 2M on Amazon

Startups

>80% of tech-based startups are "born global"

Foreign customers, financing, suppliers from day one

Individuals

New ways to work, learn, and communicate across borders

>900M have international connections on social media

SOURCE: McKinsey Global Institute's "Digital Globalization: The New Era of Global Flows"

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How globalization increases GDP

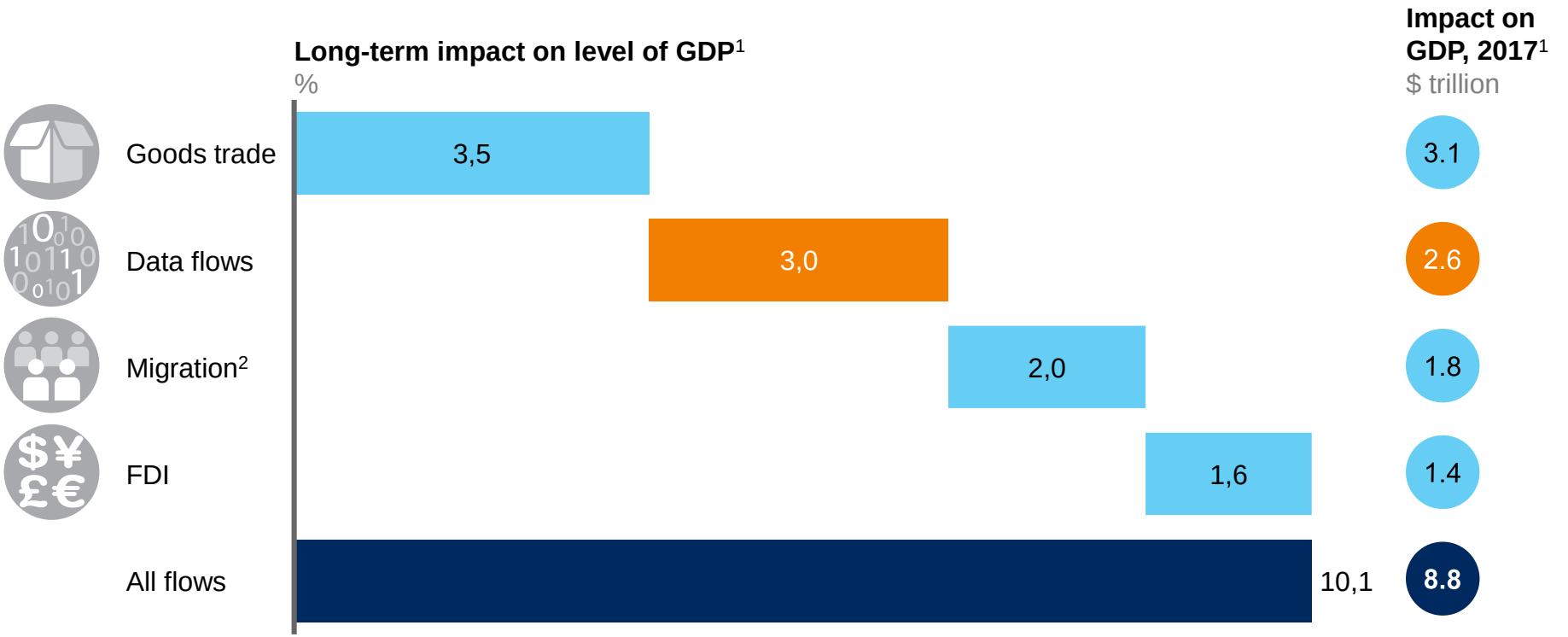
SOURCE: McKinsey Global Institute's "Digital Globalization: The New Era of Global Flows"

Digitization is transforming business models in ways that enable more cross-border activity

Cross-border implications of digitization		Flow type: Data	Goods	Services	Finance	FDI
Remote monitoring	Remote tracking	●	●			
	Remote maintenance	●	●			
Supply-chain management	Remote inventory management	●	●			
	Supplier management	●	●			
Access to global markets	Cross-border access to customers	●		●	●	
	Cross-border access to labor	●		●		
	Cross-border access to finance	●			●	
Business operations and strategy	Centralized back-office operations	●		●		
	Cross-border digital payments	●			●	
	Real-time communications and collaboration	●		●		
	Data sharing and analytics-driven decision making	●	●	●	●	●

SOURCE: McKinsey Global Institute analysis

Global flows account for approximately 10 percent of global GDP output; data flows account for a large (arguably largest) chunk of that contribution



Accounting for secondary effects of data flows – in that they enable trade flows, FDI, and even people flows – the impact of cross-border data flows on global GDP surpasses the impact of global goods trade

1 Includes inflows and outflows data for 139 countries in MGI Global Flows model.
2 Global migration flows declined slightly from 2003 to 2013, resulting in a positive impact despite a negative coefficient. Migration flows are negligible or slightly negative at the global level, possibly due to the loss of skilled labor in developing countries or the difficulties of absorbing a large influx of refugees or migrants. However, migration flows have a positive impact on productivity in advanced economies.

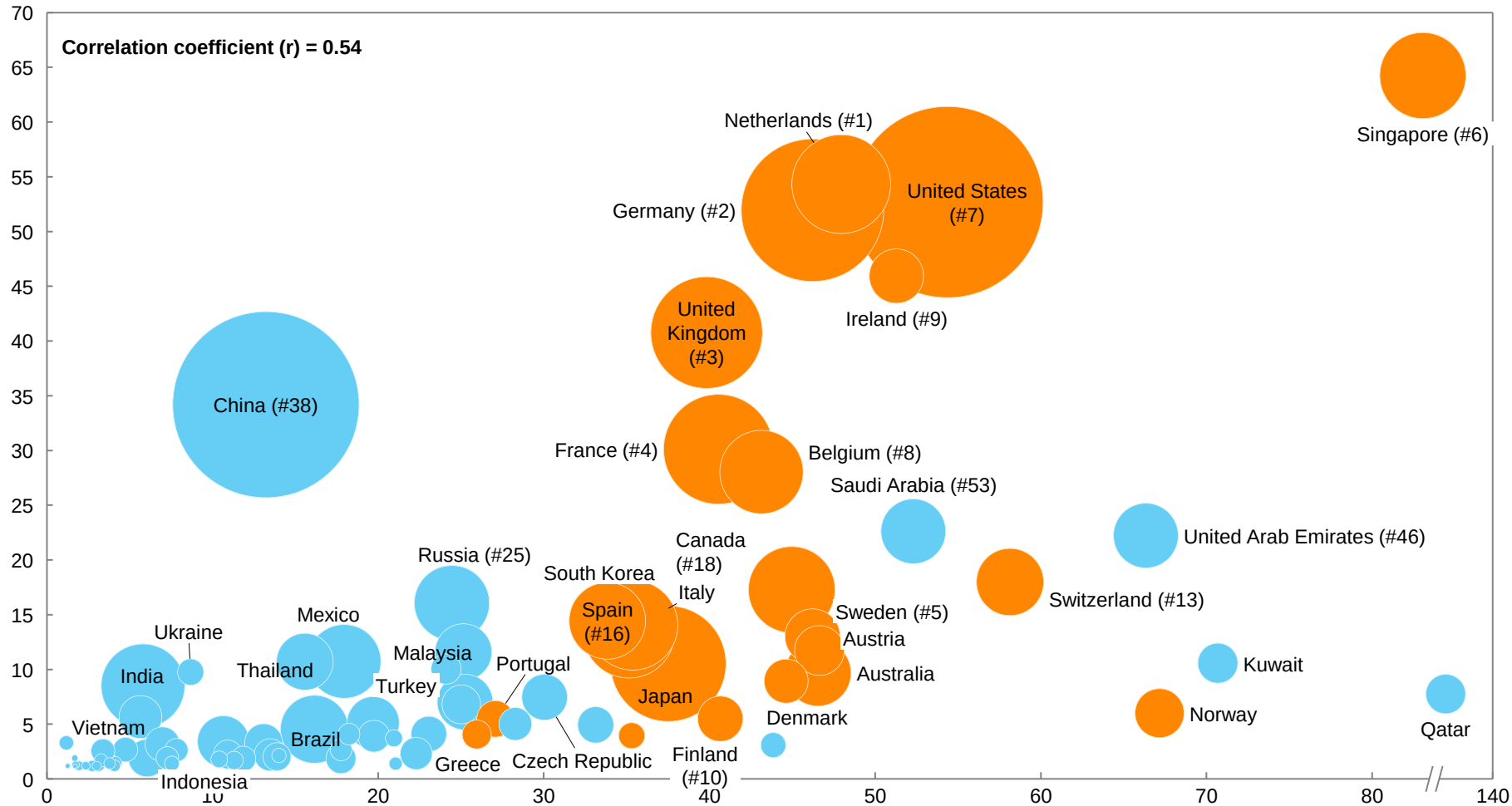
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

The MGI Connectedness Index[1] shows that advanced economies are generally more connected than developing countries

Connectedness score, 2014
(Number in brackets represents the rank on the data connectedness sub-index[2])

Emerging
Developed
Size of circle represents $ value of flows in 2014



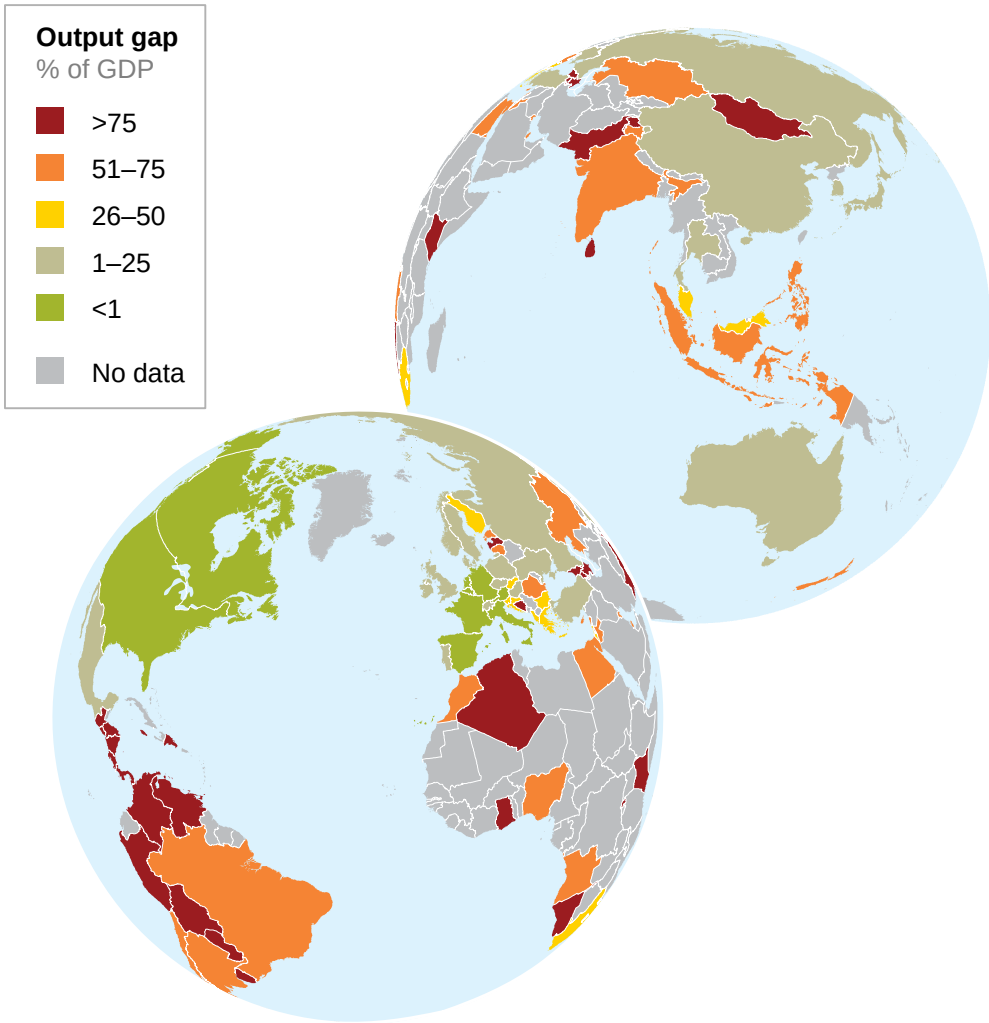
Per capita GDP, 2014
$ thousand, purchasing power parity, current international dollar

1 The McKinsey Global Institute Connectedness Index measures the connectedness of 131 countries across all five flows of goods, services, finance, people, and data and communication; he index reflects the level of inflows and outflows of all types of flows adjusted for country size

2 Listed for the top 15 countries by MGI connectedness score and for top 10 countries based on data connectedness sub-index (where not overlapping)

SOURCE: IMF; McKinsey Global Institute analysis

Limited participation in global flows by many countries has had a real economic cost; going forward countries at the periphery of the world's digital networks stand to gain even more than those at the center



- While participation in global flows is not the panacea for the other factors that may dampen a country's economic growth[1], our analysis suggests **some countries may grow their GDP in the long-term by over 50% by participating fully in global flows**
- Over time, participation in **data flows will grow in importance vs. traditional flows**
- Unlike with traditional flows, **countries on the periphery of the global network of flows have the most to gain from increasing cross-border data flows**
- Countries benefit from receiving cross-border digital flows as well as producing them; in other words, **countries do not need to transform themselves into digital content or platform producers to benefit from data flows**

1 For example, uncompetitive business environment, weak rule of law, corruption

SOURCE: McKinsey Global Institute analysis

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Policy-makers need a clear agenda to capture the full potential of global flows

Key enablers for digitalization specifically

1. Think strategically about the role the country can play in global value chains
2. Address policy and administrative barriers that hinder global flows
3. Address the dislocations
4. Invest in human capital
5. Build the necessary physical infrastructure and close the digital divide
6. Create a strong business and institutional environment for the digital economy to thrive
7. Maintain an open Internet while protecting privacy
8. Make cybersecurity a top priority

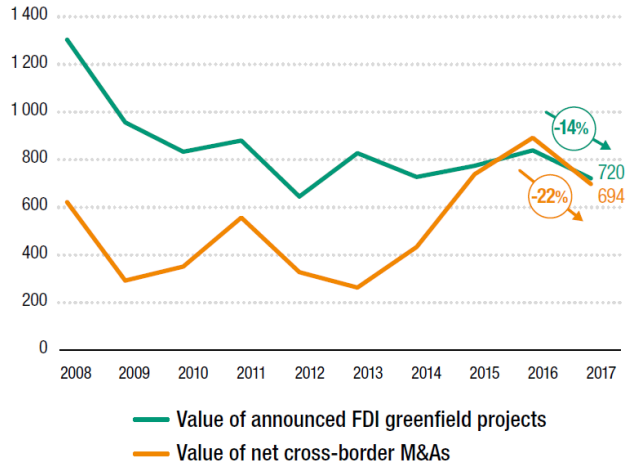
Can data flows and 'Digital' economy be the enablers for some countries to leapfrog in development, like they have been for tech businesses recently?

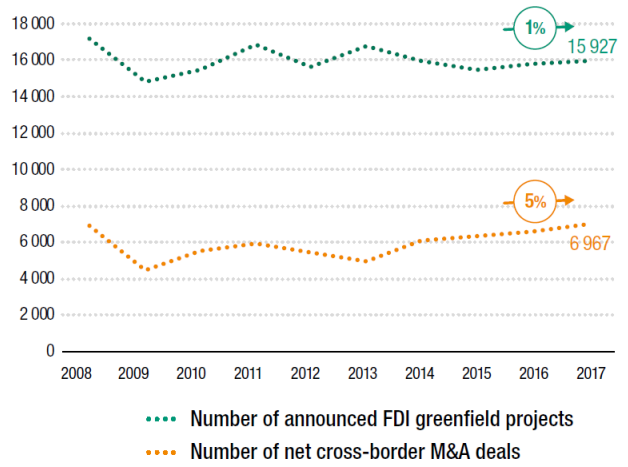
SOURCE: McKinsey Global Institute analysis

BACKUP

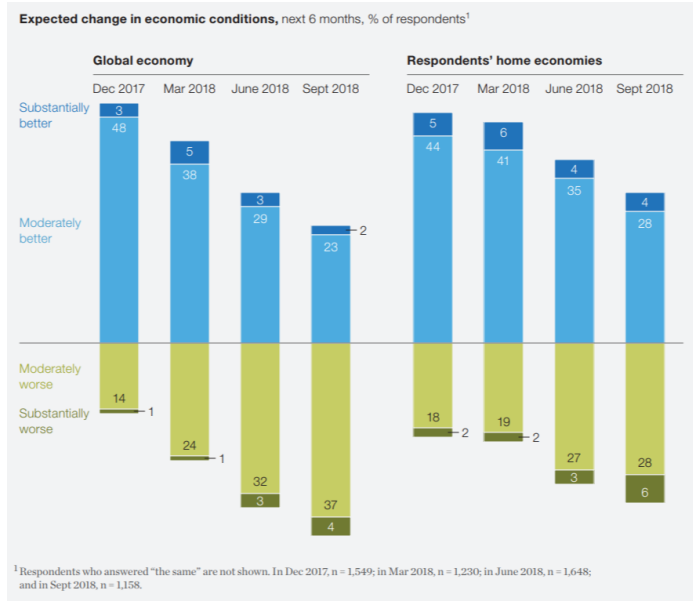
The outlook also appears more challenged than a year ago

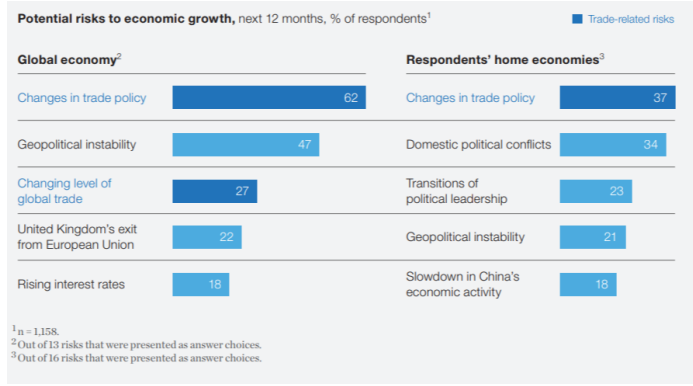
Decline in the value of announced FDI projects





Deteriorating outlook of overall economic conditions





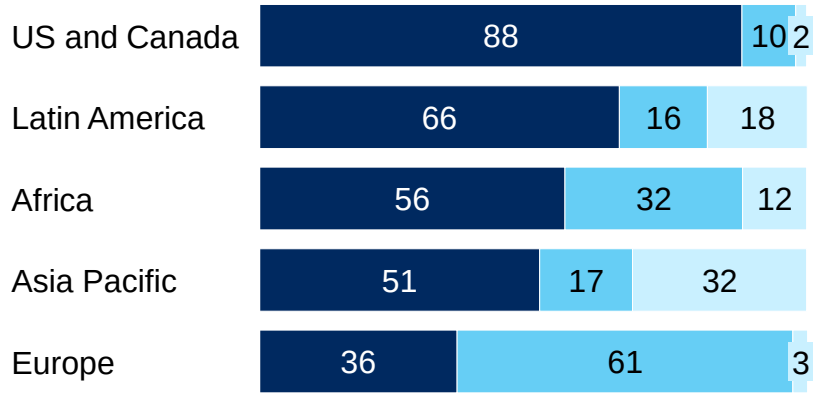
SOURCE: UNCTAD; Economic Conditions Snapshot, McKinsey Global Survey, September 2018; team analysis

Data flows and traditional flows paint different pictures of the world

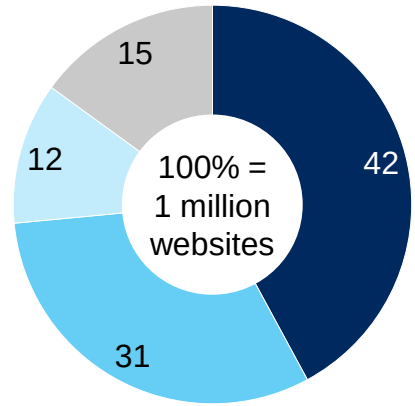
China, the United States, or Germany is the major trading partner for most countries
Largest trading partner in goods, 2014

The US is the largest producer of digital content for Internet users across the globe

Location of top 100 websites requested by users
% by user region, as of April 2015



Hosting location of top 1 million websites, 2013[2]
%



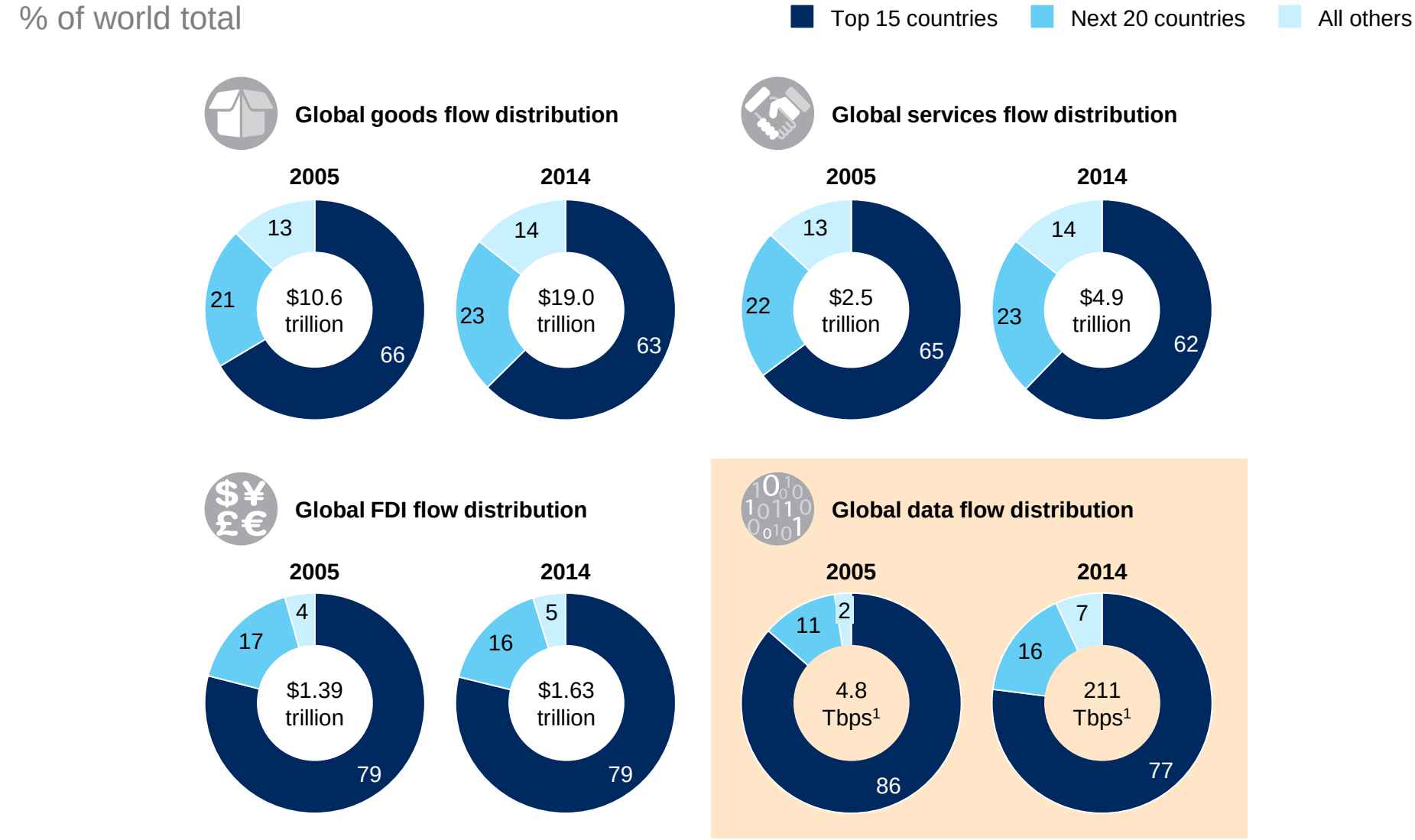
1 Includes United States and Canada for location of top 100 websites requested by users
2 Based on Pingdom analysis of Alexa top 1 million websites

NOTE: Data omitted for some small nations as indicated in gray

SOURCE: : UNCTAD; TeleGeography, Global Internet Geography; Pingdom; McKinsey Global Institute analysis

Flows remain concentrated among a few leading countries, however data flows show more broadening of scope than others

% of world total



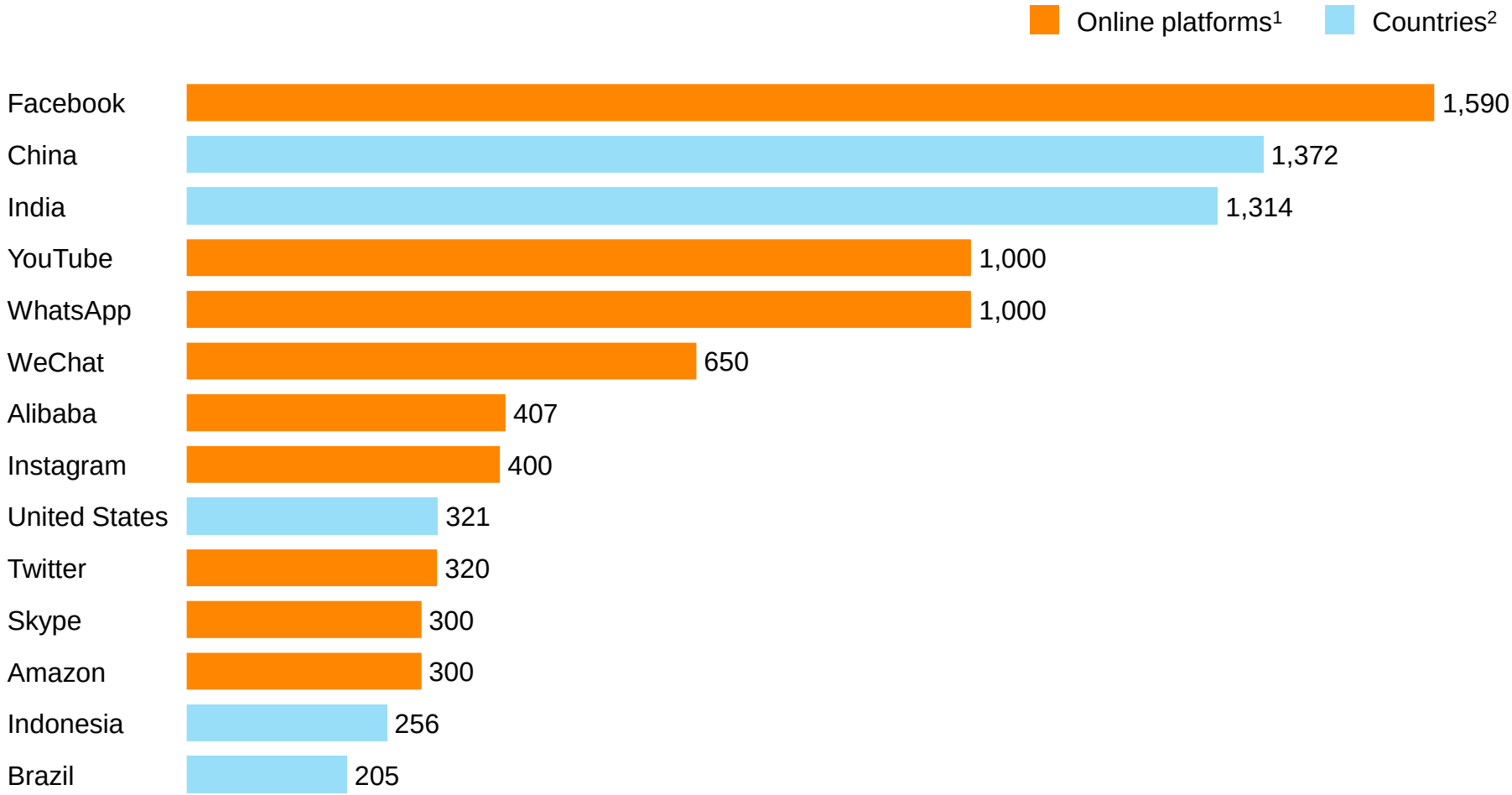
1 Tbps = terabits per second

NOTE: Numbers may not sum due to rounding

SOURCE: : UNCTAD; IMF; TeleGeography, Global Internet Geography; McKinsey Global Institute analysis

The biggest online platforms have user bases on par with the populations of the world's biggest countries

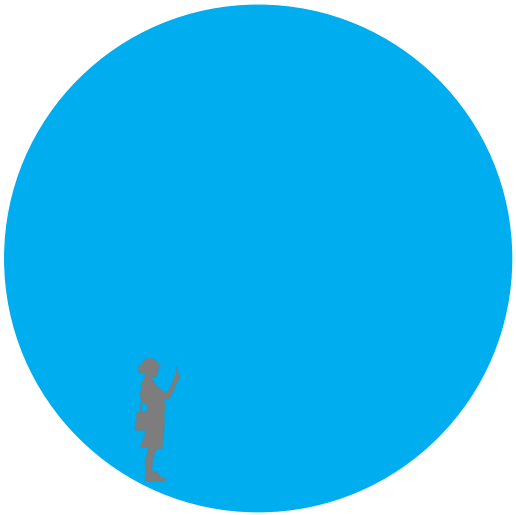
Active users of online platforms vs. country population, million



1 4Q15 or latest available
2 2015 population

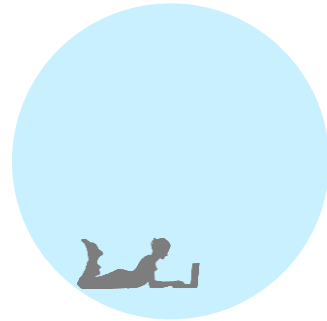
SOURCE: Facebook; Twitter; Alibaba; Fortune; Statista; Population Reference Bureau; McKinsey Global Institute analysis

Individuals are participating in globalization, and 914 million have cross-border social media connections



Social networking users with at least one foreign connection
914 million

International travelers
429 million



Cross-border e-commerce shoppers
361 million

People living outside home country
244 million

Cross-border online workers
44 million

Cross-border online students
13 million

Students studying abroad
5 million

NOTE: Numbers adjusted to account for overlap between platforms and for individuals making multiple international trips in the same year.

SOURCE: Facebook; AliResearch; US Department of Commerce; OECD; World Bank; McKinsey Global Institute analysis

MGI Connectedness Index (1/2)

Country connectedness index and overall flows data, 2014

Rank of participation by flow as measured by flow intensity and share of world total

Connectedness index rank 1–10 11–25 26–50 >50 **Flow intensity** 100+ 70–99 <70

Rank	Country	Score	Connectedness Index rank					Flow value[1]	Flow intensity[2]
			Goods	Services	Finance	People	Data	$ billion	% of GDP
1	Singapore	64.2	1	2	2	12	6	1,392	452
2	Netherlands	54.3	3	3	6	21	1	1,834	211
3	United States	52.7	7	7	3	1	7	6,832	39
4	Germany	51.9	2	4	8	3	2	3,798	99
5	Ireland	45.9	32	1	1	28	9	559	227
6	United Kingdom	40.8	13	5	5	6	3	2,336	79
7	China	34.2	4	16	4	82	38	6,480	63
8	France	30.1	11	8	9	7	4	2,262	80
9	Belgium	28.0	5	6	33	33	8	1,313	246
10	Saudi Arabia	22.6	20	28	27	2	53	790	106
11	United Arab Emirates	22.2	6	23	17	4	46	789	196
12	Switzerland	18.0	12	11	10	17	13	848	115
13	Canada	17.3	16	22	11	11	18	1,403	79
14	Russia	16.1	21	25	18	5	25	1,059	57
15	Spain	14.4	25	13	19	14	16	1,105	79
16	Korea	14.0	8	12	28	50	44	1,510	107
17	Italy	13.4	17	18	24	16	19	1,587	74
18	Sweden	13.0	29	14	22	31	5	572	100
19	Austria	11.7	26	17	31	20	12	470	108
20	Malaysia	11.6	9	19	25	26	43	610	187
21	Mexico	10.7	14	63	34	18	41	1,022	80
22	Thailand	10.7	10	15	36	44	64	605	162
23	Kuwait	10.6	37	46	13	13	75	306	153
24	Japan	10.5	15	20	12	81	20	2,498	54
25	Kazakhstan	10.0	48	73	41	8	57	176	83
26	Ukraine	9.8	38	39	87	10	34	133	101

1 Flows value represents total goods, services, and financial inflows and outflows.
2 Flow intensity represents the total value of goods, services, and financial flows as a share of the country's GDP.

SOURCE: McKinsey Global Institute analysis

MGI Connectedness Index (2/2)

Country connectedness index and overall flows data, 2014

Rank of participation by flow as measured by flow intensity and share of world total

Connectedness index rank 1–10 | 11–25 | 26–50 | >50 **Flow intensity** 100+ | 70–99 | <70

Rank	Country	Score	Connectedness Index rank					Flow value[1]	Flow intensity[2]
			Goods	Services	Finance	People	Data	$ billion	% of GDP
27	Australia	9.7	30	34	21	15	33	825	57
28	Denmark	8.9	35	9	32	41	11	369	108
29	Jordan	8.8	73	50	75	9	83	50	138
30	India	8.5	24	10	35	58	70	1,316	64
32	Czech Republic	7.5	18	33	57	59	15	397	193
34	Poland	7.0	23	31	47	34	22	585	107
35	Hungary	6.8	22	30	26	62	17	287	209
36	Norway	6.0	36	24	20	46	24	458	92
37	Vietnam	5.7	19	54	45	103	61	350	188
39	Finland	5.5	46	27	23	70	10	390	144
40	Portugal	5.5	47	36	30	23	31	255	111
41	Turkey	5.1	28	40	53	38	29	521	65
43	Israel	4.9	51	32	49	24	56	248	82
44	Brazil	4.5	41	38	14	125	30	869	37
45	Chile	4.1	45	58	16	102	27	239	92
47	Greece	4.1	60	29	54	35	42	160	67
48	New Zealand	3.9	67	48	61	25	51	130	63
51	Indonesia	3.4	31	49	38	106	76	504	57
53	South Africa	3.3	34	57	52	64	80	277	79
54	Philippines	3.2	54	41	44	52	67	230	81
64	Morocco	2.6	58	43	74	56	65	104	97
73	Egypt	2.2	68	42	69	73	71	158	55
83	Nigeria	1.9	55	76	48	128	98	268	47
86	Peru	1.8	62	88	51	104	49	122	60
118	Kenya	1.3	100	84	127	119	91	35	58

1 Flows value represents total goods, services, and financial inflows and outflows.
2 Flow intensity represents the total value of goods, services, and financial flows as a share of the country's GDP.

SOURCE: McKinsey Global Institute analysis