TRACKING AND NAVIGATING THE PANDEMIC ECONOMY

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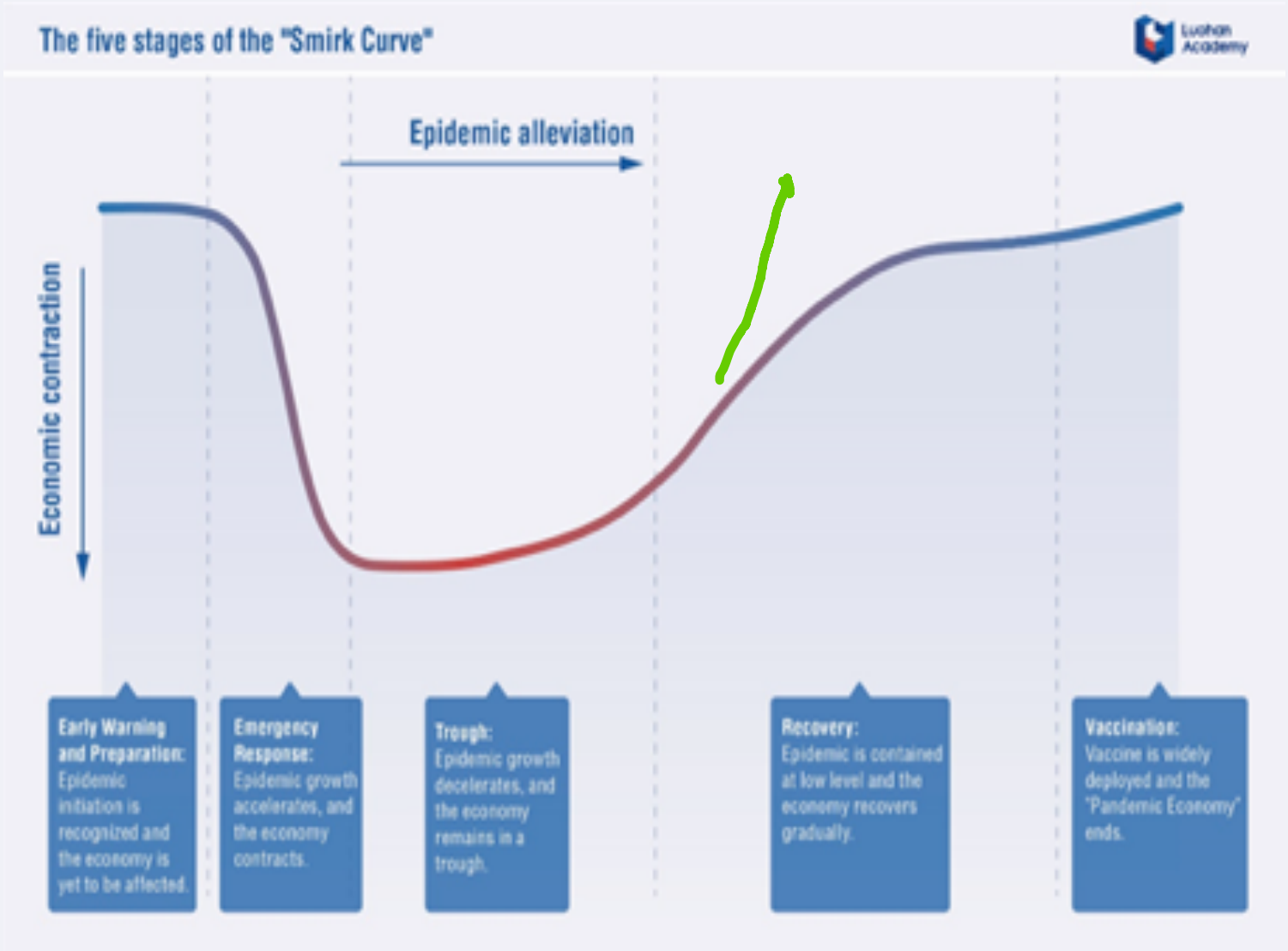
Pandemic Economy Evolution



CONTRACTION, DISTRIBUTION, POLICY RESPONSE

- Monetary policy and fiscal "stimulus"
- Main targets: medical capacity, buffering shock, redistribute the balance sheet damage
- Programs are large: implementation varies
- Move a fair amount of the damage to the public sector balance sheet – Italy example
- Magnitudes: USA case: 25-30% of 2019 GDP and income
  - 1.6 trillion dollars for a quarter.
  - If recovery takes 7 quarters, damage is somewhere between 6.4 and 11 trillion dollars
- Distributional impacts adverse
- Unemployment probably 25%
- 39% for households with income below $40K

Remote working

Table 1: Share of jobs that can be done at home, by metropolitan area

	Unweighted	Weighted by wage
Top five		
San Jose-Sunnyvale-Santa Clara, CA	0.51	0.66
Washington-Arlington-Alexandria, DC-VA-MD-WV	0.50	0.64
Durham-Chapel Hill, NC	0.46	0.57
Austin-Round Rock, TX	0.46	0.58
San Francisco-Oakland-Hayward, CA	0.45	0.58
Bottom five		
Grand Rapids-Wyoming, MI	0.29	0.37
Lancaster, PA	0.29	0.36
Bakersfield, CA	0.29	0.36
Stockton-Lodi, CA	0.29	0.33
Cape Coral-Fort Myers, FL	0.28	0.34

WHITE PAPER

How Many Jobs Can be Done at Home?

Jonathan I. Dingel and Brent Neiman
APRIL 2020

Table 2: Share of jobs that can be done at home, by industry

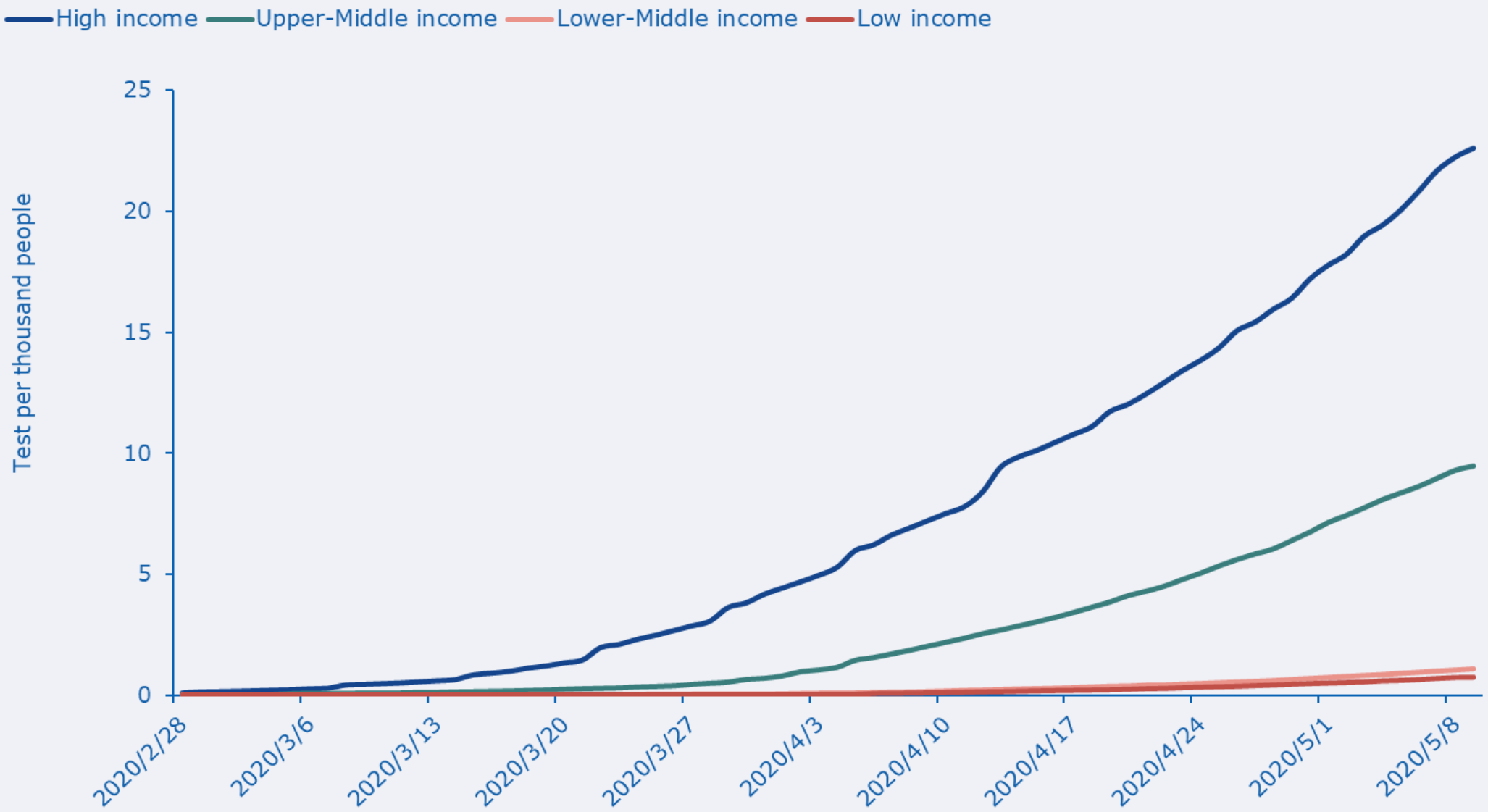
	Unweighted	Weighted by wage
Top five		
Educational Services	0.83	0.71
Professional, Scientific, and Technical Services	0.80	0.86
Management of Companies and Enterprises	0.79	0.86
Finance and Insurance	0.76	0.85
Information	0.72	0.80
Bottom five		
Transportation and Warehousing	0.19	0.25
Construction	0.19	0.22
Retail Trade	0.14	0.22
Agriculture, Forestry, Fishing and Hunting	0.08	0.13
Accommodation and Food Services	0.04	0.07

Hospitality workforce about 16.7 million

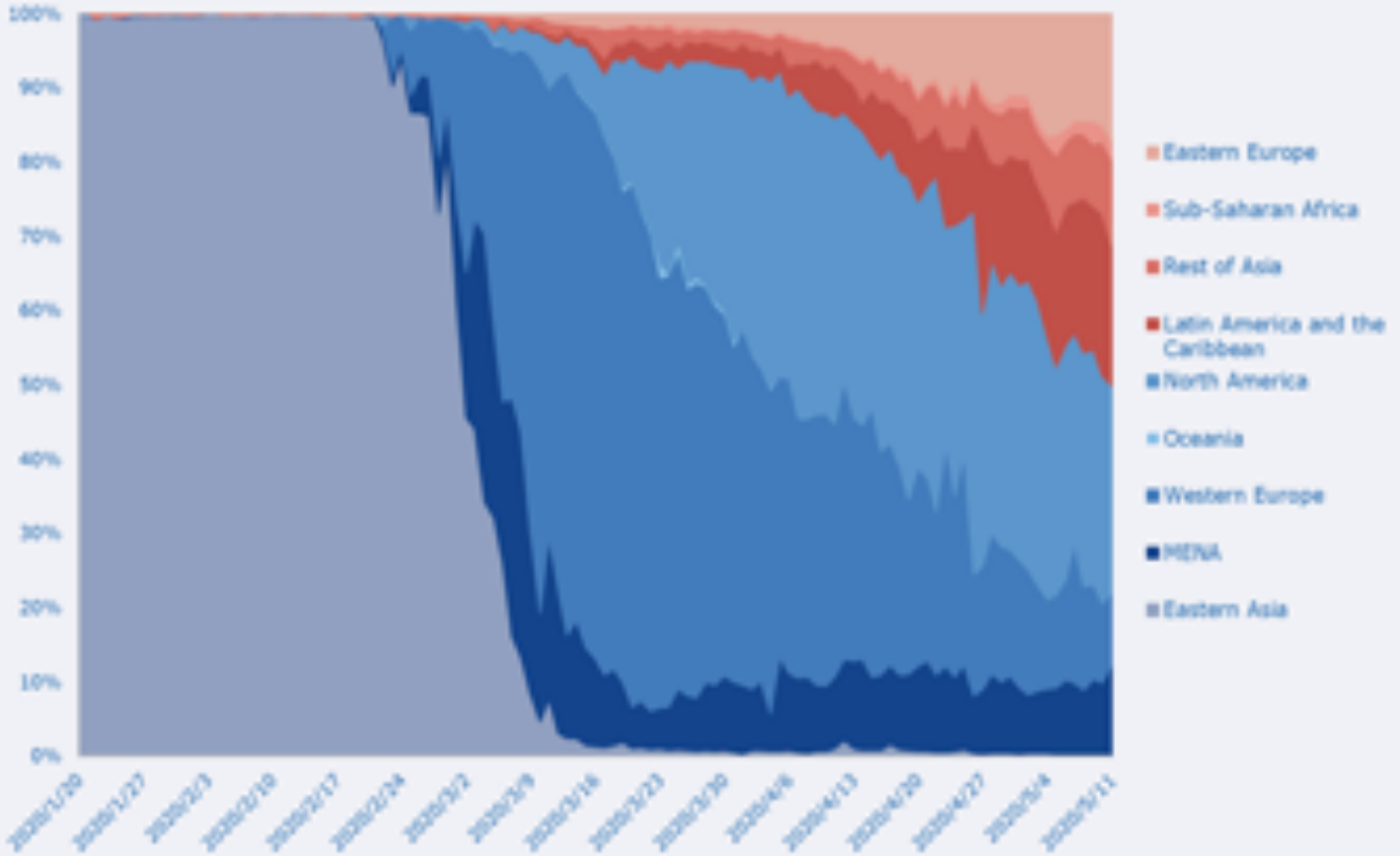
Table 3: Share of jobs that can be done at home, by occupation's major group

	Occupation	O*NET-derived baseline	Manual alternative
15	Computer and Mathematical Occupations	1.00	1.00
25	Education, Training, and Library Occupations	0.98	0.85
23	Legal Occupations	0.97	0.84
13	Business and Financial Operations Occupations	0.88	0.92
11	Management Occupations	0.87	0.84
27	Arts, Design, Entertainment, Sports, and Media Occupations	0.76	0.57
43	Office and Administrative Support Occupations	0.65	0.51
17	Architecture and Engineering Occupations	0.61	0.88
19	Life, Physical, and Social Science Occupations	0.54	0.36
21	Community and Social Service Occupations	0.37	0.50
41	Sales and Related Occupations	0.28	0.21
39	Personal Care and Service Occupations	0.26	0.00
33	Protective Service Occupations	0.06	0.00
29	Healthcare Practitioners and Technical Occupations	0.05	0.06
53	Transportation and Material Moving Occupations	0.03	0.00
31	Healthcare Support Occupations	0.02	0.00
45	Farming, Fishing, and Forestry Occupations	0.01	0.00
51	Production Occupations	0.01	0.00
49	Installation, Maintenance, and Repair Occupations	0.01	0.00
47	Construction and Extraction Occupations	0.00	0.00
35	Food Preparation and Serving Related Occupations	0.00	0.00
37	Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00

Testing rates in economies at different income levels



Trends of Regional Percentages of COVID-19 Cases



Pandemic Economy Fundamentals

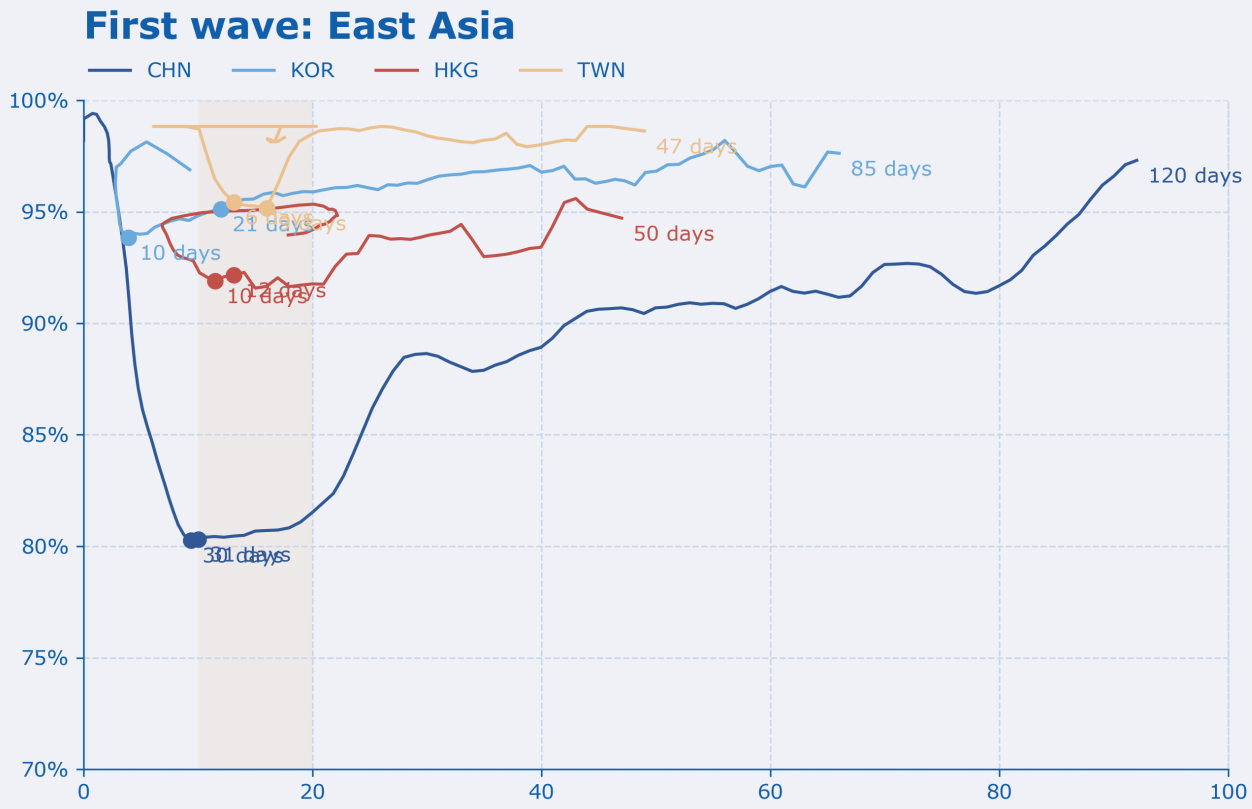
- Mobility, business and sector shutdowns reduce demand and supply
- Risk and risk aversion separately reduces demand, especially in sectors that entail contact
- Reducing risk
  - Reduce infection per contact – physical distancing
  - Reduce number of contacts for a given level of economic activity – large gatherings
  - Reduce prevalence among people in circulation – test, track, isolate, digital
- Hard part is demand – and risk

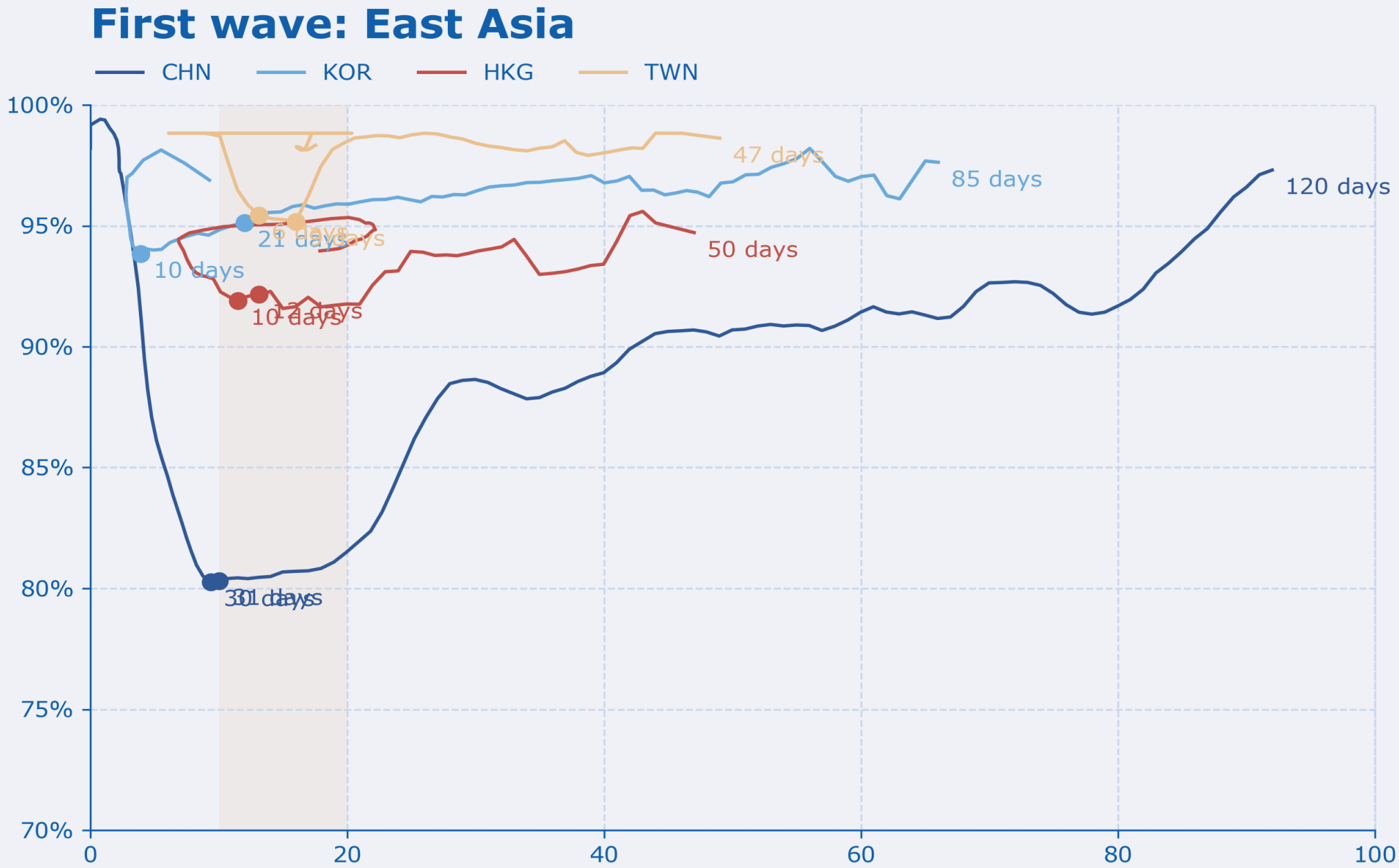
Luohan Academy Pandemic Economy Tracking Project

- Real time tracking data will go live on their website soon
- The graphs that follow come from that project as it gets up and running
- https://www.luohanacademy.com/
- It is based in Hangzhou, and has access to ecommerce and mobile payments data
- Much of the mobility data comes from Google
- https://www.google.com/covid19/mobility/
- For USA, by state and county, start date 2/15/2020

Pandemic Economy Tracking graphs

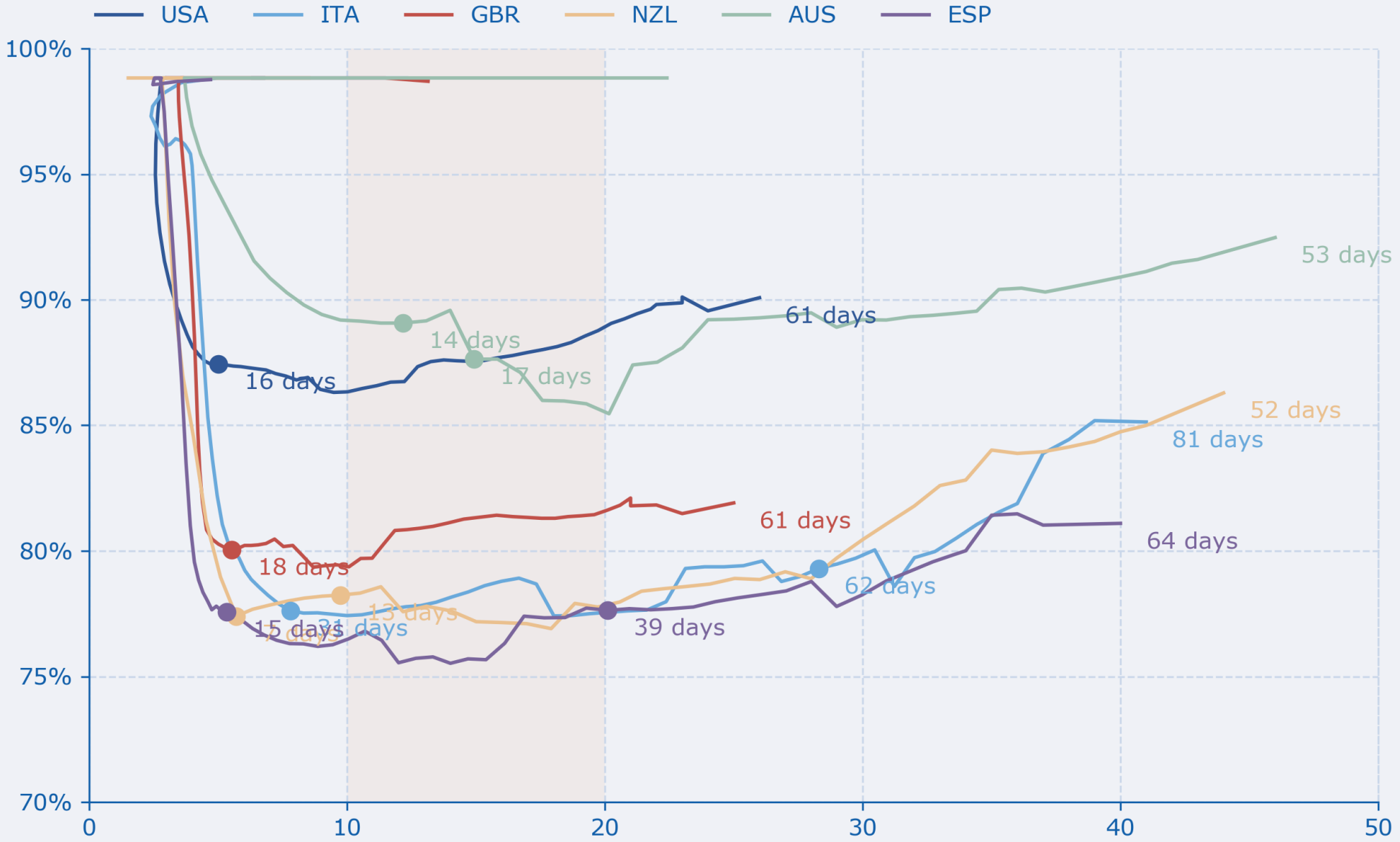
- Real time data - daily
- Vertical axis: contraction estimated from daily mobility data
  - Proxy for economic contraction
  - Actual contractions larger based on a few cases
- Horizontal axis: days to double for confirmed cases
  - Proxy for the rate of spread
- Shaded area: three consecutive days in which recoveries exceeding new confirmed cases
  - 75% of those occurrences came in 10 - 20 day doubling range
- Time: days from the start to the bottom, to the start of upturn in economic activity, to the present on whatever day you are looking at it.



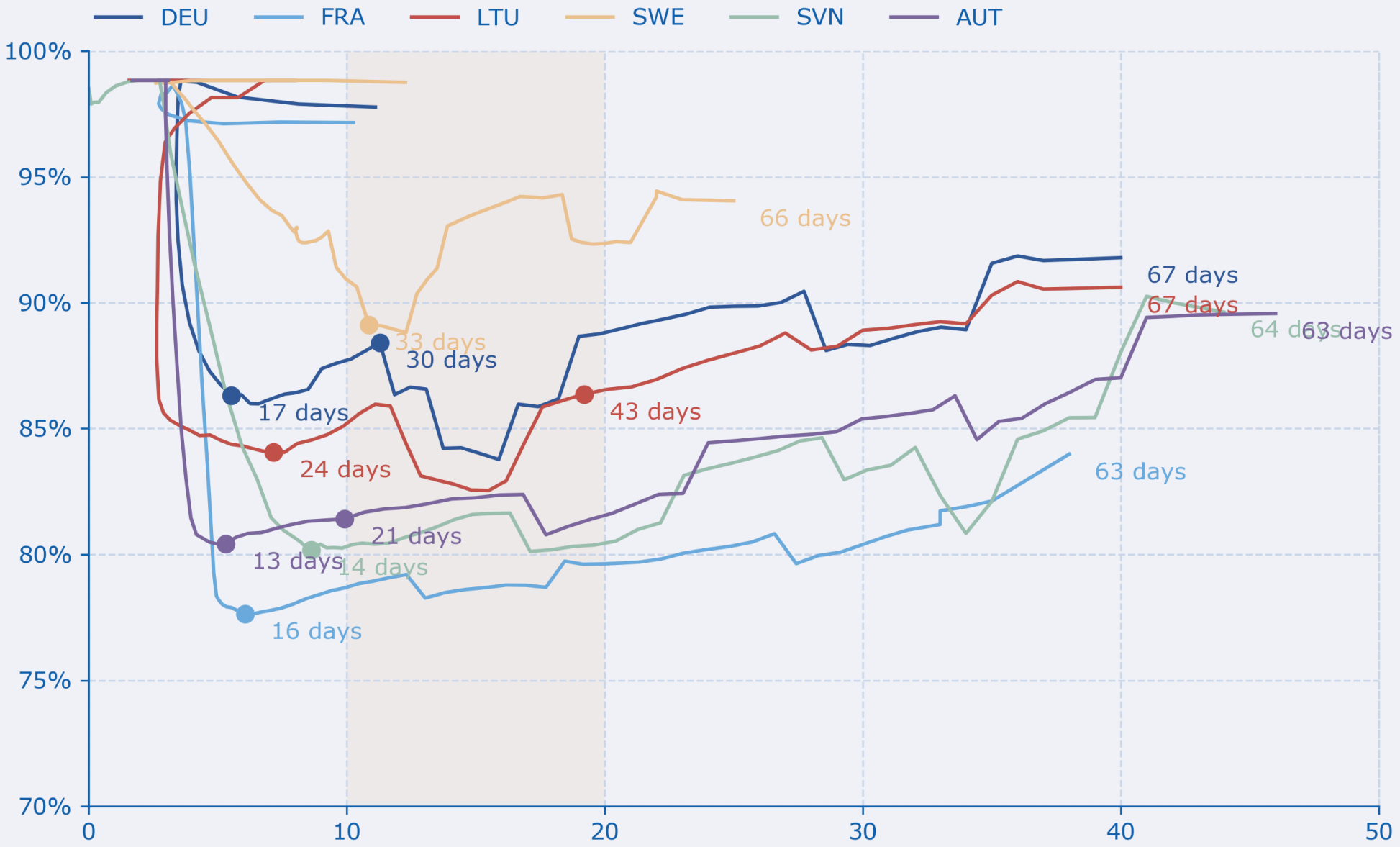


Michael Spence for INET

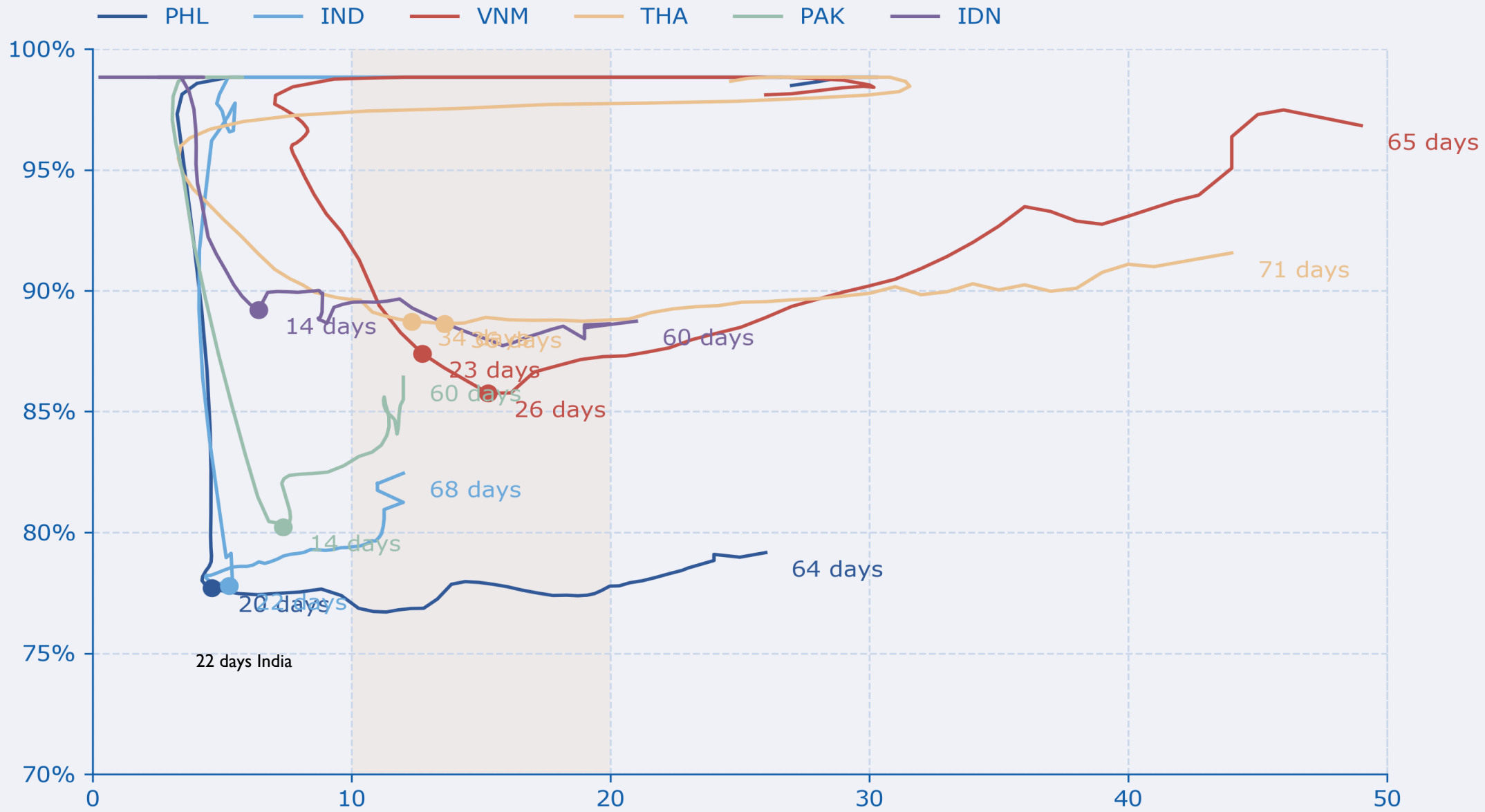
Second wave: Europe, America and Oceania



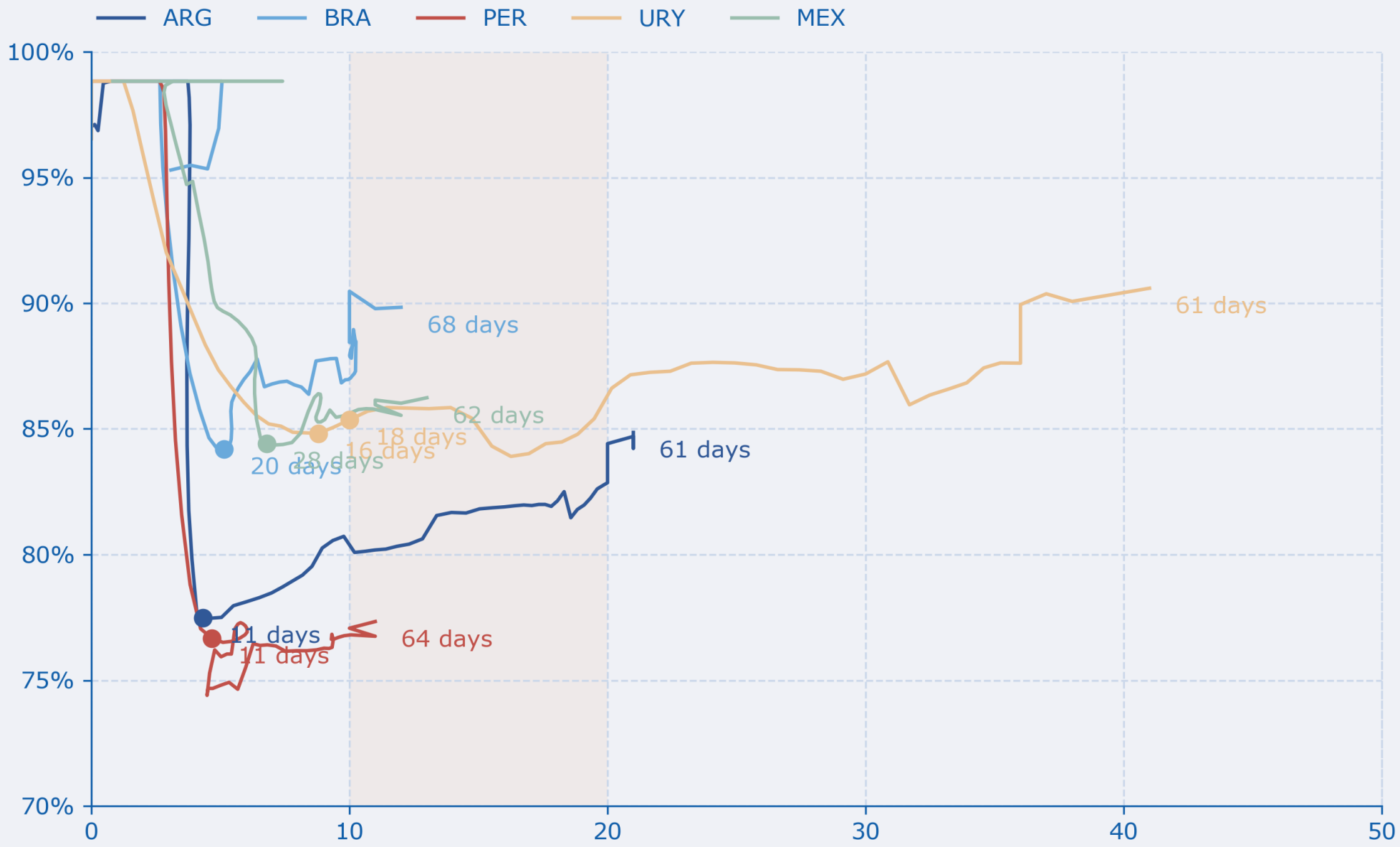
Second wave: Europe



Third wave: South and Southeast Asia



Third wave: South America



Third wave: Africa