

25 March 2020

COVID-19 Projections

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COVID-19 Cases' Projection Method

At the beginning, epidemic processes are exponential by nature, in other words, the number of cases of infection accelerates.

Making projections therefore requires to capture the derivative of the acceleration, named 'the jolt' by mathematicians.

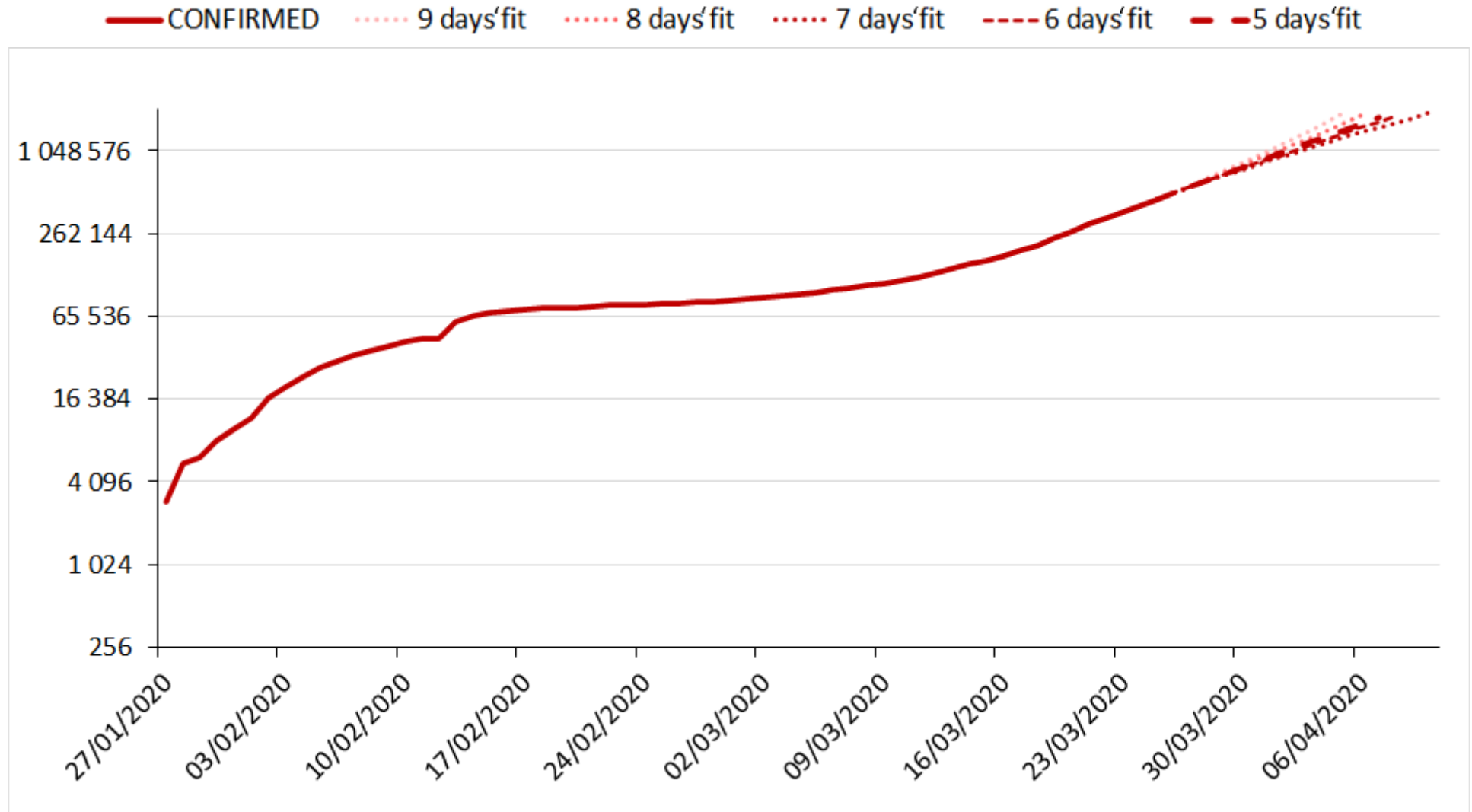
In the following projections, we fit the accelerating or fading nature of the jolt, and project its dynamics over the subsequent four weeks.

The jolt is fitted with an exponential function over, respectively, the previous 5, 6, 7, 8 and 9 days. Large numbers are truncated to facilitate the reading of the charts.

Fitting over various windows provides an information on the most recent dynamics of the COVID-19 diffusion. The thicker dotted red line is the shortest trend, i.e. calculated over the previous five days.

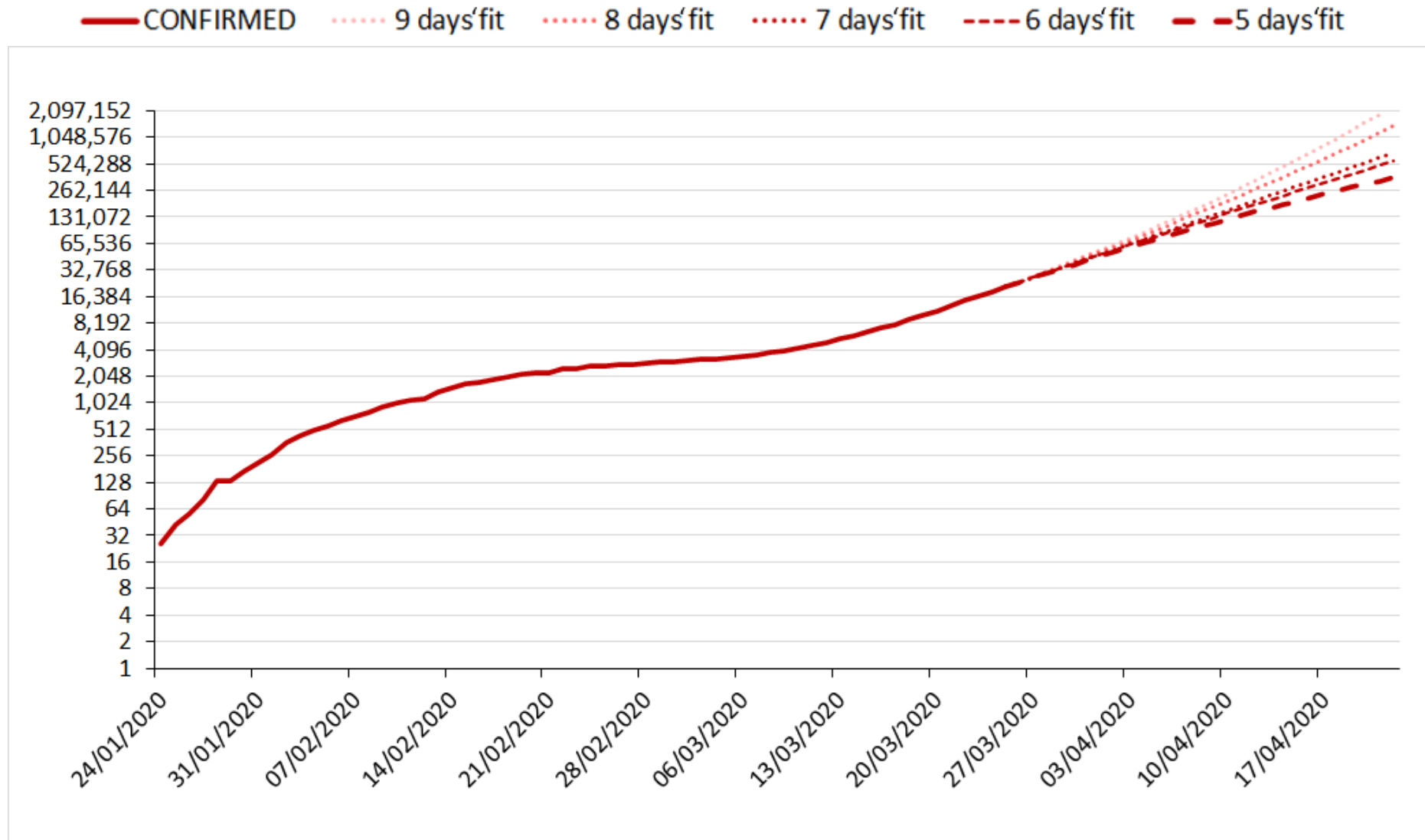
During the early days of an epidemic, projections can be extremely volatile, and it is therefore recommended not to draw black-and-white conclusions from a daily report, but to follow the evolution over many days.

World-Confirmed-Cases



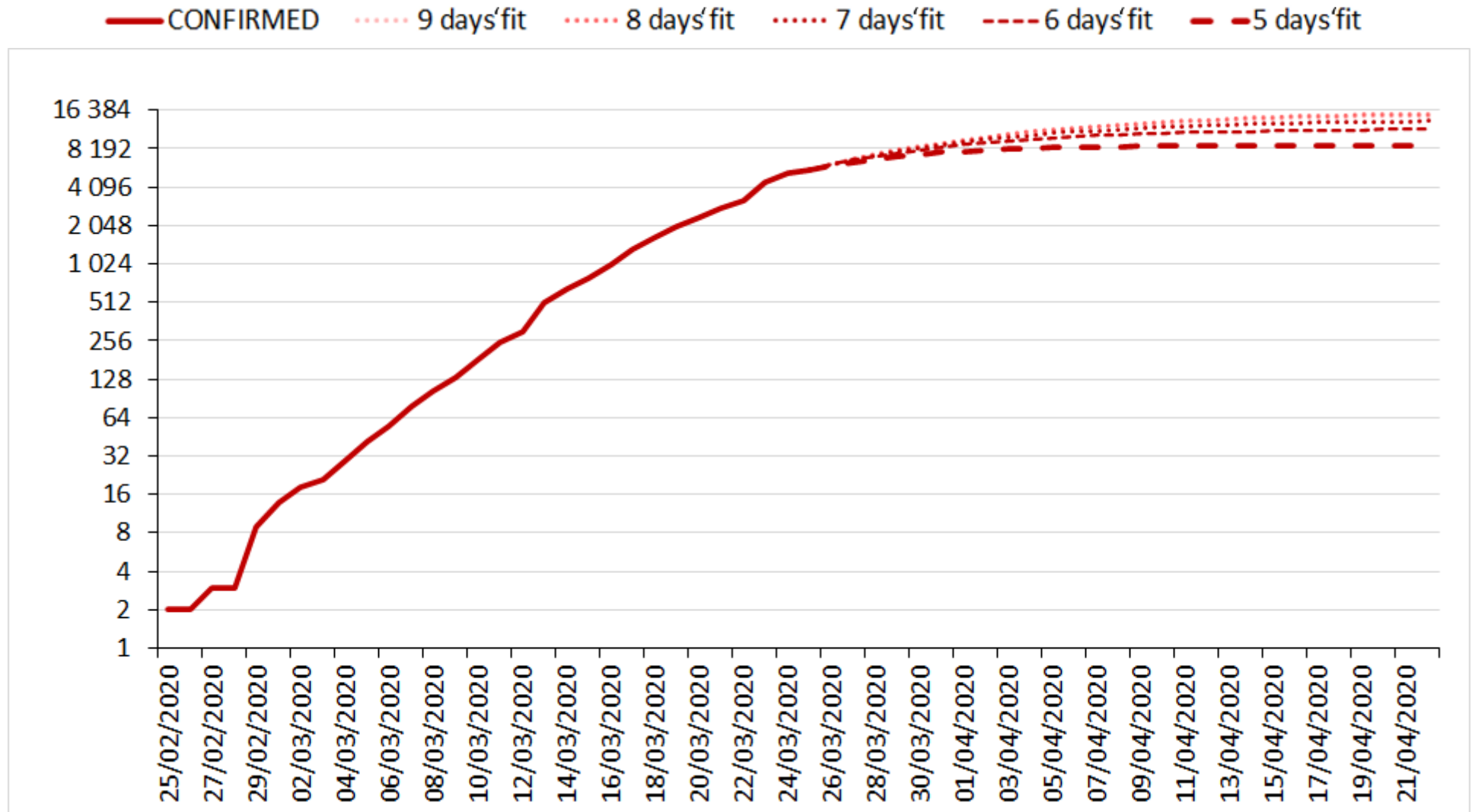
Data: The Johns Hopkins University, Politolog.com

World-Deaths



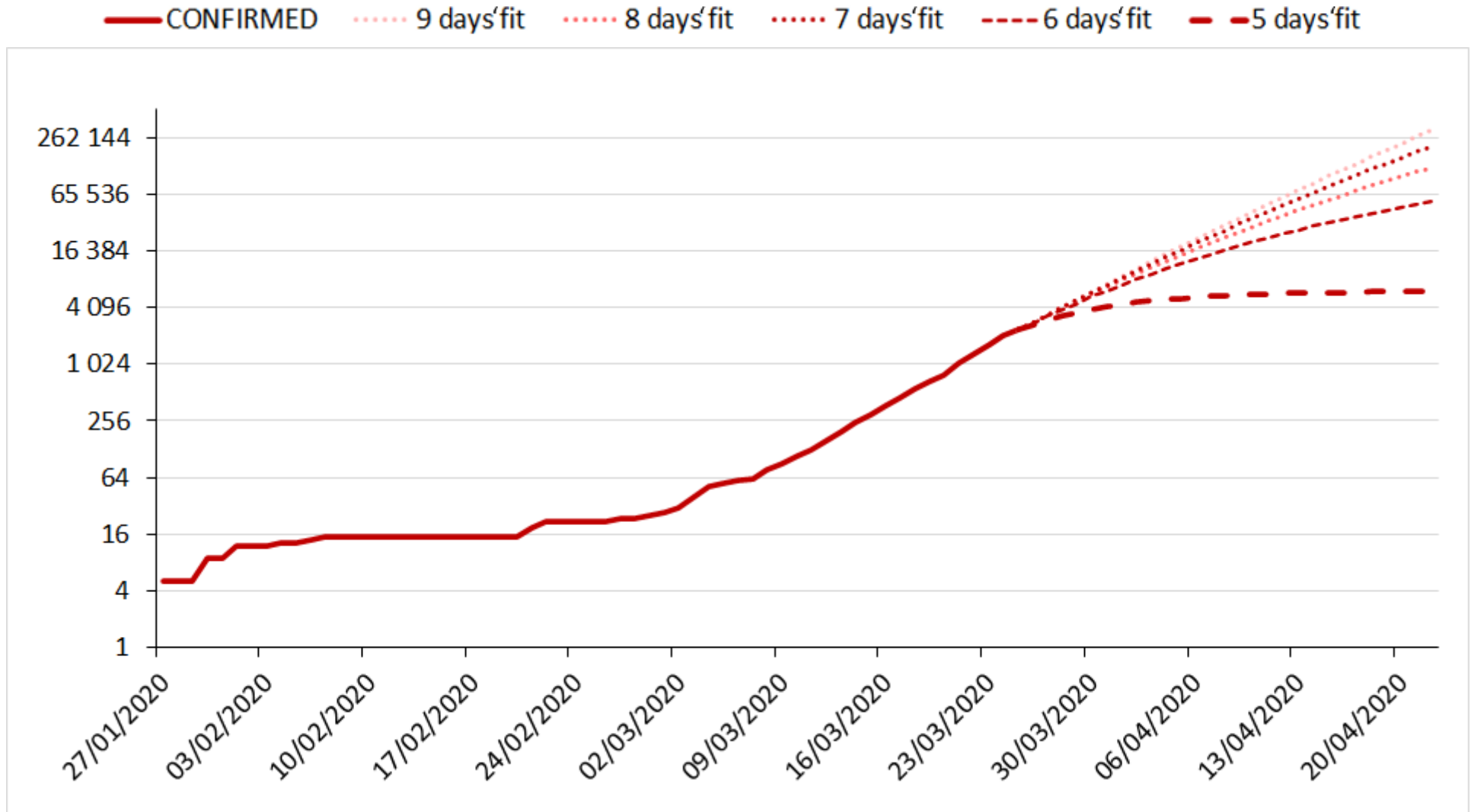
Data: The Johns Hopkins University, Politolog.com

Austria



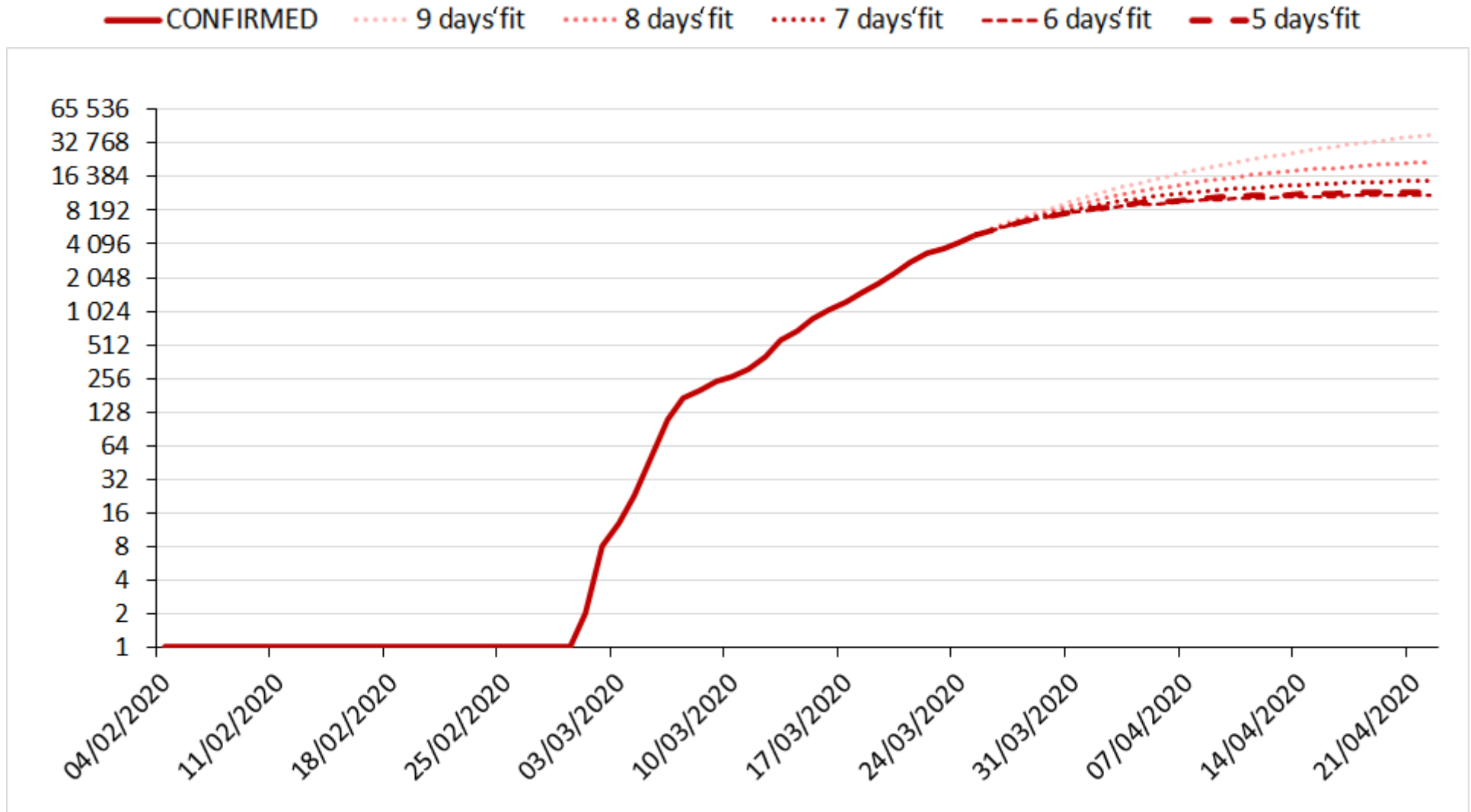
Data: The Johns Hopkins University, Politolog.com

Australia



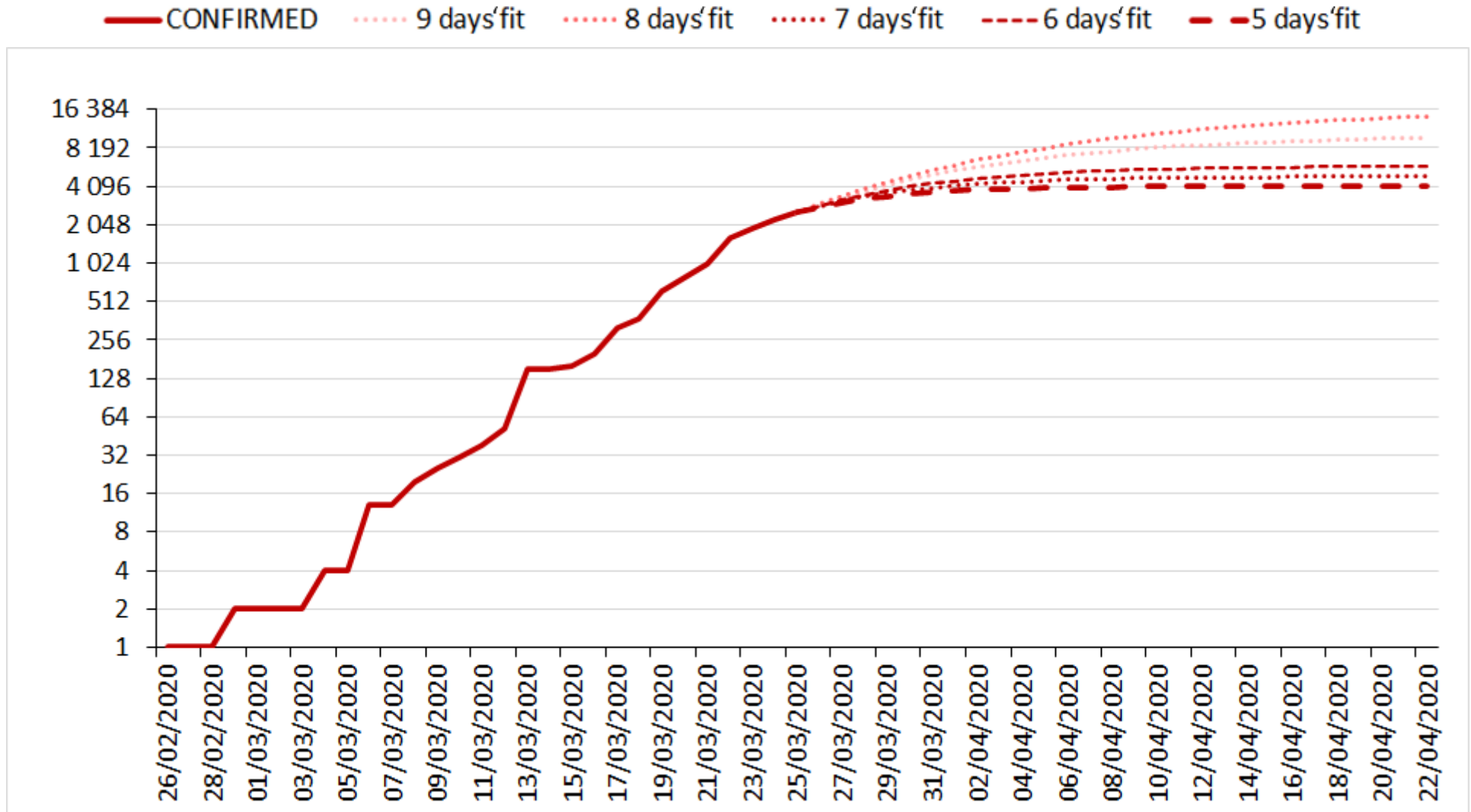
Data: The Johns Hopkins University, Politolog.com

Belgium



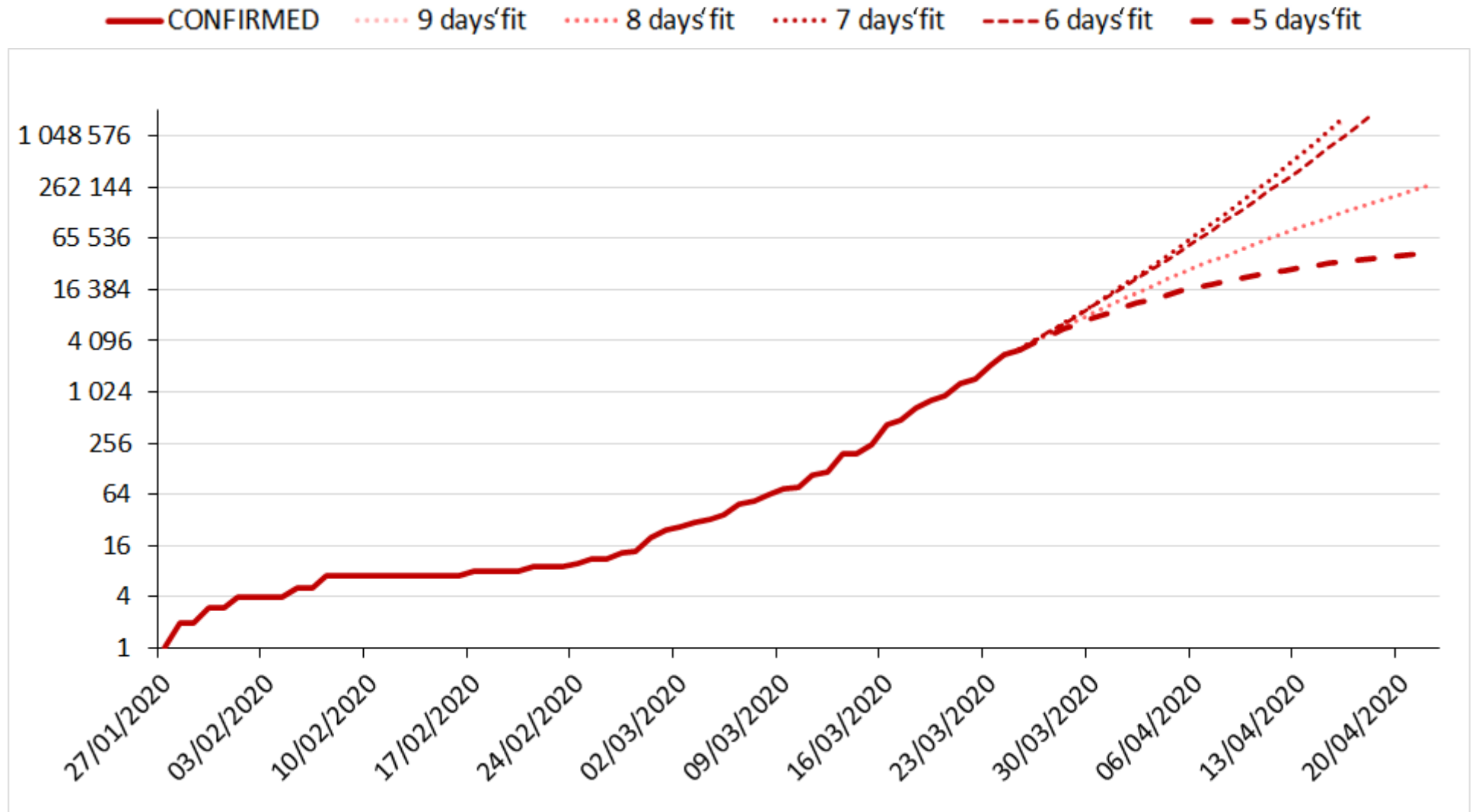
Data: The Johns Hopkins University, Politolog.com

Brazil



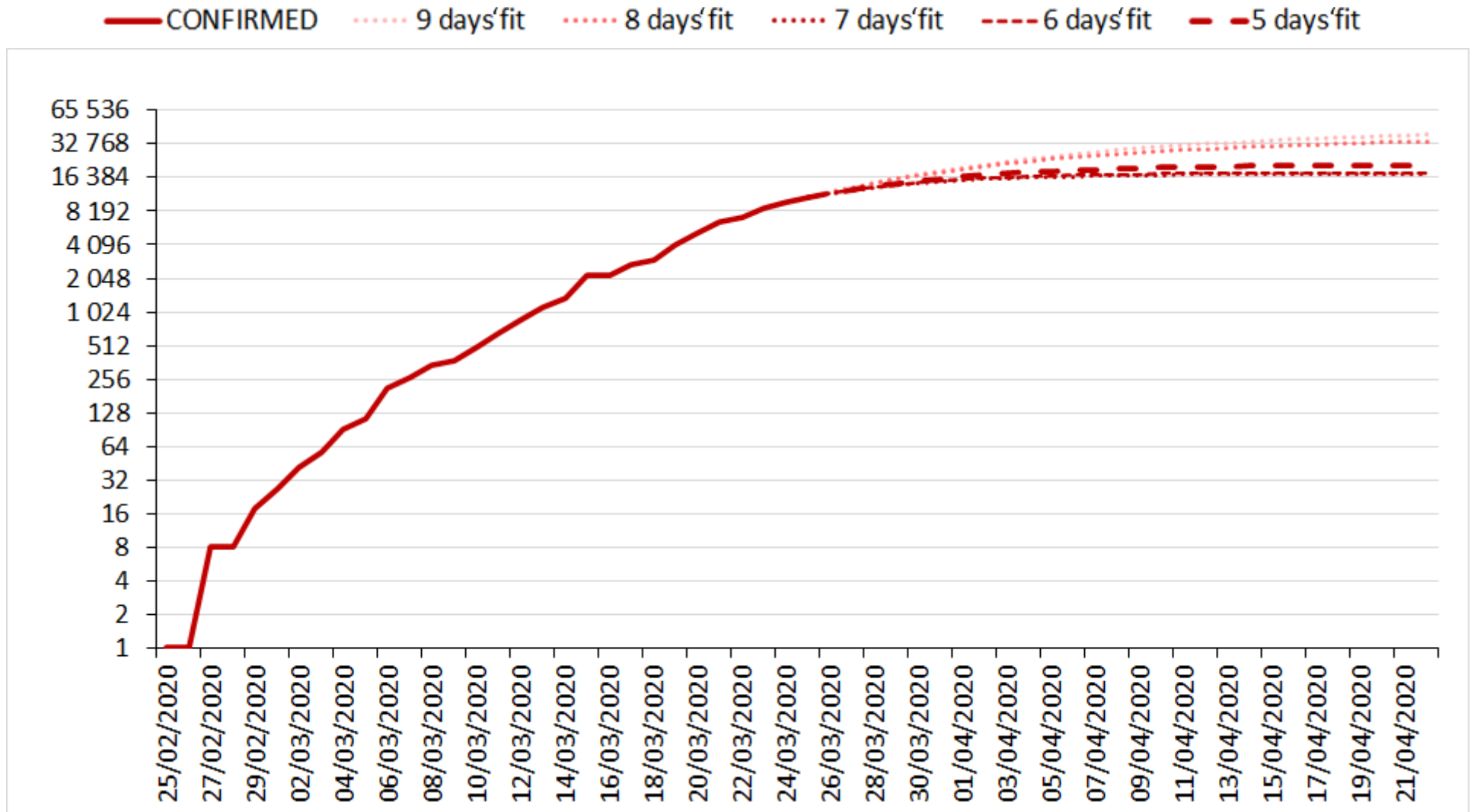
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Canada



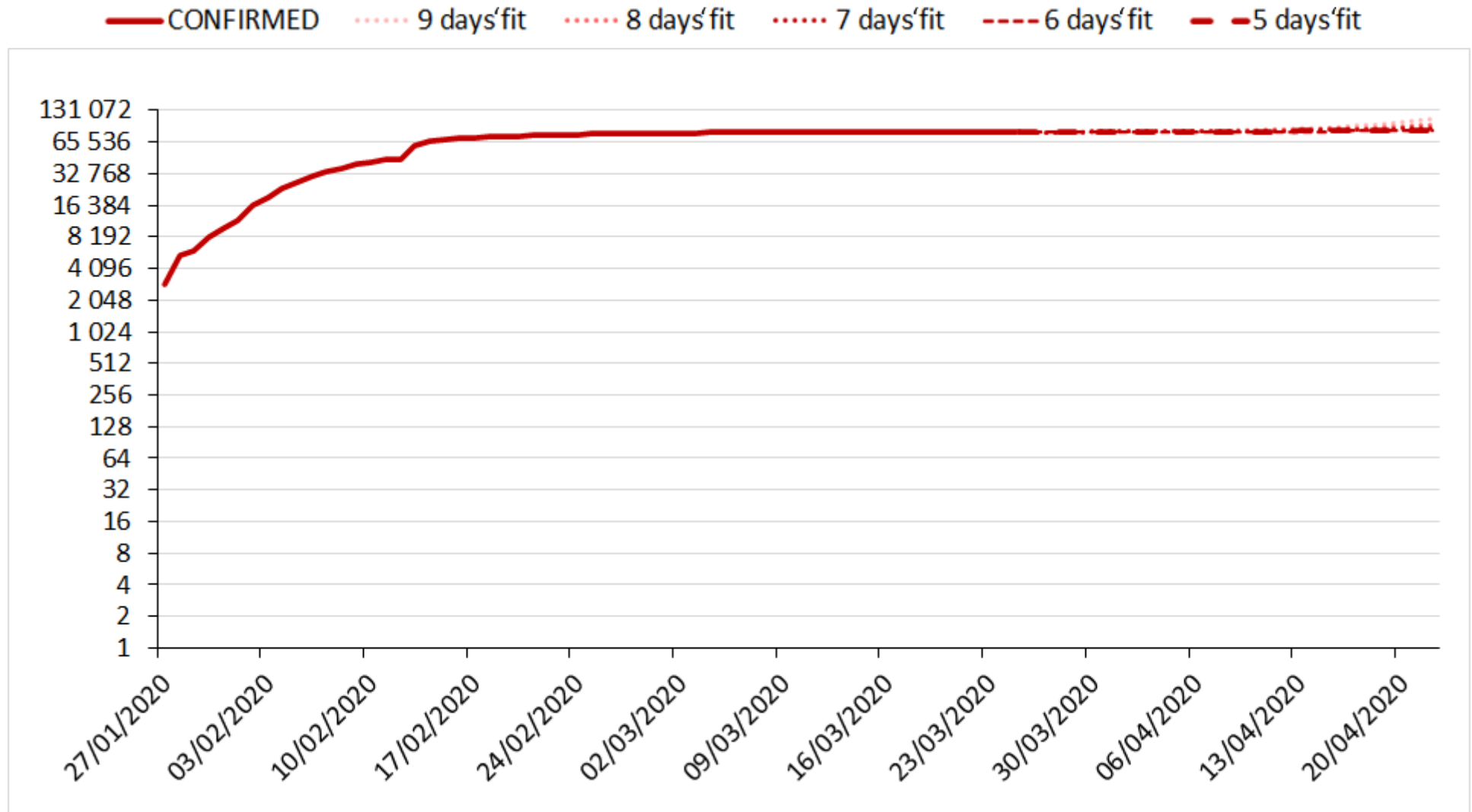
Data: The Johns Hopkins University, Politolog.com

Switzerland



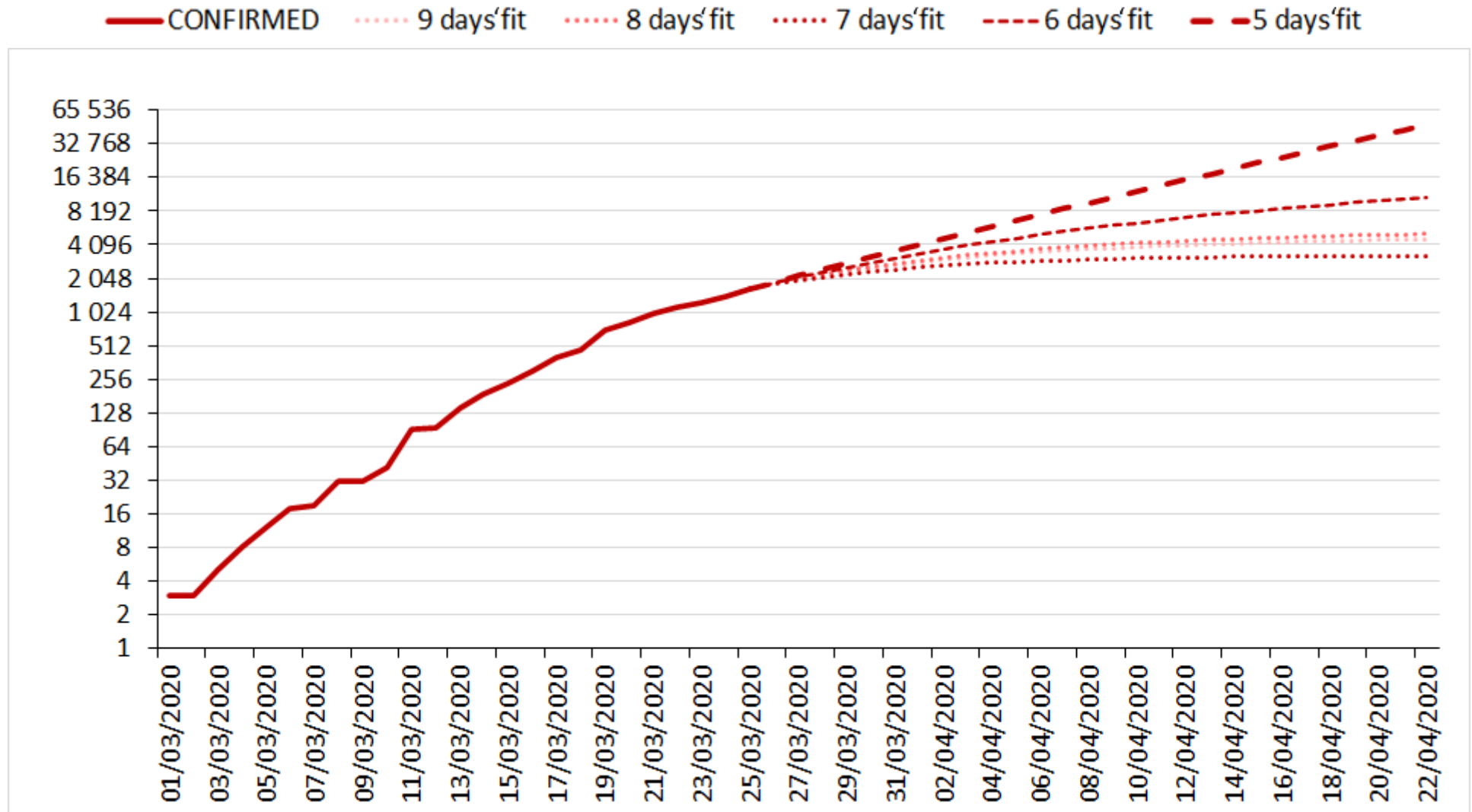
Data: The Johns Hopkins University, Politolog.com

China



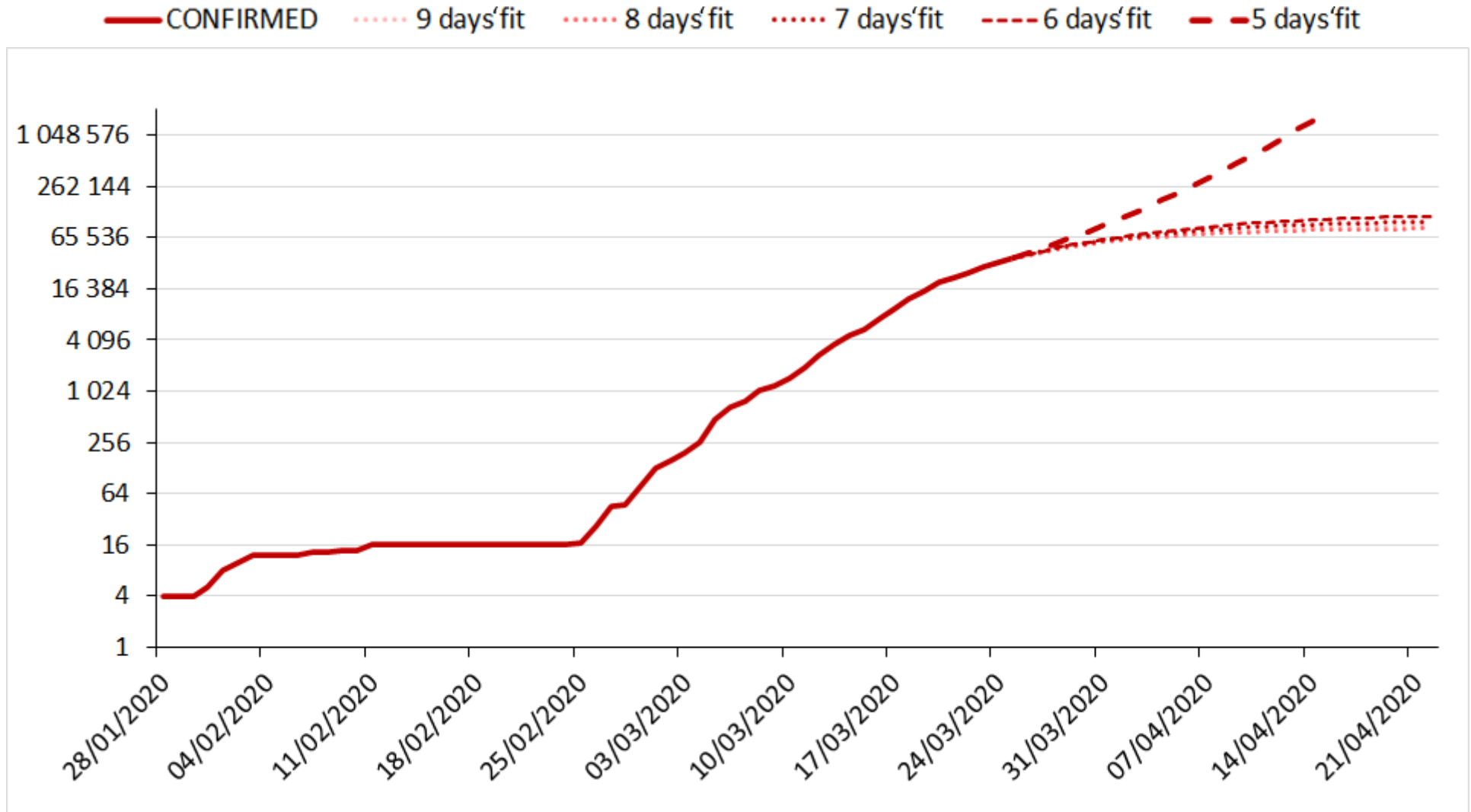
Data: The Johns Hopkins University, Politolog.com

Czech Republic



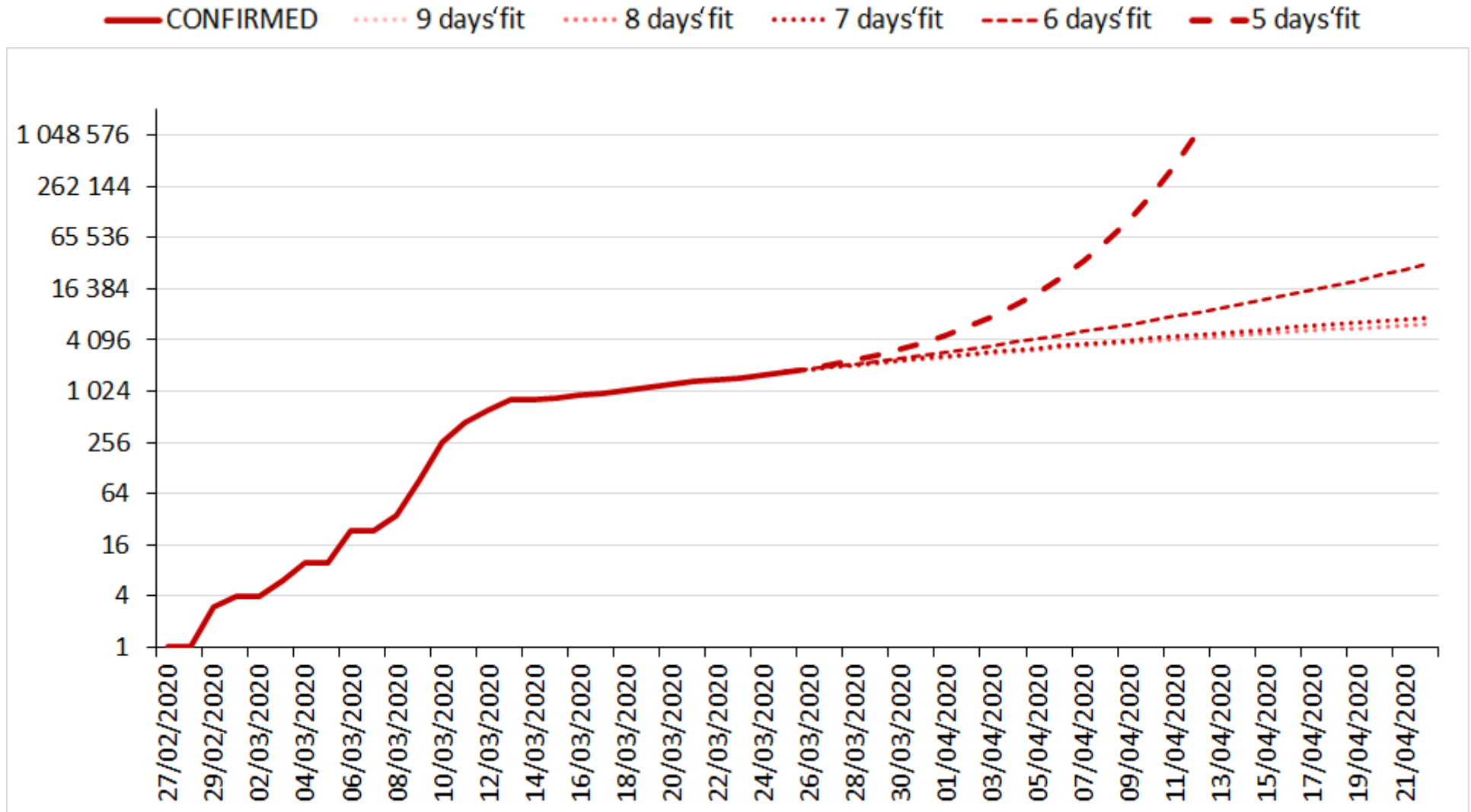
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Germany



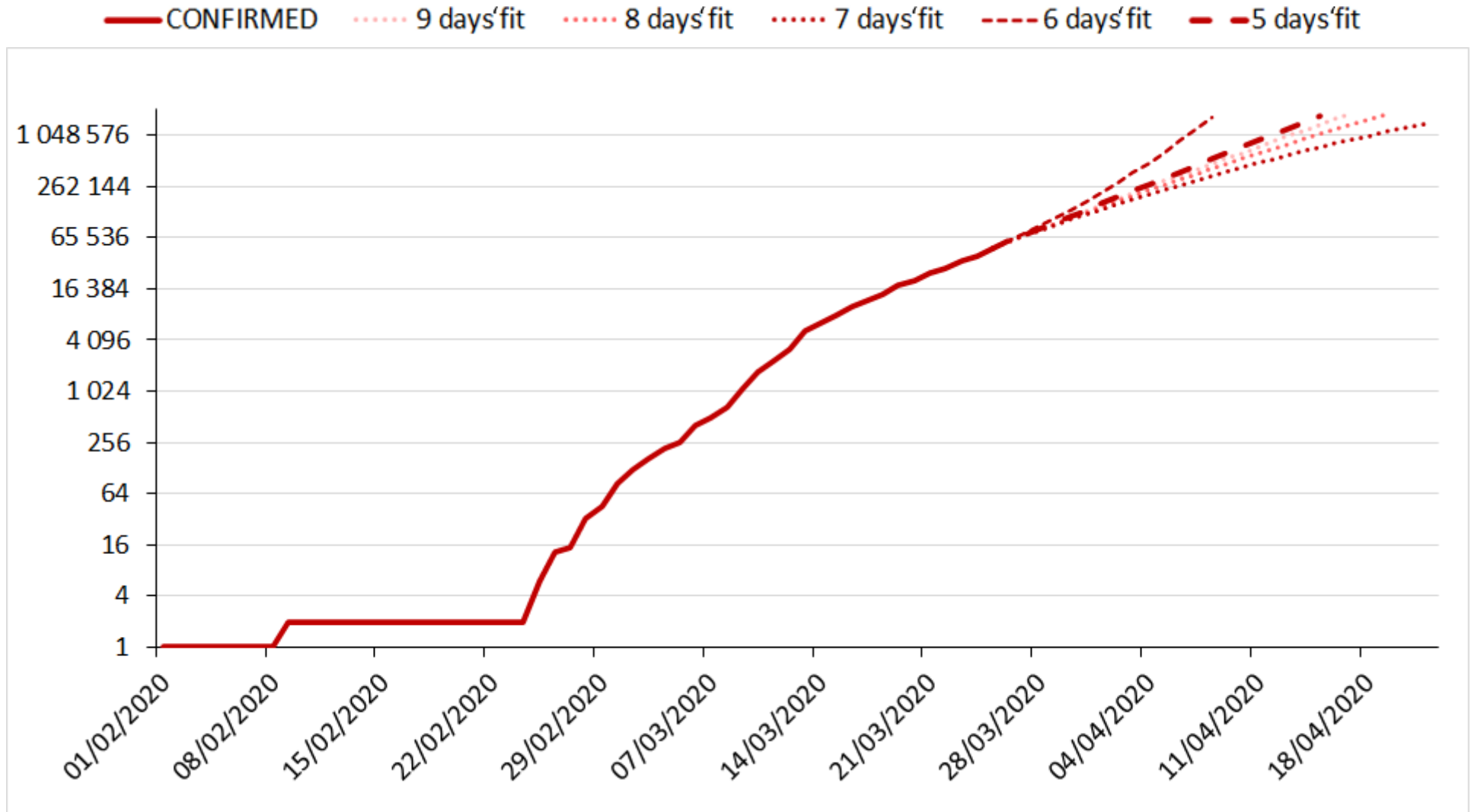
Data: The Johns Hopkins University, Politolog.com

Denmark



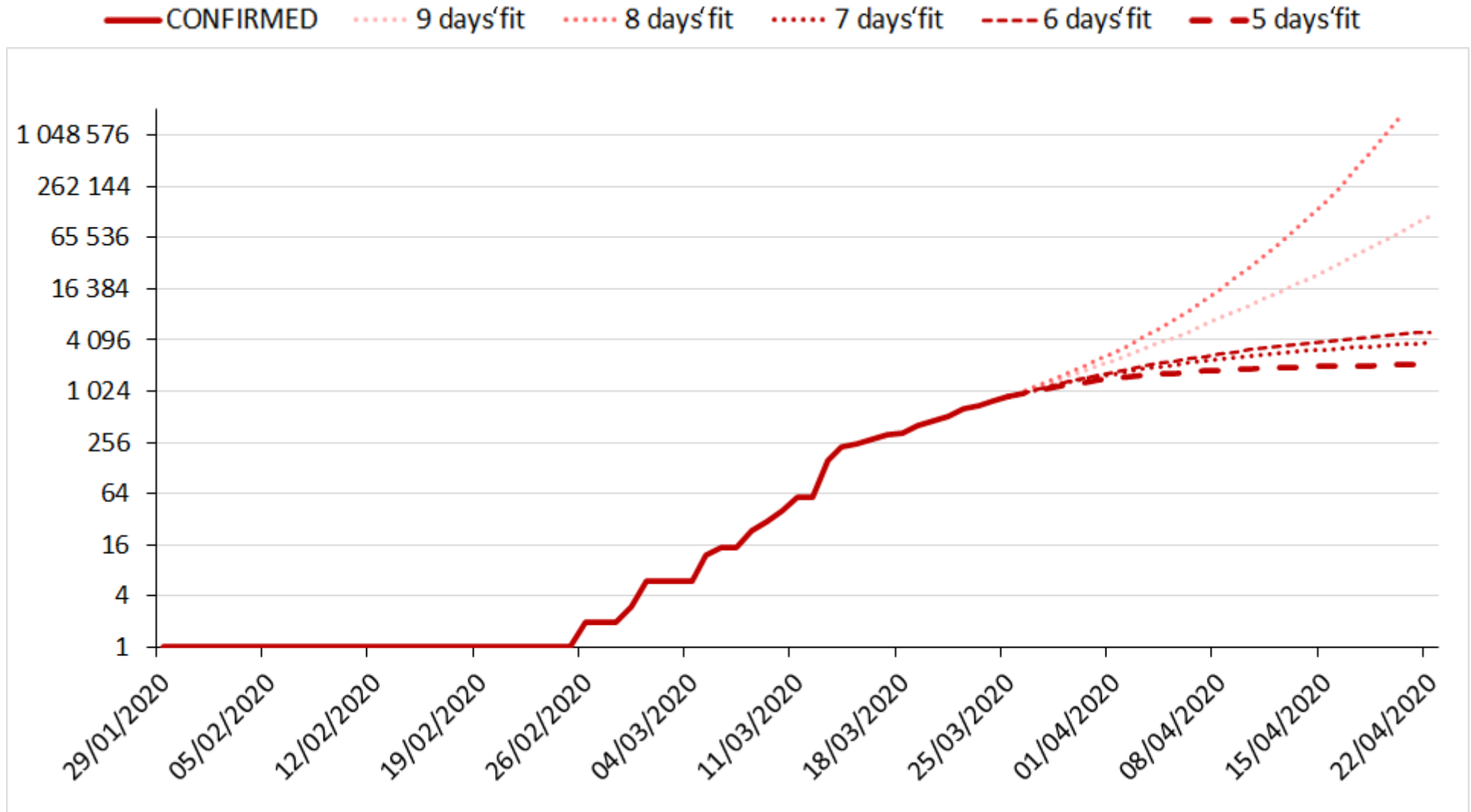
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Spain



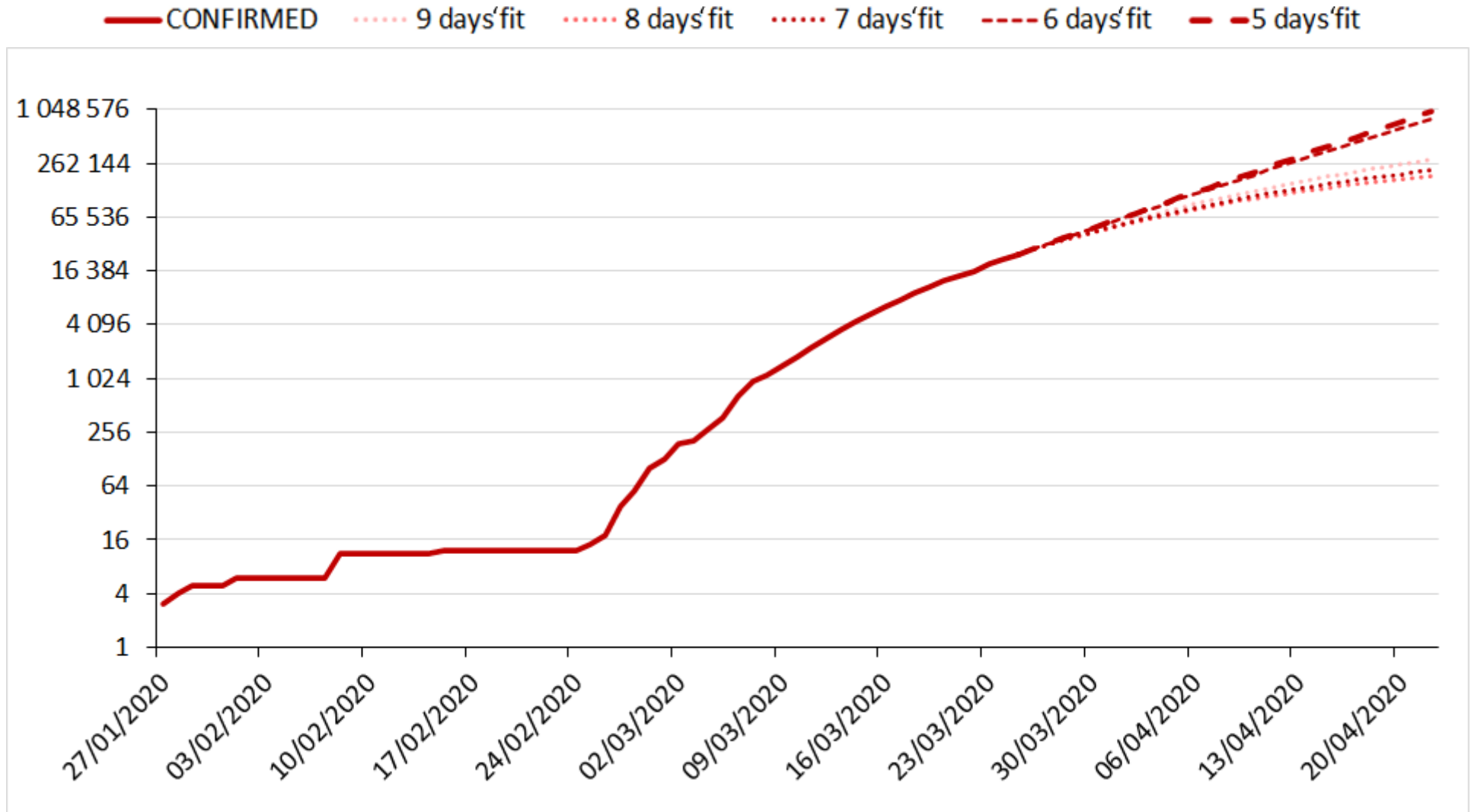
Data: The Johns Hopkins University, Politolog.com

Finland



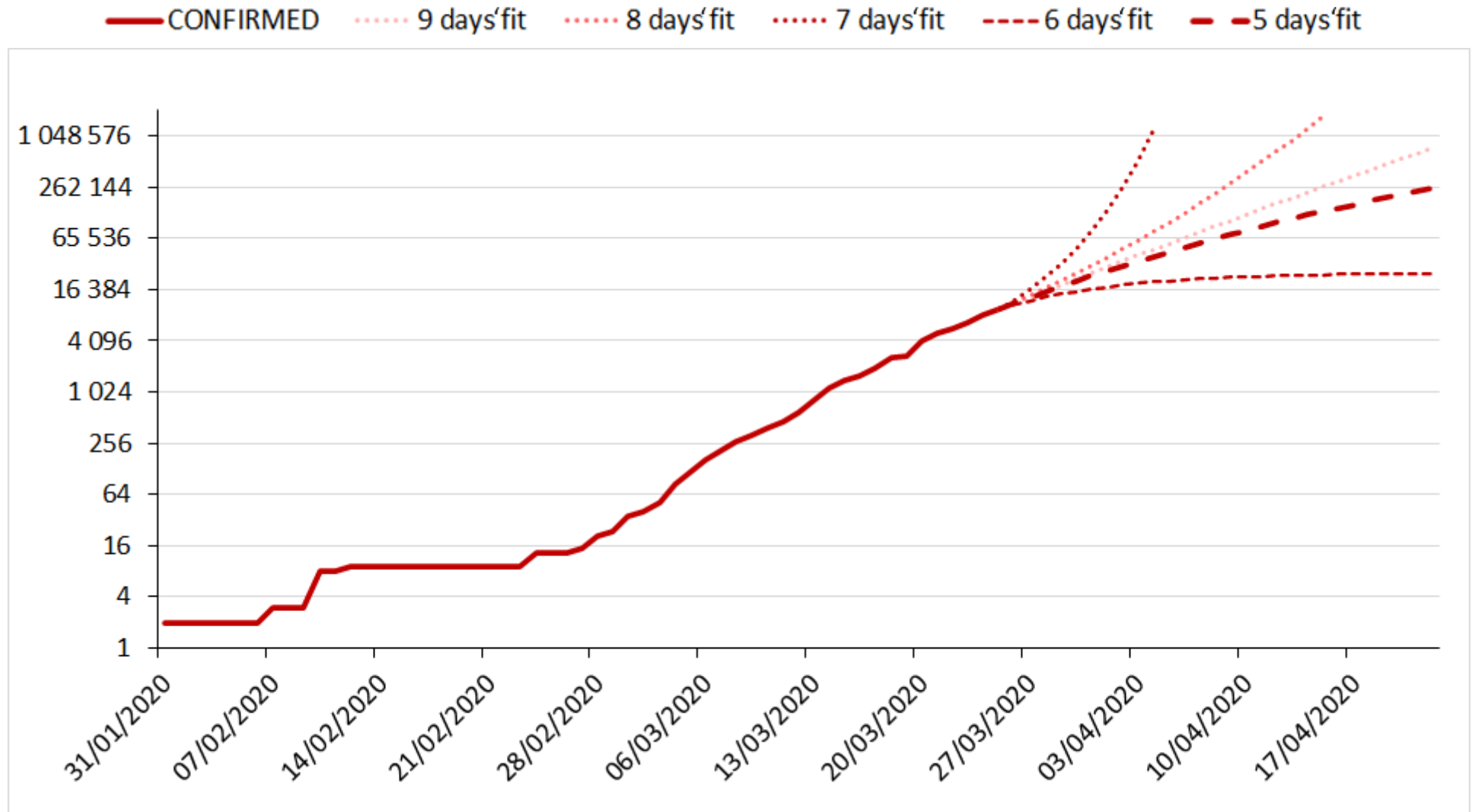
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France



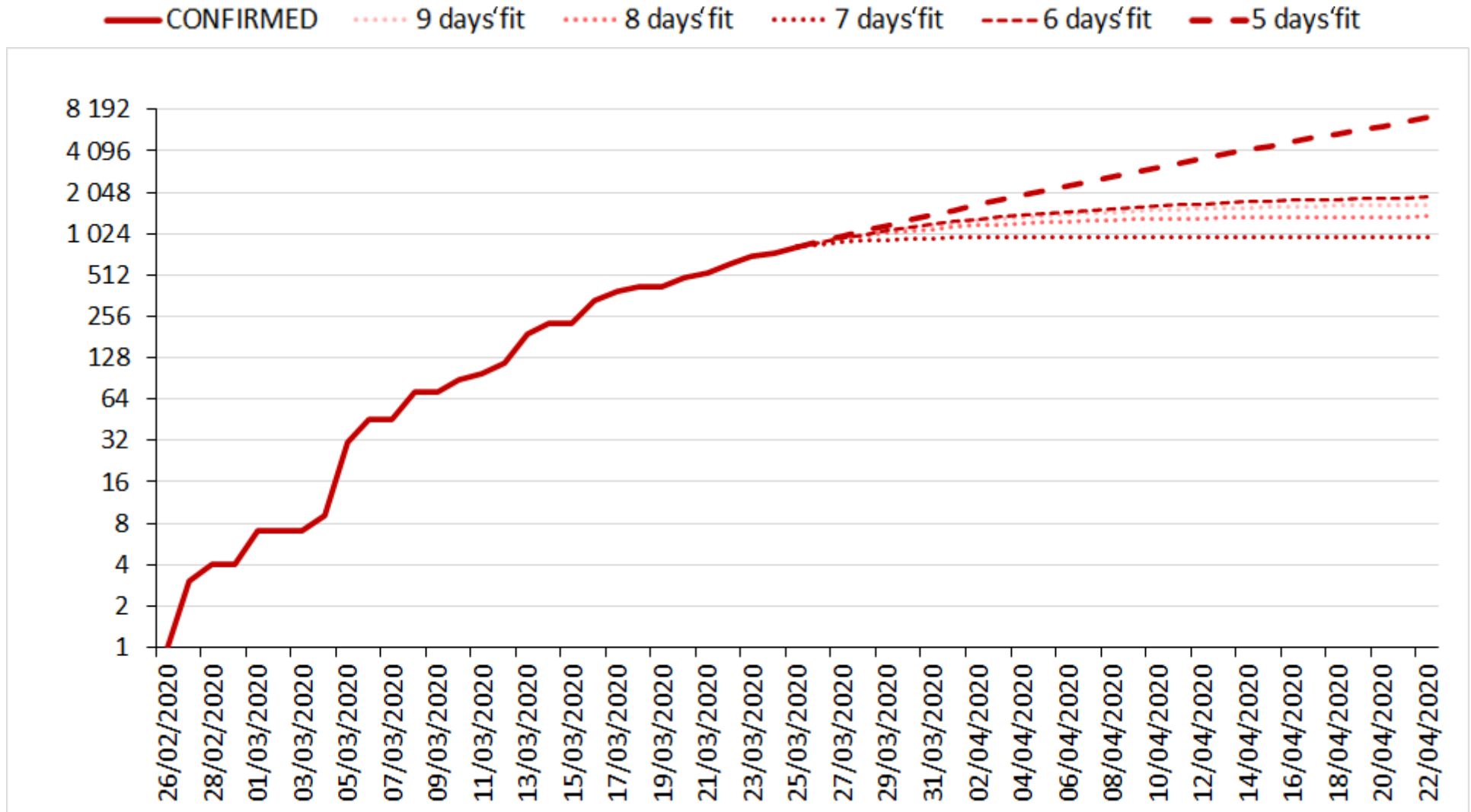
Data: The Johns Hopkins University, Politolog.com

United Kingdom



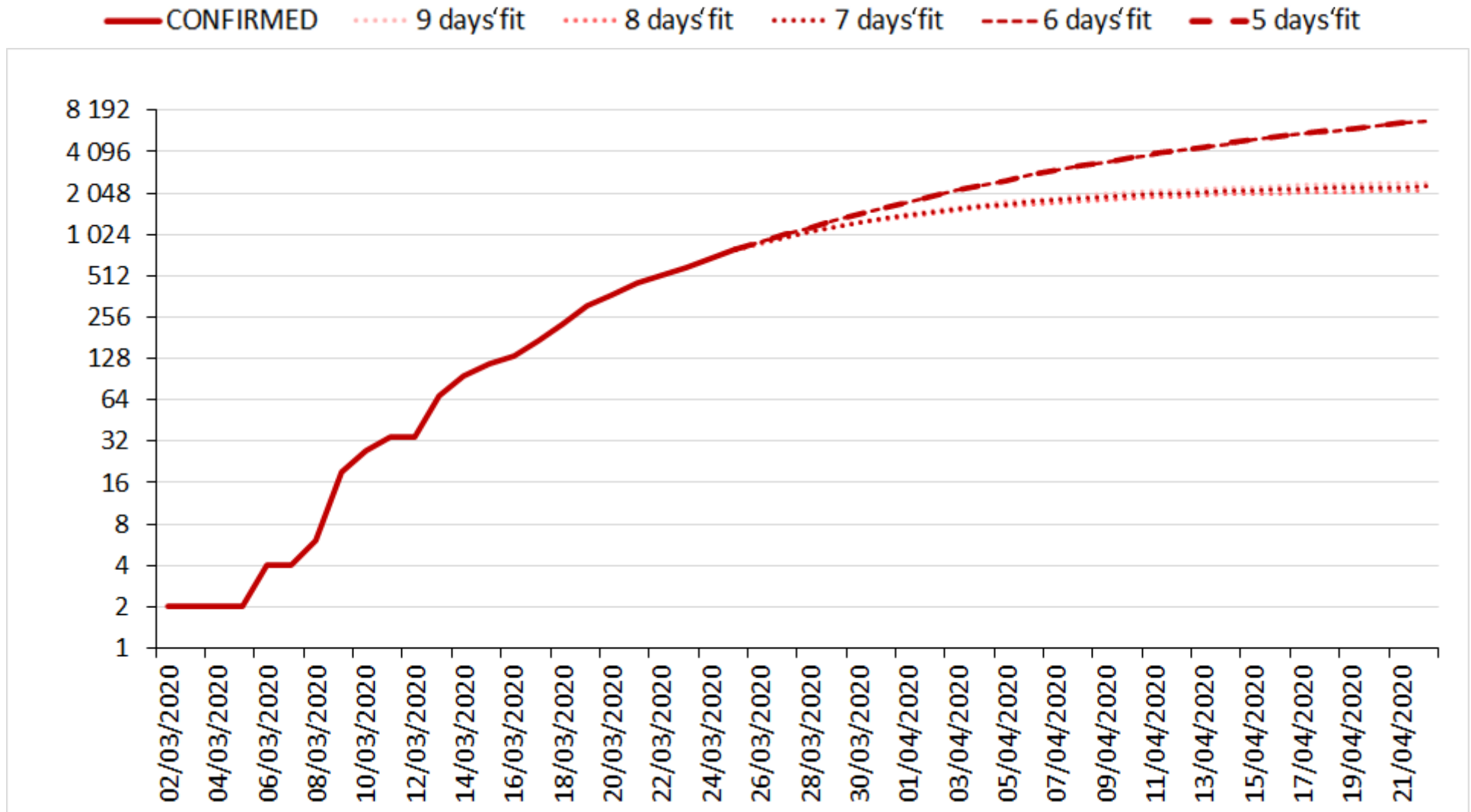
Data: The Johns Hopkins University, Politolog.com

Greece



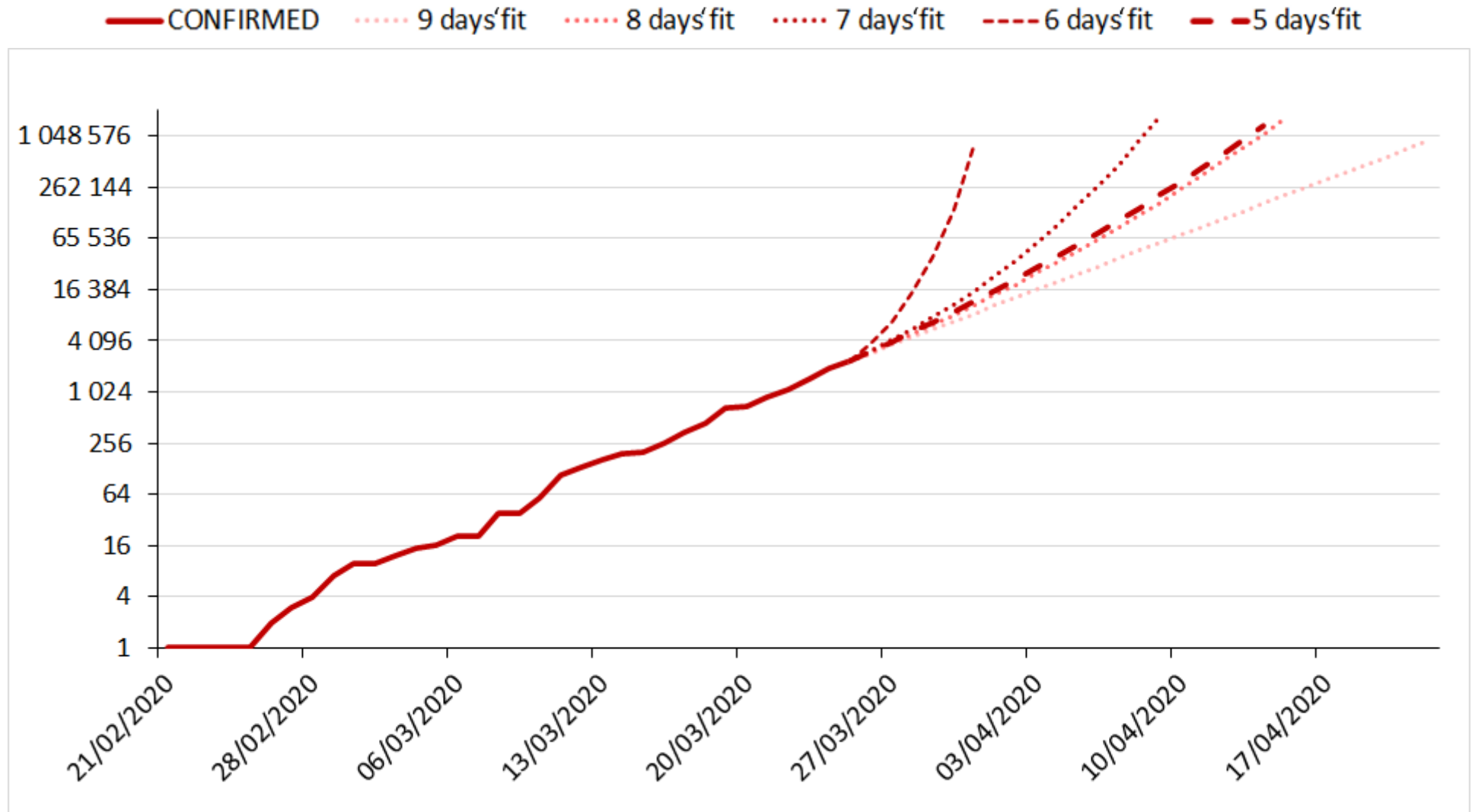
Data: The Johns Hopkins University, Politolog.com

Indonesia



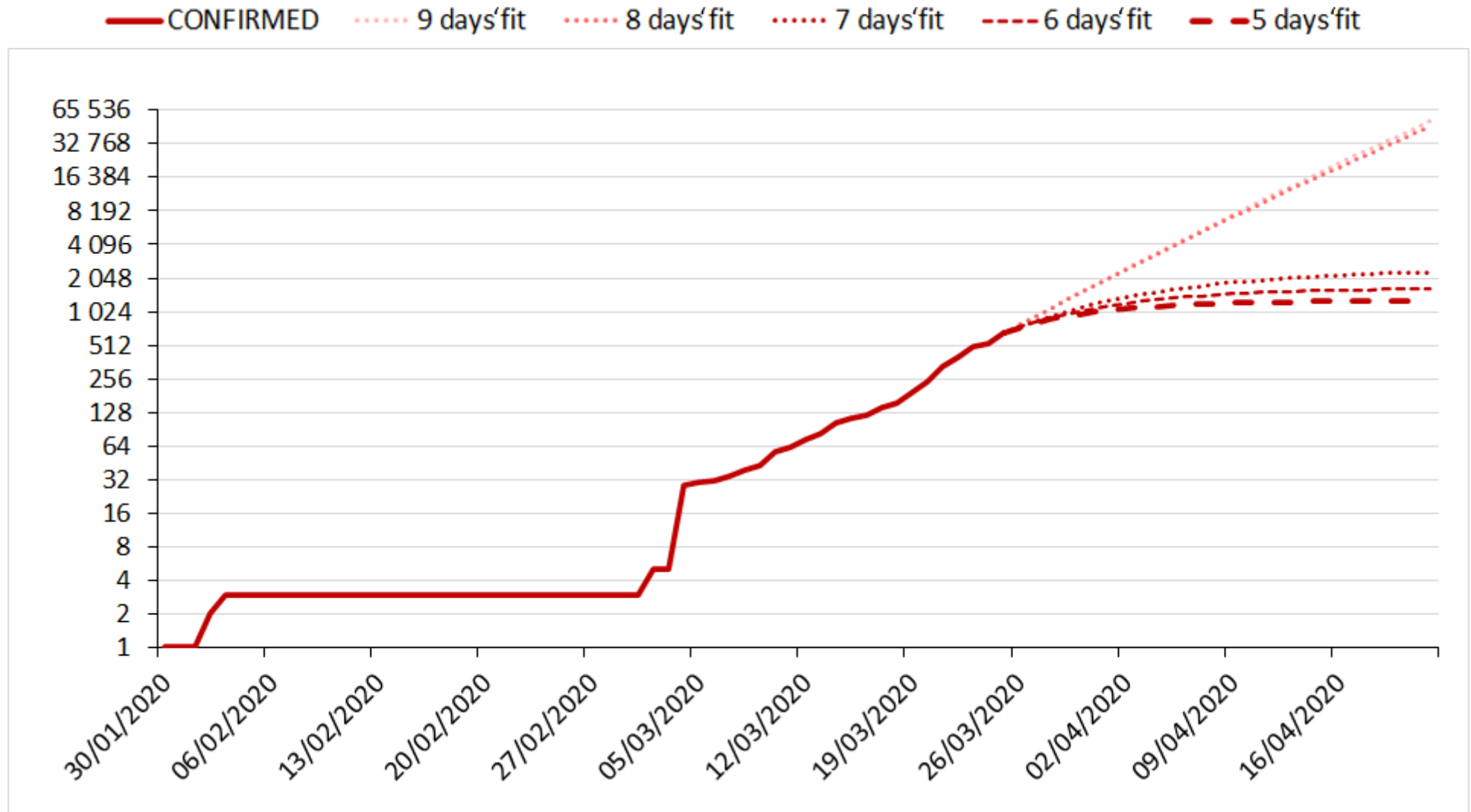
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Israel



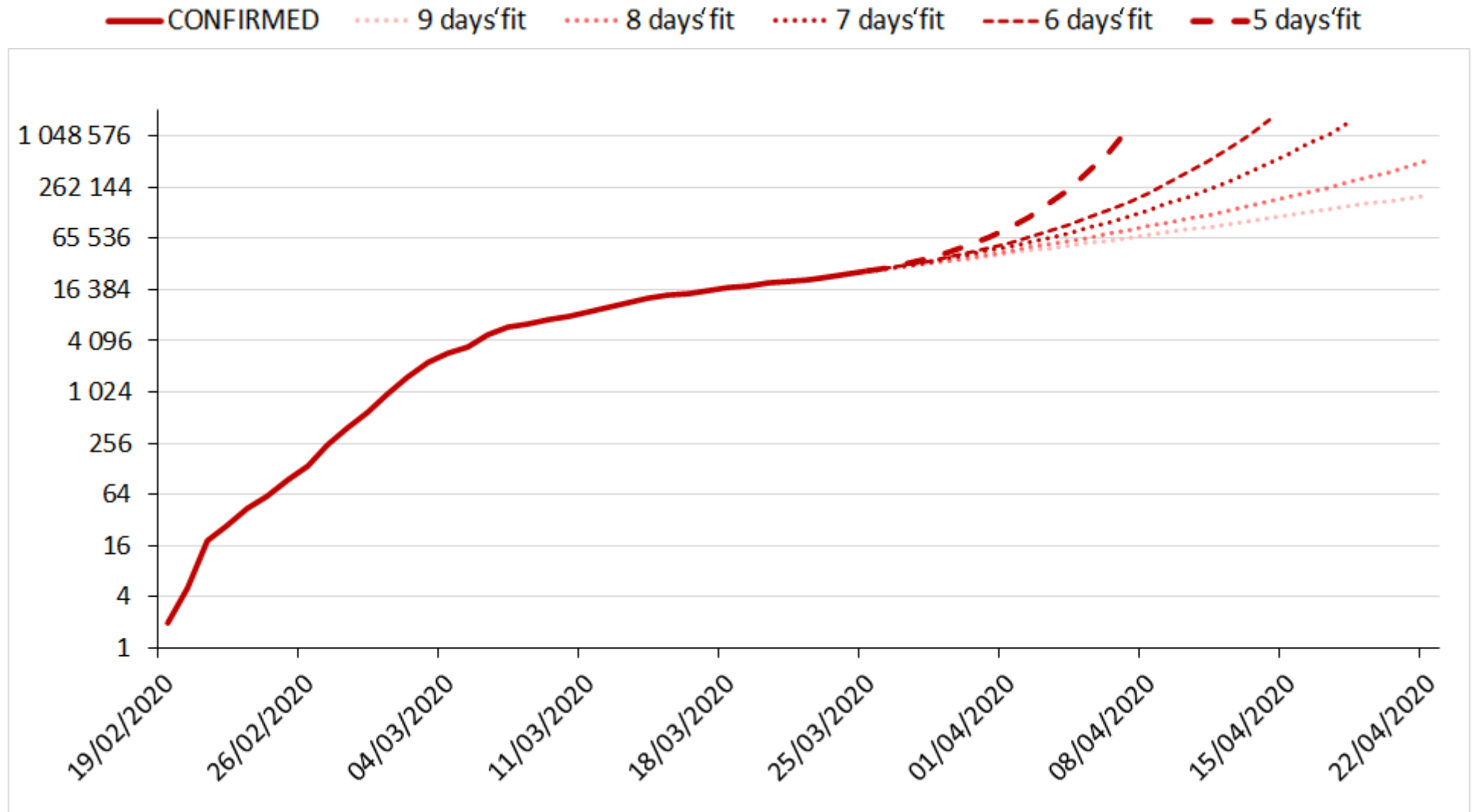
Data: The Johns Hopkins University, Politolog.com

India



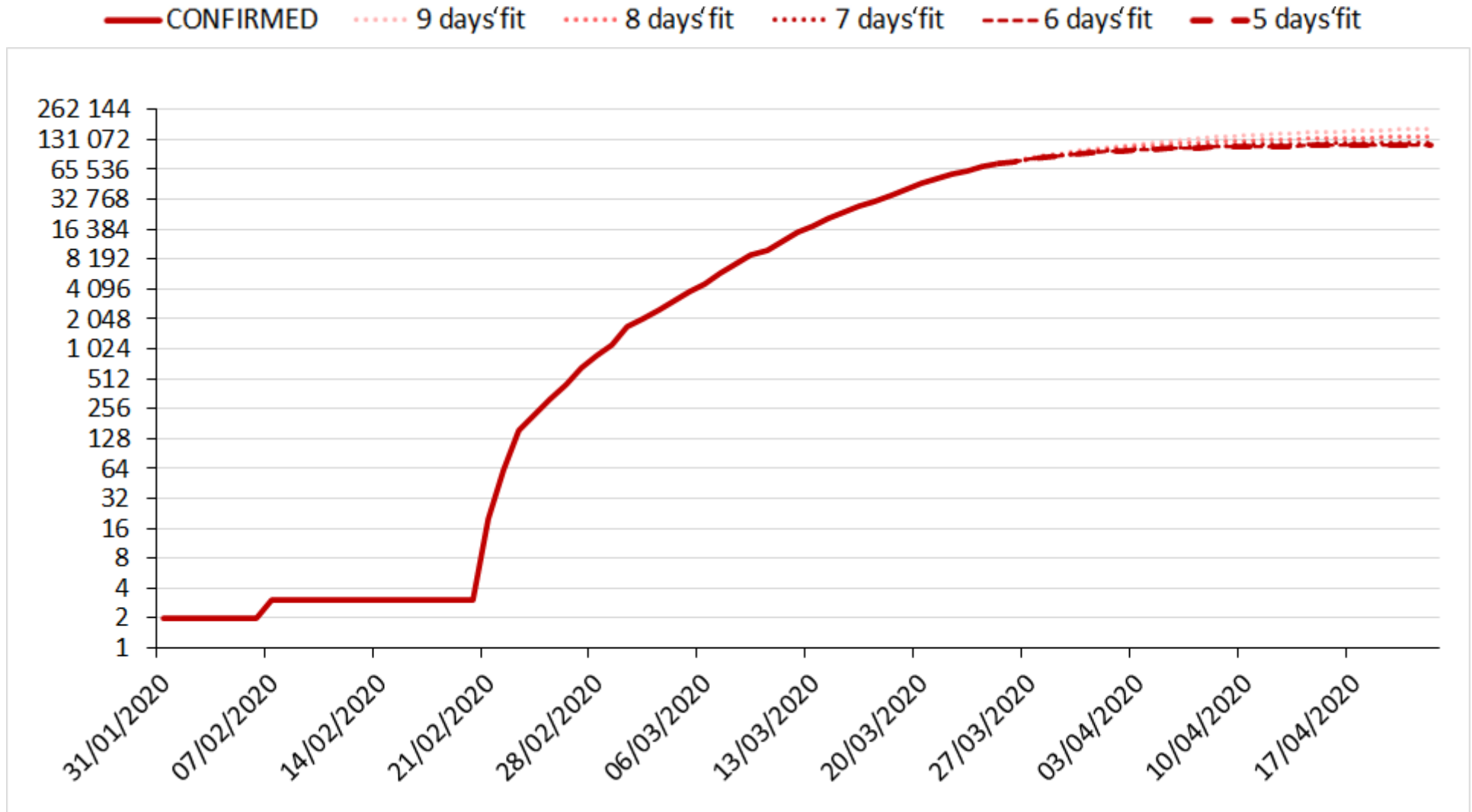
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Iran



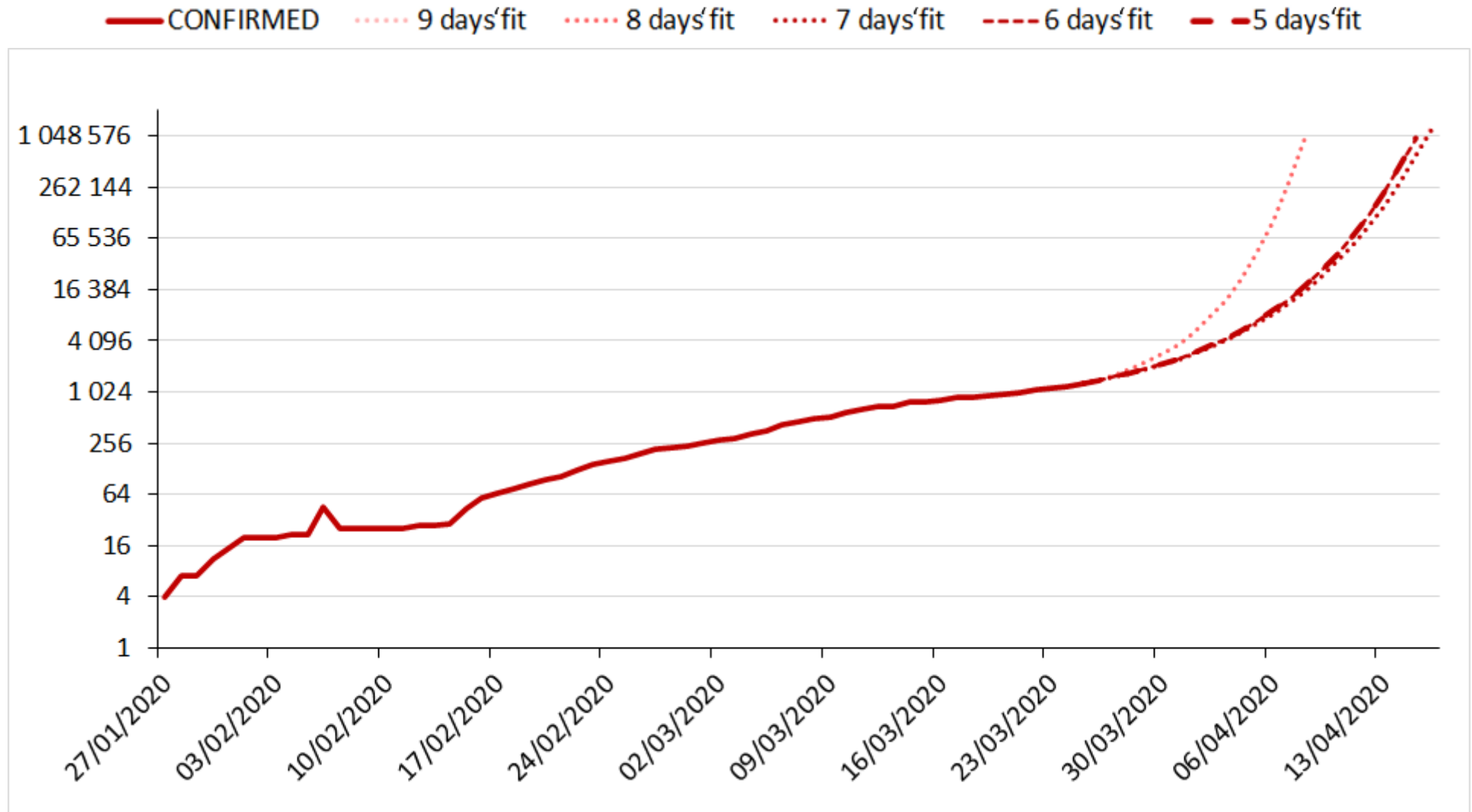
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Italy



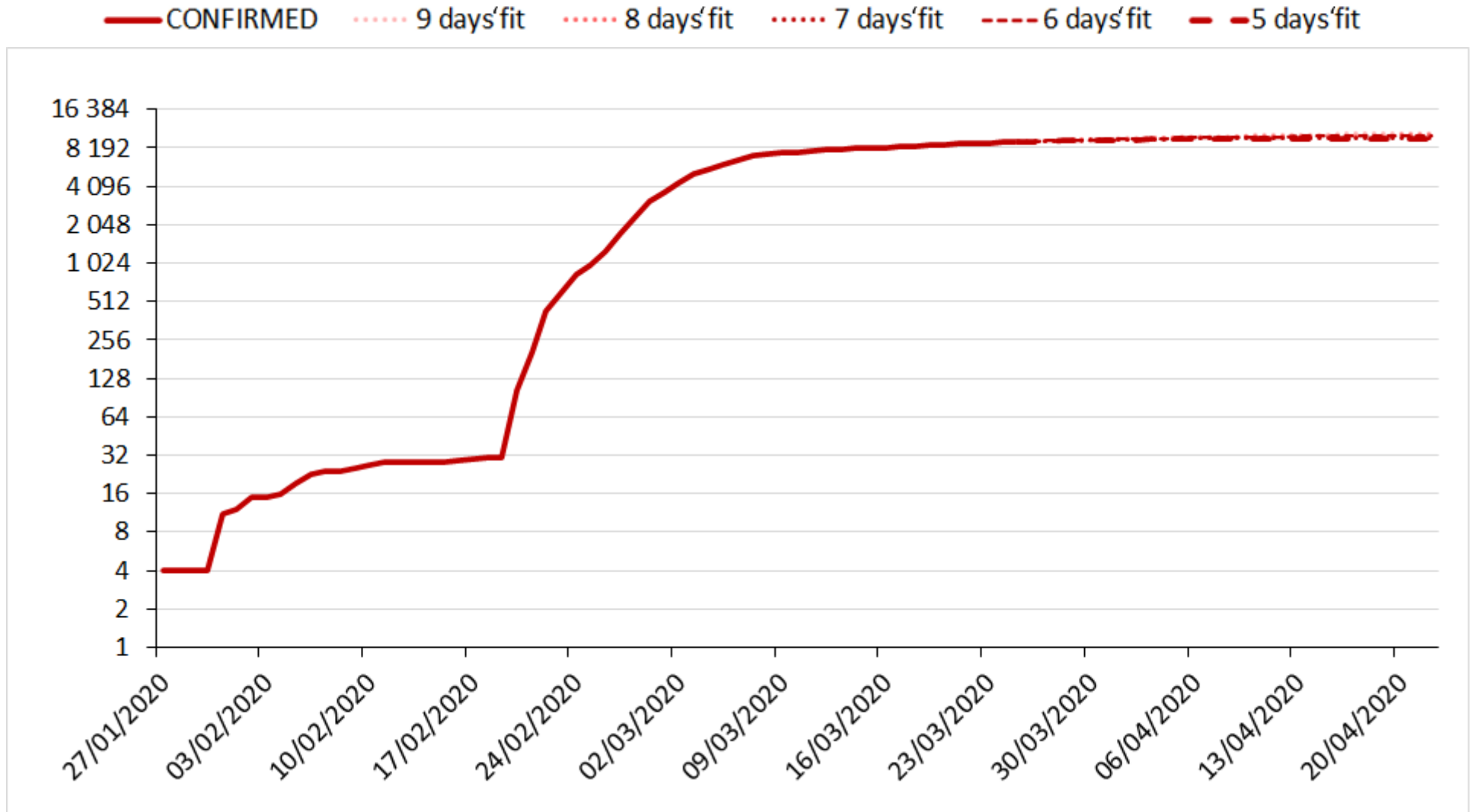
Data: The Johns Hopkins University, Politolog.com

Japan



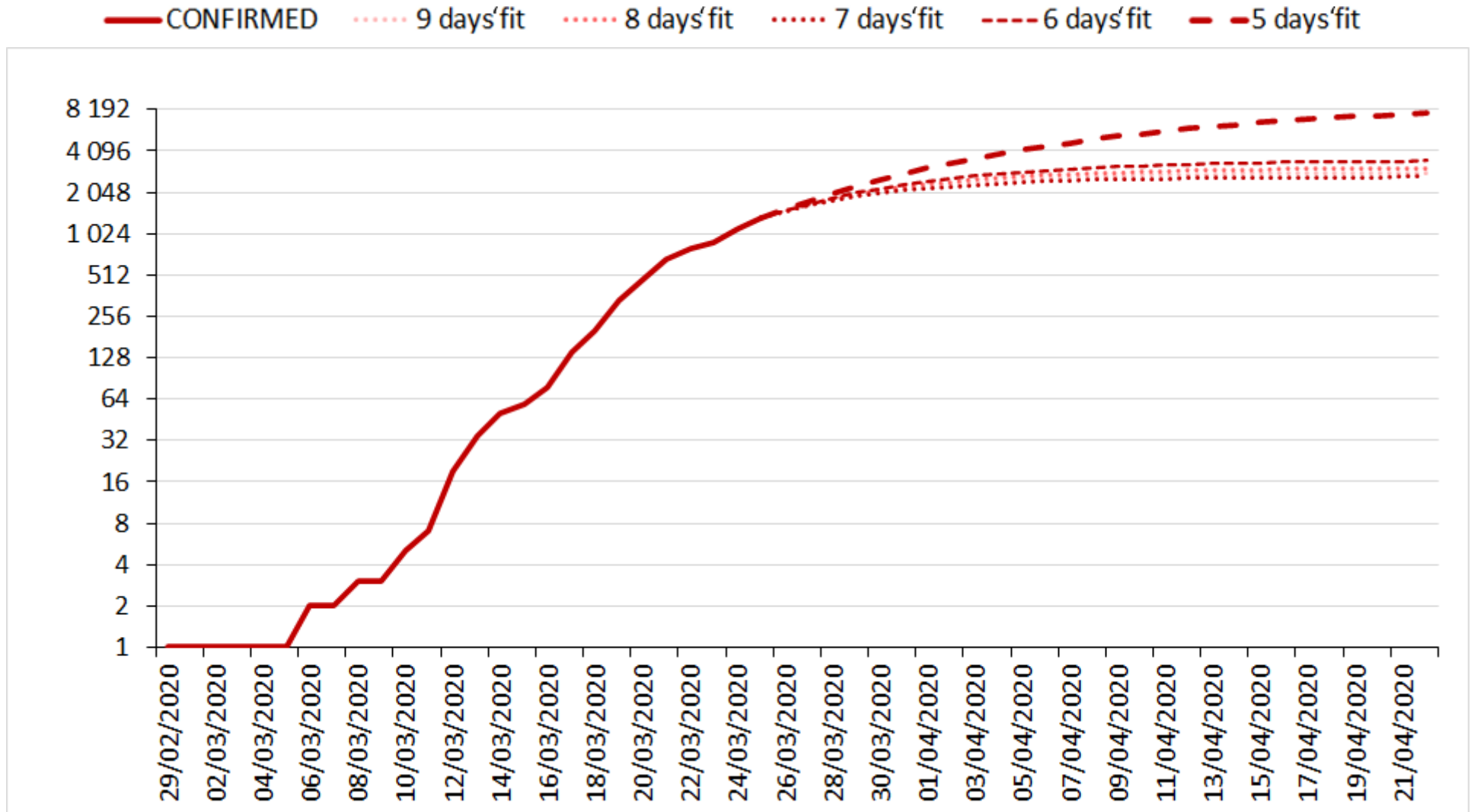
Data: The Johns Hopkins University, Politolog.com

South Korea



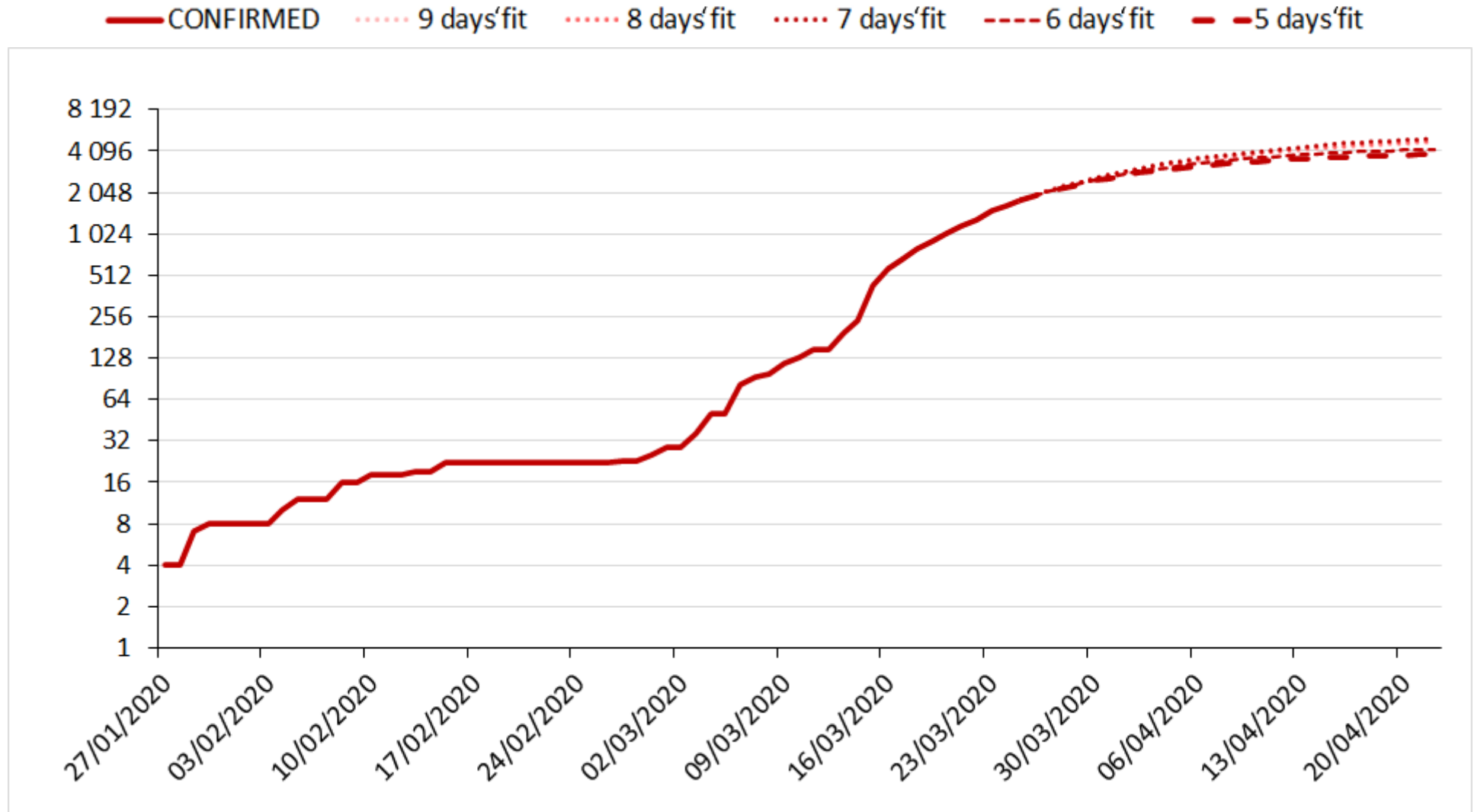
Data: The Johns Hopkins University, Politolog.com

Luxembourg



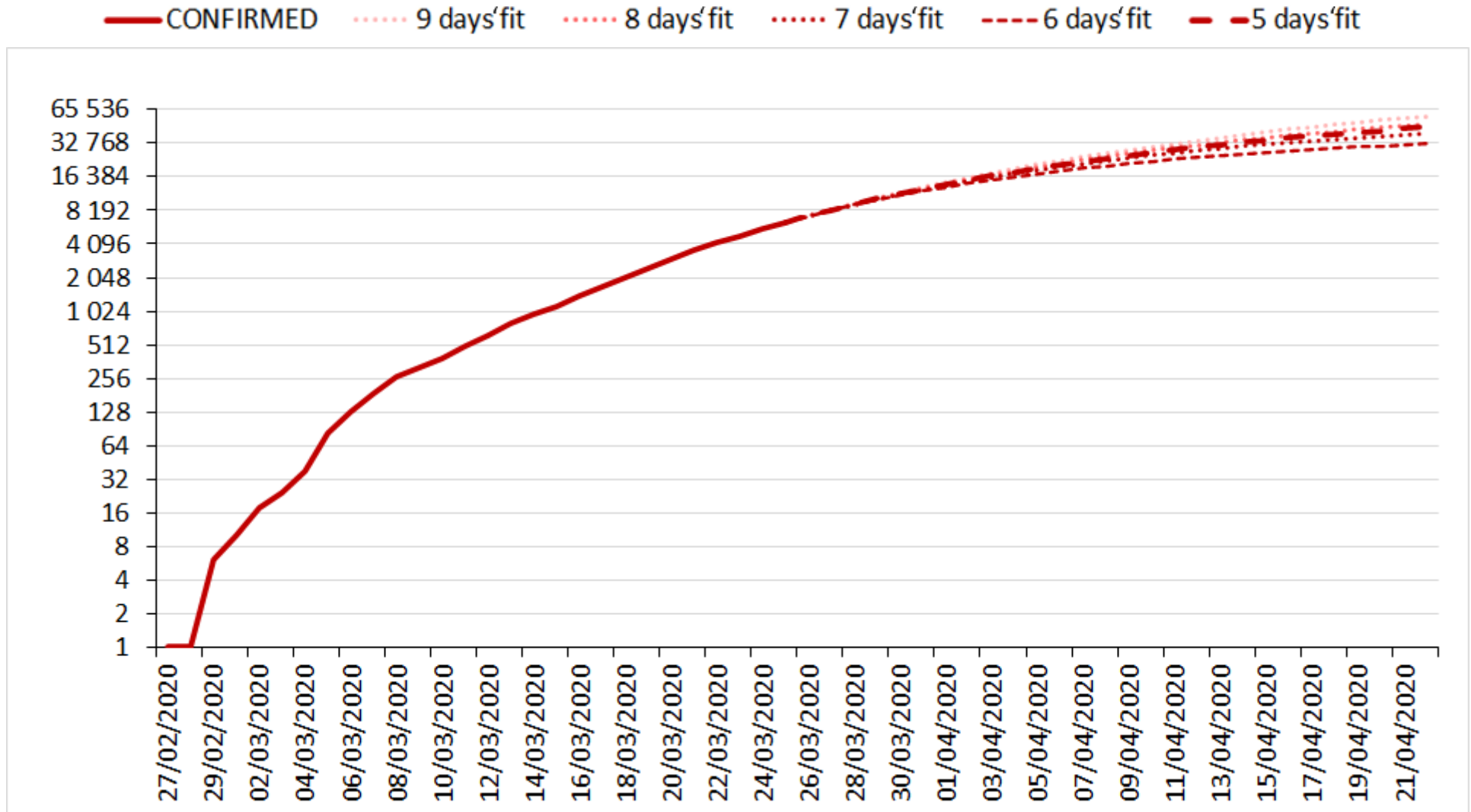
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Malaysia



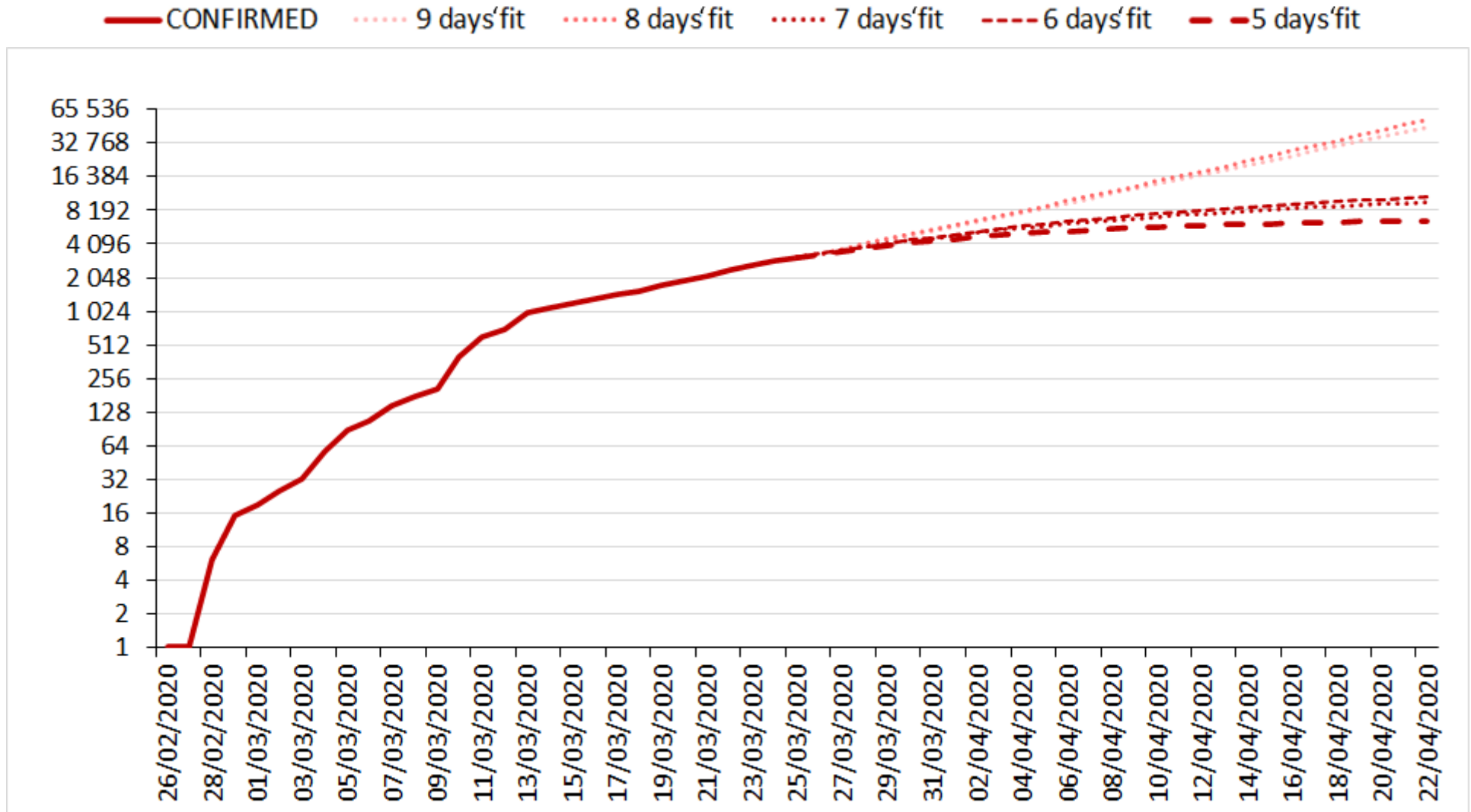
Data: The Johns Hopkins University, Politolog.com

Netherlands



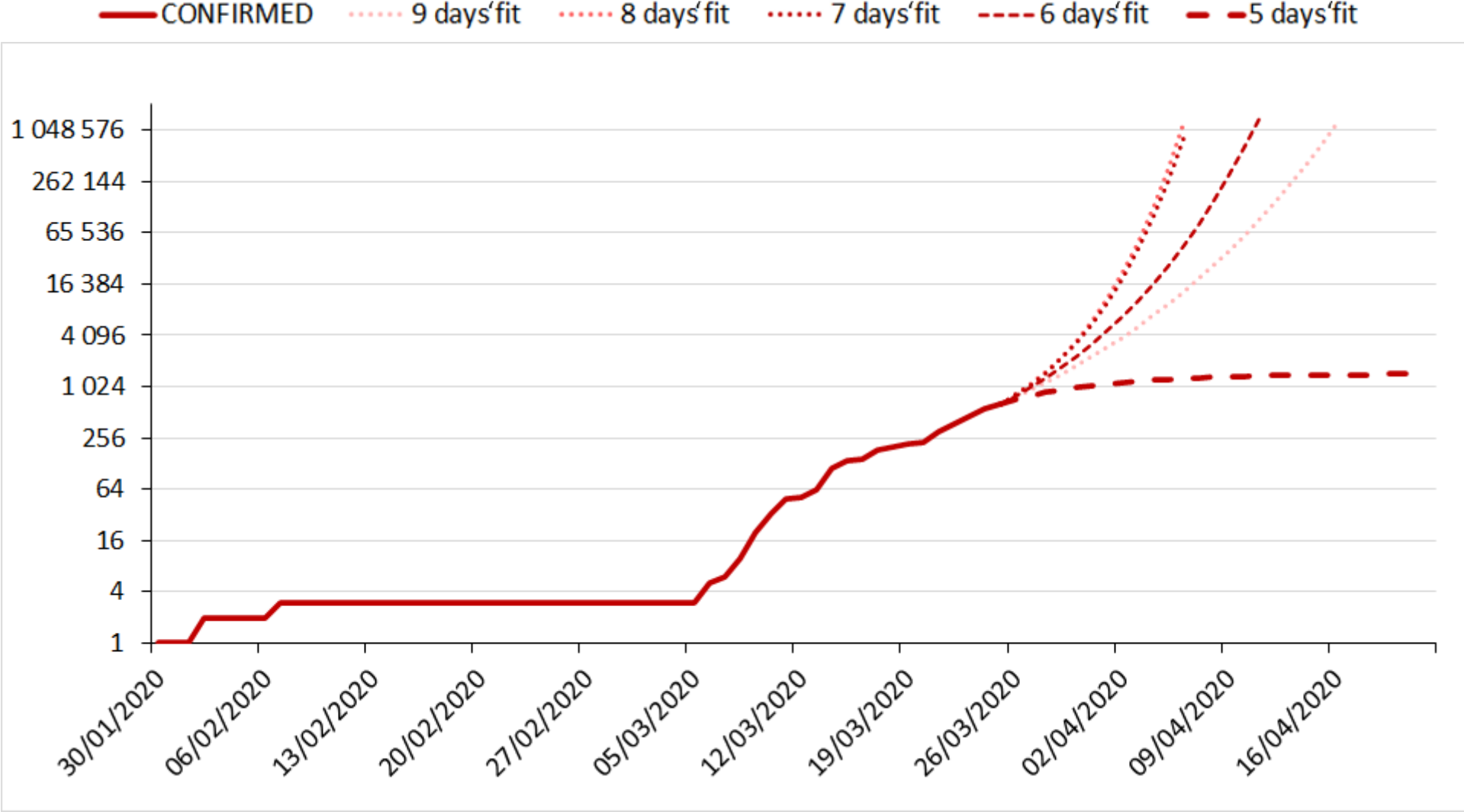
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Norway



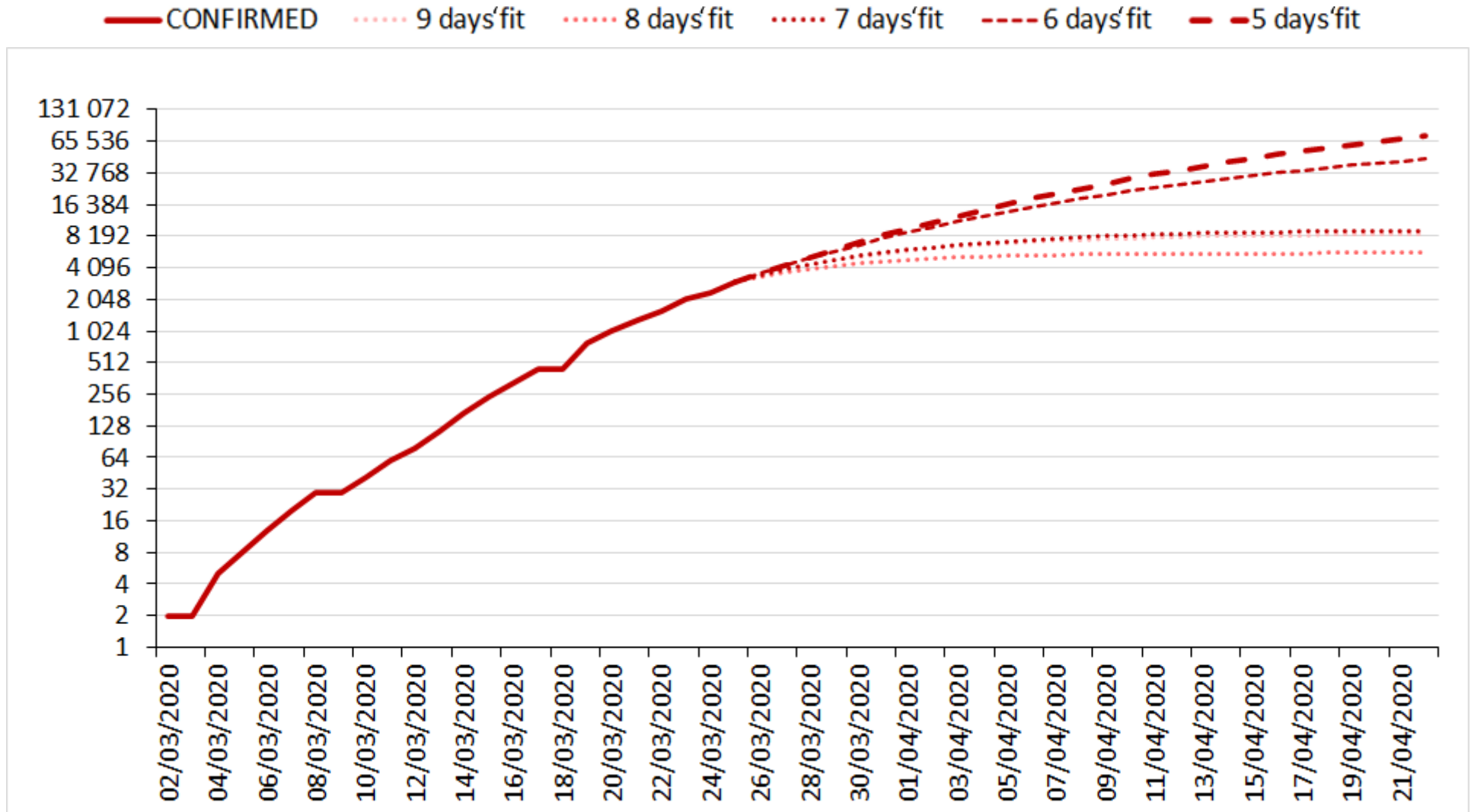
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Philippines



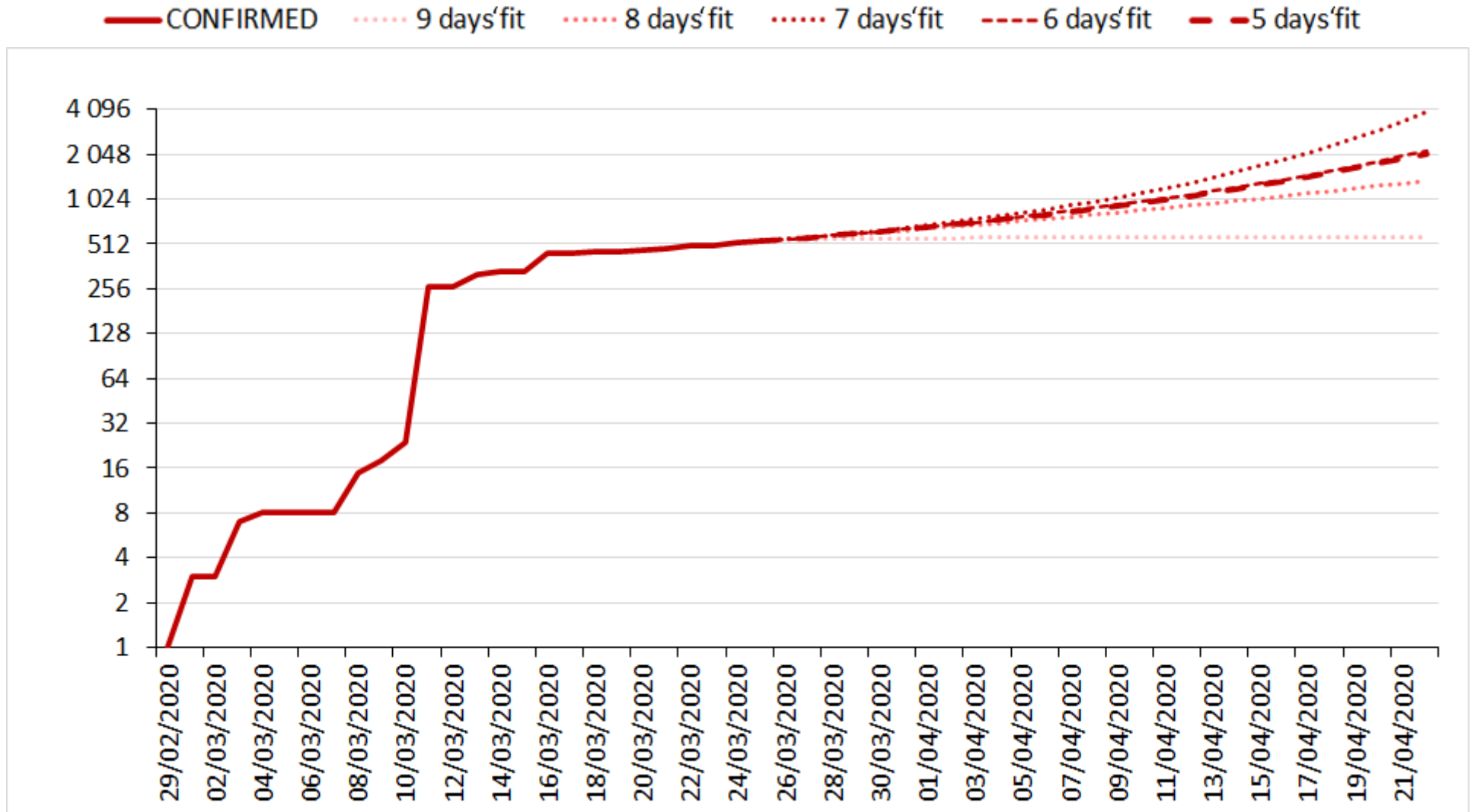
Data: The Johns Hopkins University, Politolog.com

Portugal



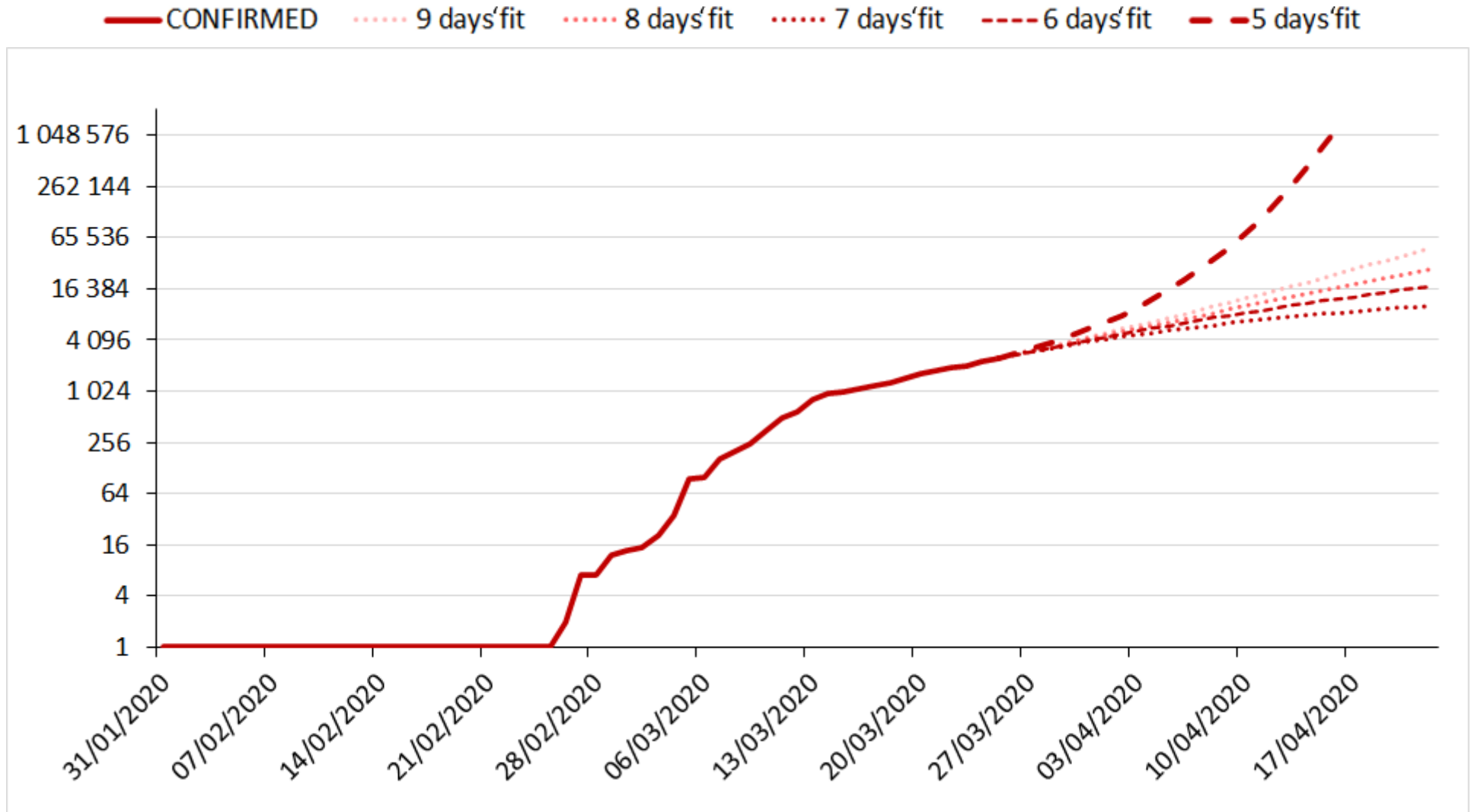
Data: The Johns Hopkins University, Politolog.com

Qatar



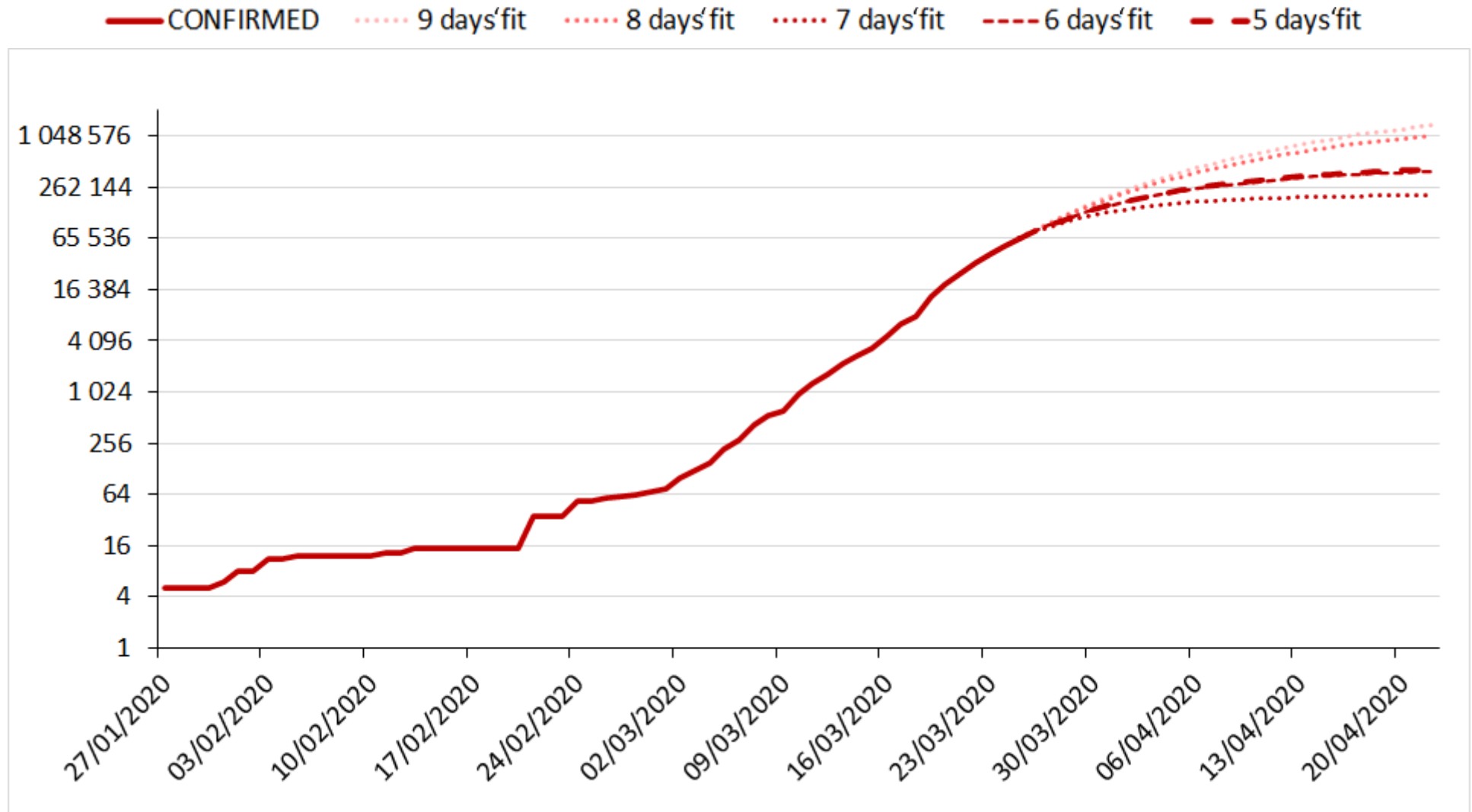
Data: The Johns Hopkins University, Politolog.com

Sweden



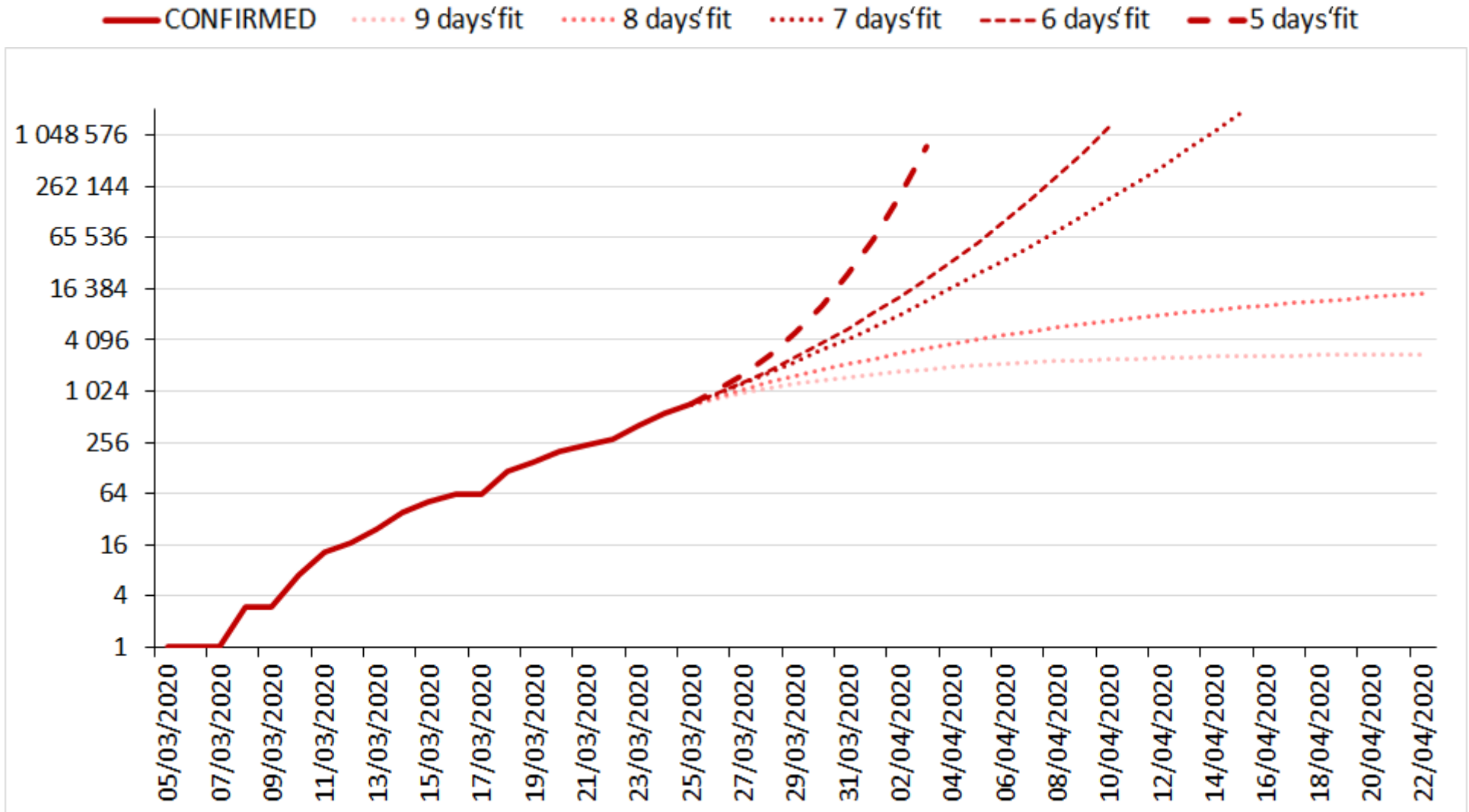
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USA



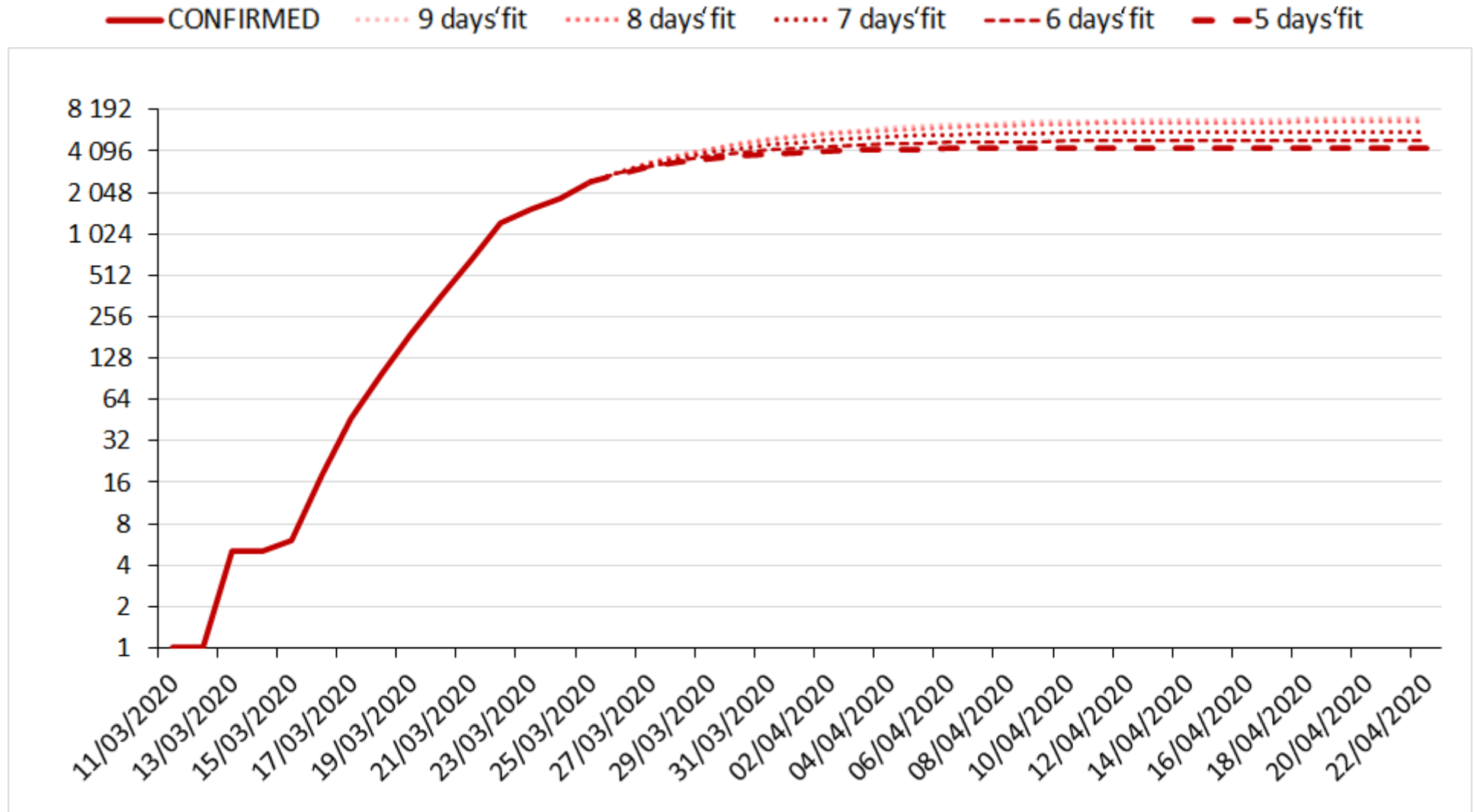
Data: The Johns Hopkins University, Politolog.com

South Africa



Data: The Johns Hopkins University, Politolog.com

Turkey



Data: The Johns Hopkins University, Politolog.com



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