

31 March 2020

COVID-19 Projections

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COVID-19 Cases' and Deaths' Projection Method

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

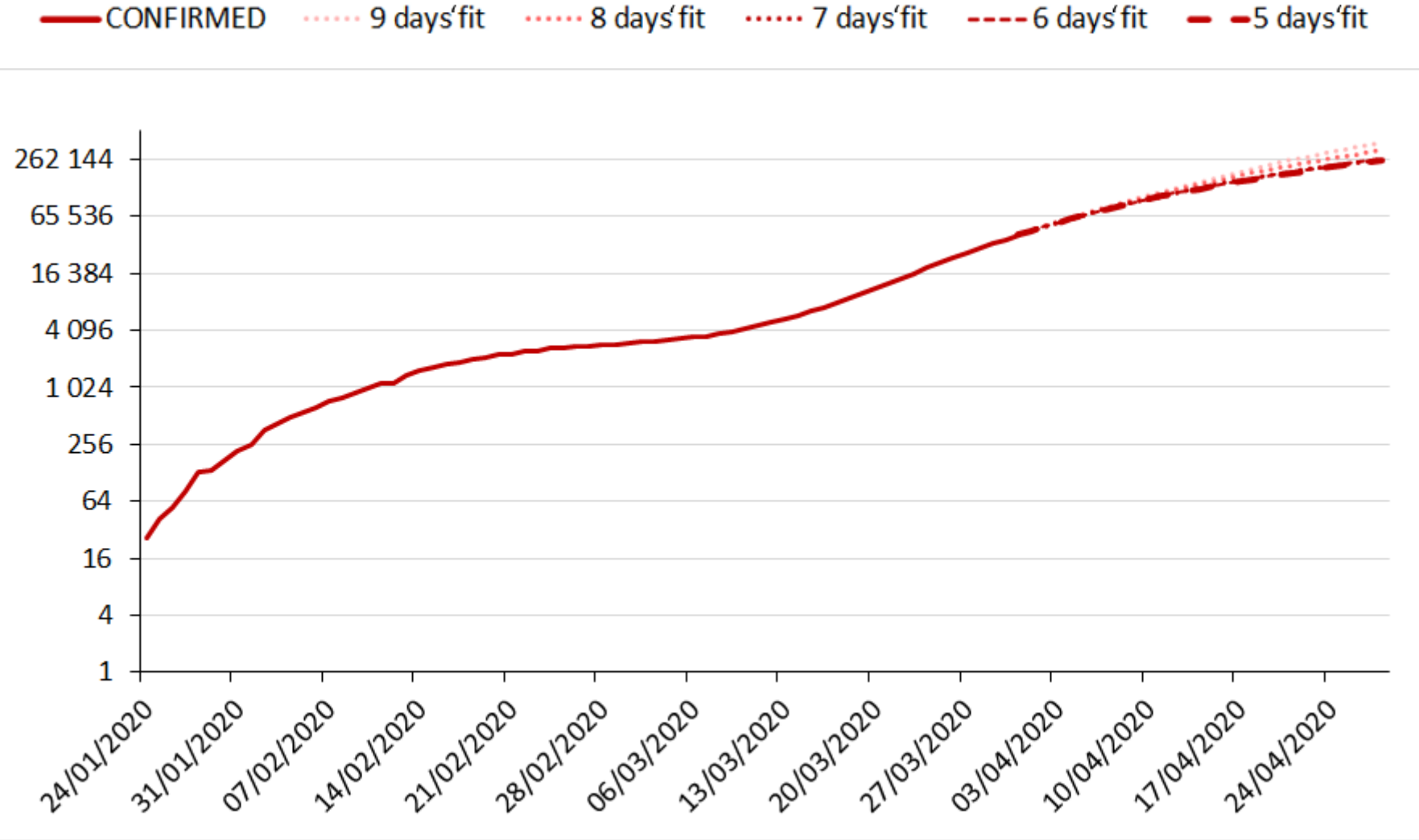
The jolt is fitted with an exponential function over, respectively, the previous 5, 6, 7, 8 and 9 days. Large numbers are truncated to facilitate the reading of the charts.

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.

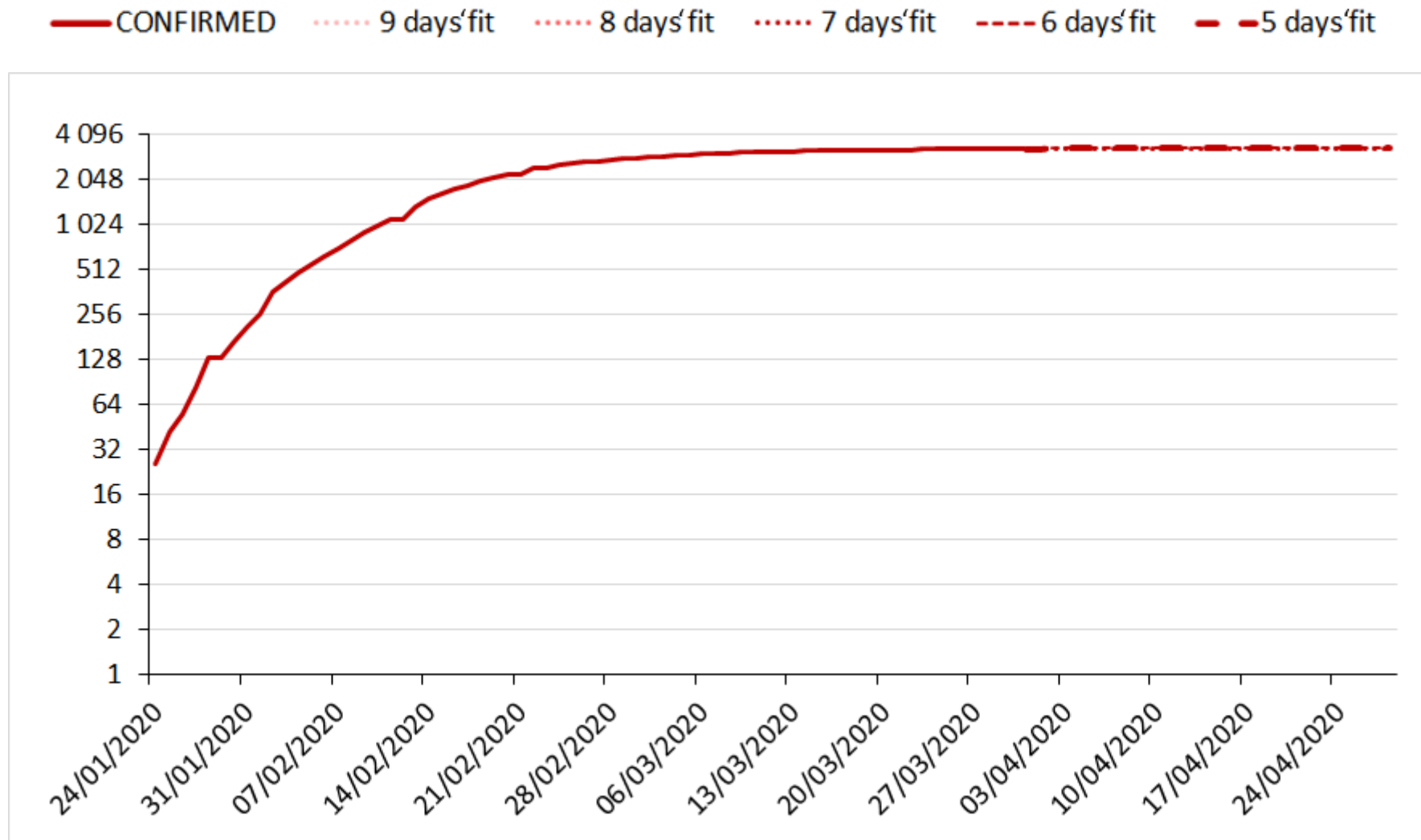
DEATHS - PROJECTIONS

World



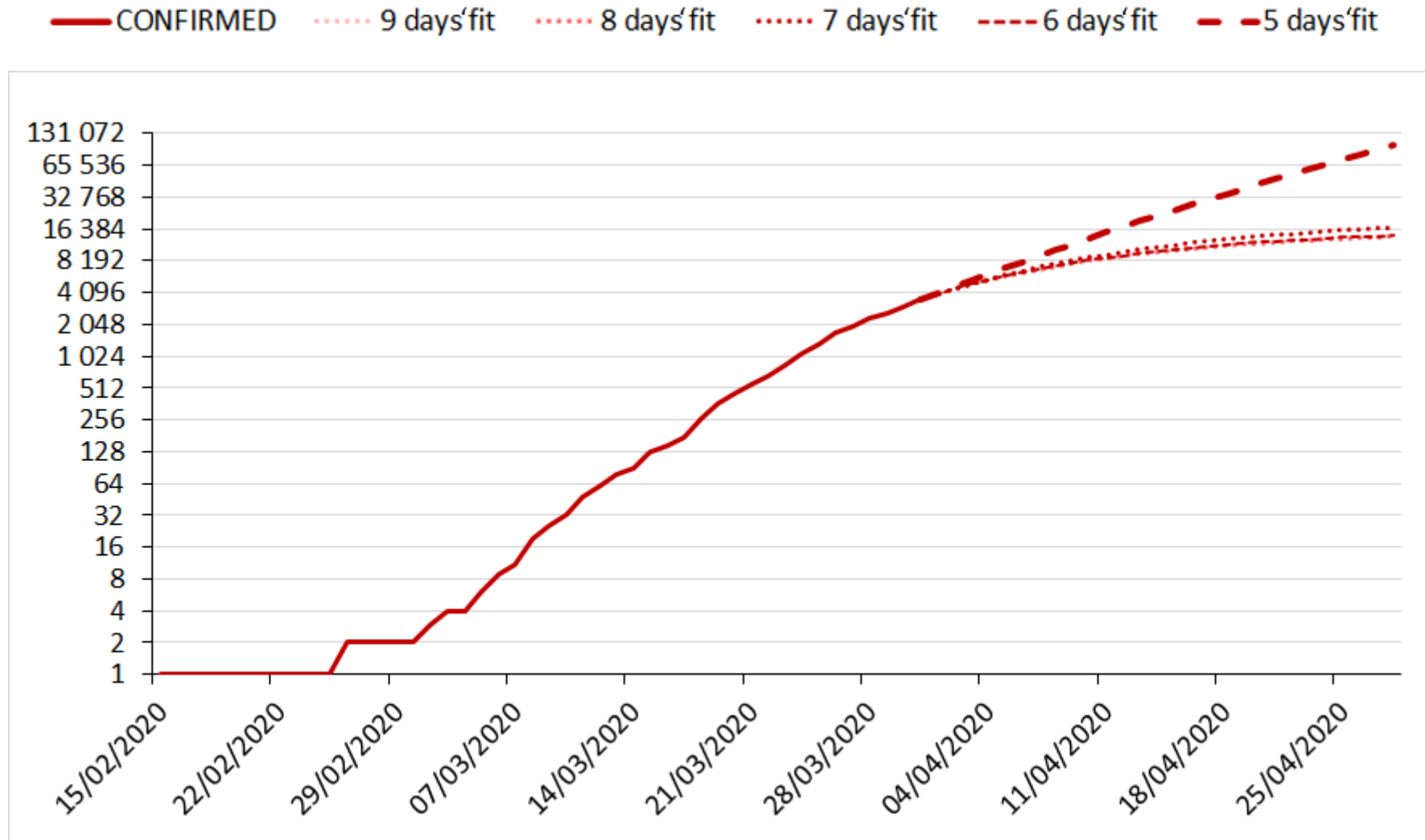
Data: The Johns Hopkins University, Politolog.com

China



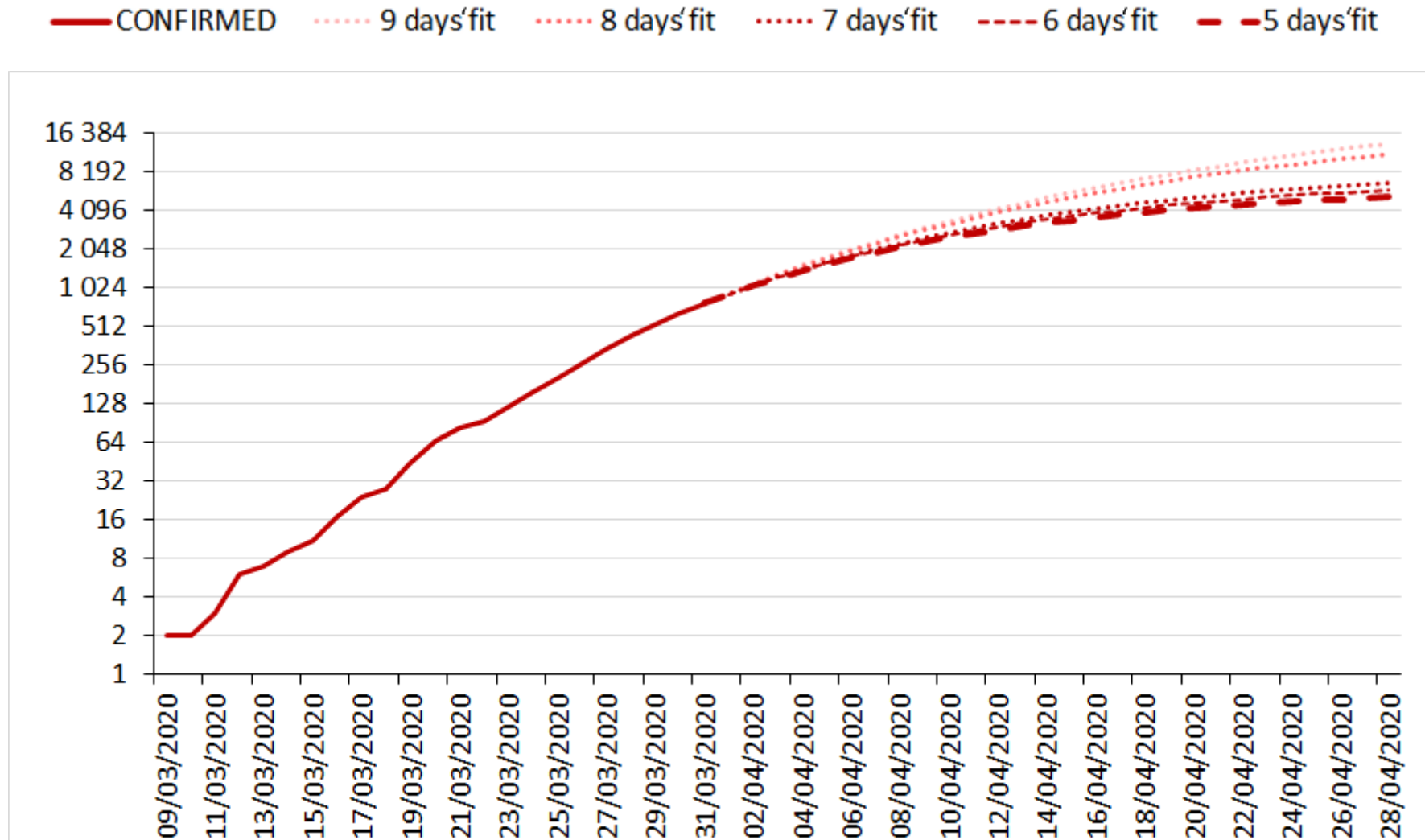
Data: The Johns Hopkins University, Politolog.com

France



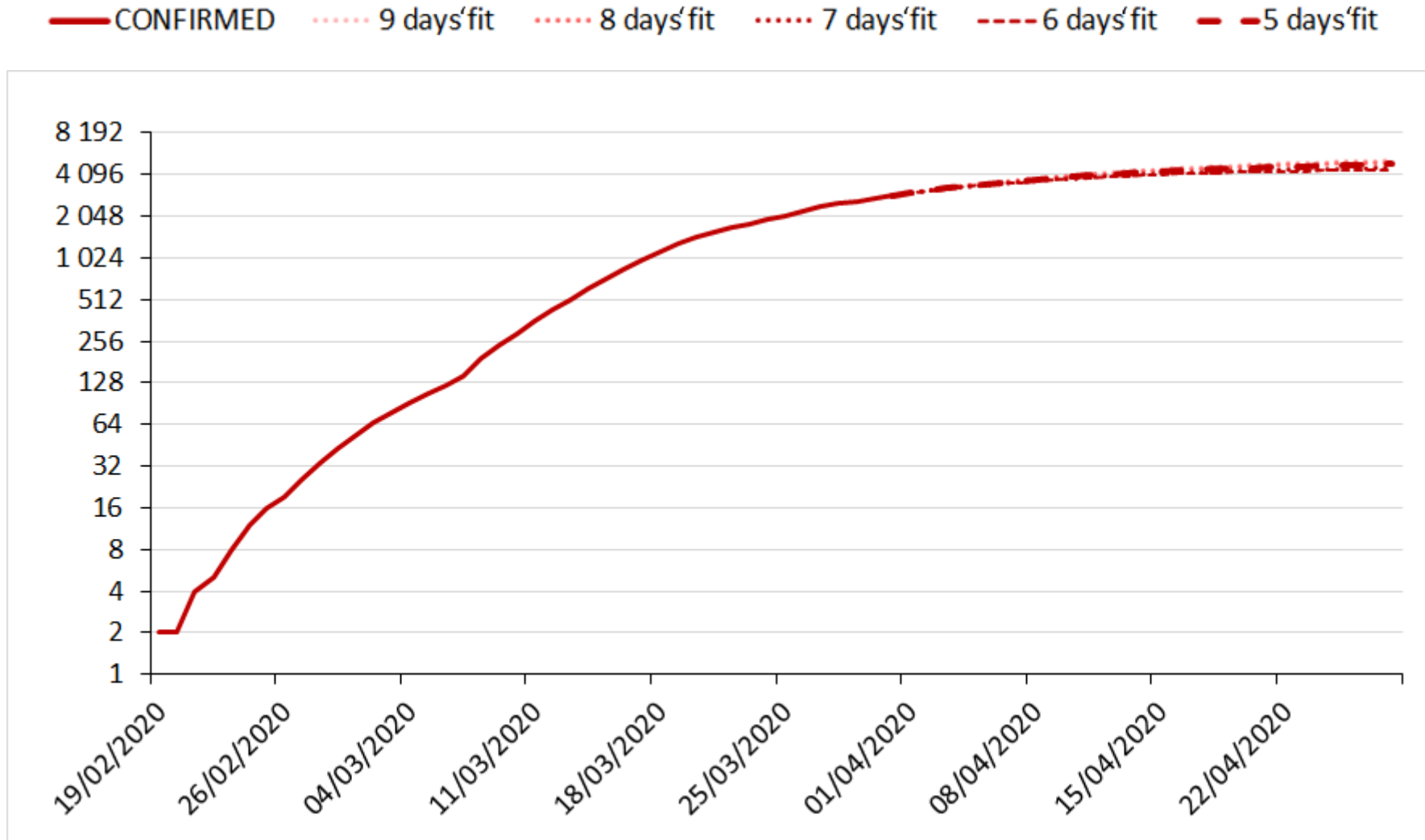
Data: The Johns Hopkins University, Politolog.com

Germany



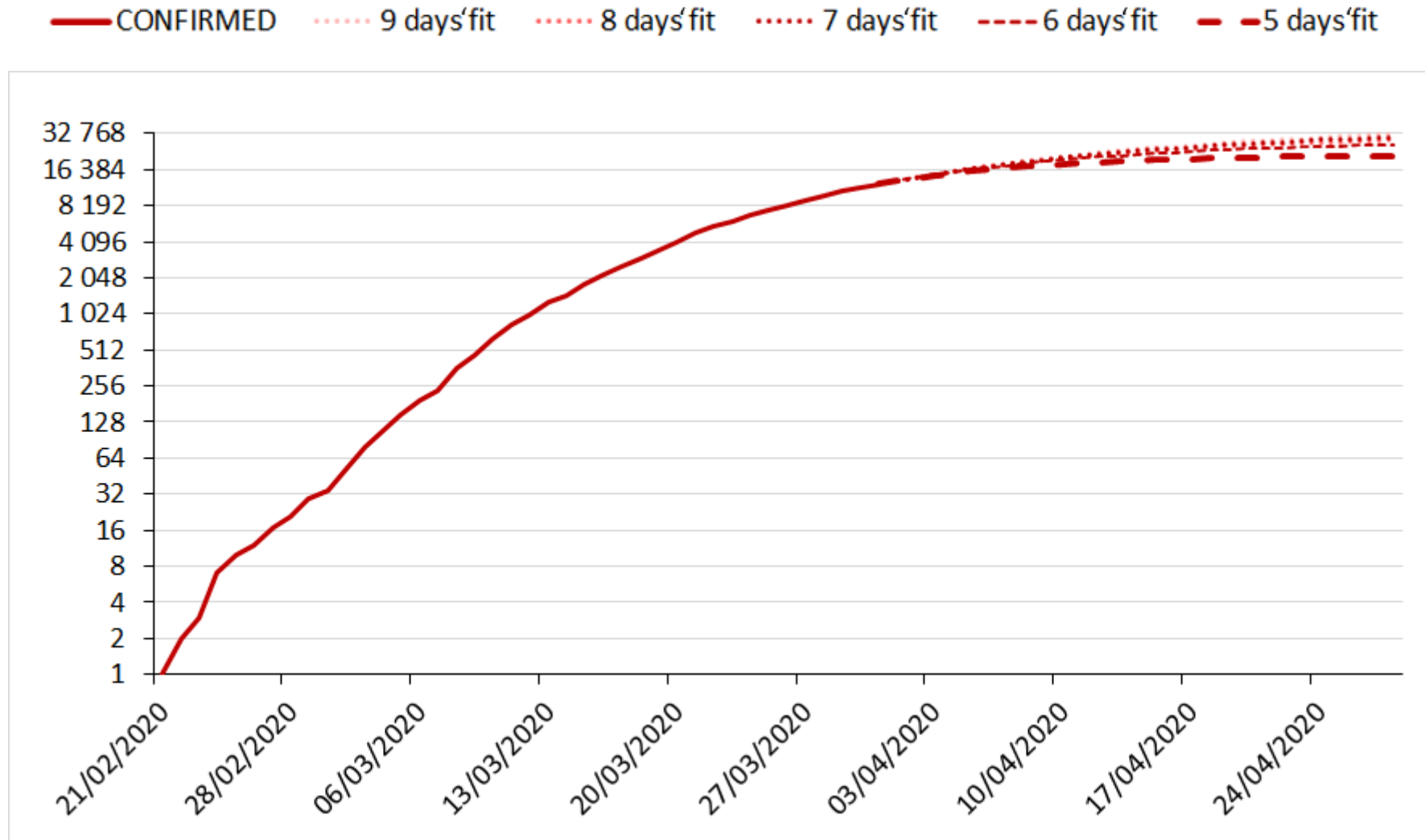
Data: The Johns Hopkins University, Politolog.com

Iran



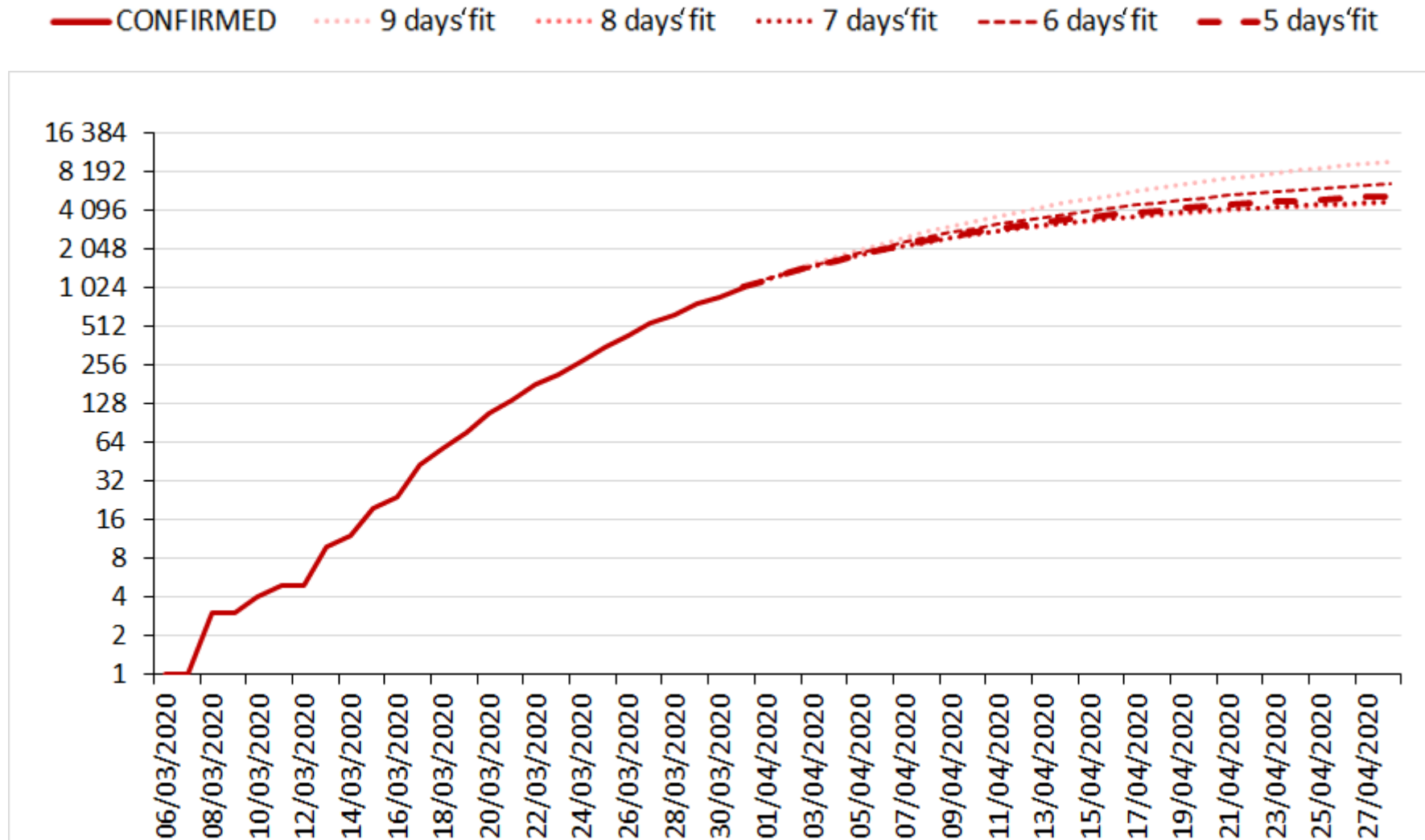
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Italy



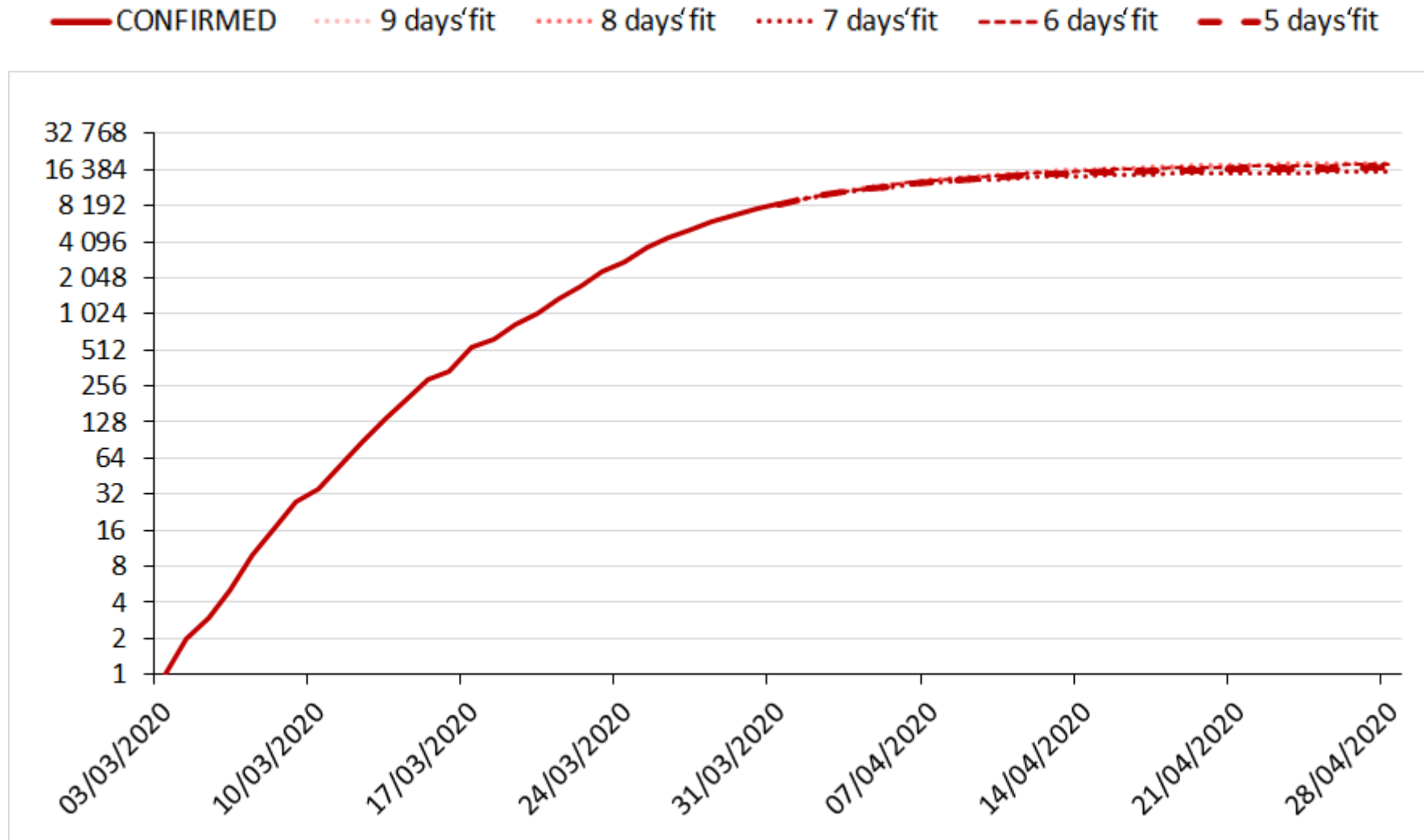
Data: The Johns Hopkins University, Politolog.com

Netherlands



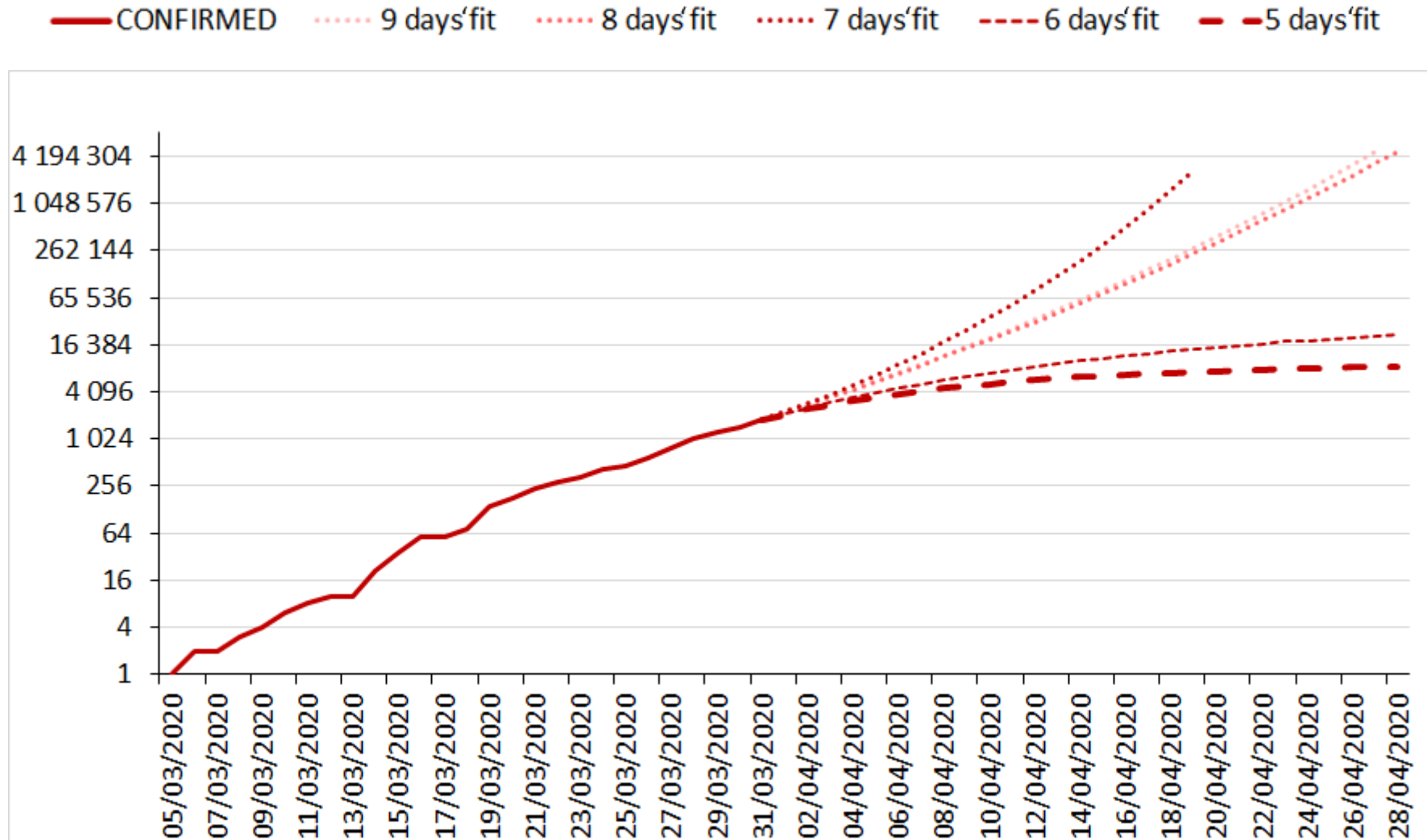
Data: The Johns Hopkins University, Politolog.com

Spain



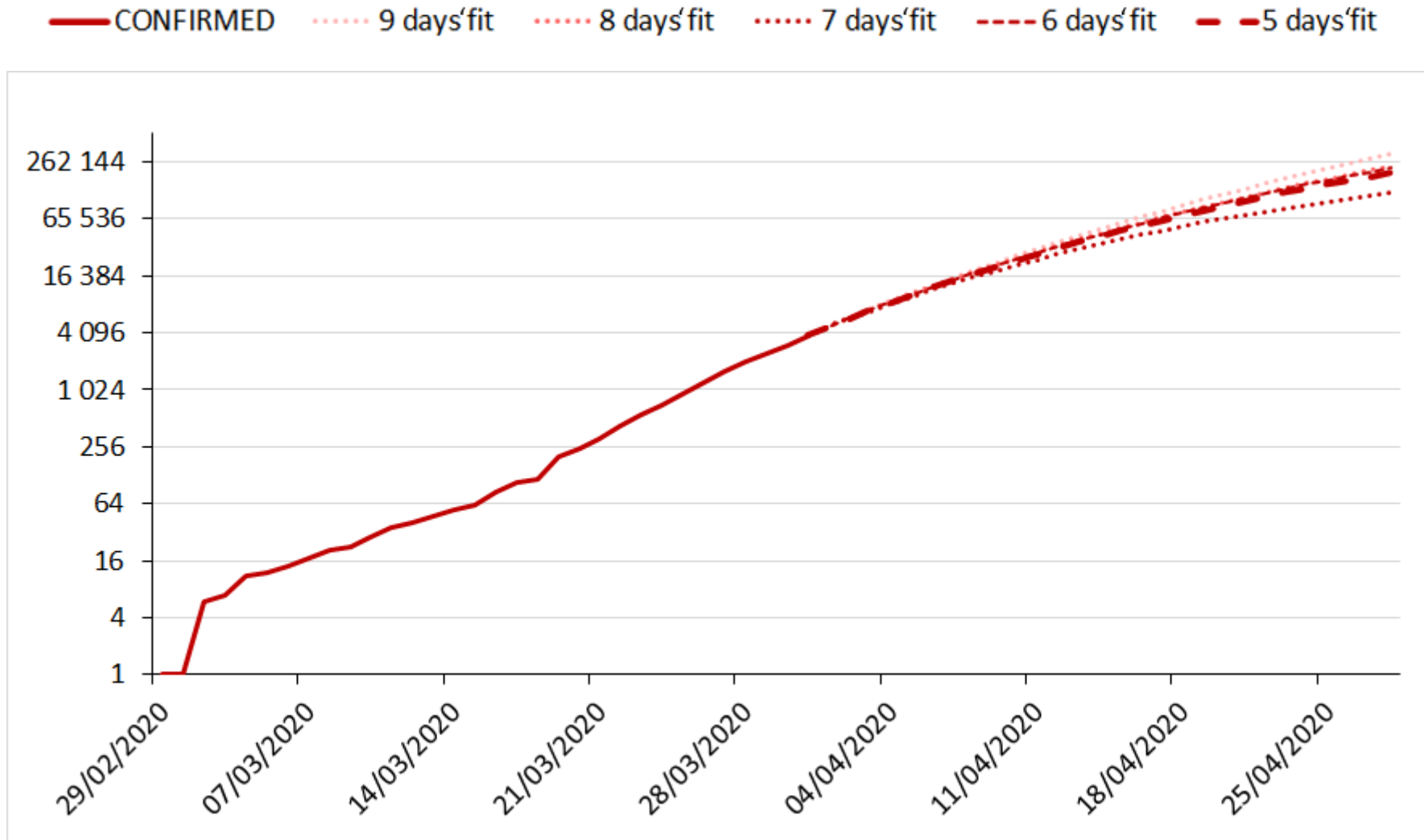
Data: The Johns Hopkins University, Politolog.com

United Kingdom



Data: The Johns Hopkins University, Politolog.com

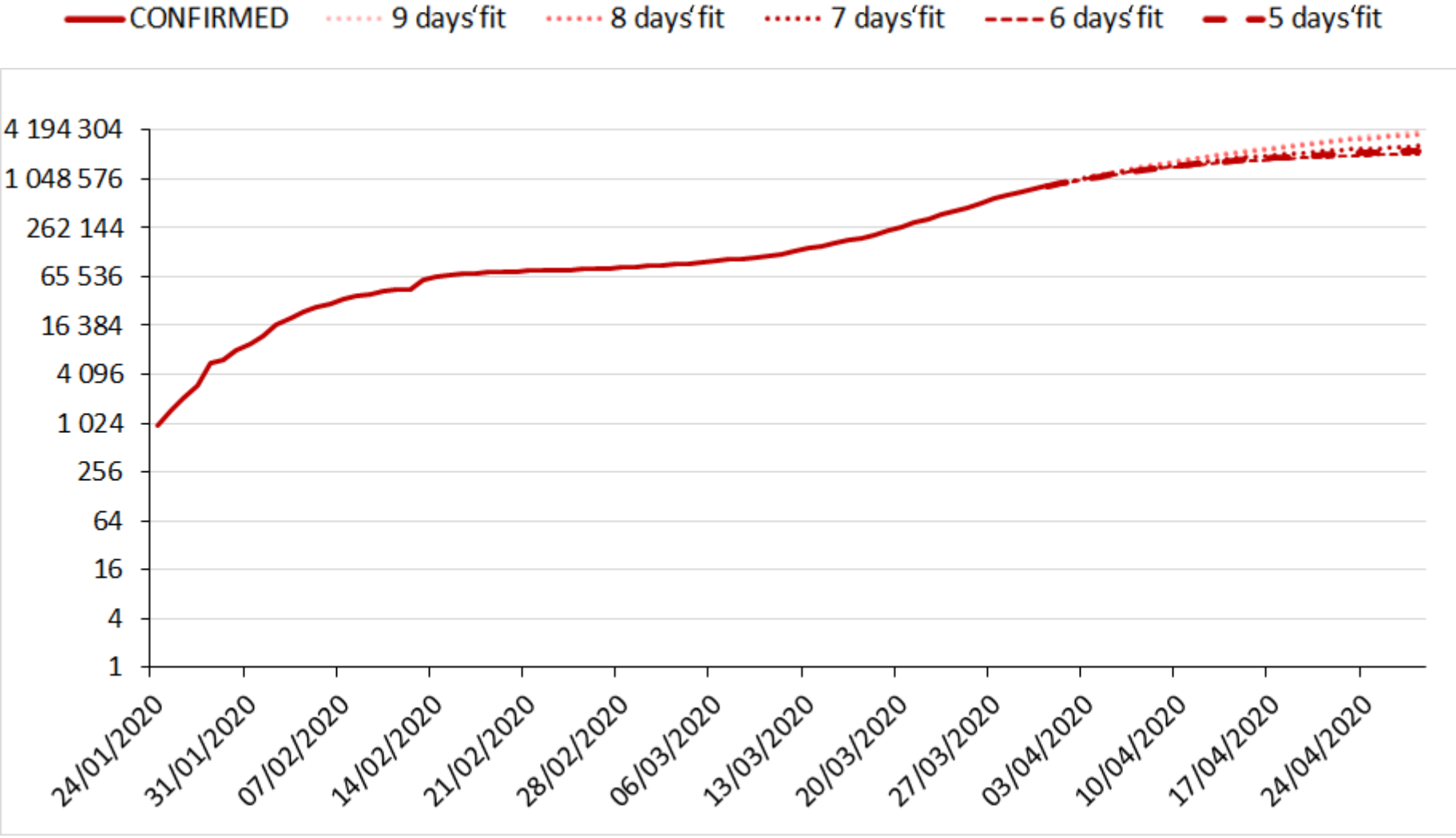
USA



Data: The Johns Hopkins University, Politolog.com

CUMULATED CASES - PROJECTIONS

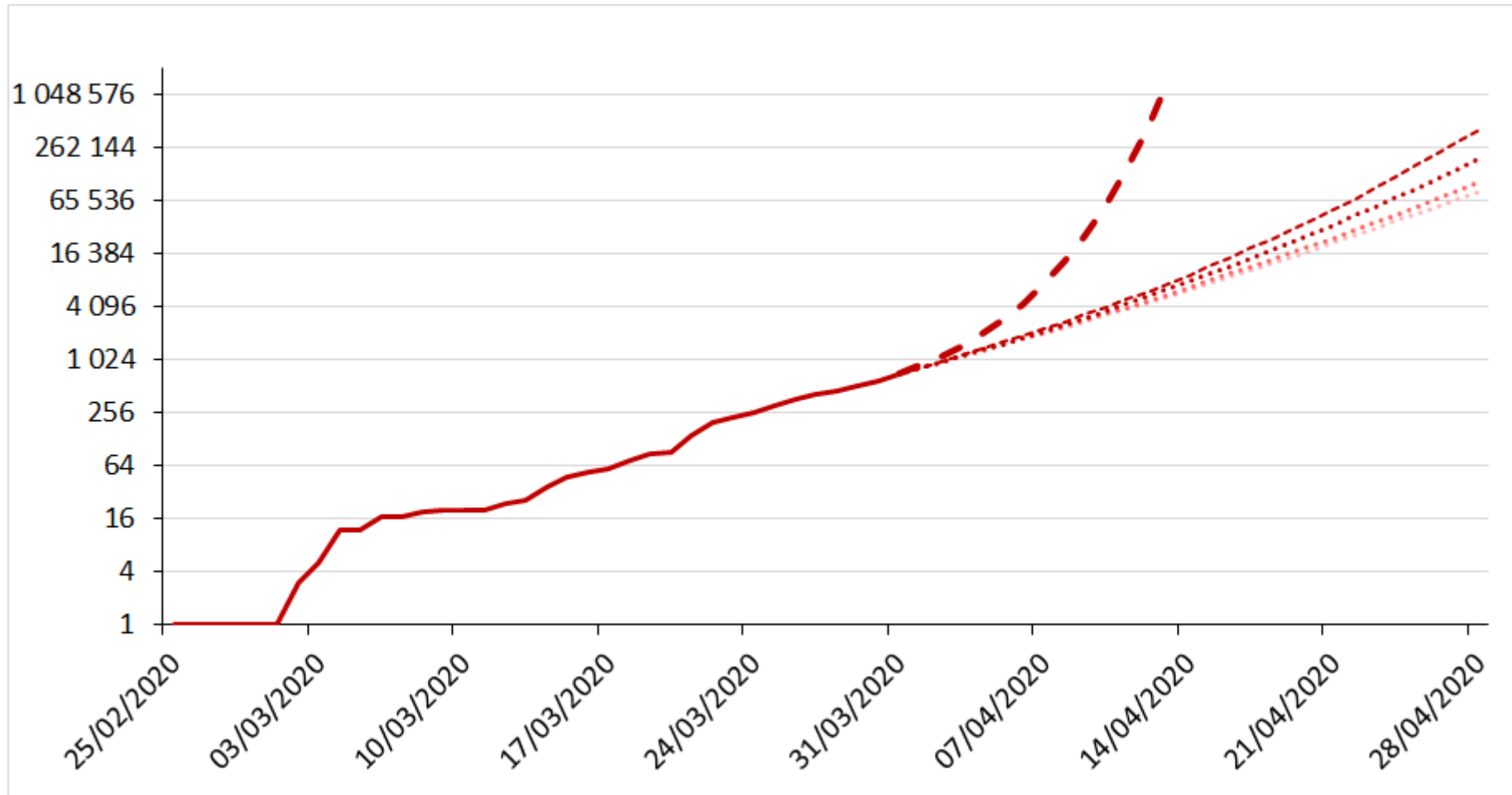
World



Data: The Johns Hopkins University, Politolog.com

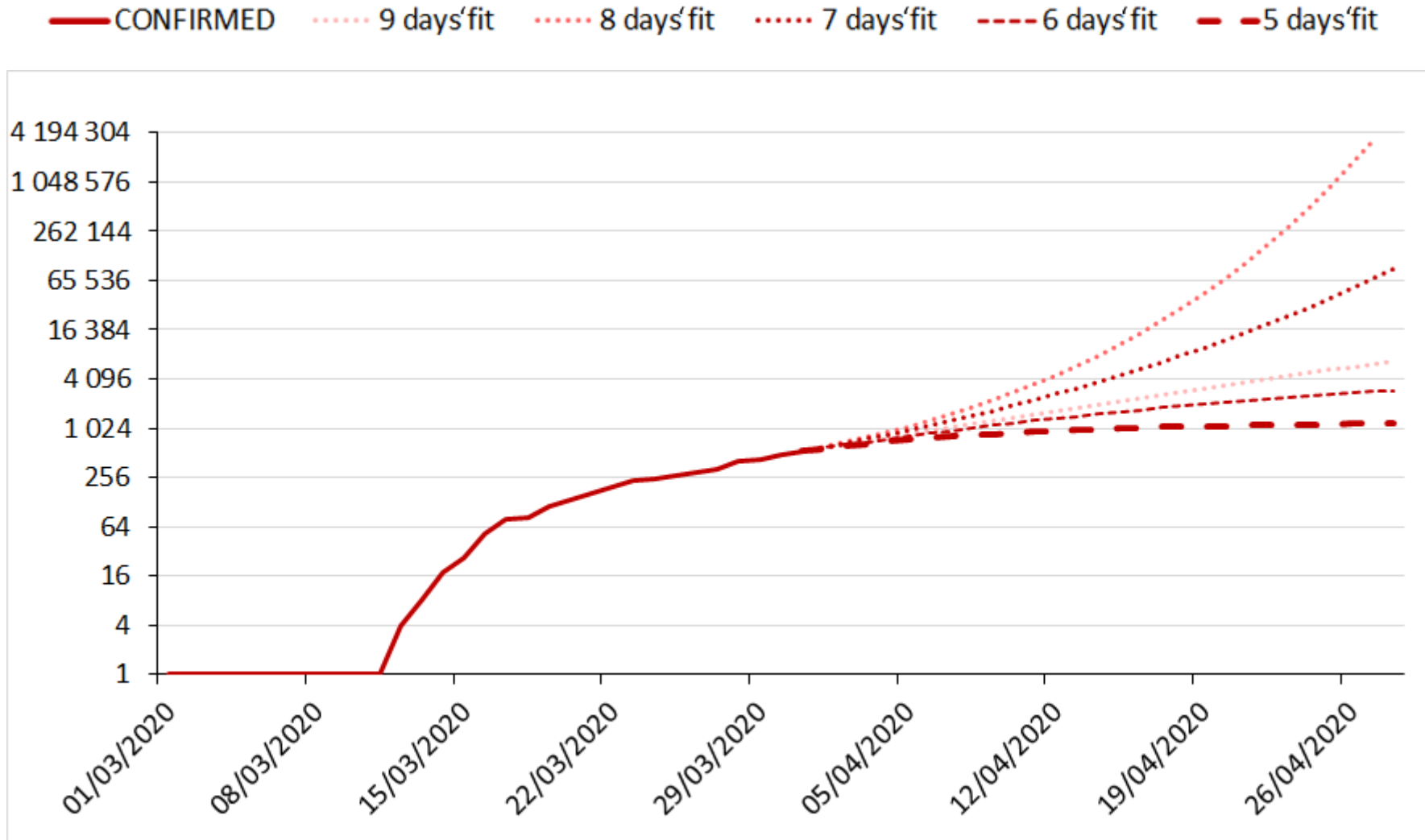
Algeria

CONFIRMED 9 days'fit 8 days'fit 7 days'fit 6 days'fit 5 days'fit



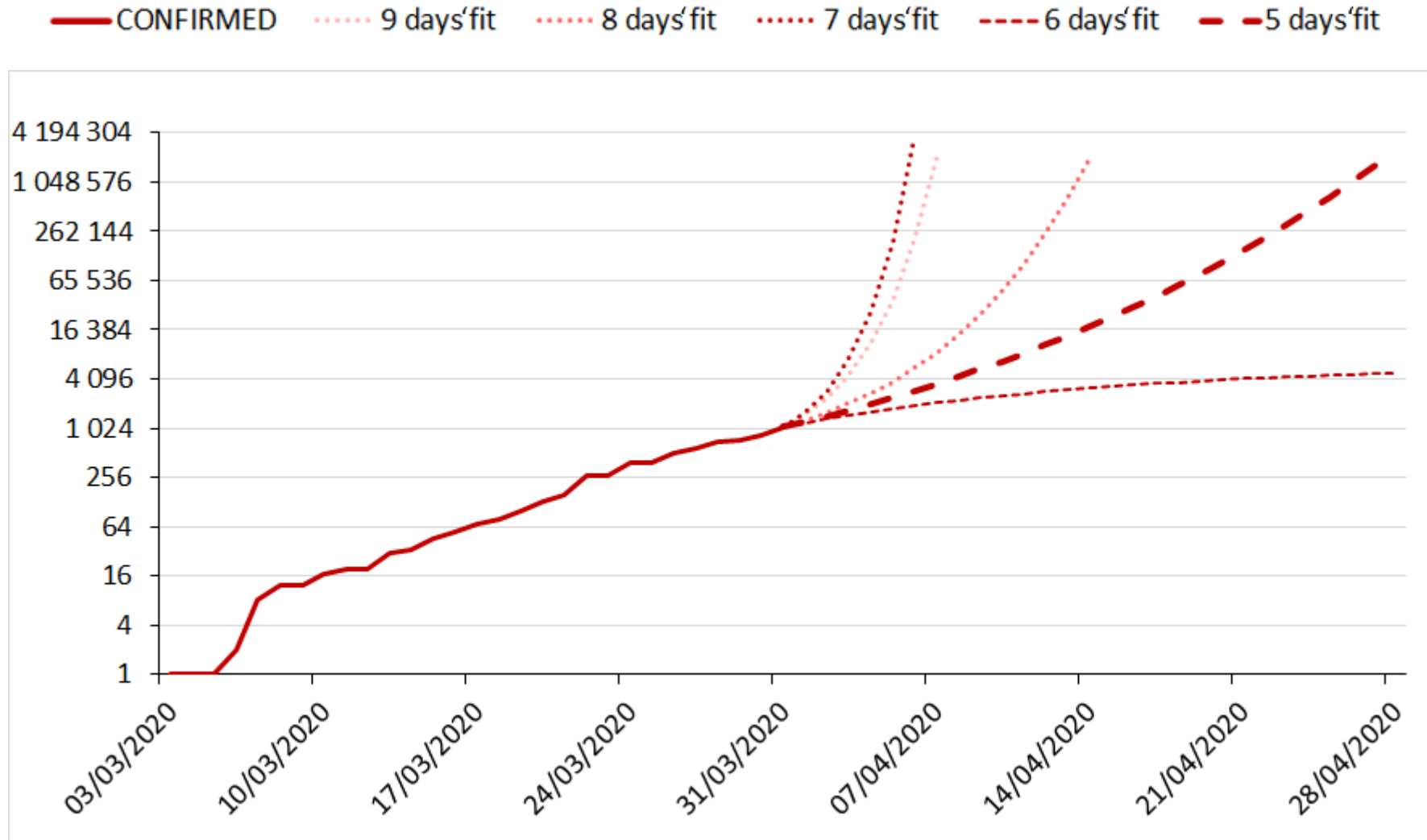
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Armenia



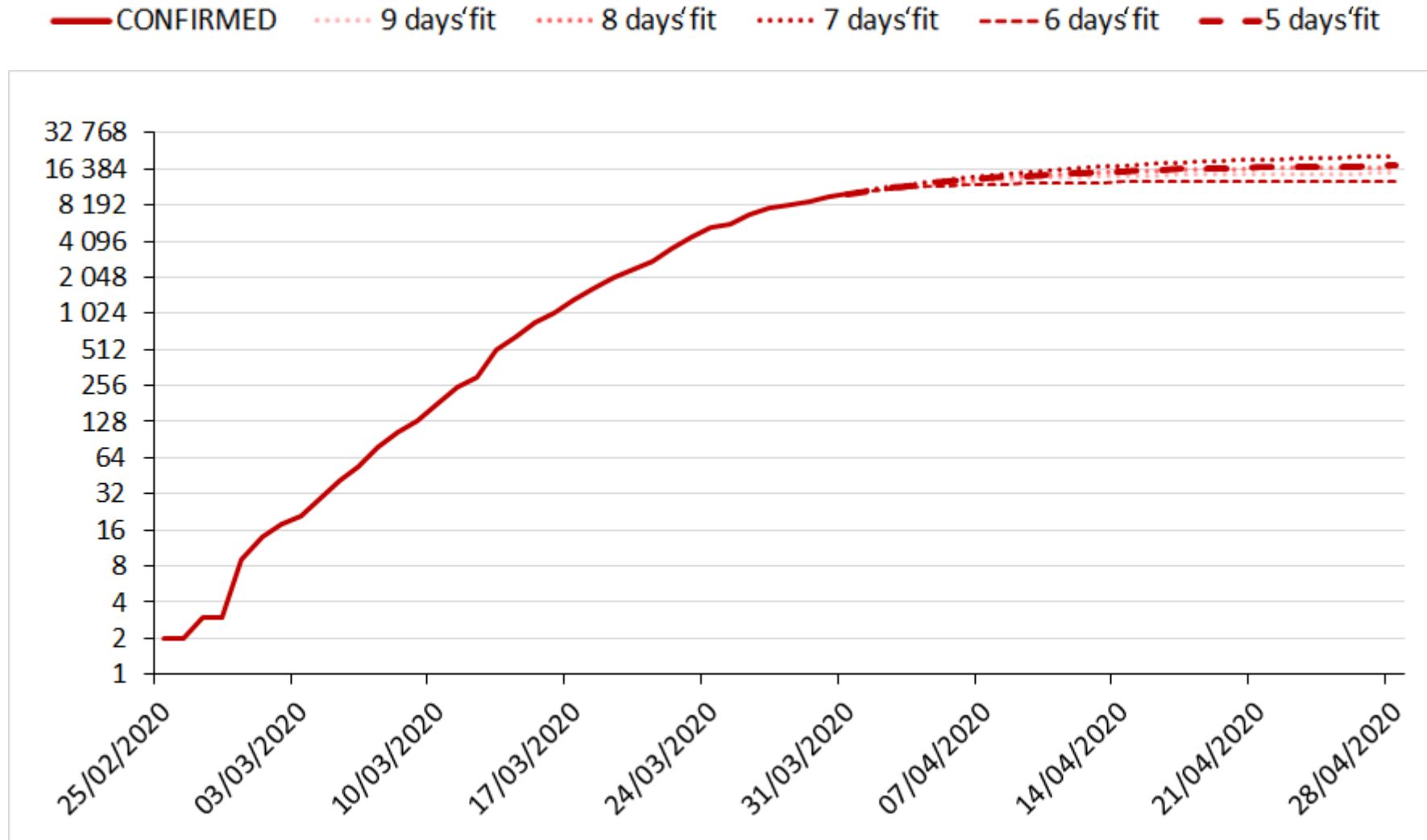
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Argentina



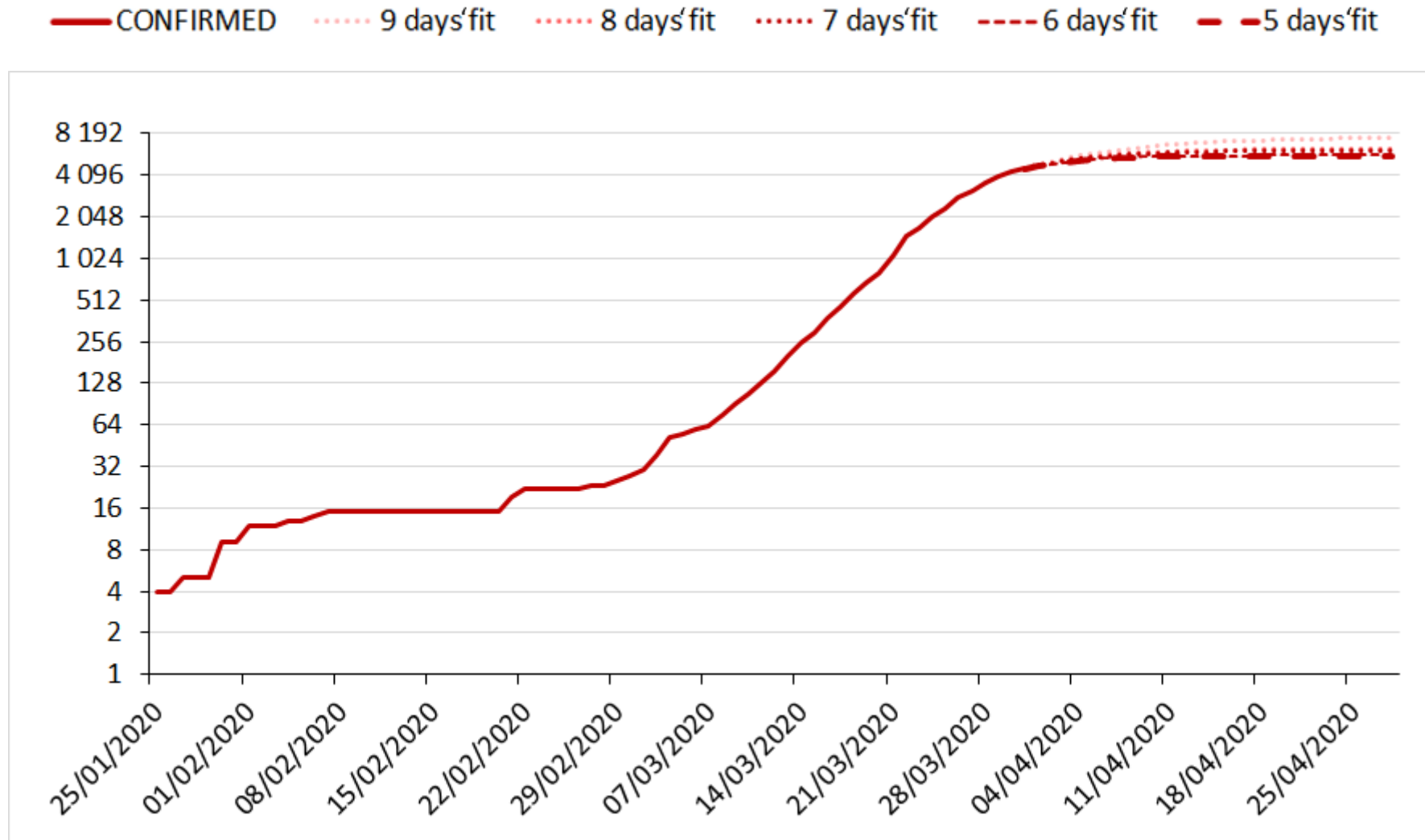
Data: The Johns Hopkins University, Politolog.com

Austria



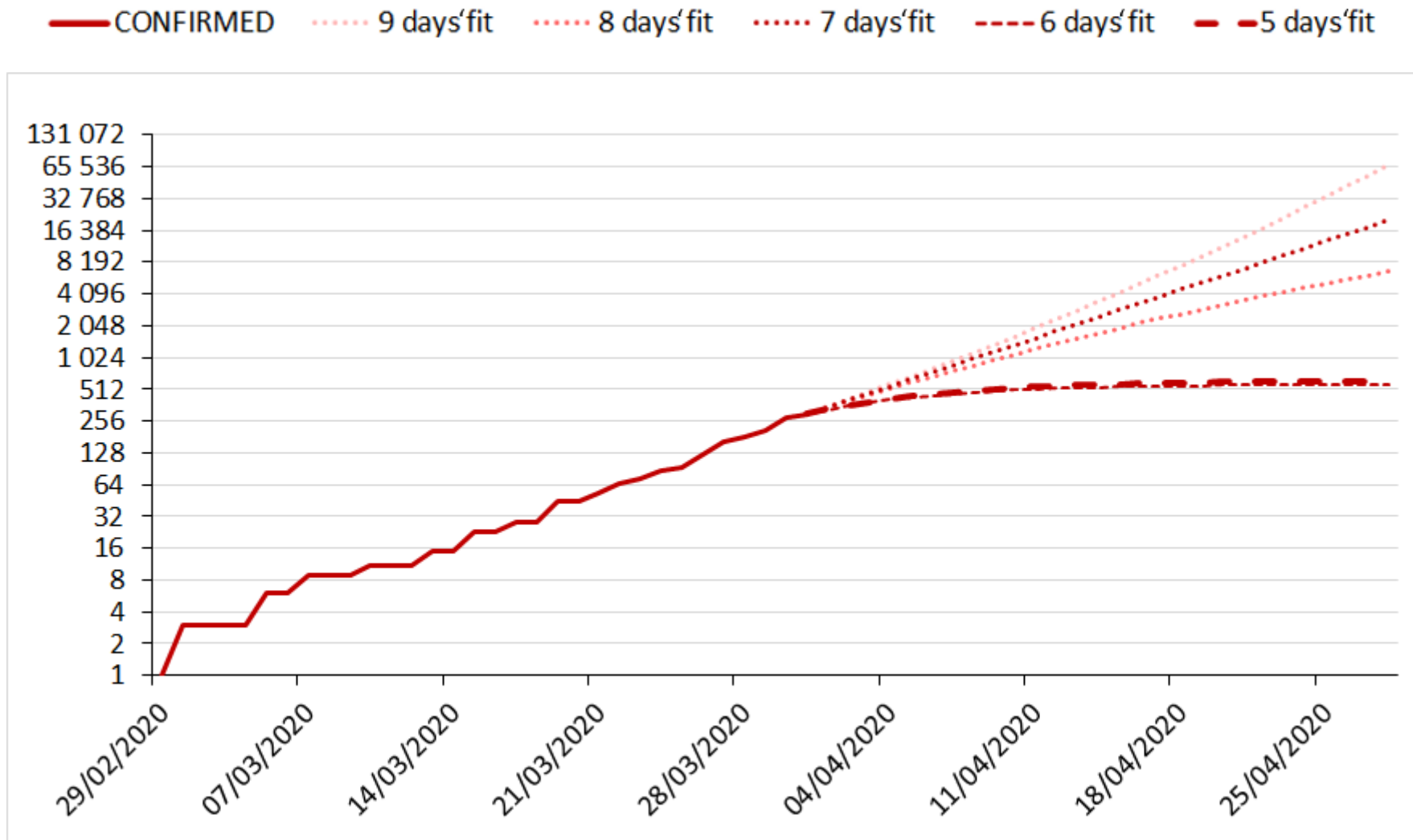
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Australia



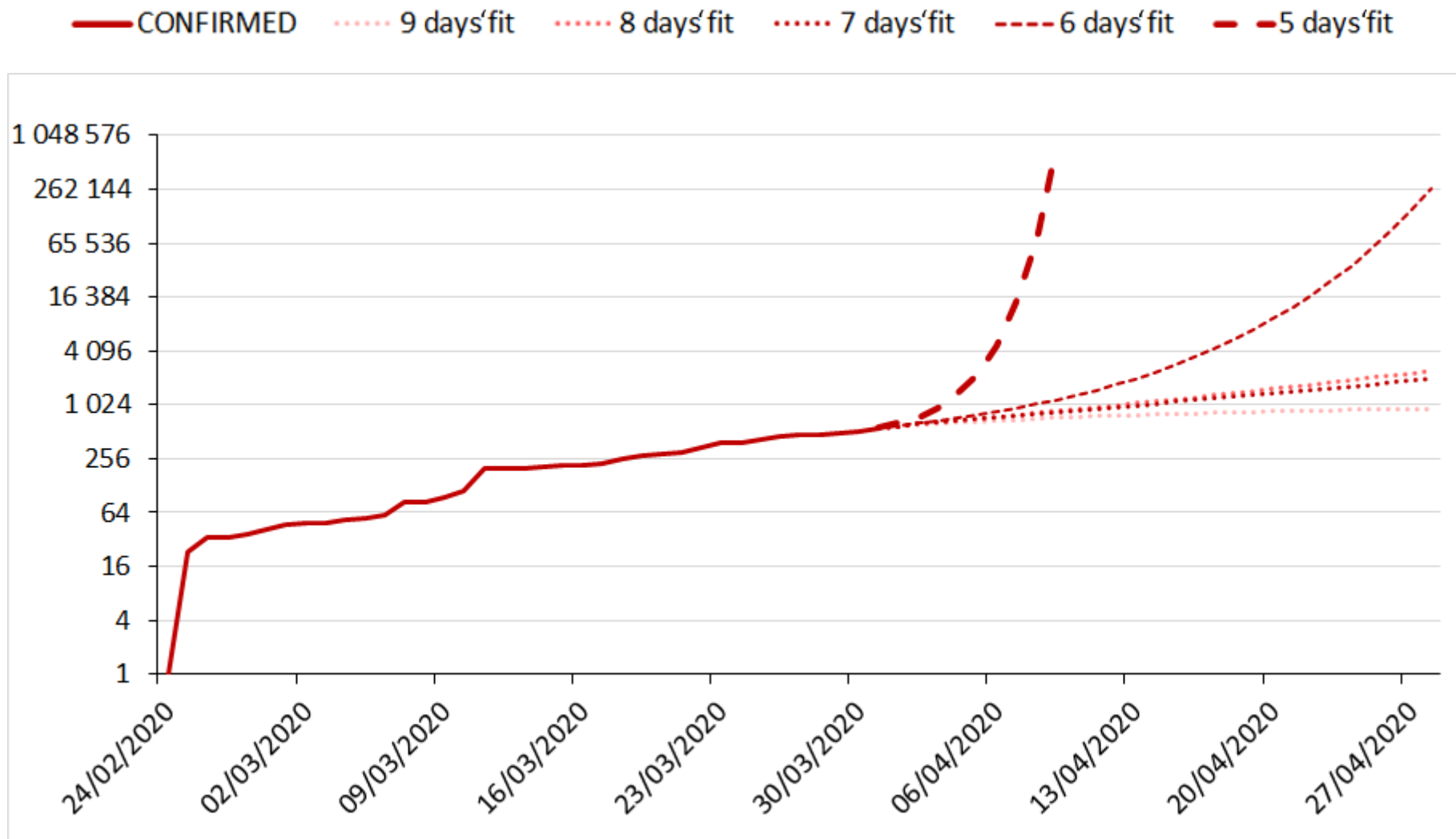
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Azerbaijan



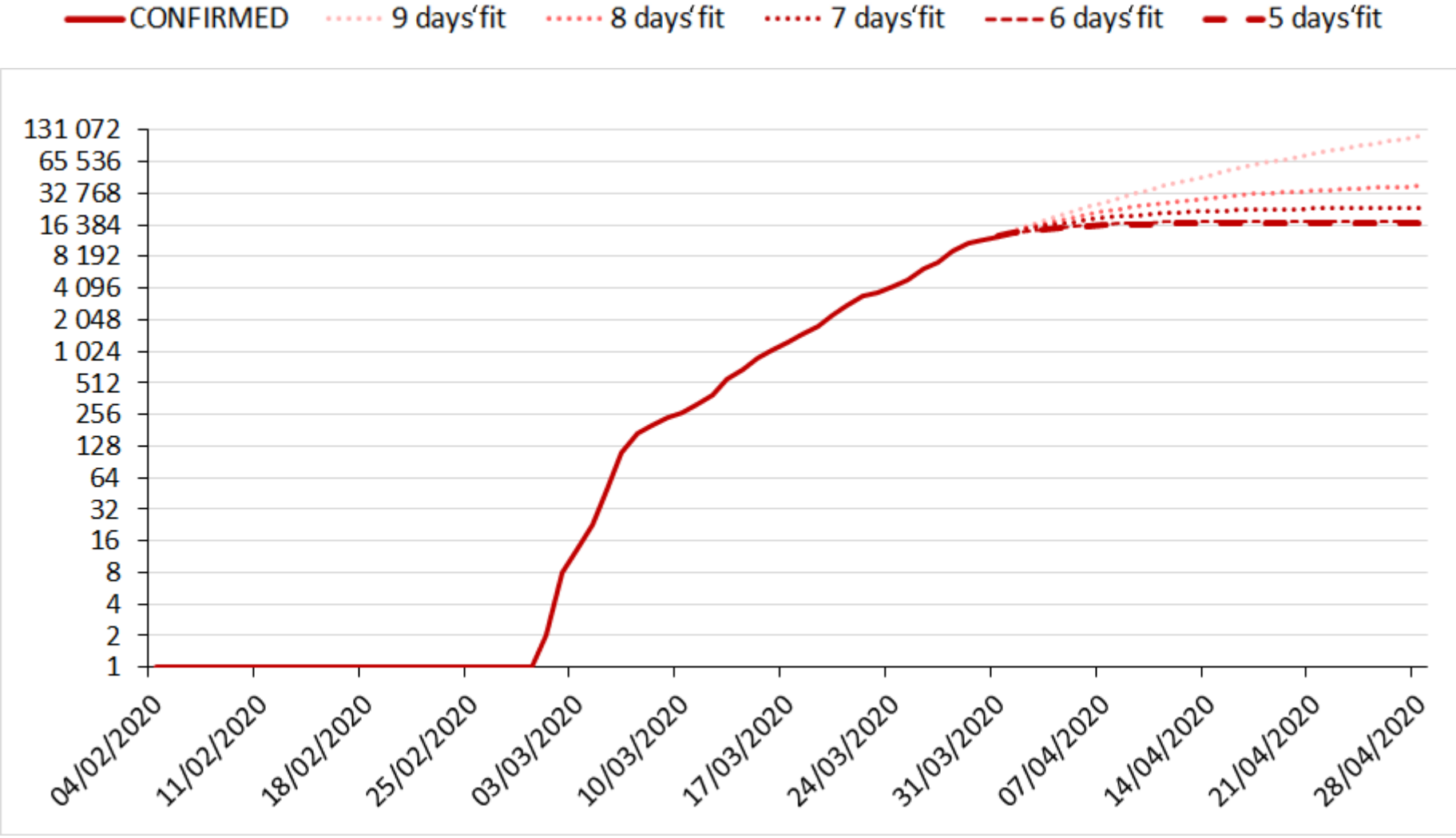
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Bahrain



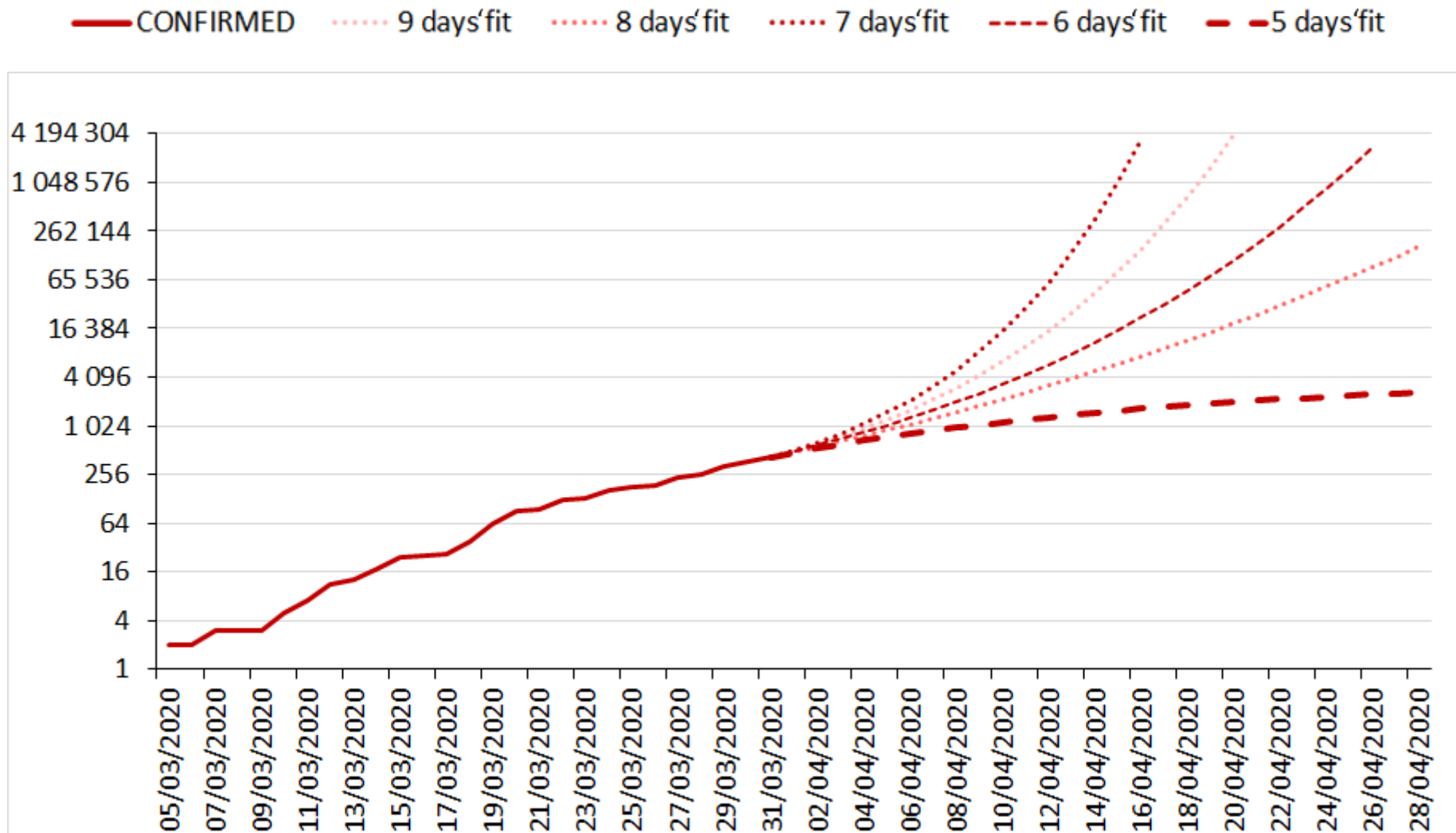
Data: The Johns Hopkins University, Politolog.com

Belgium



Data: The Johns Hopkins University, Politolog.com

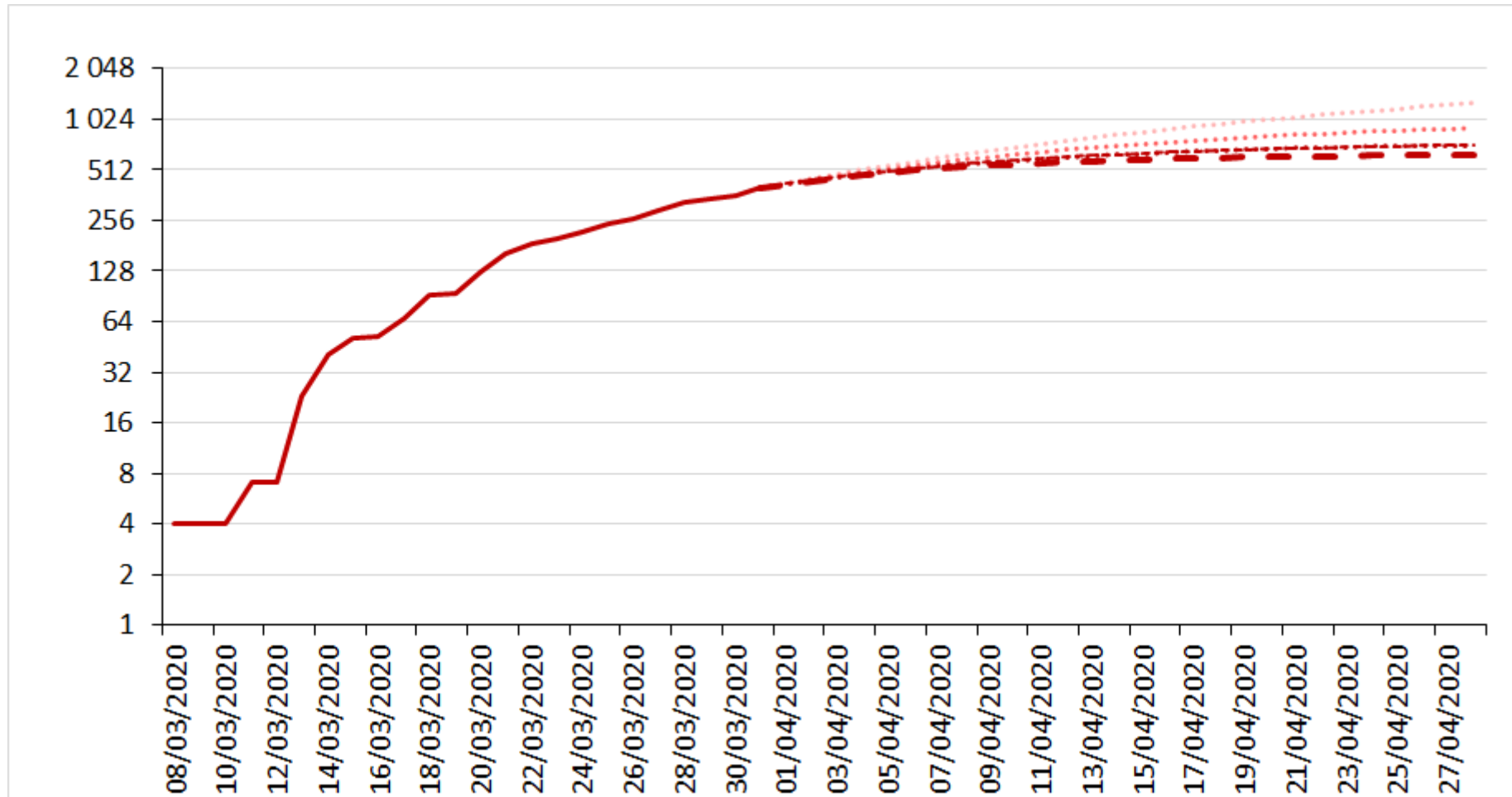
Bosnia and Herzegovina



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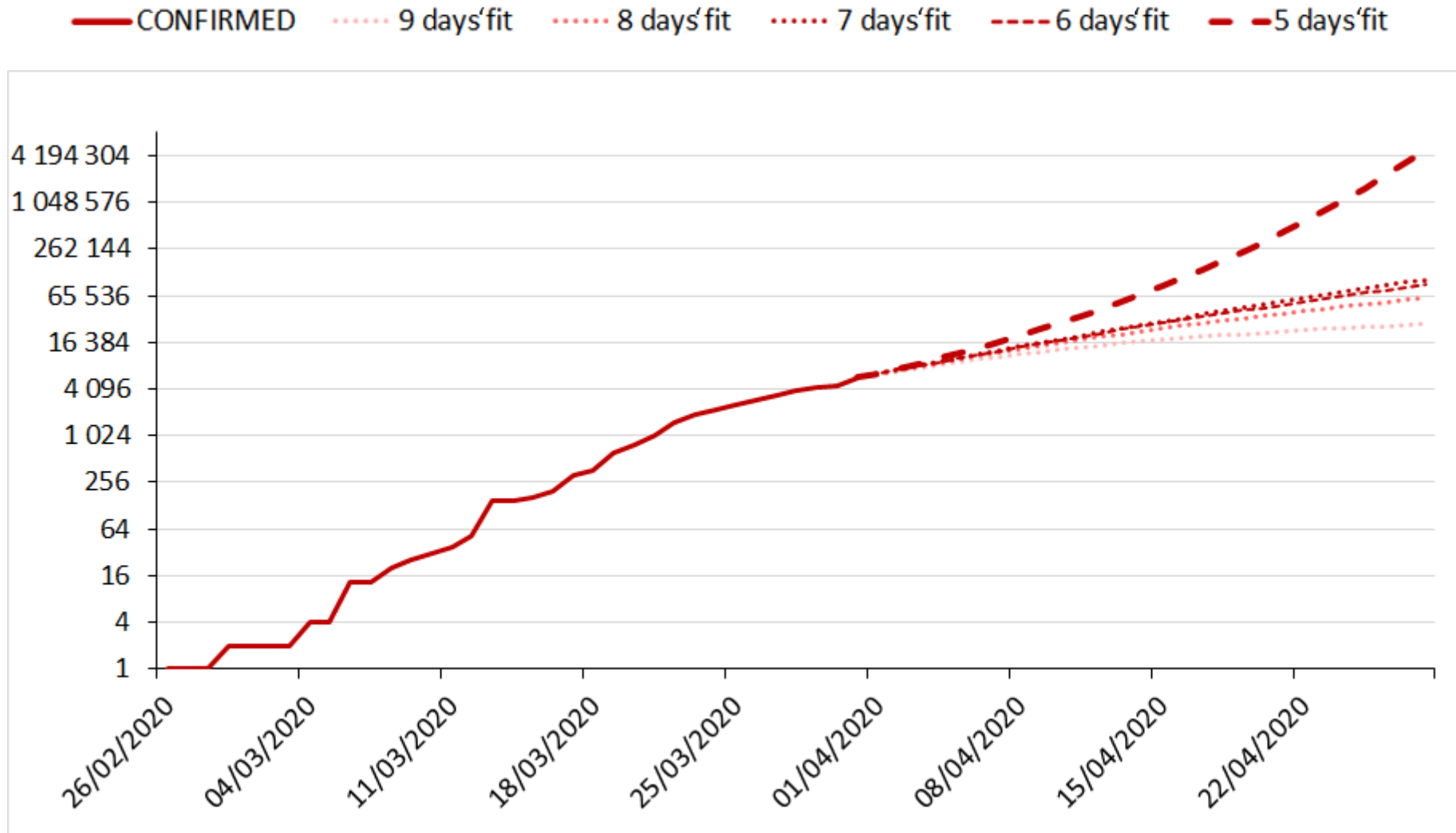
Bulgaria

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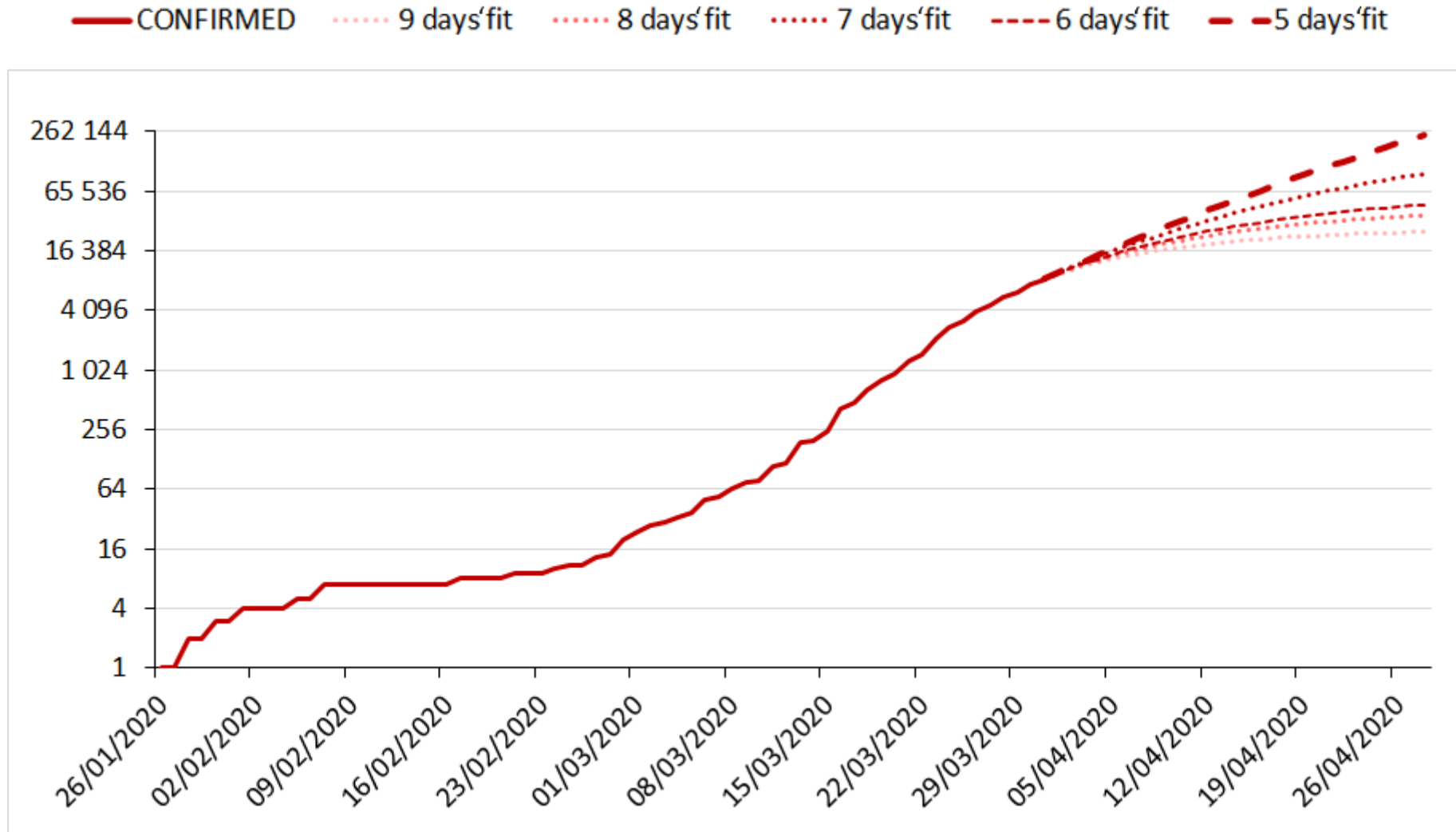
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Brazil



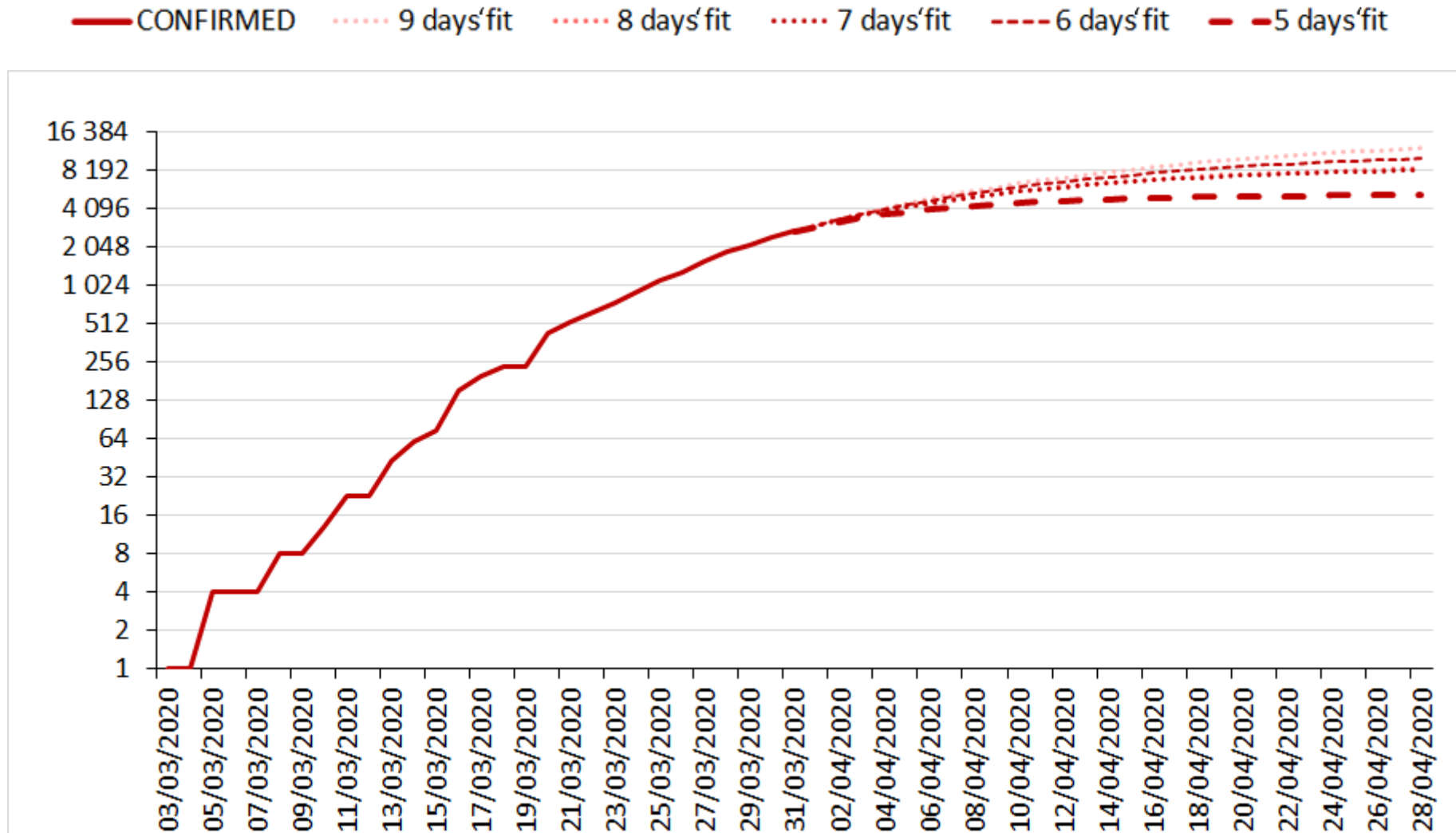
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Canada



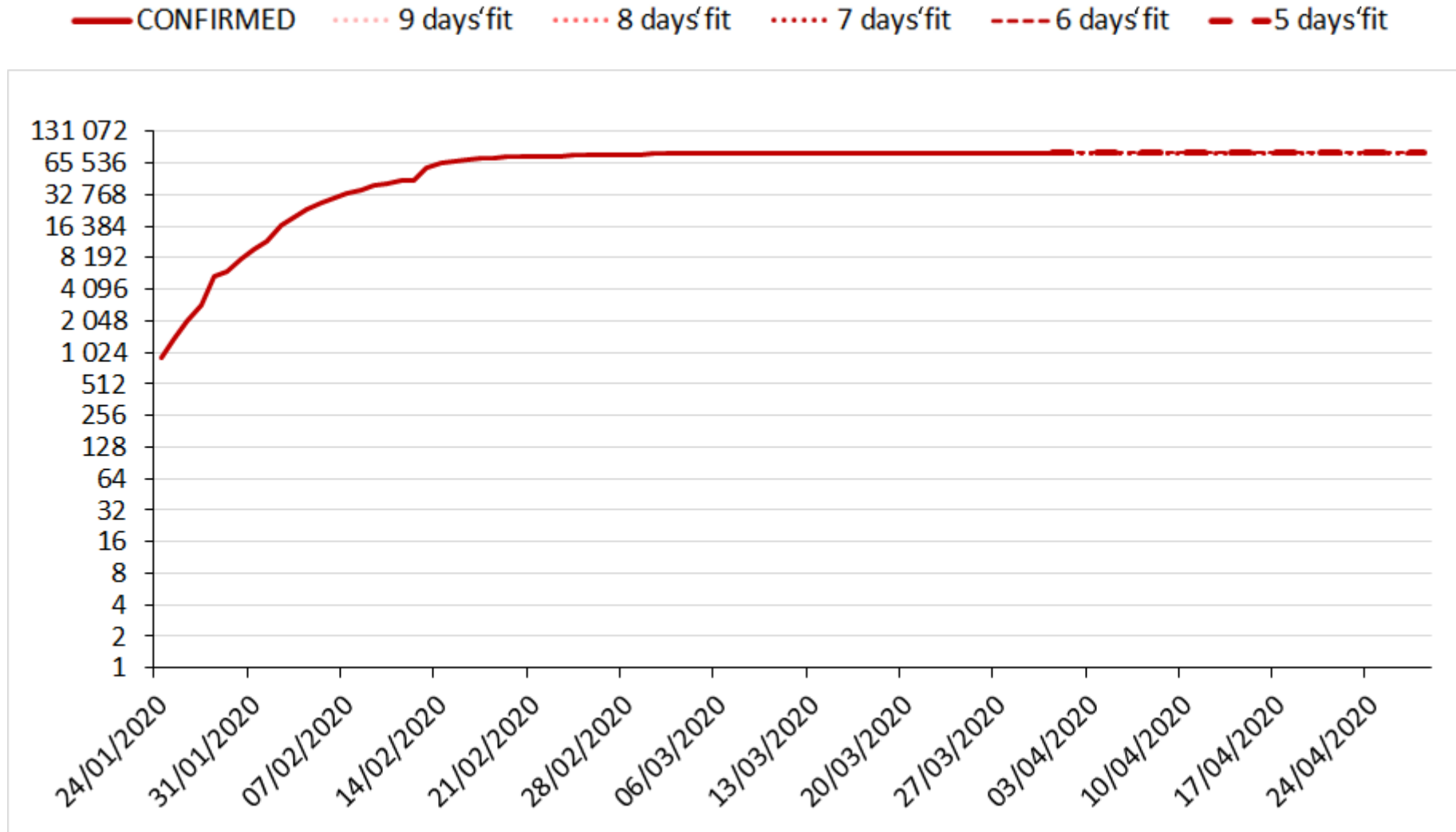
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Chile



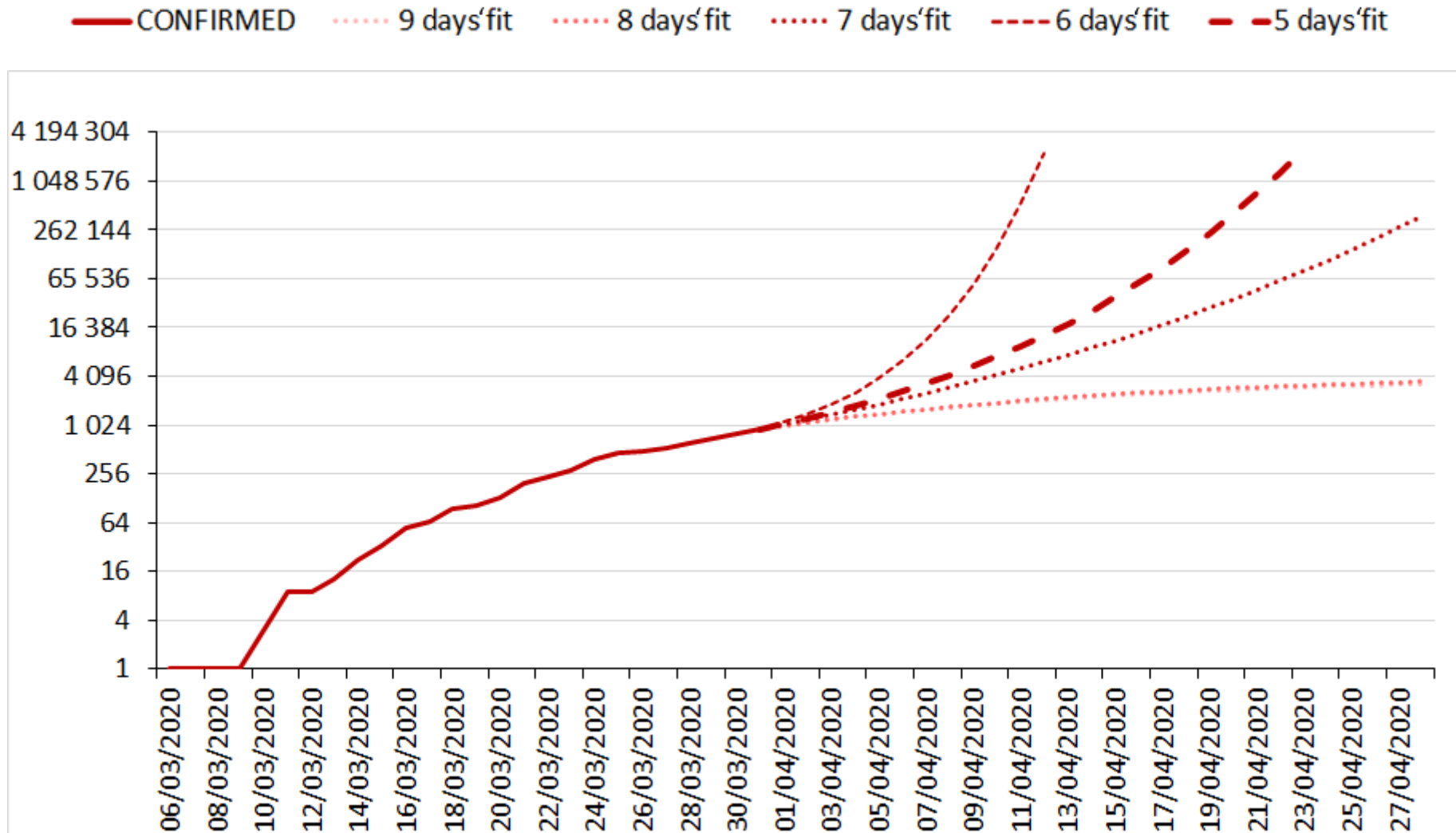
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China



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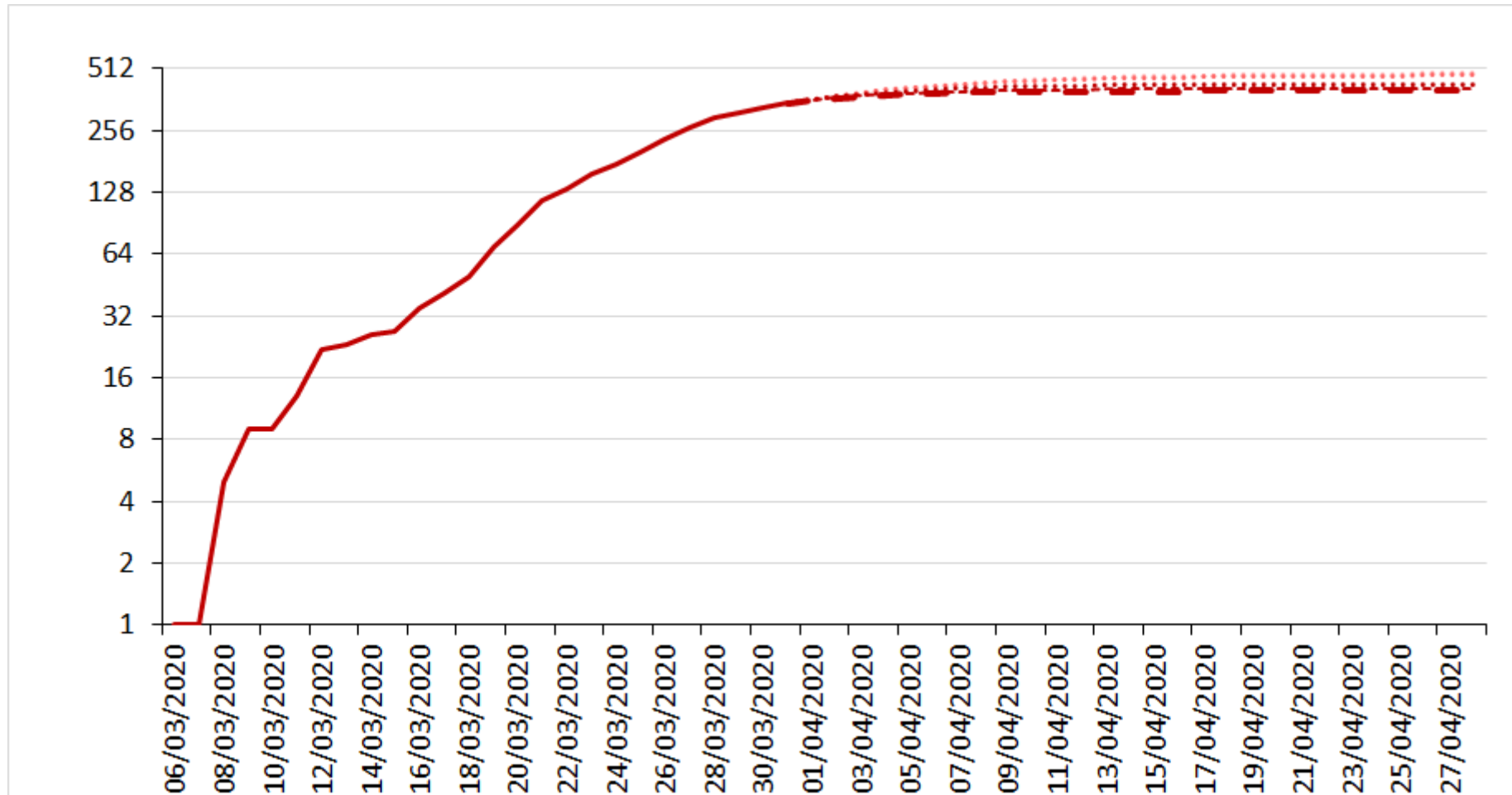
Colombia



Data: The Johns Hopkins University, Politolog.com

Costa Rica

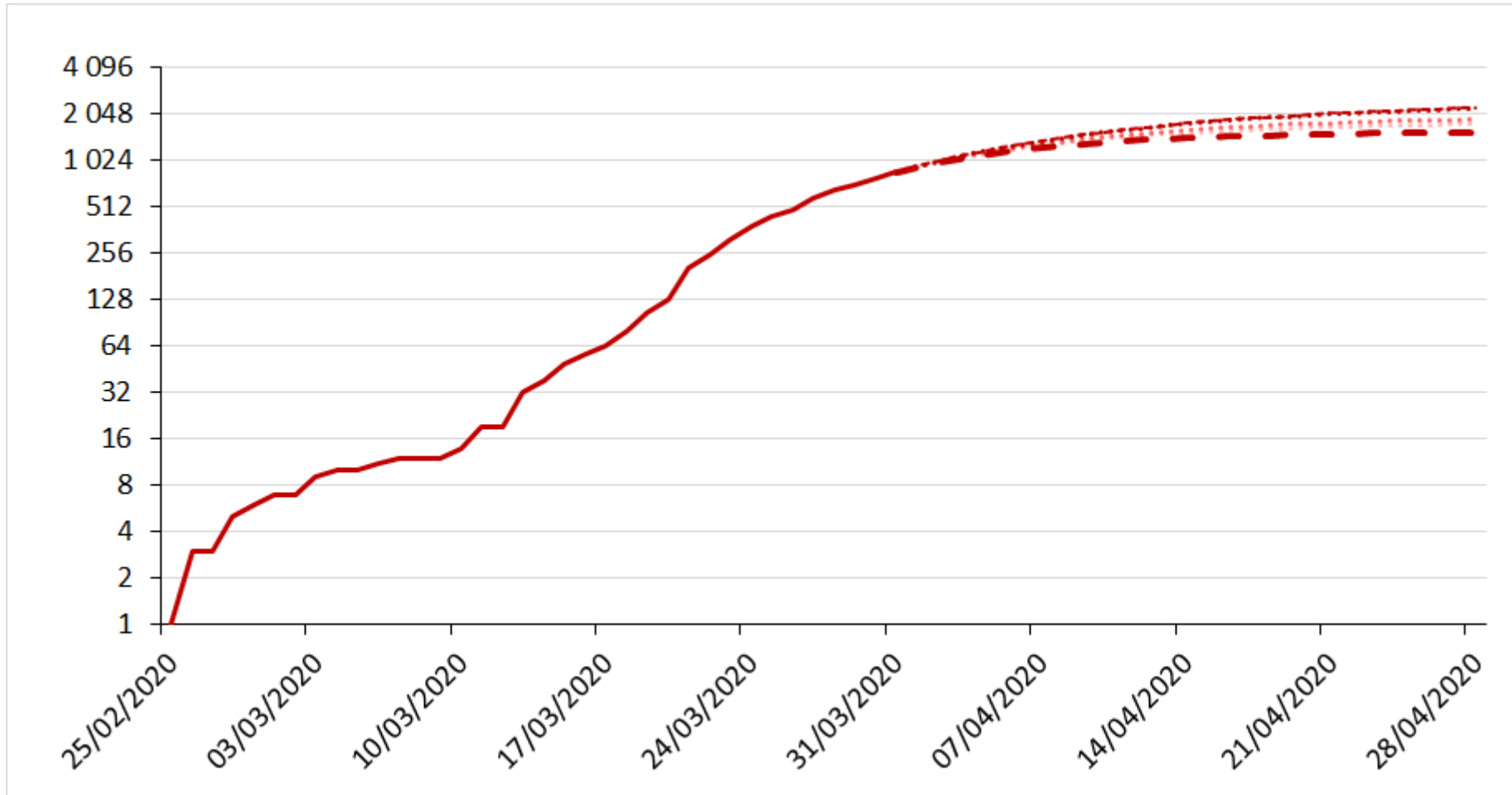
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Croatia

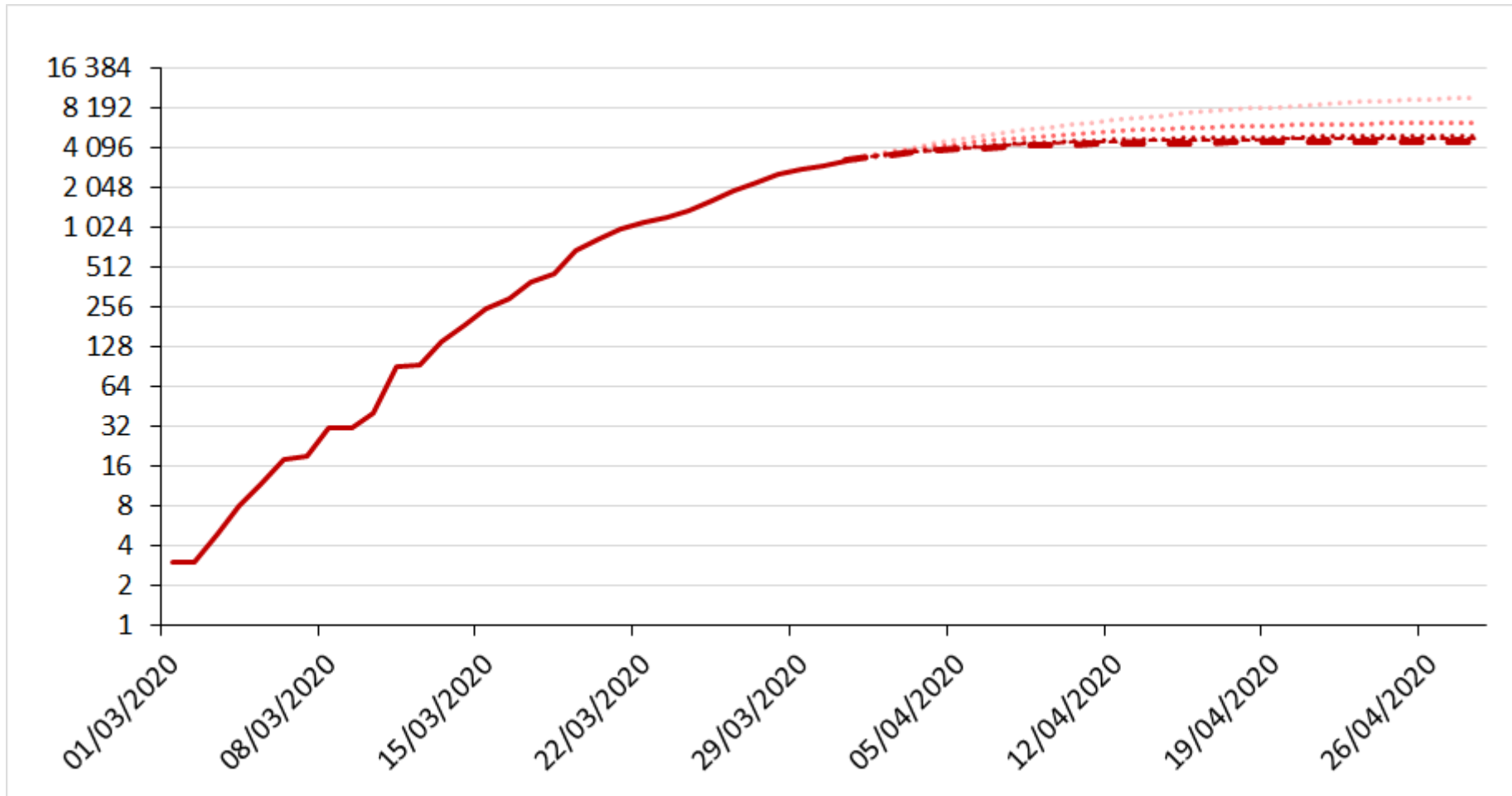
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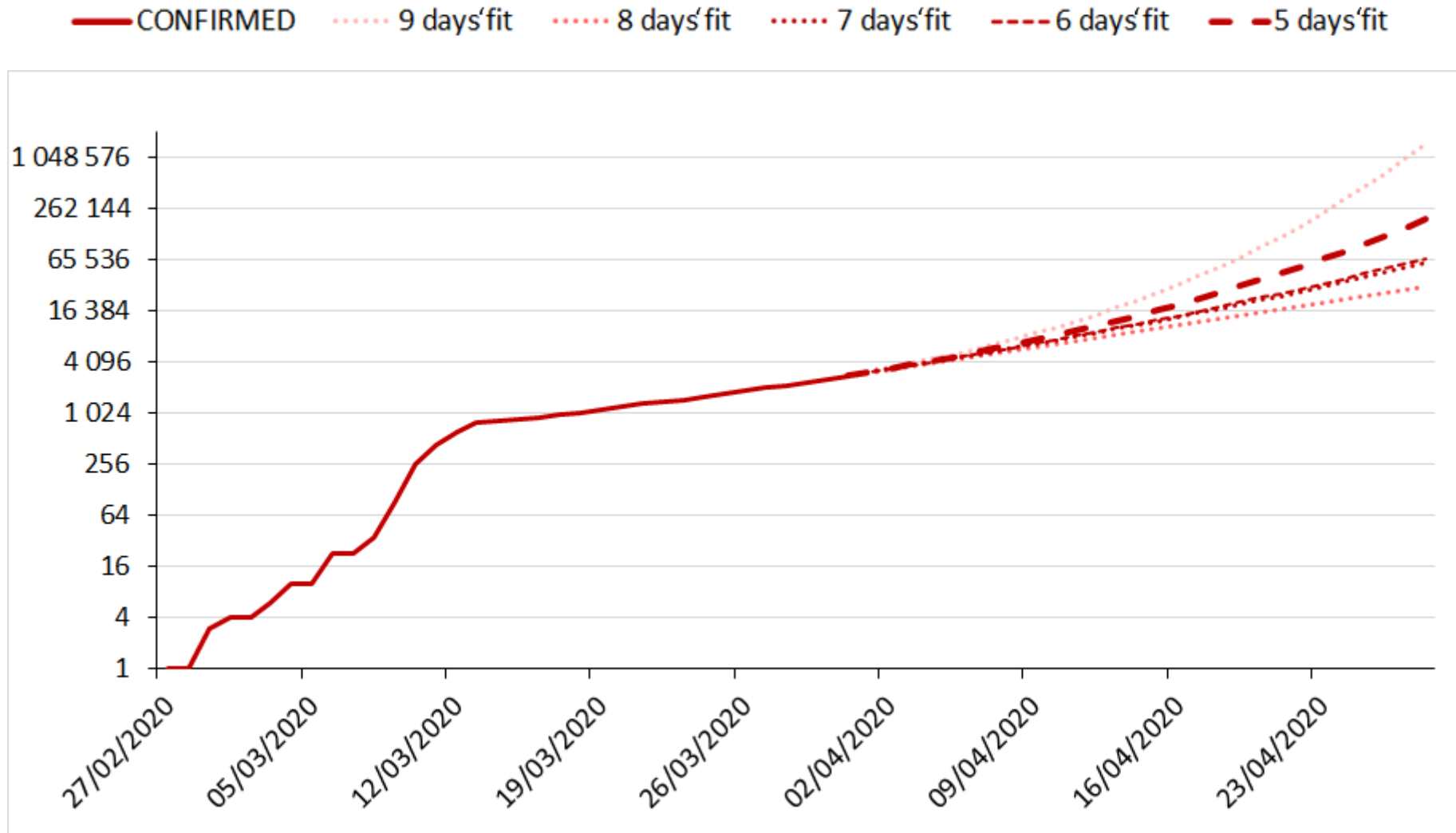
Czech Republic

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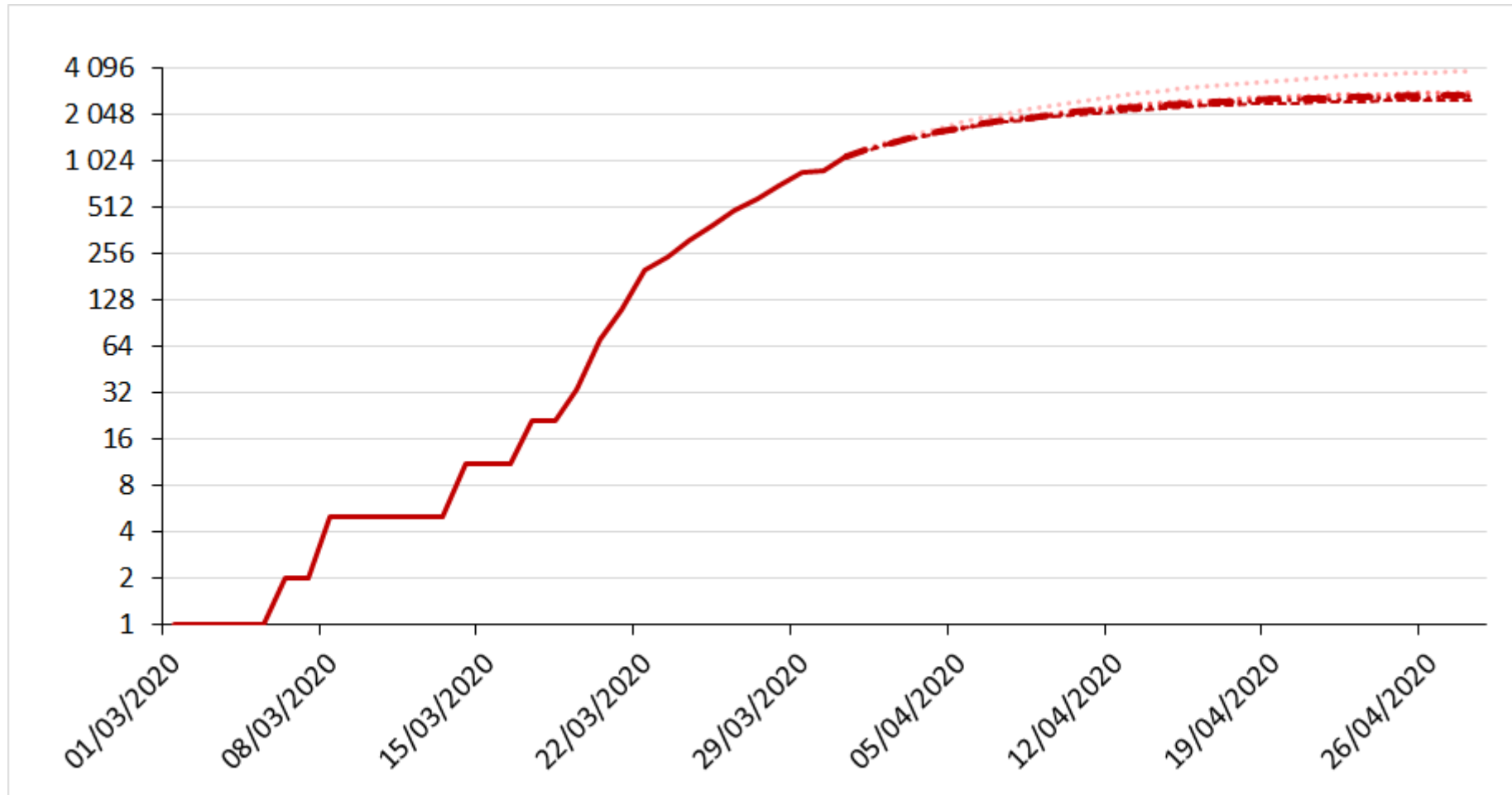
Denmark



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Dominican Republic

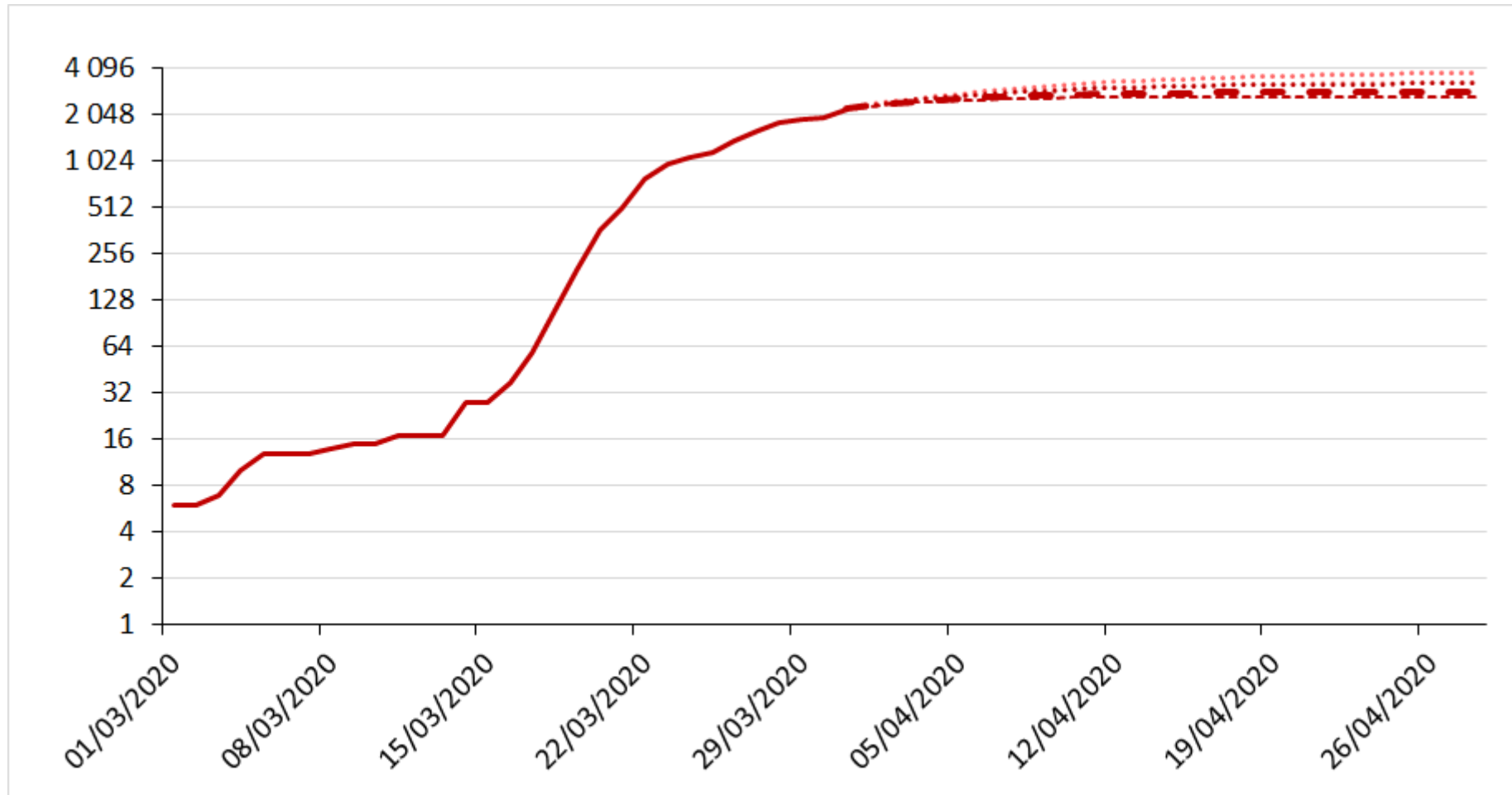
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Ecuador

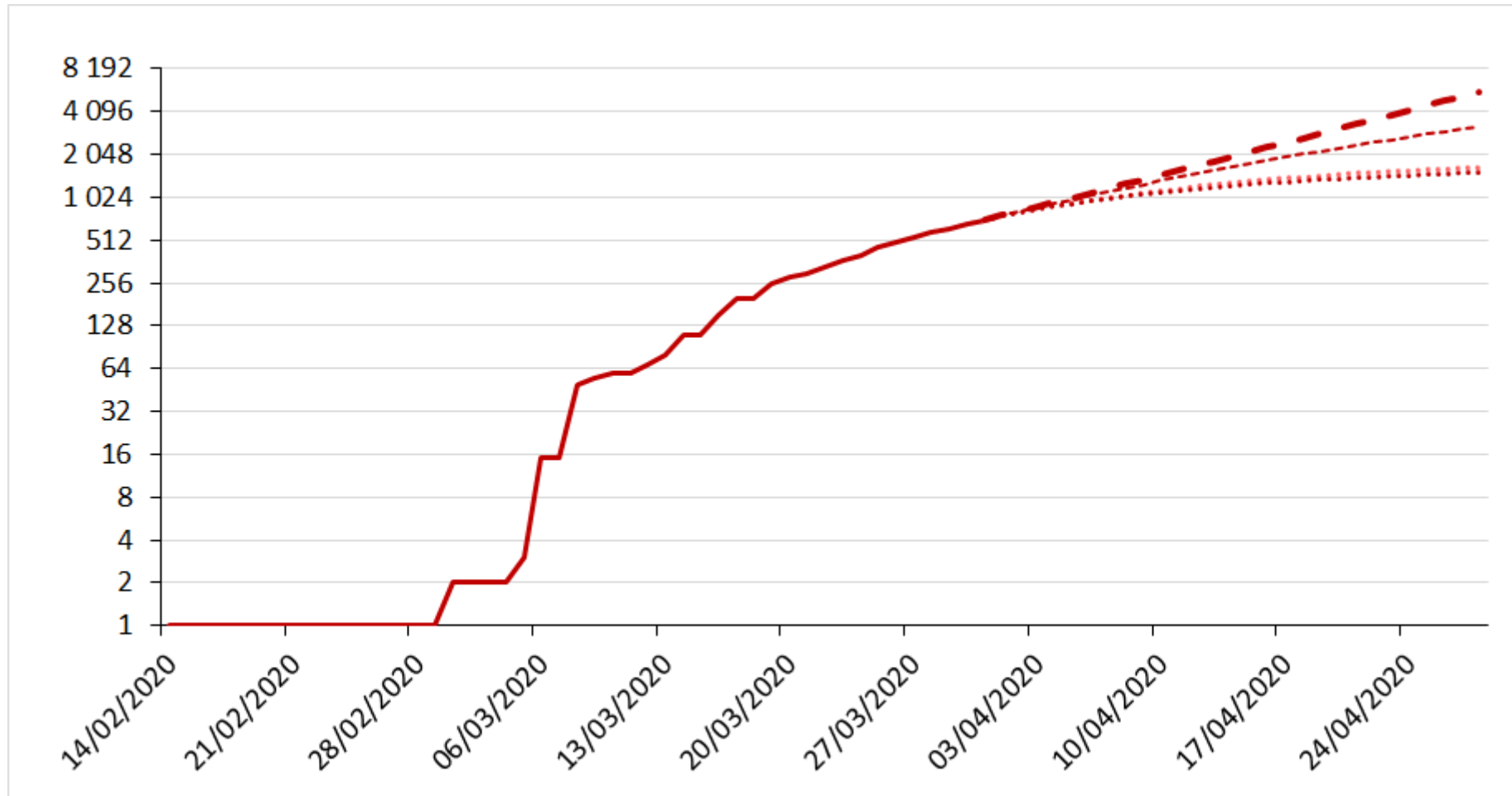
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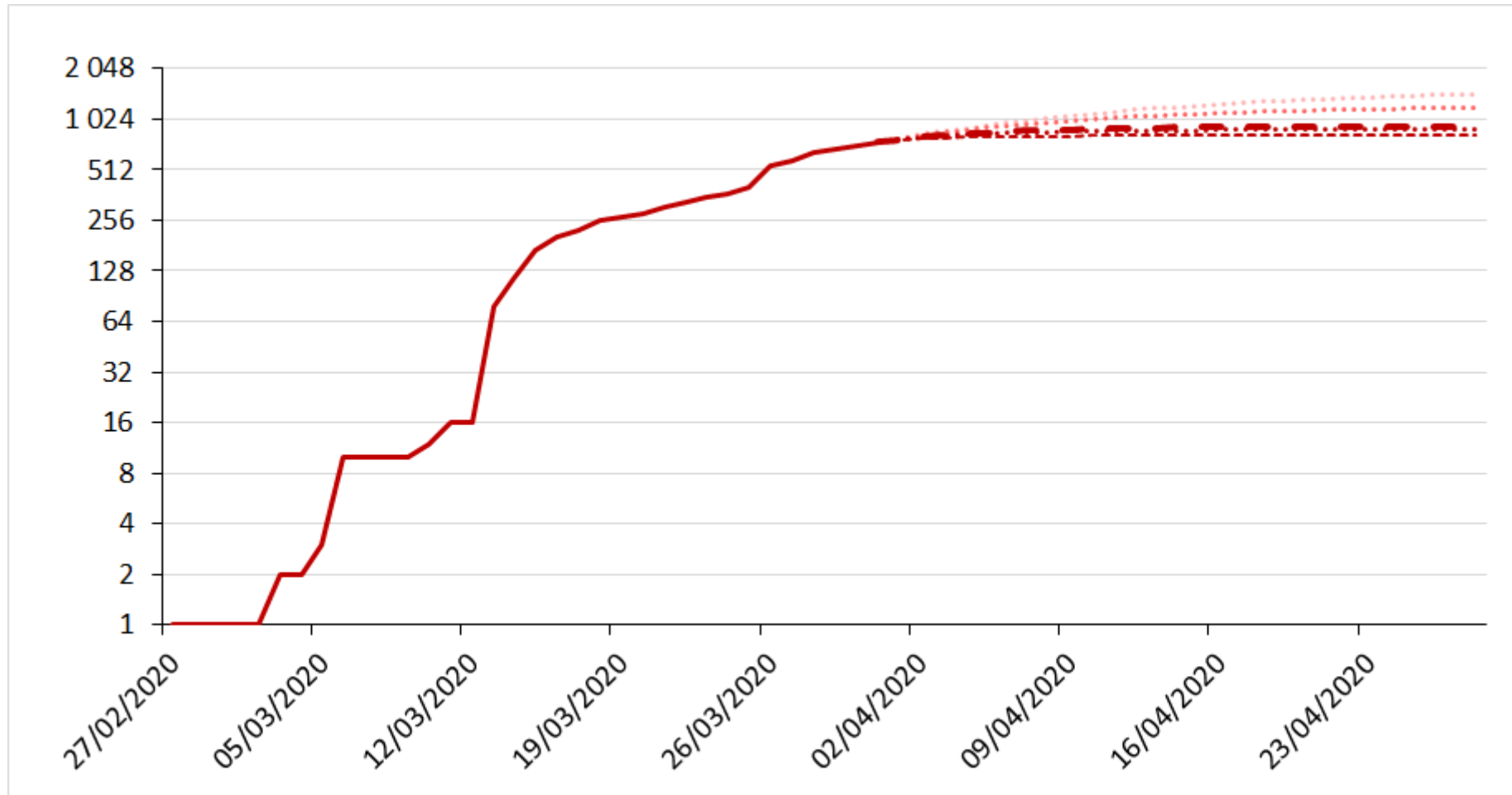
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Estonia

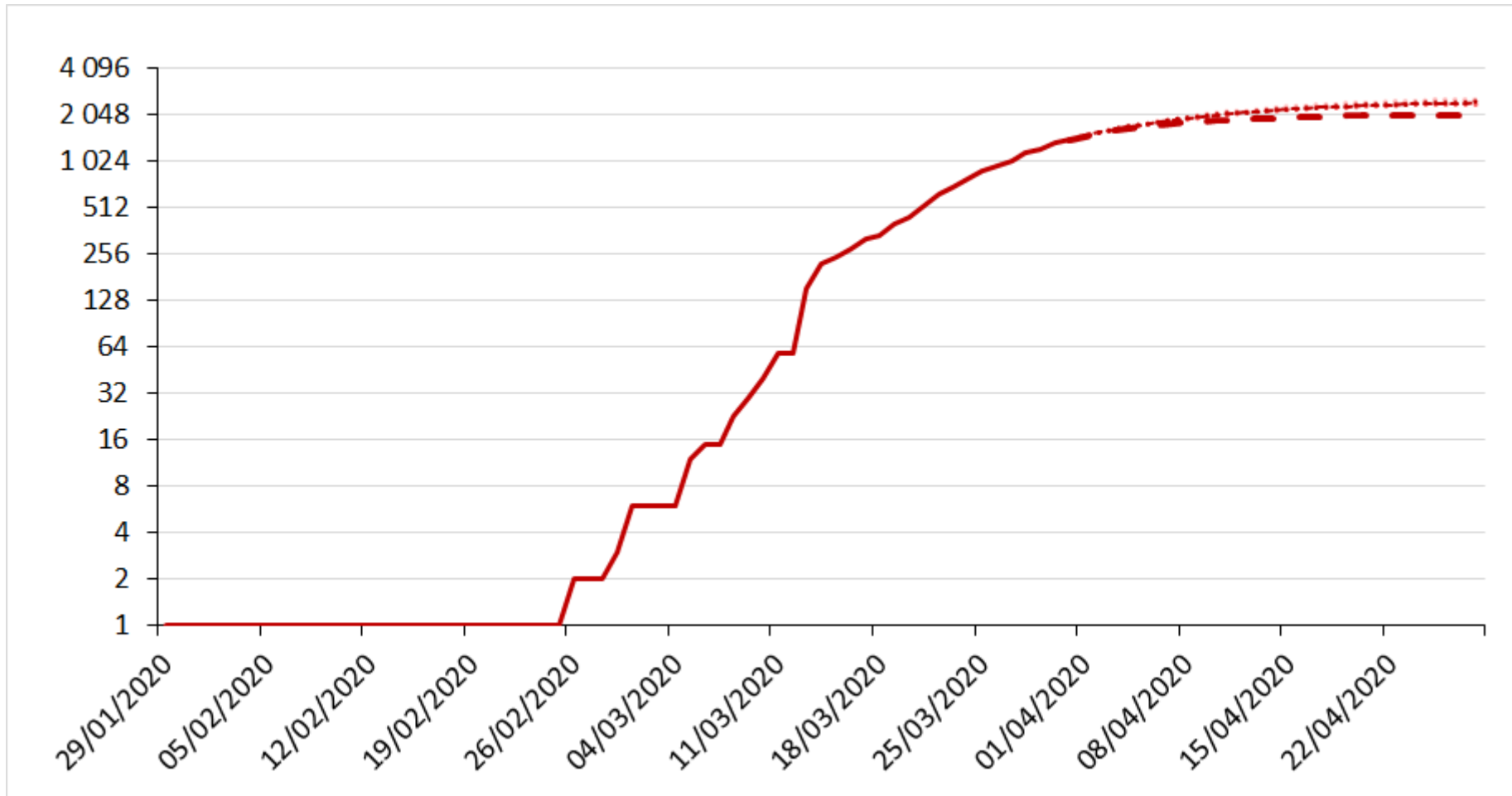
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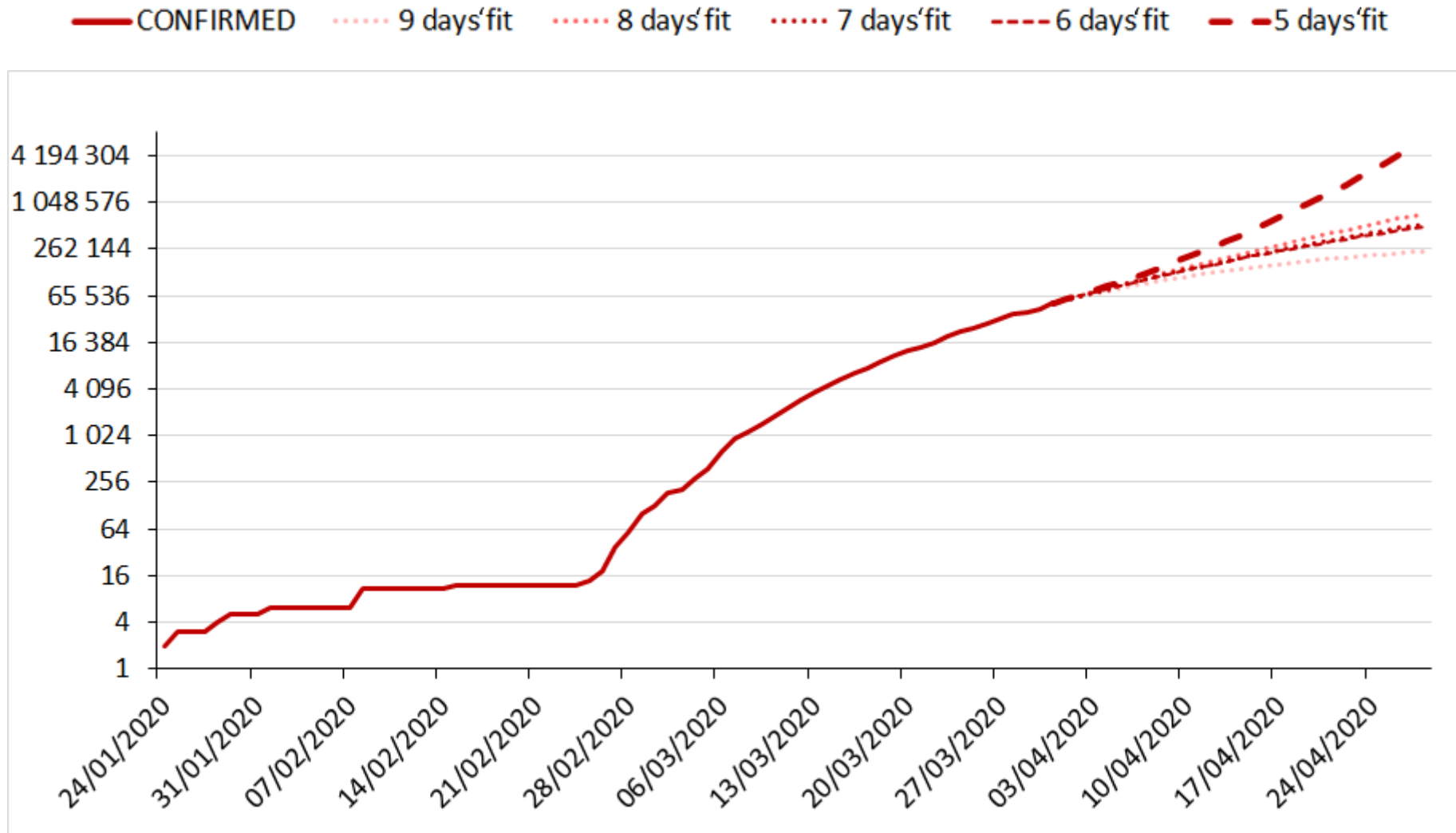
Finland

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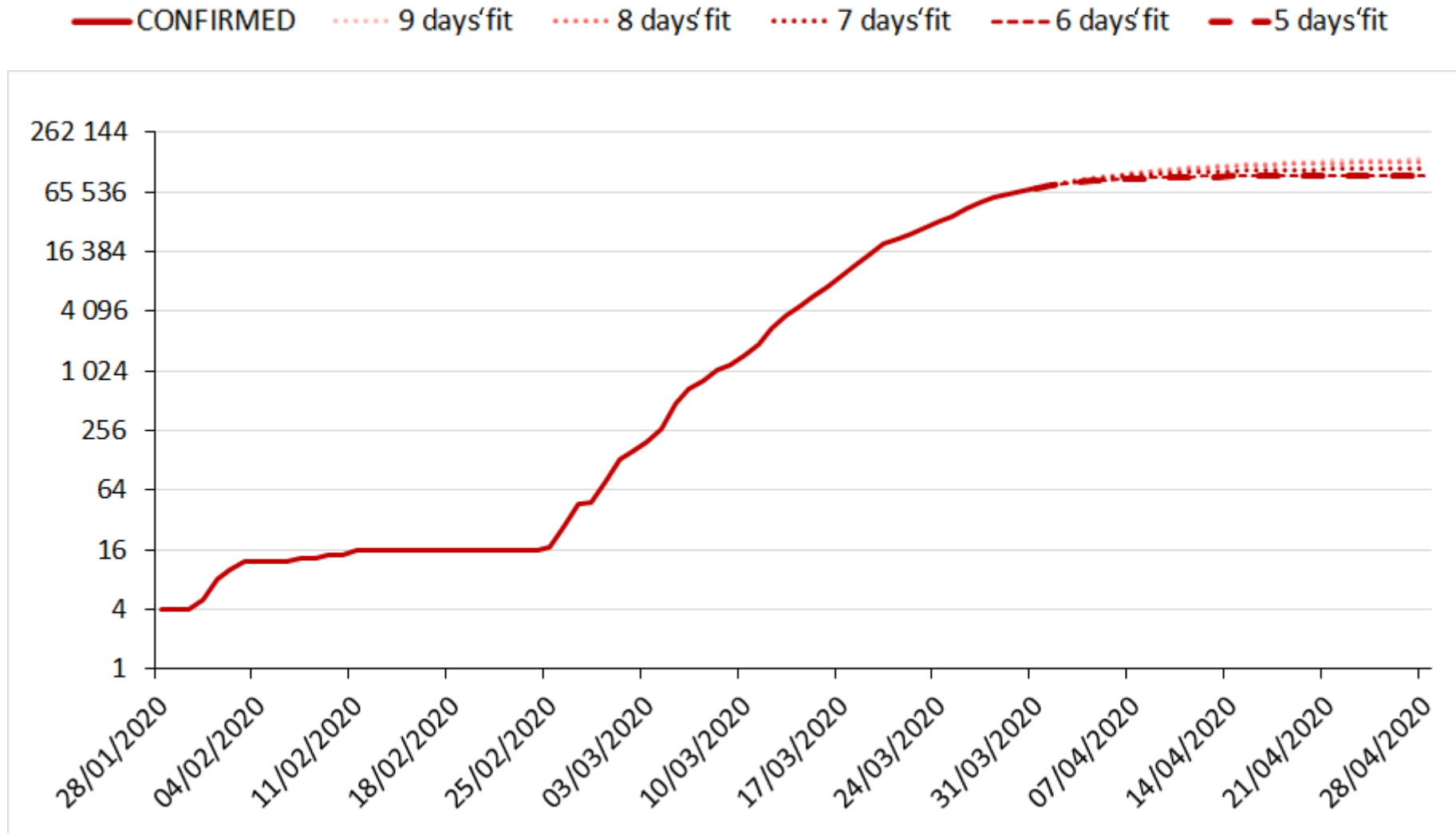
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France



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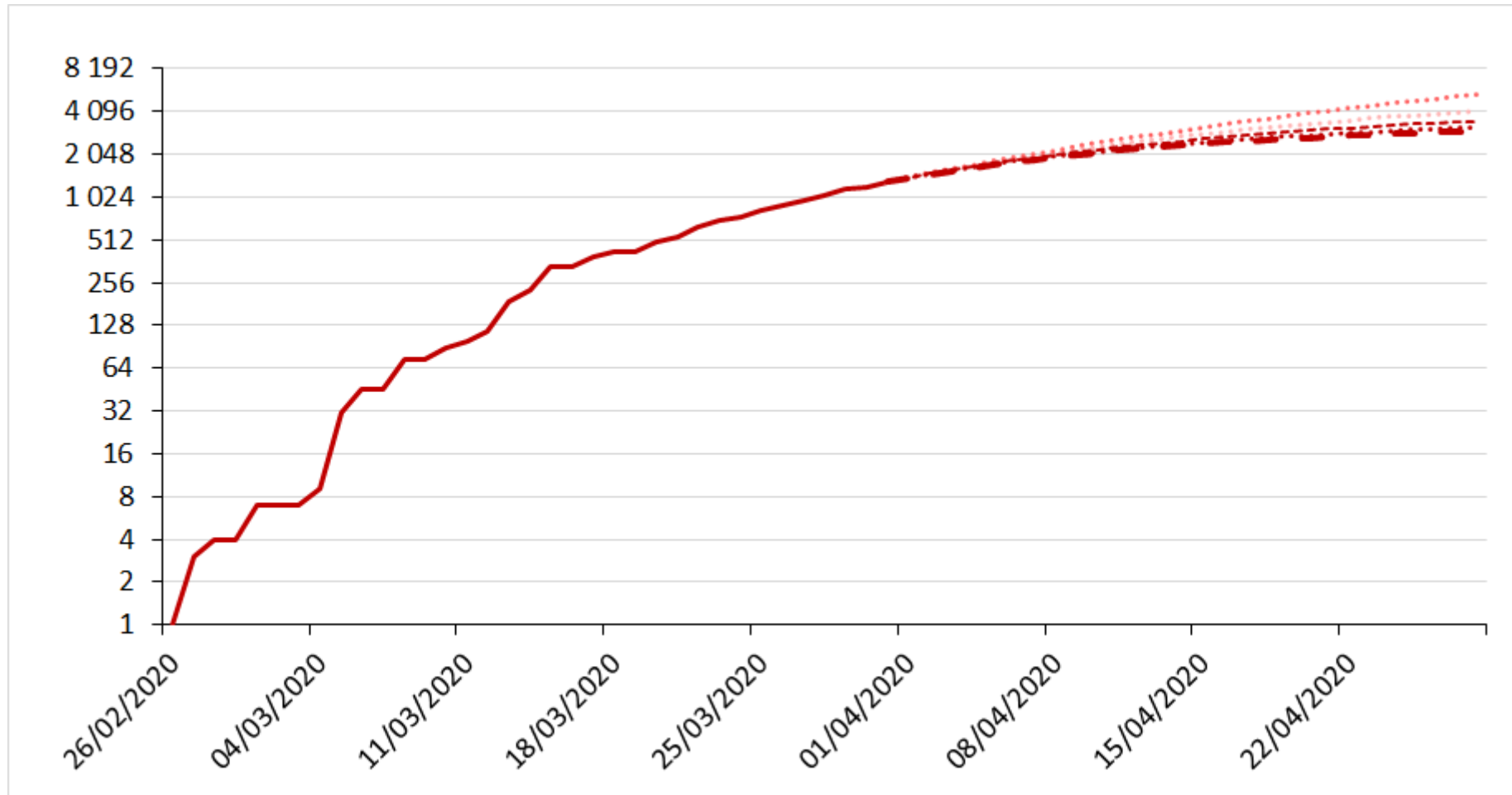
Germany



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Greece

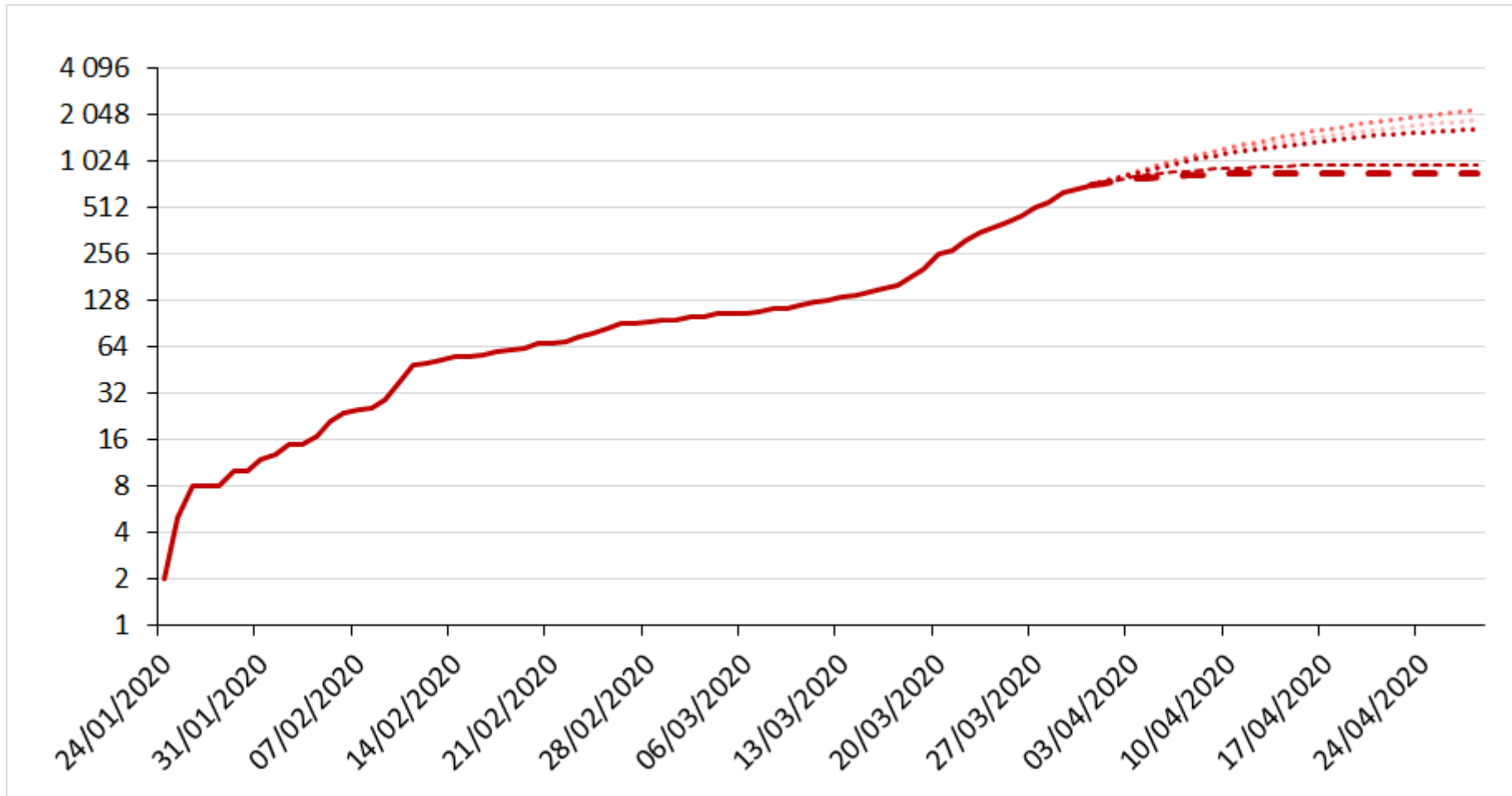
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Data: The Johns Hopkins University, Politolog.com

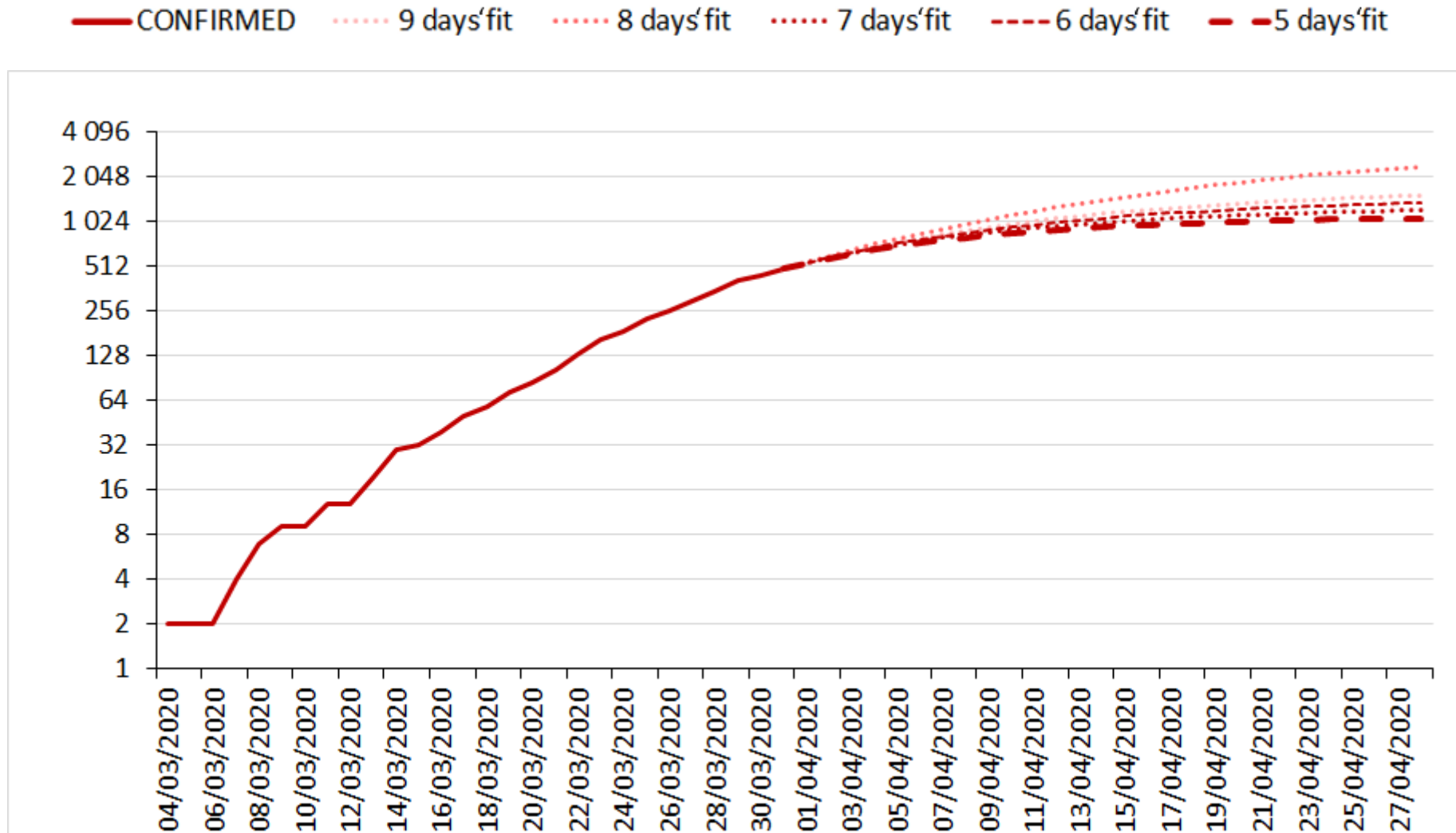
Hong Kong

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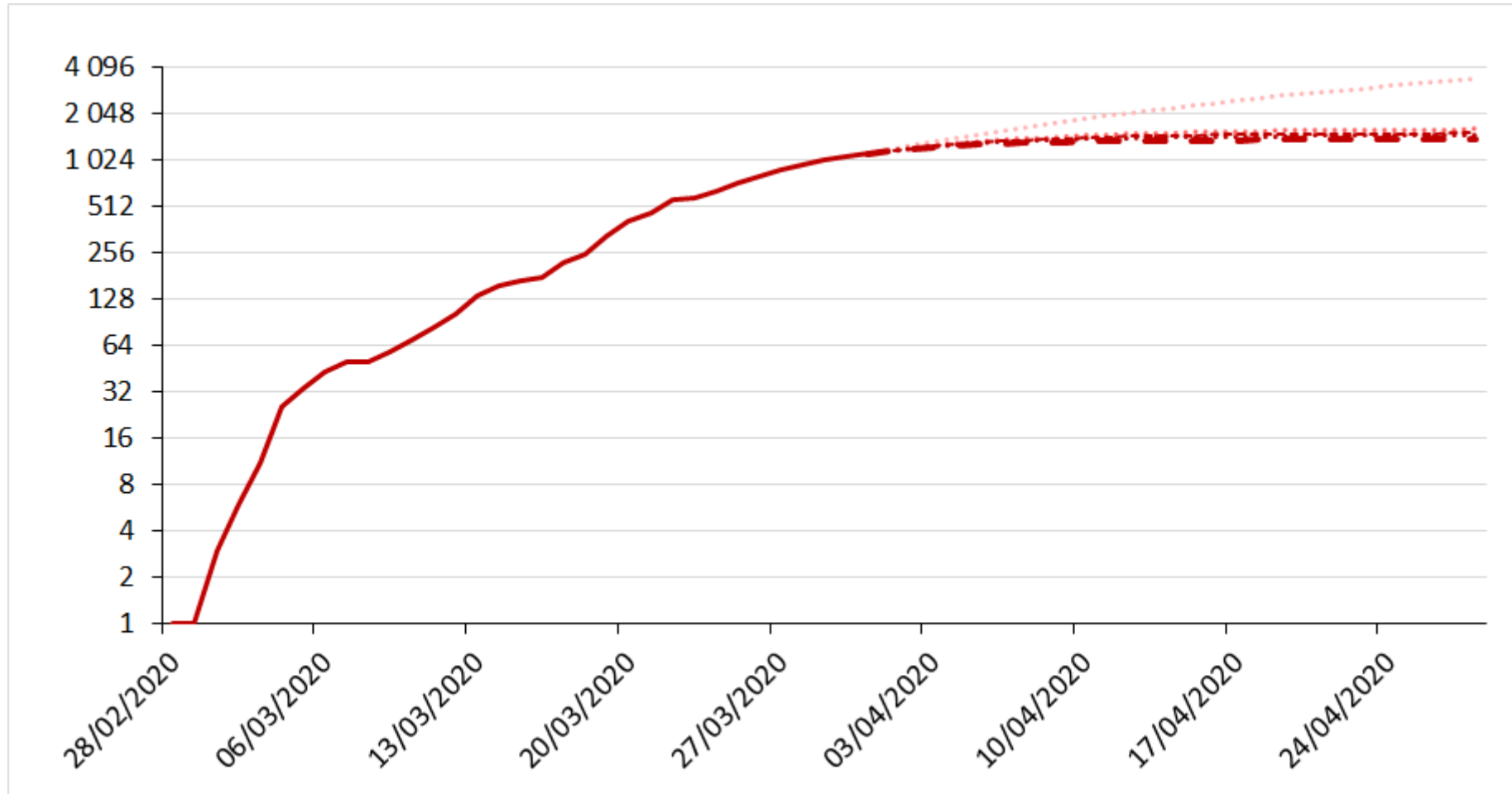
Hungary



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Iceland

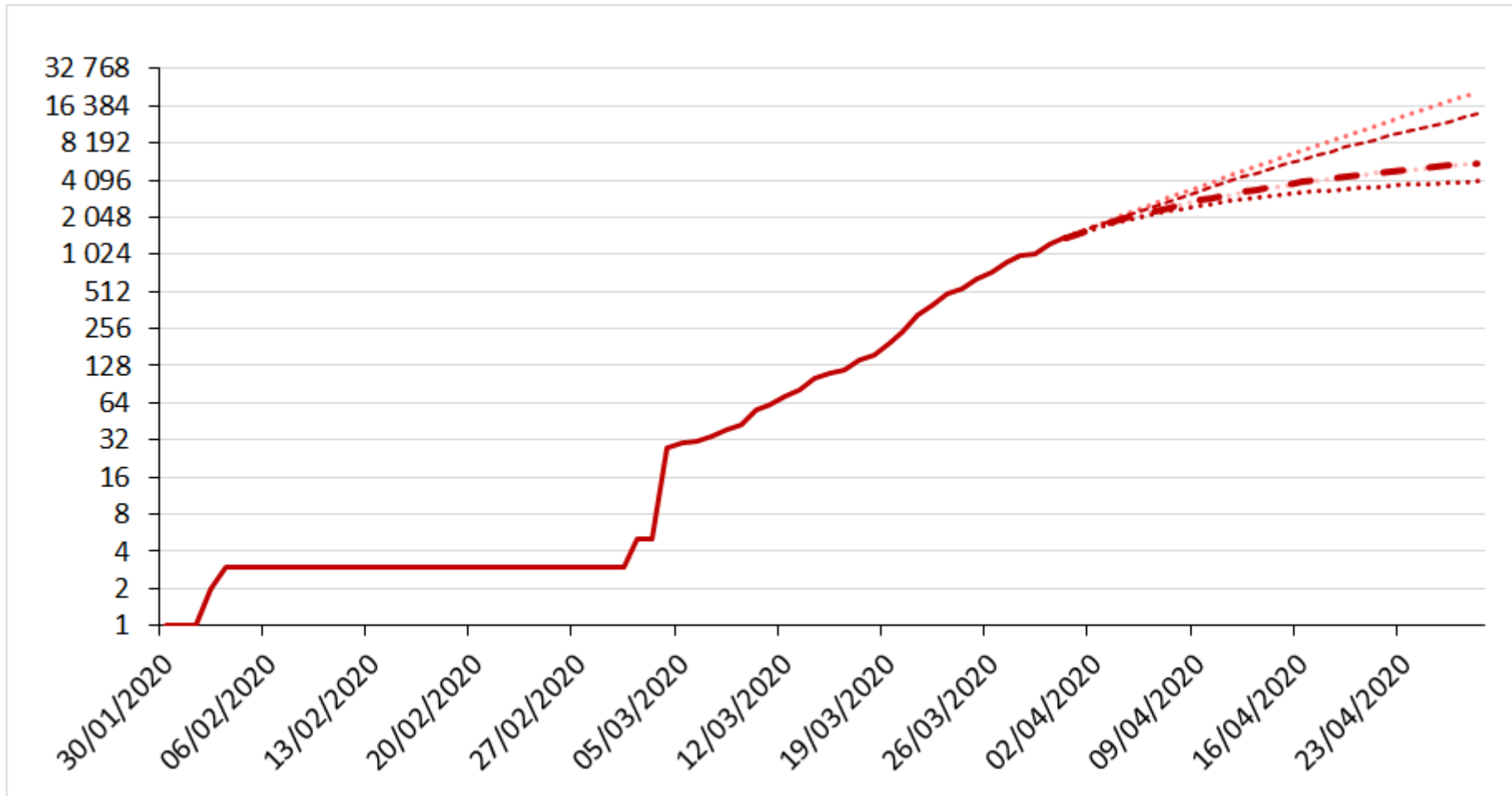
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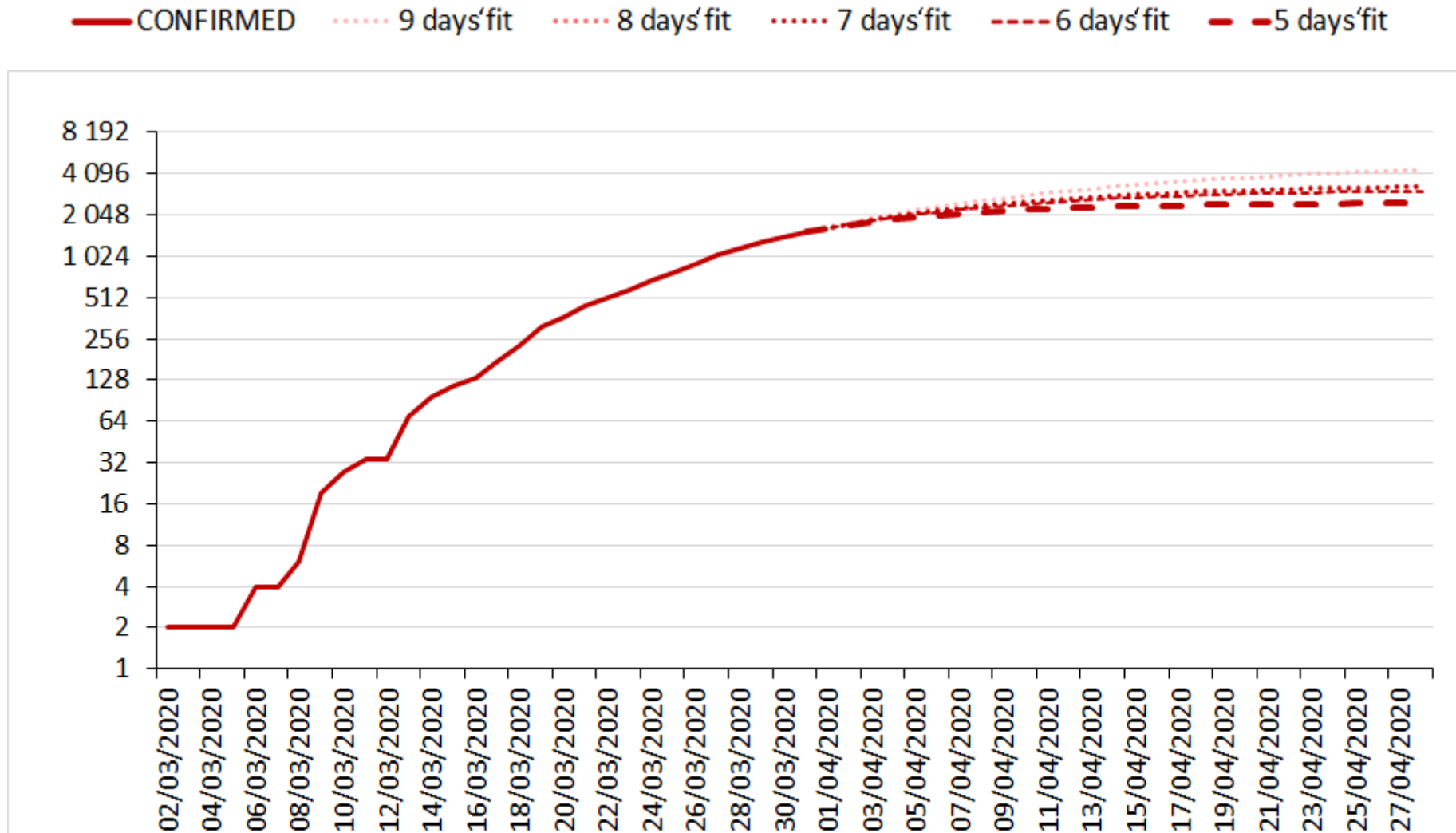
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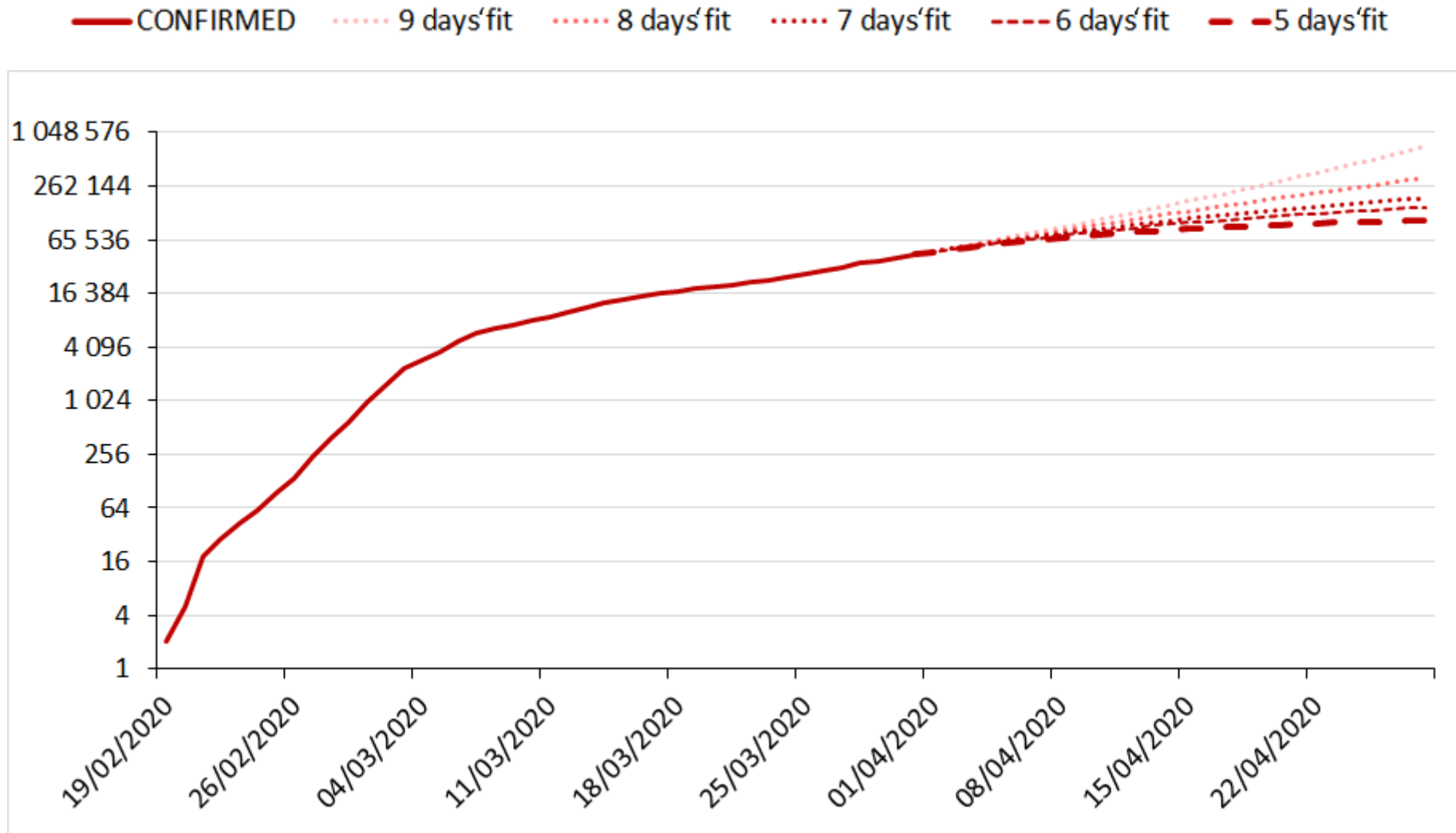
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Indonesia



Data: The Johns Hopkins University, Politolog.com

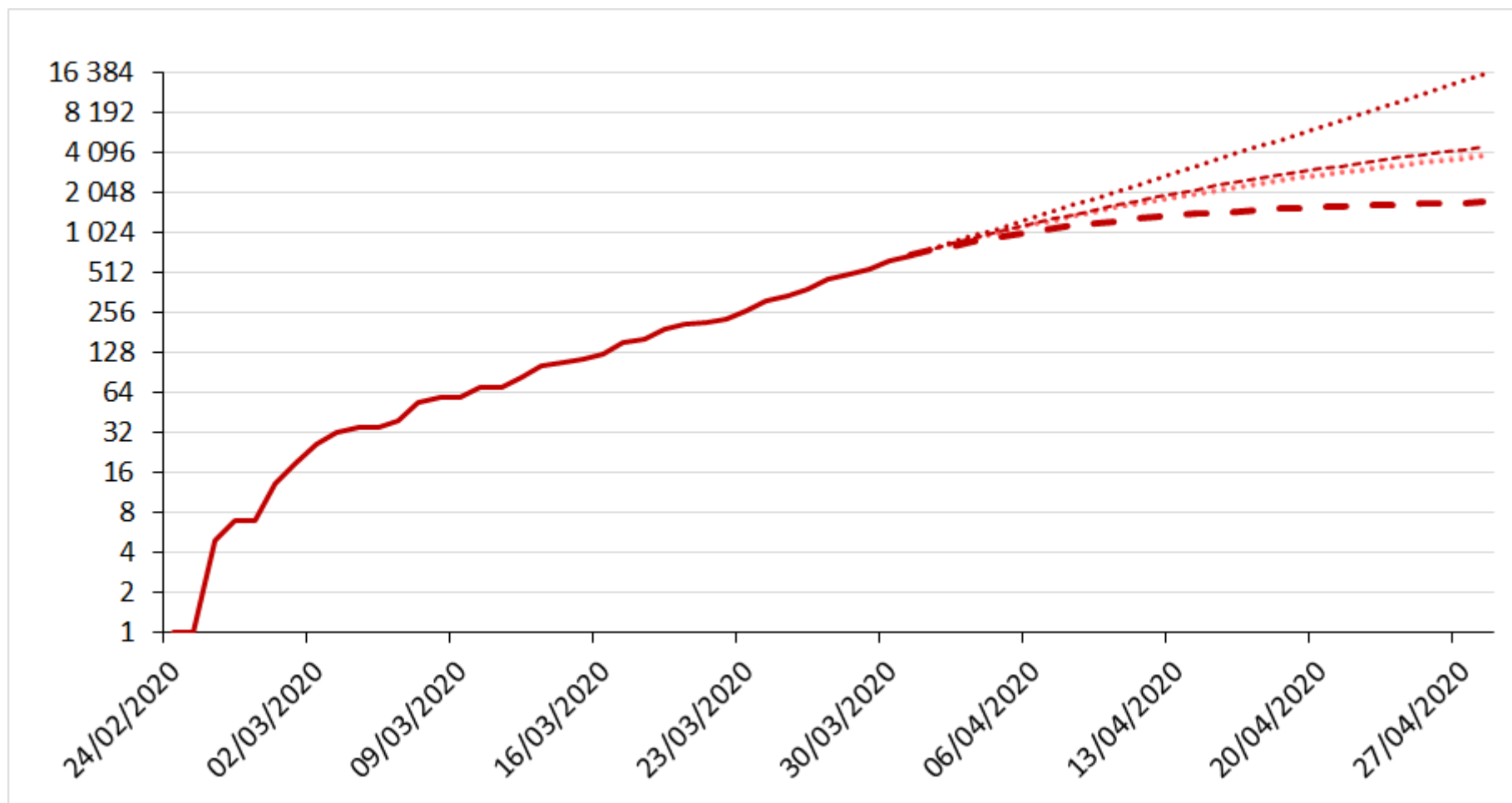
Iran



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Iraq

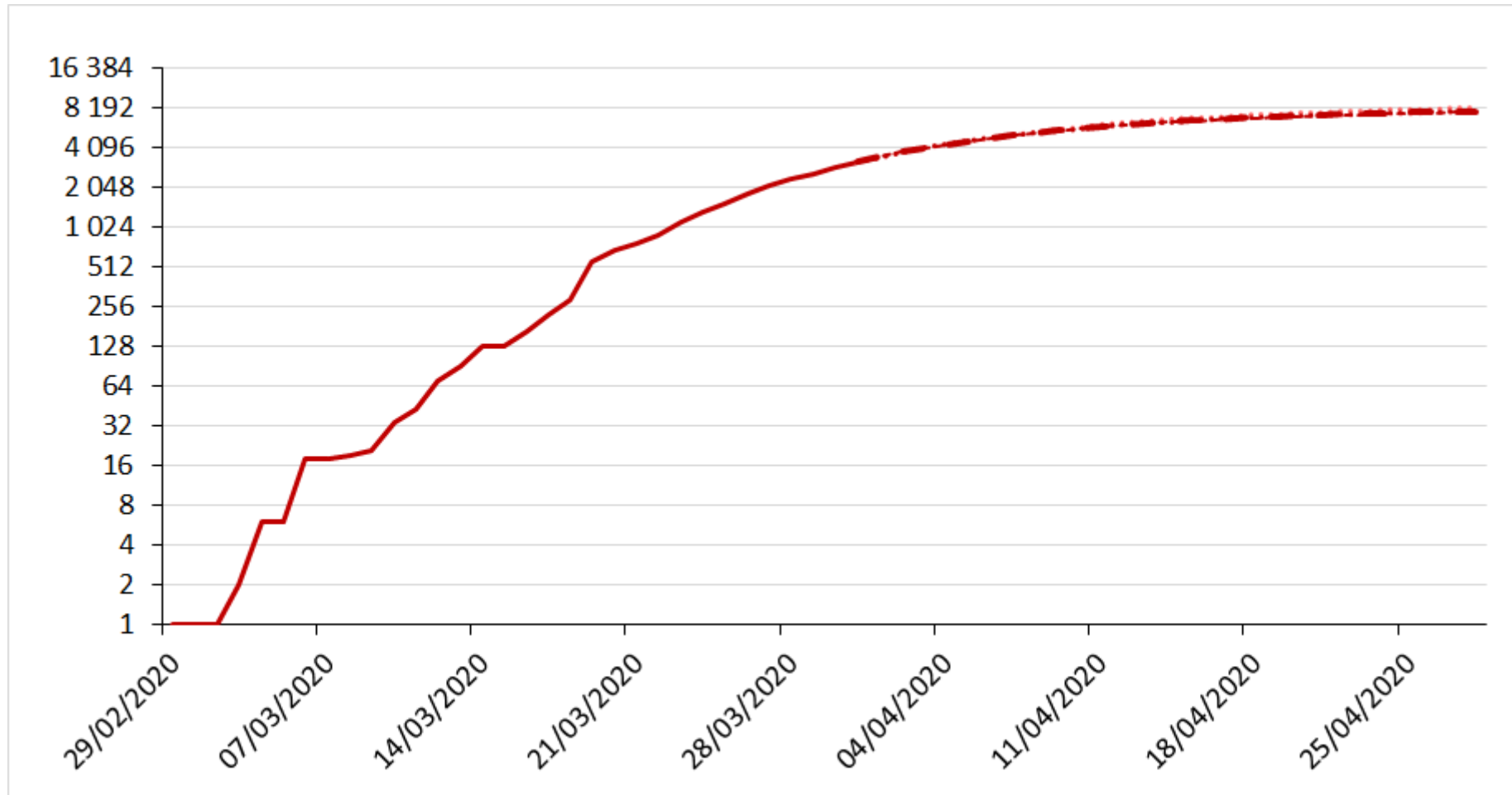
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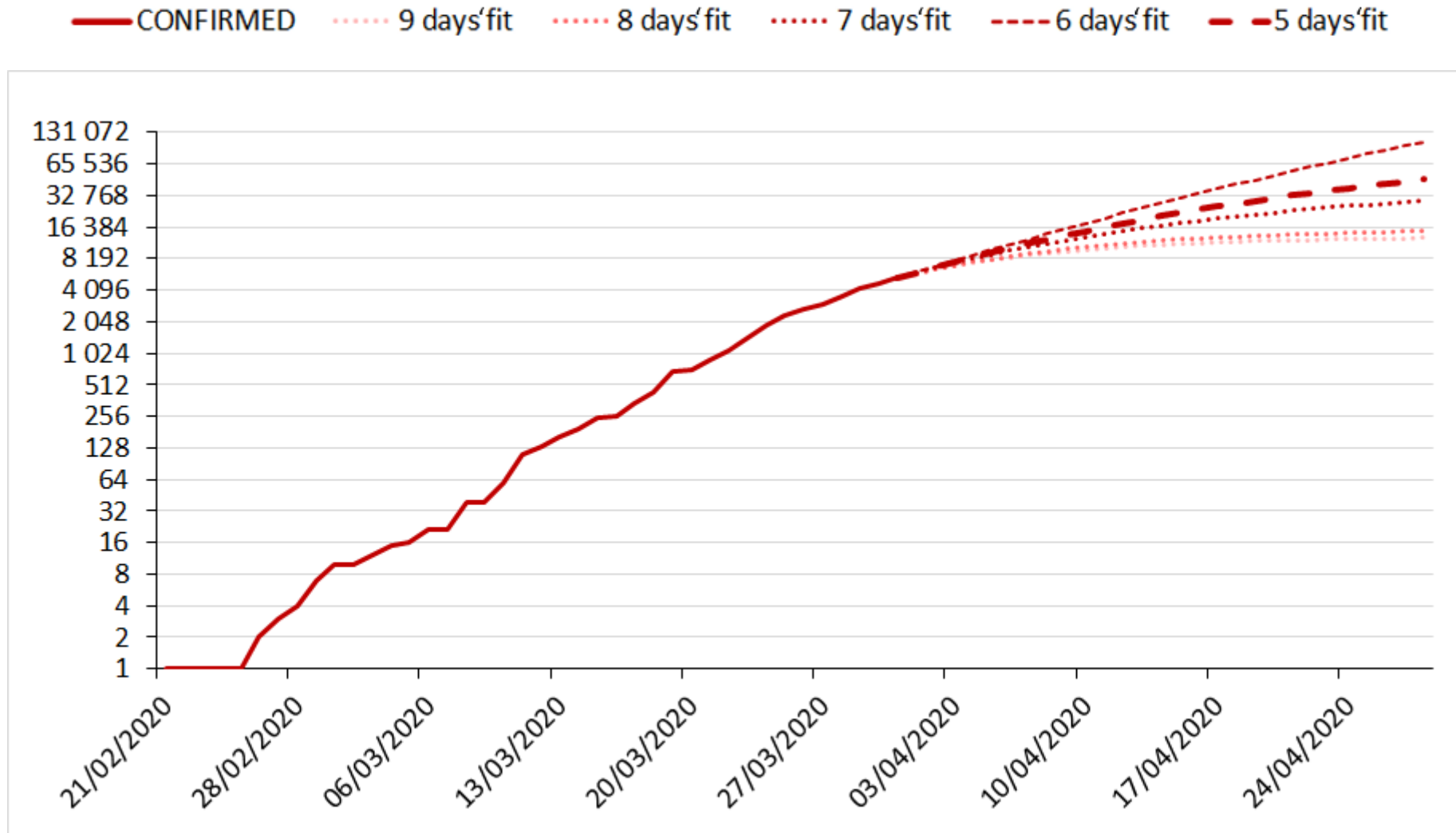
Ireland

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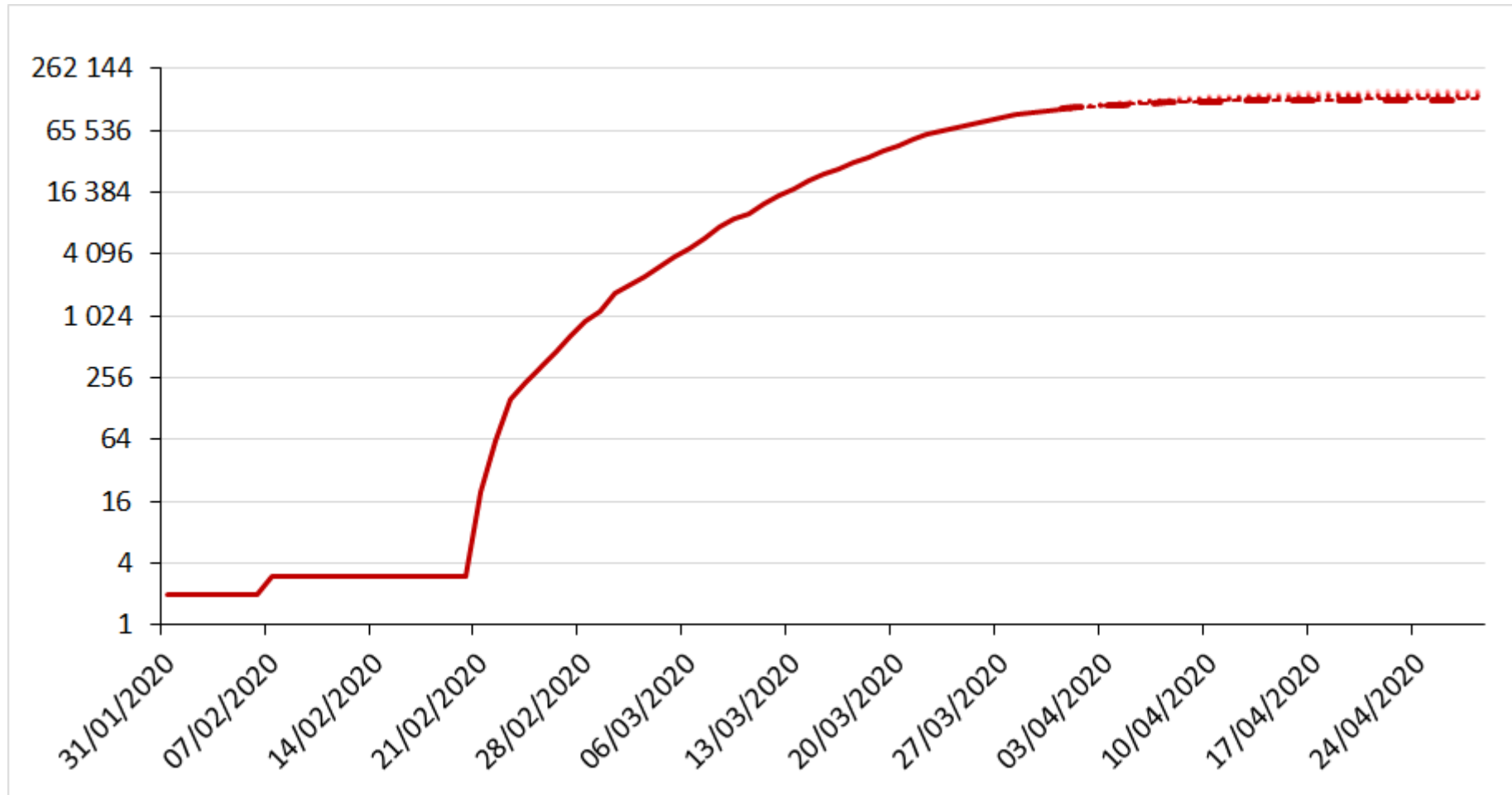
Israel



Data: The Johns Hopkins University, Politolog.com

Italy

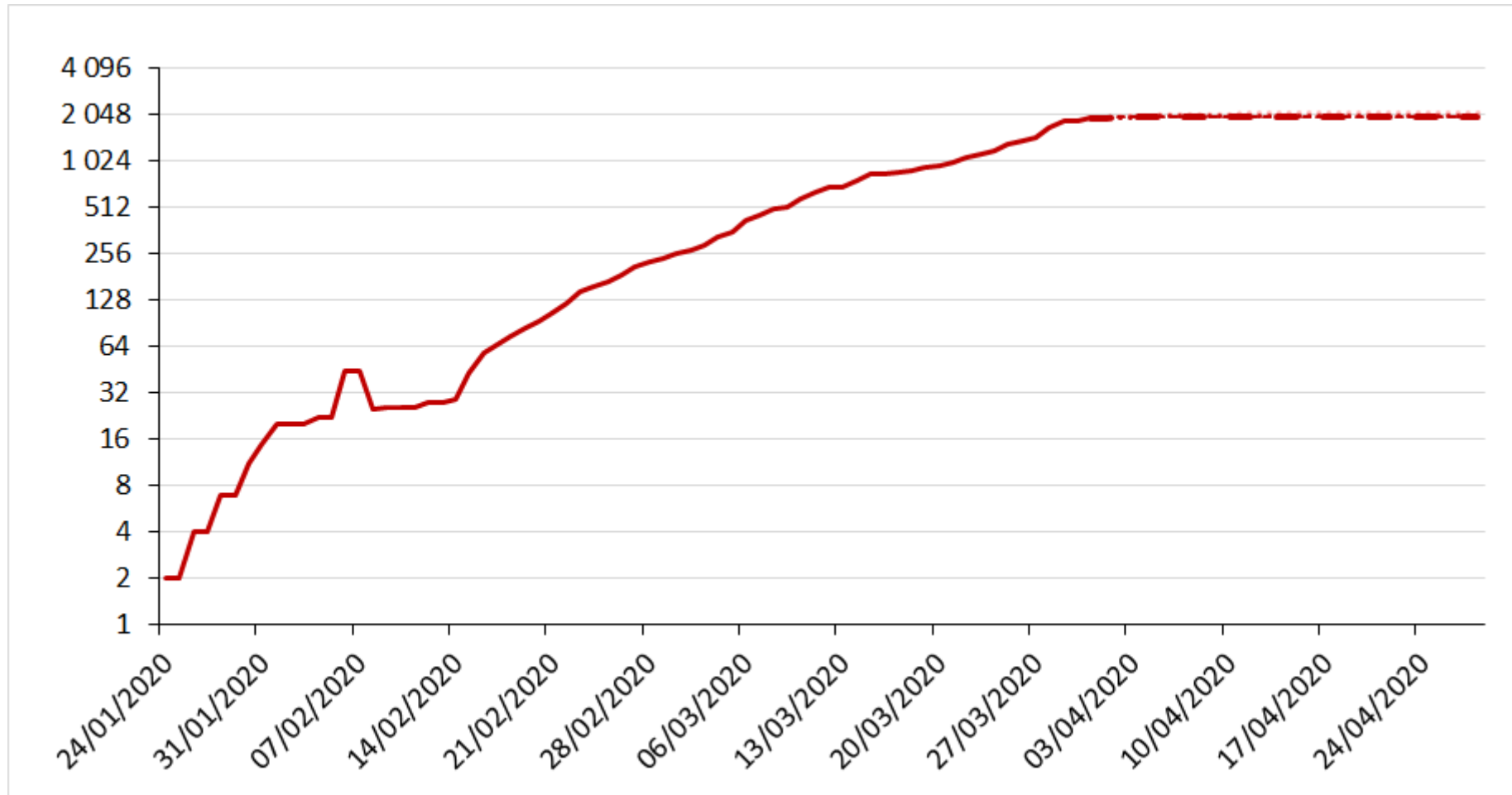
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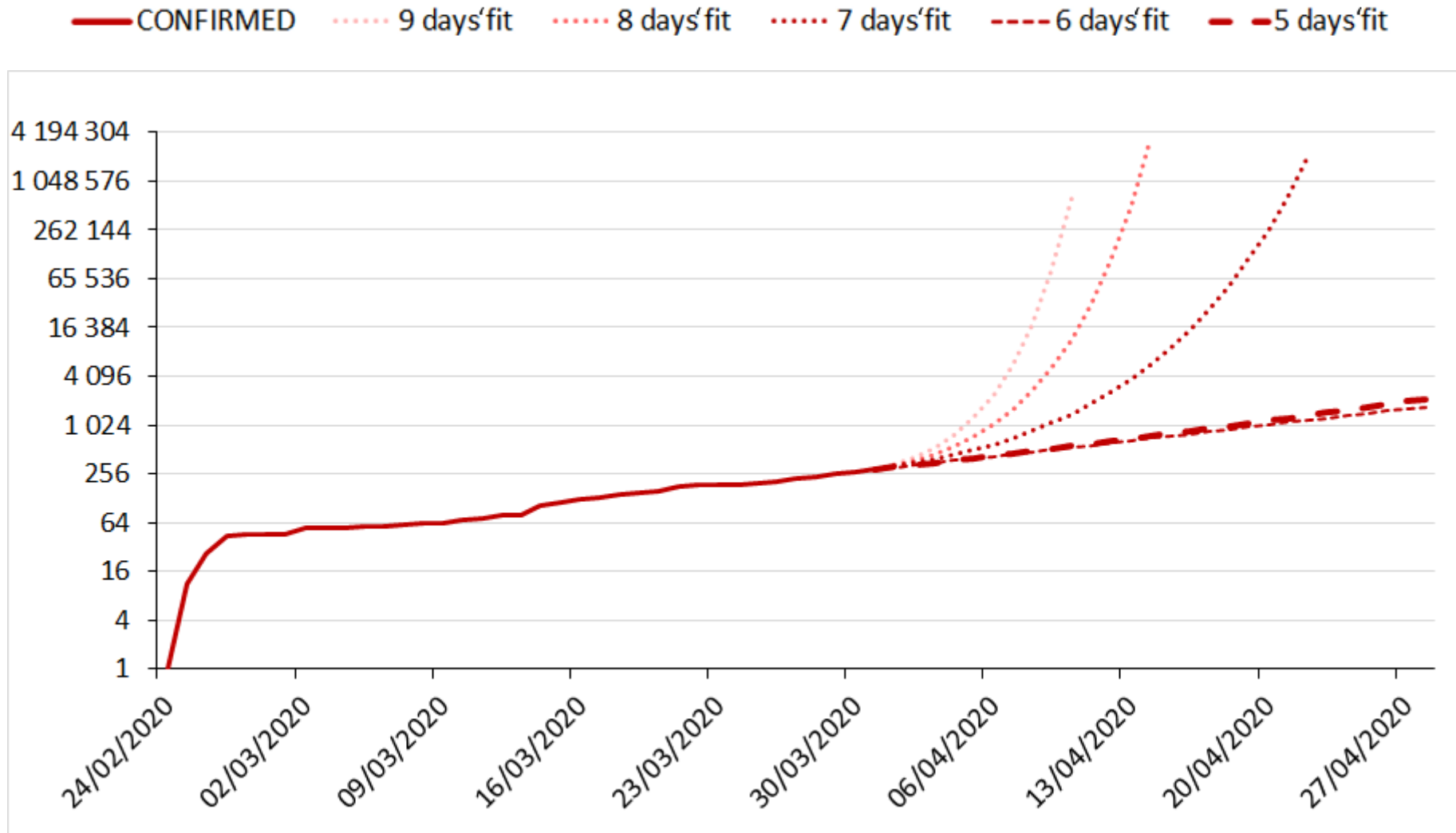
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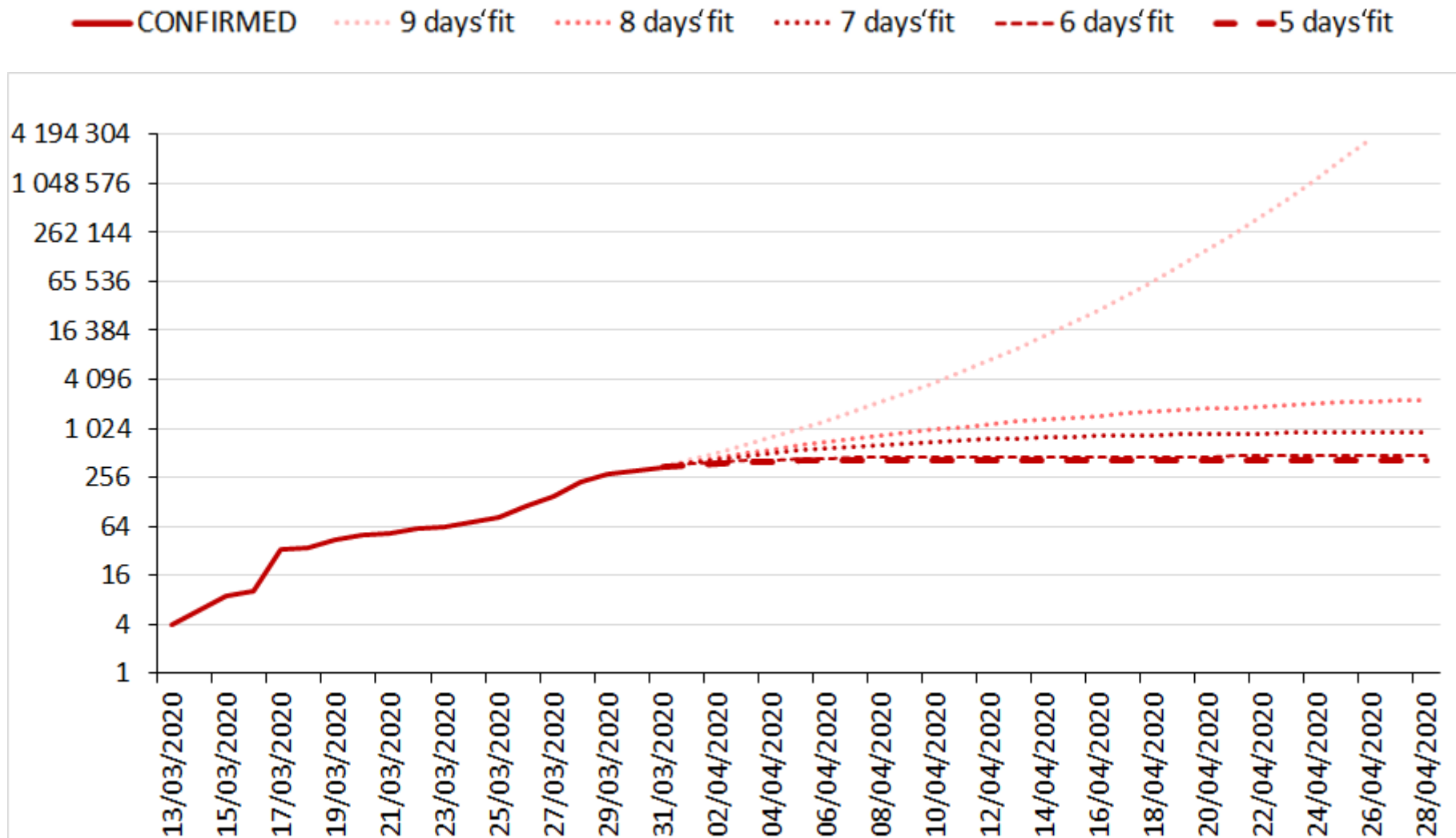
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Kuwait



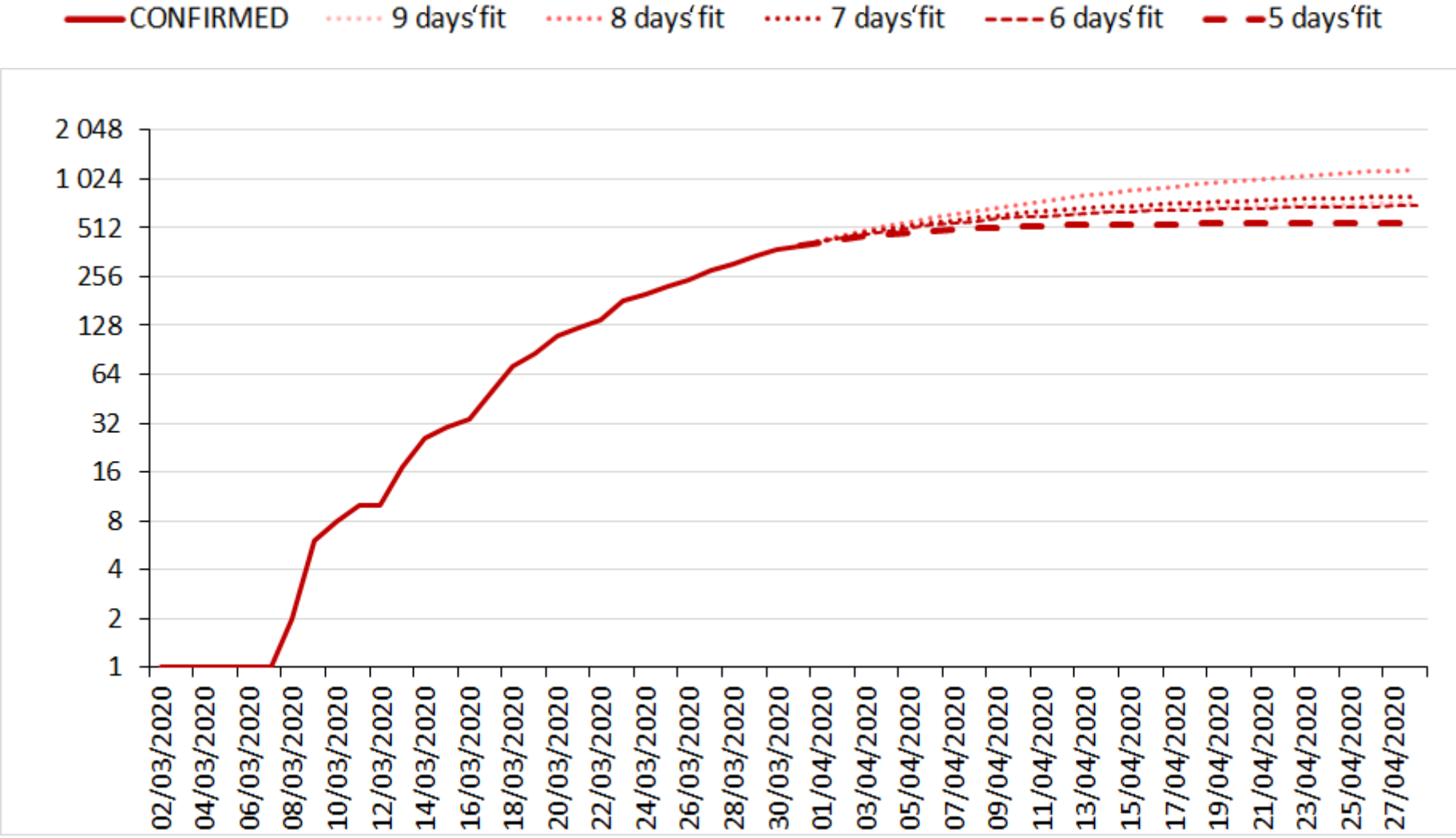
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Kazakhstan



Data: The Johns Hopkins University, Politolog.com

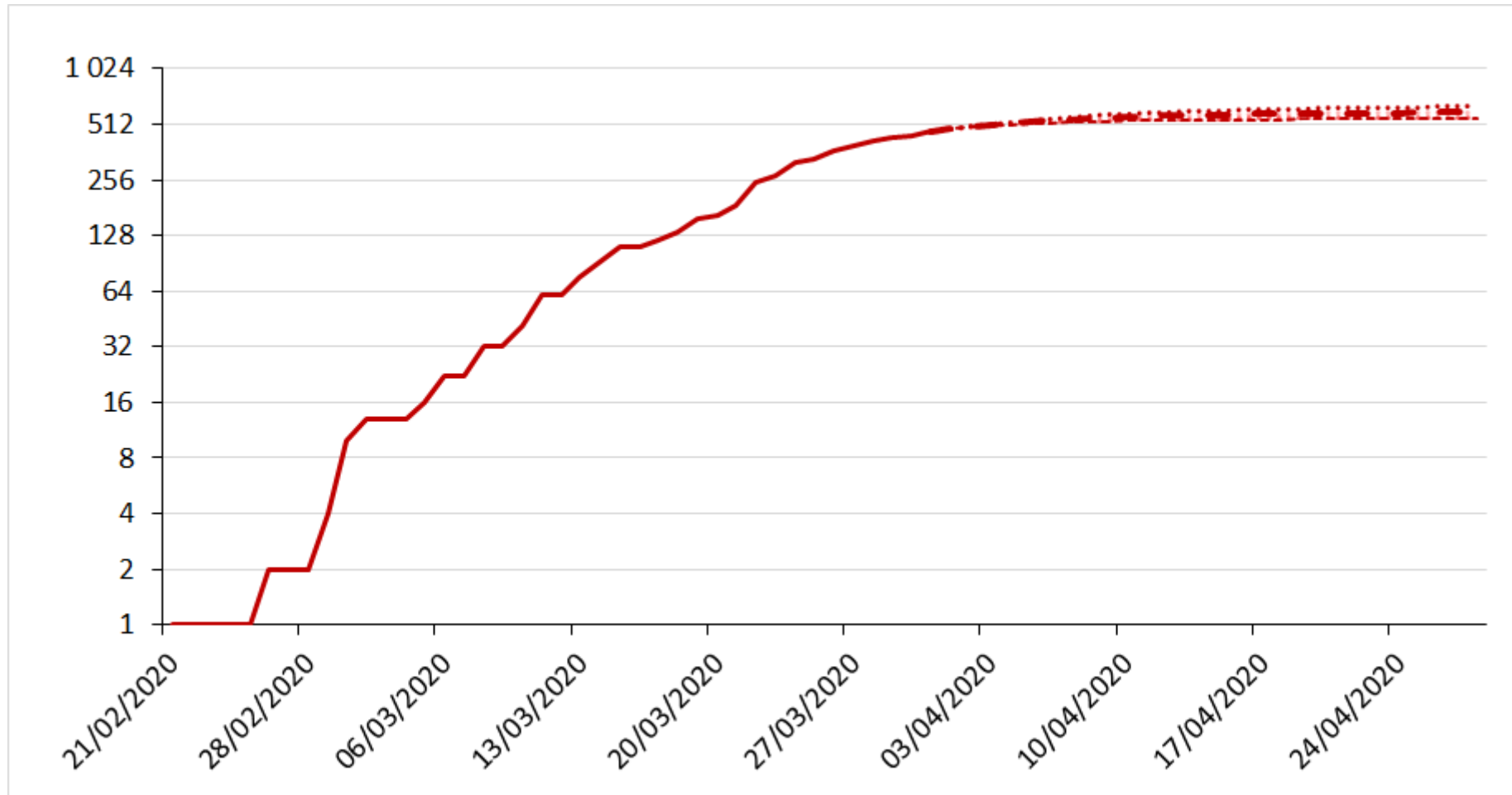
Latvia



Data: The Johns Hopkins University, Politolog.com

Lebanon

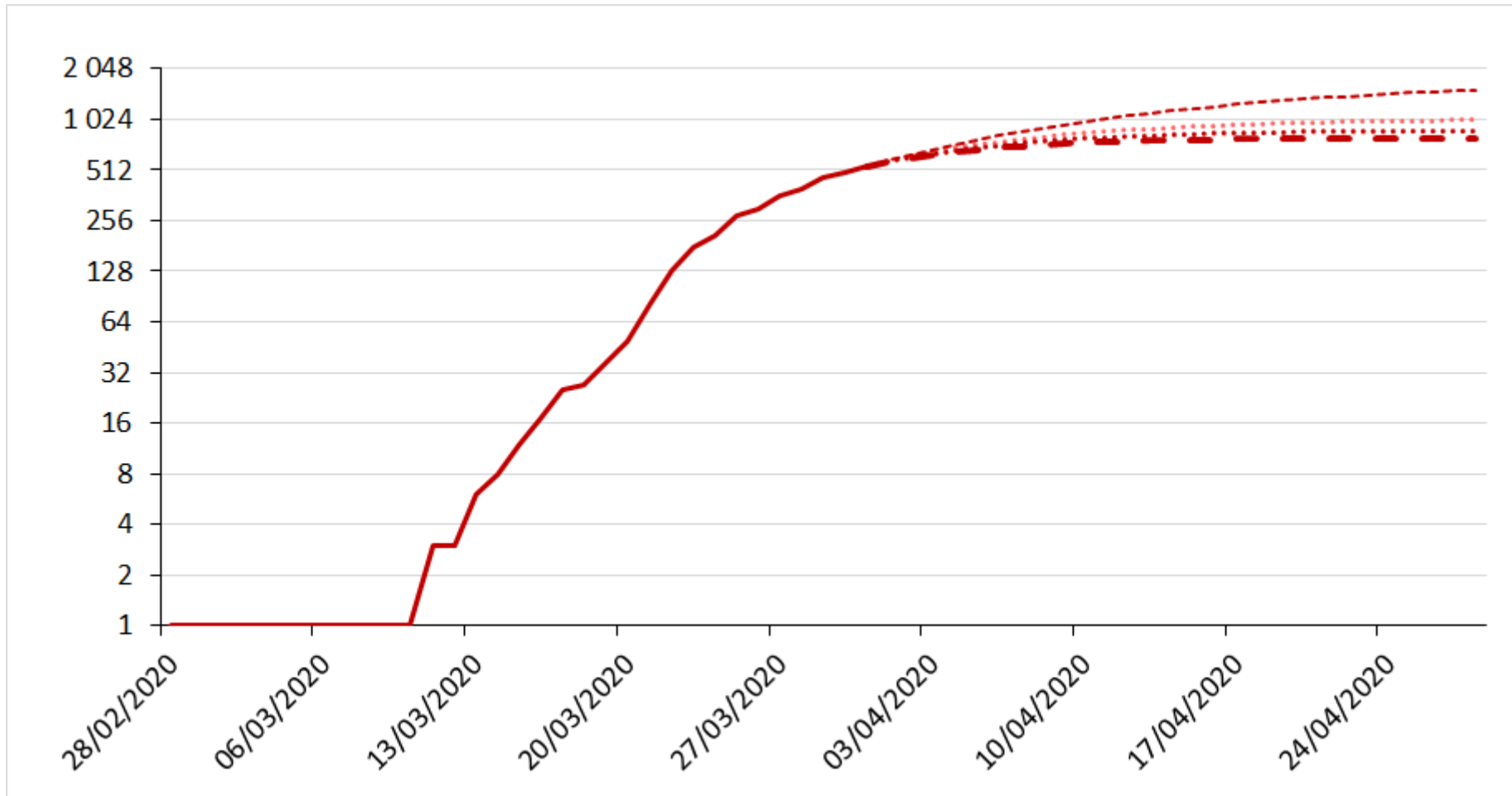
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Data: The Johns Hopkins University, Politolog.com

Lithuania

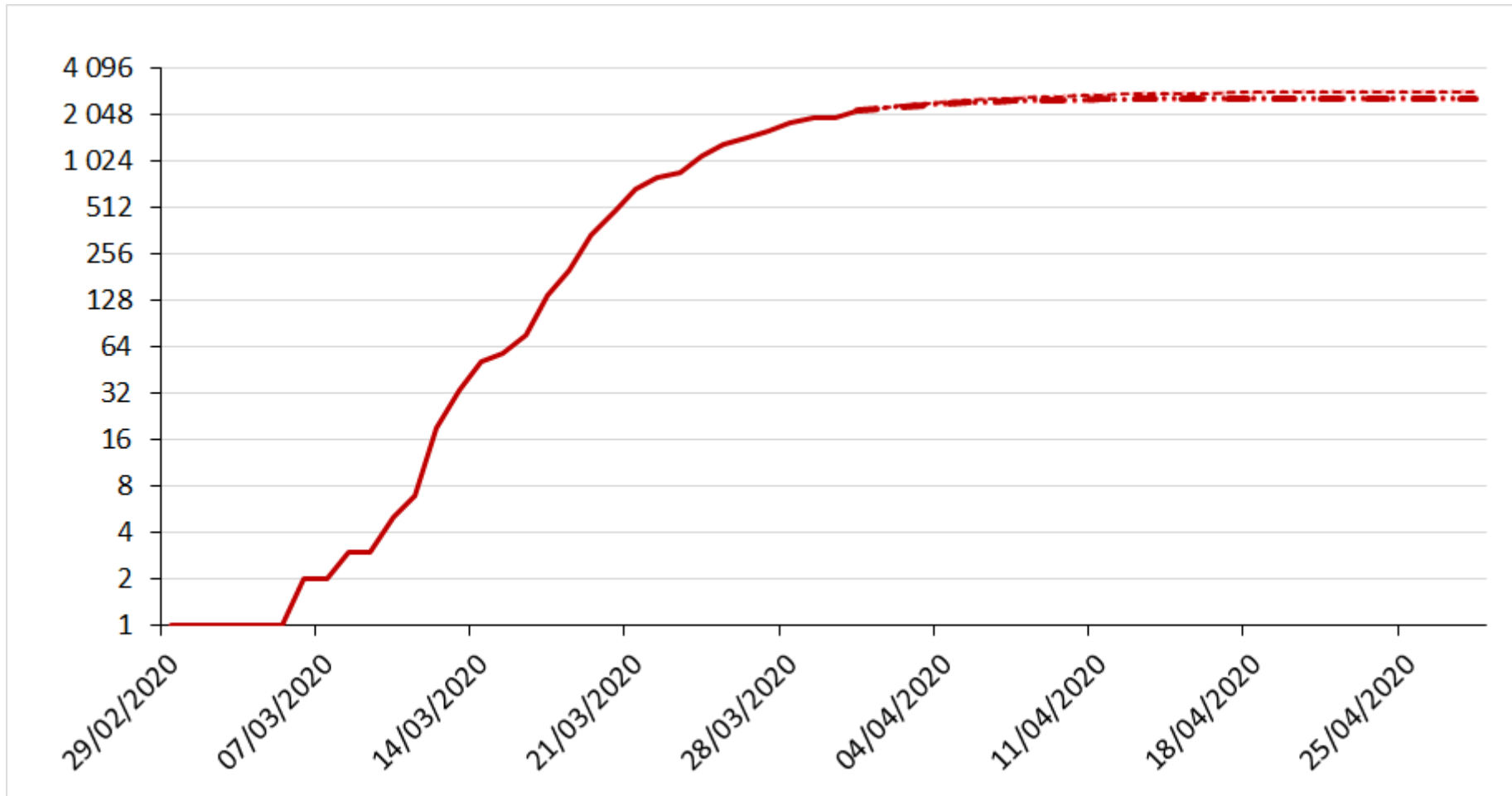
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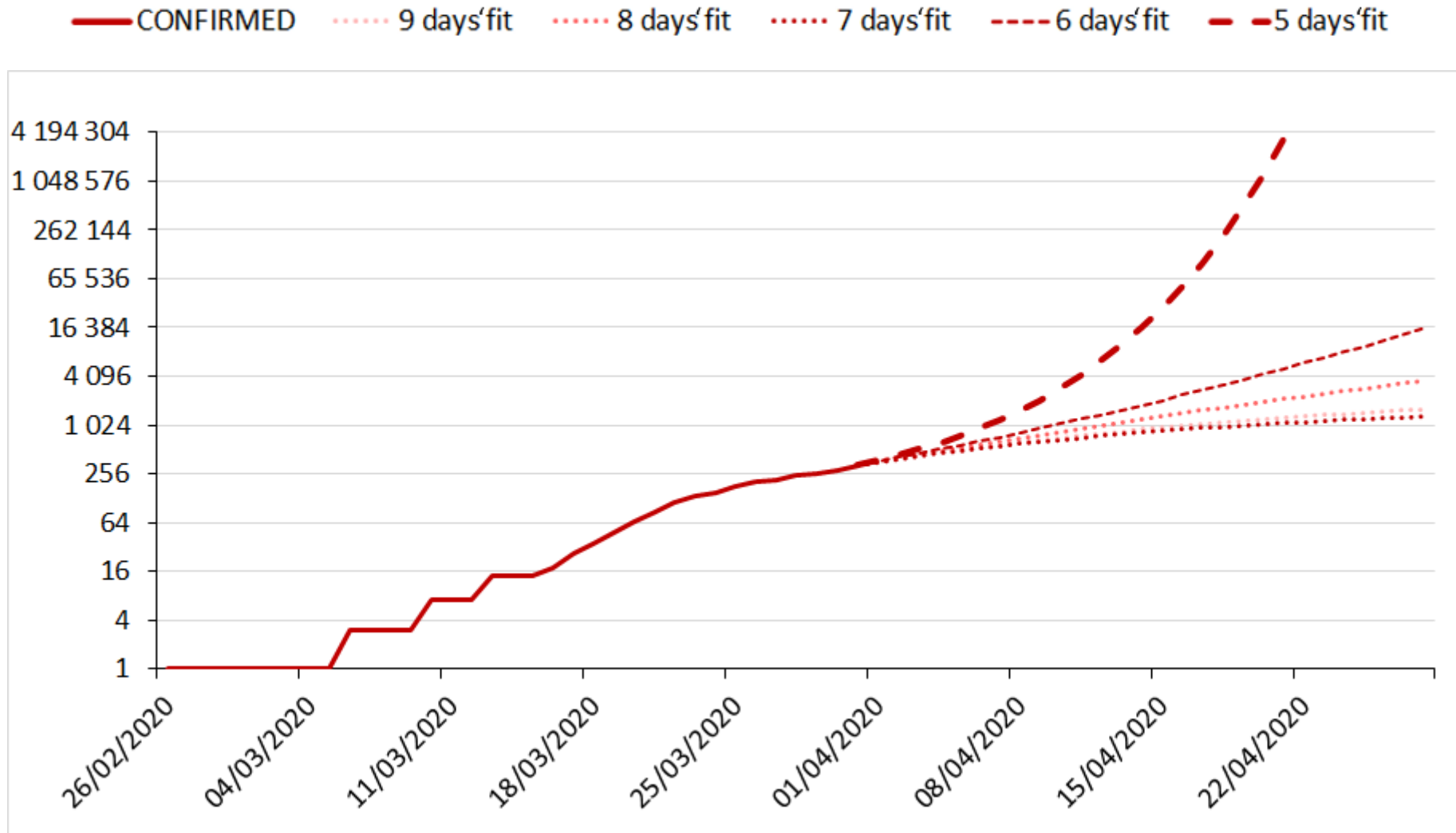
Luxembourg

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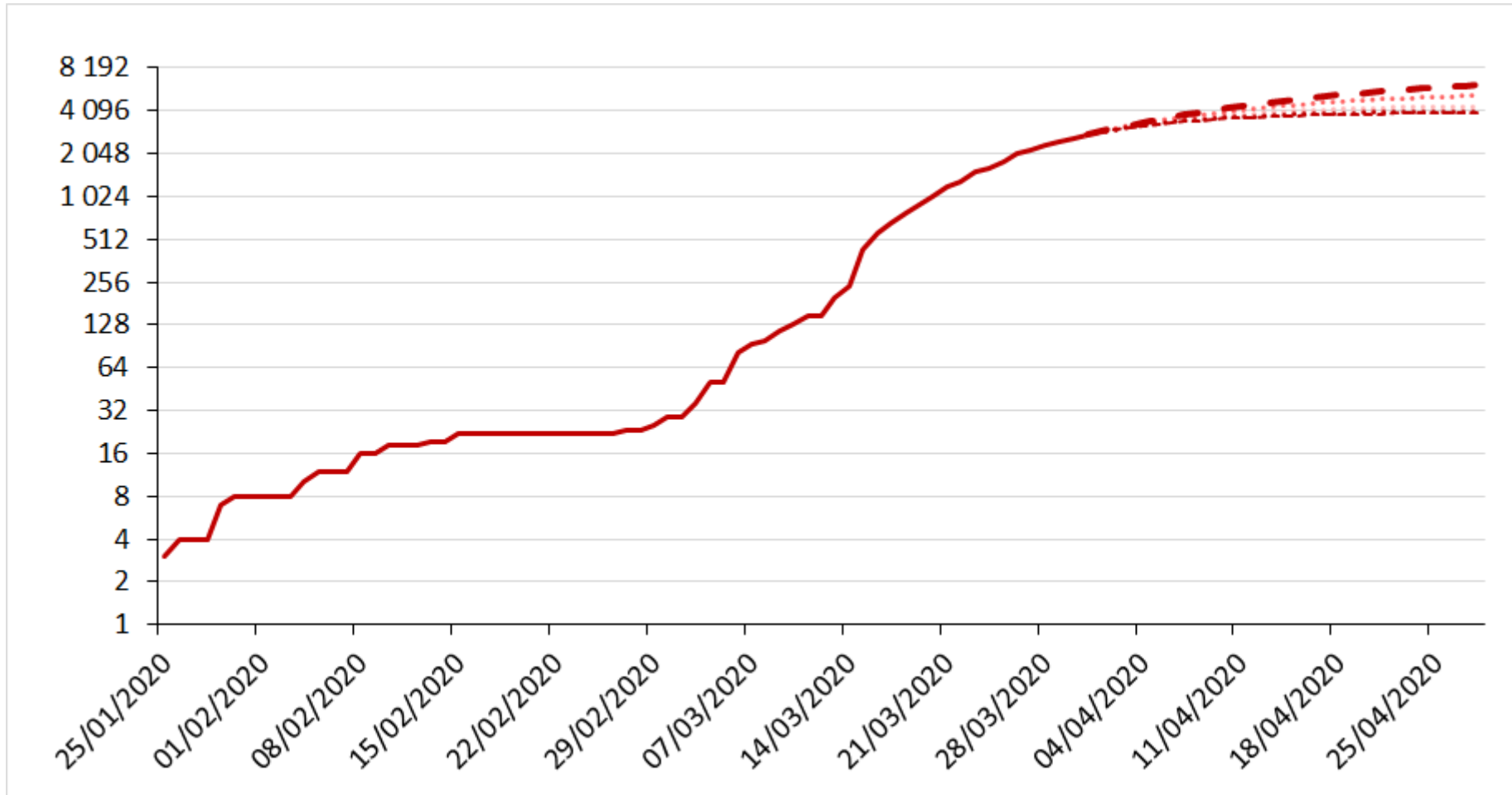
Macedonia



Data: The Johns Hopkins University, Politolog.com

Malaysia

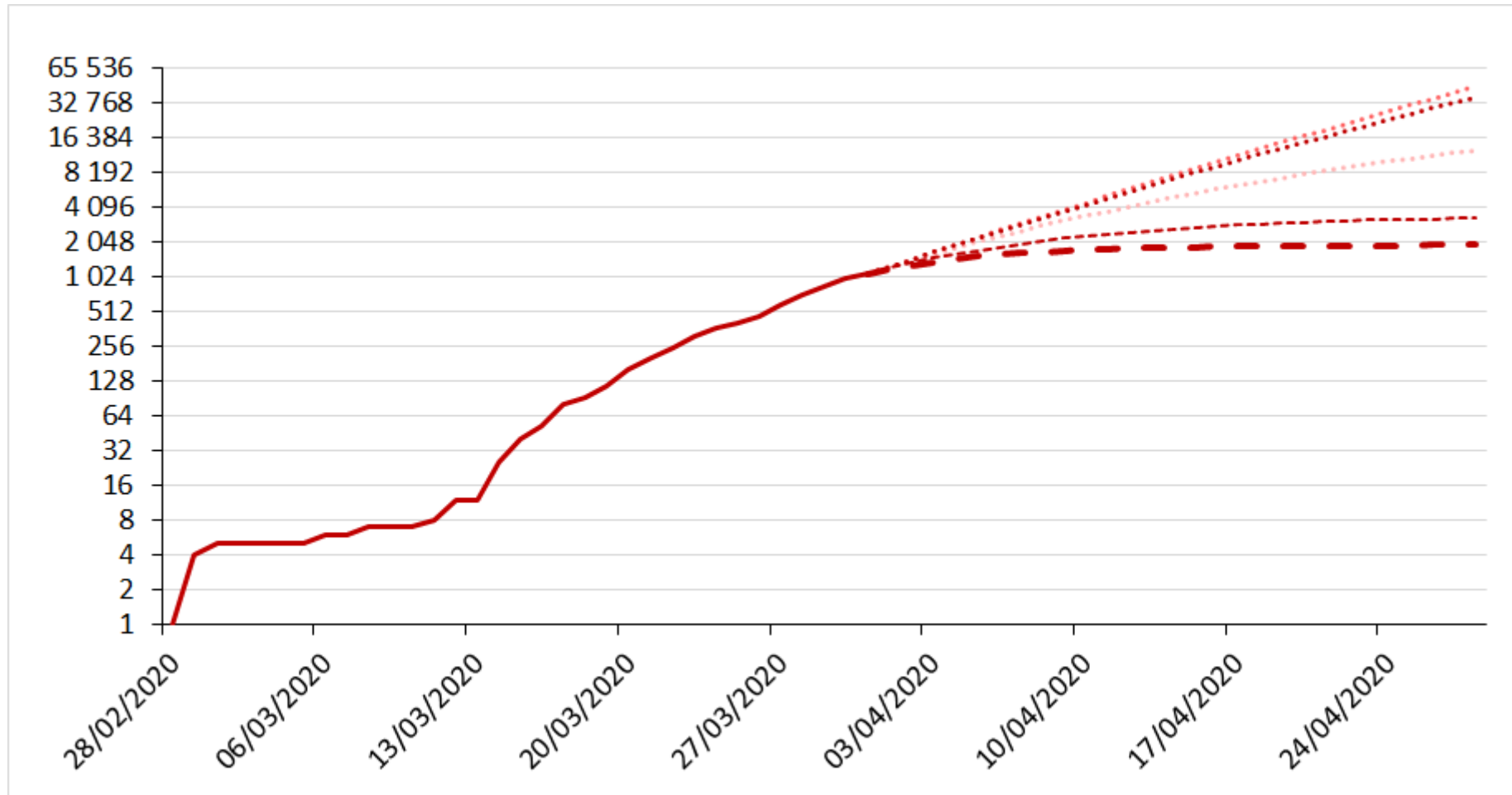
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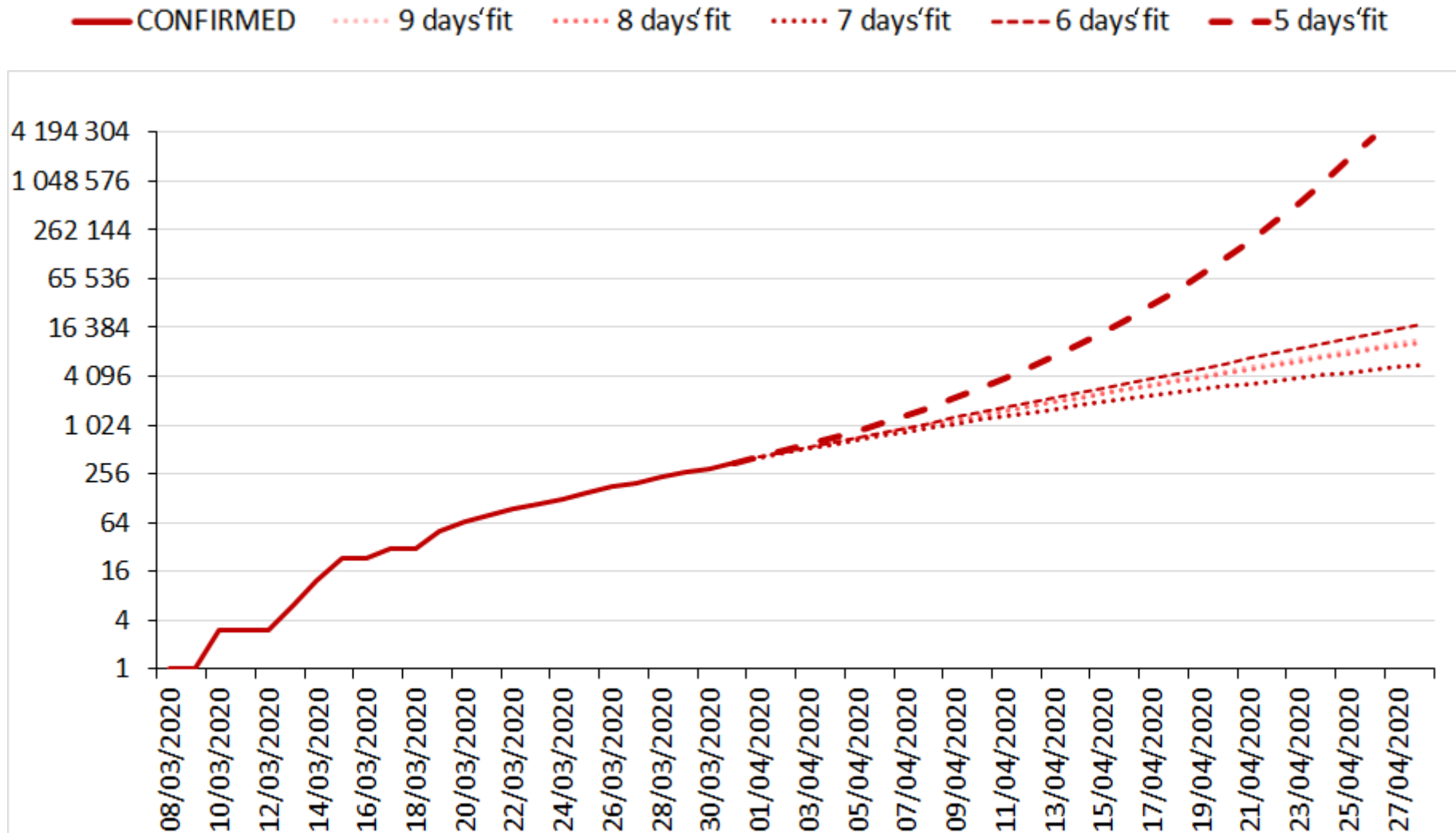
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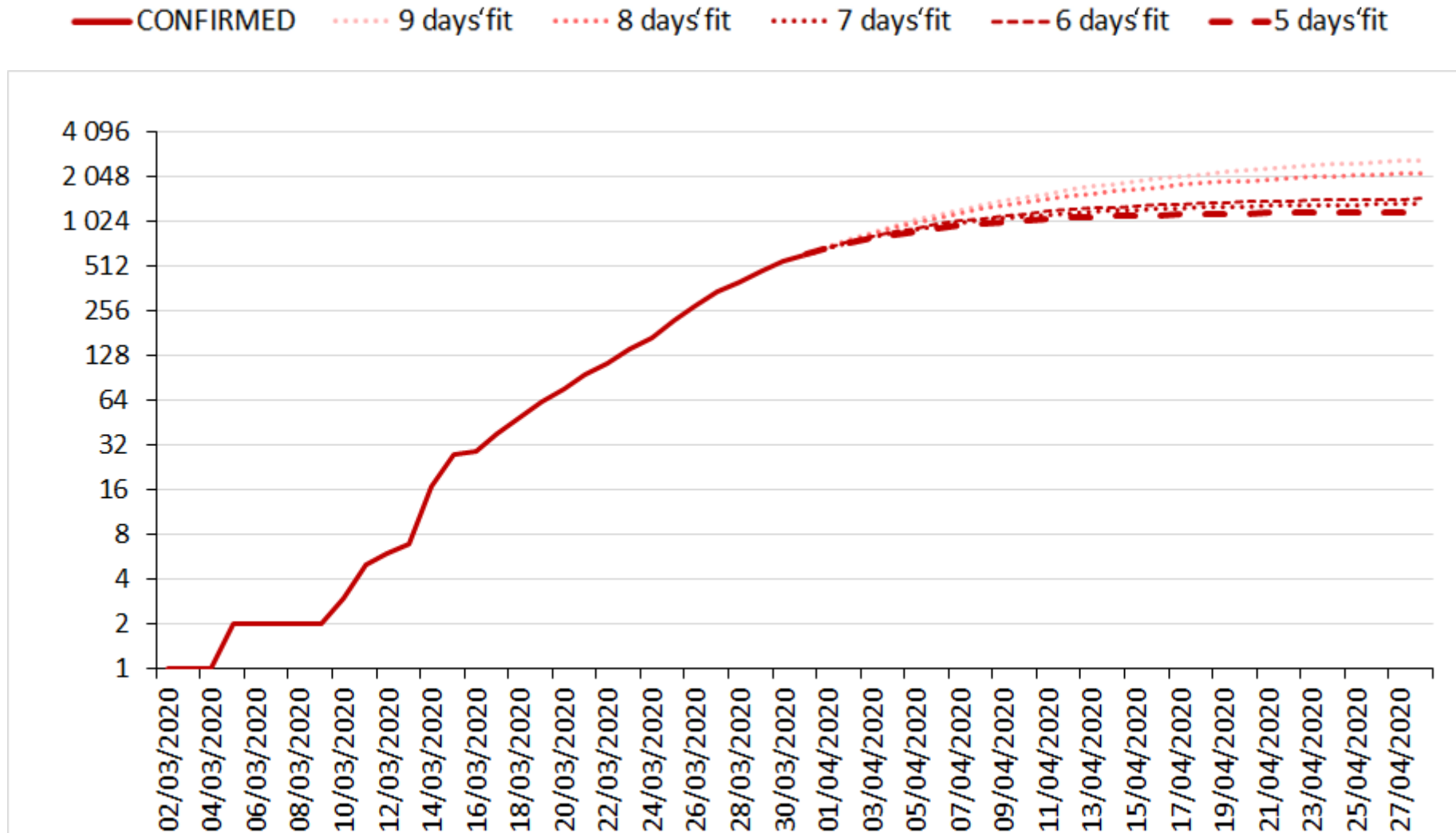
Data: The Johns Hopkins University, Politolog.com

Moldova



Data: The Johns Hopkins University, Politolog.com

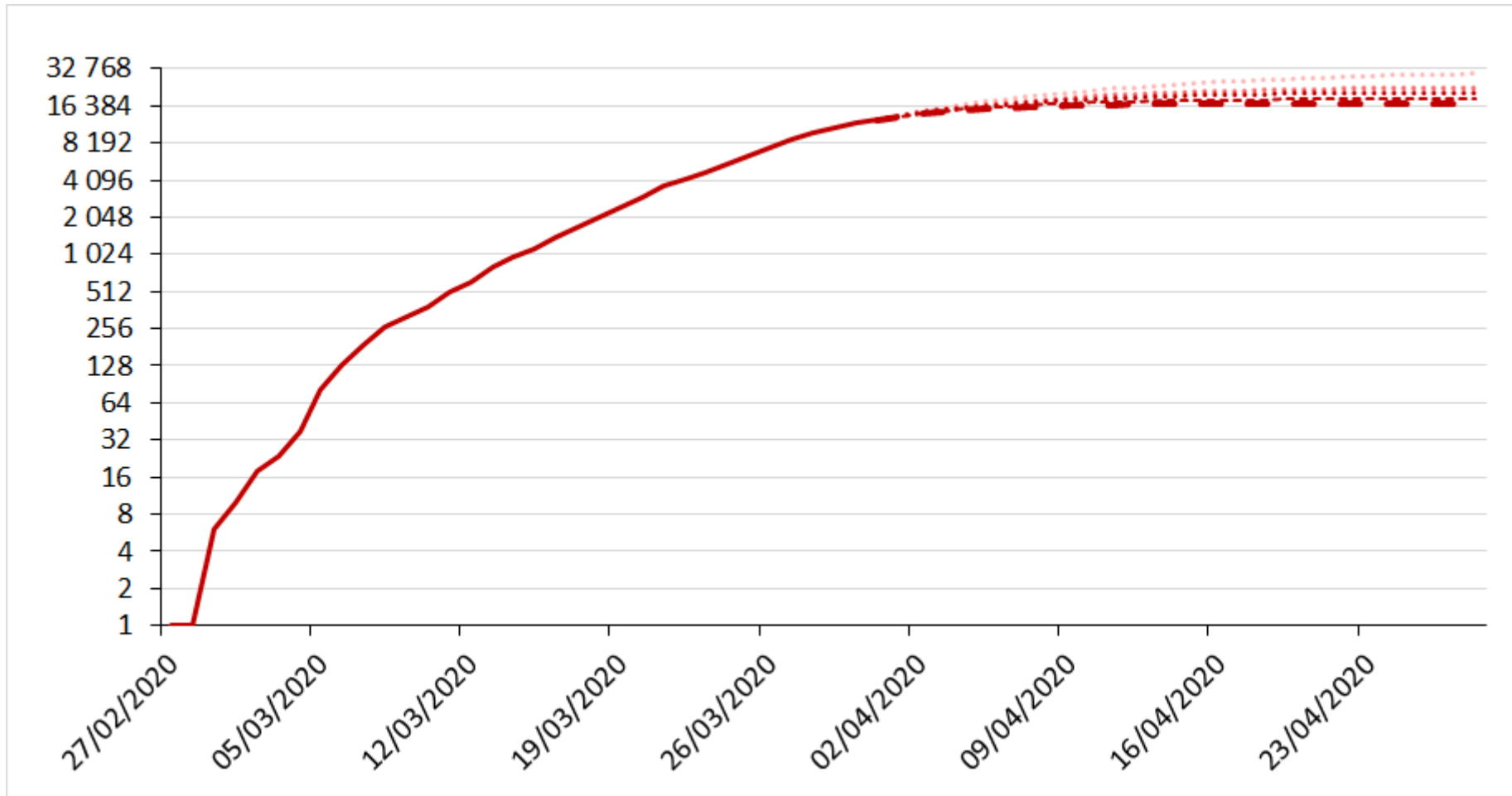
Morocco



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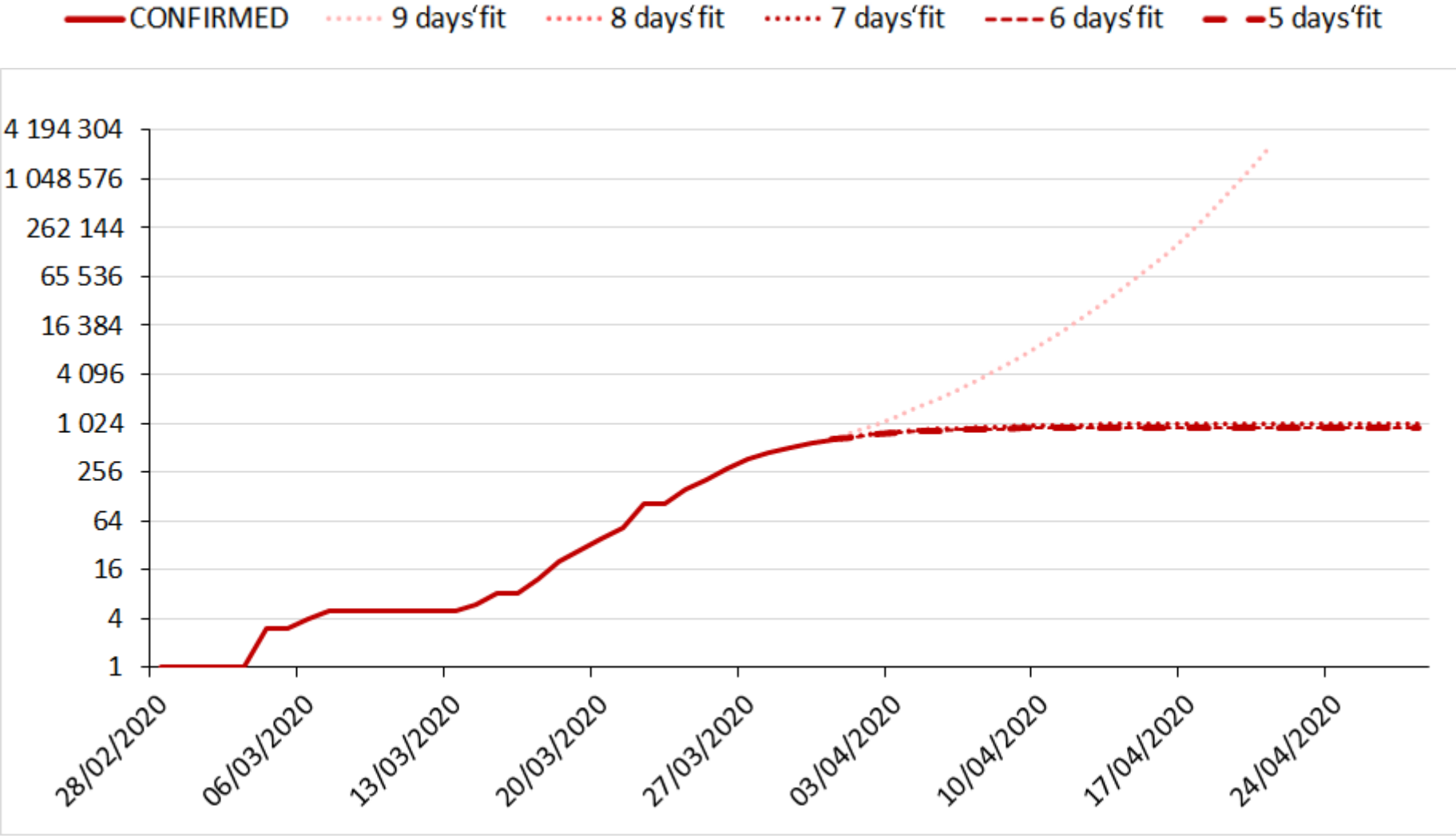
Netherlands

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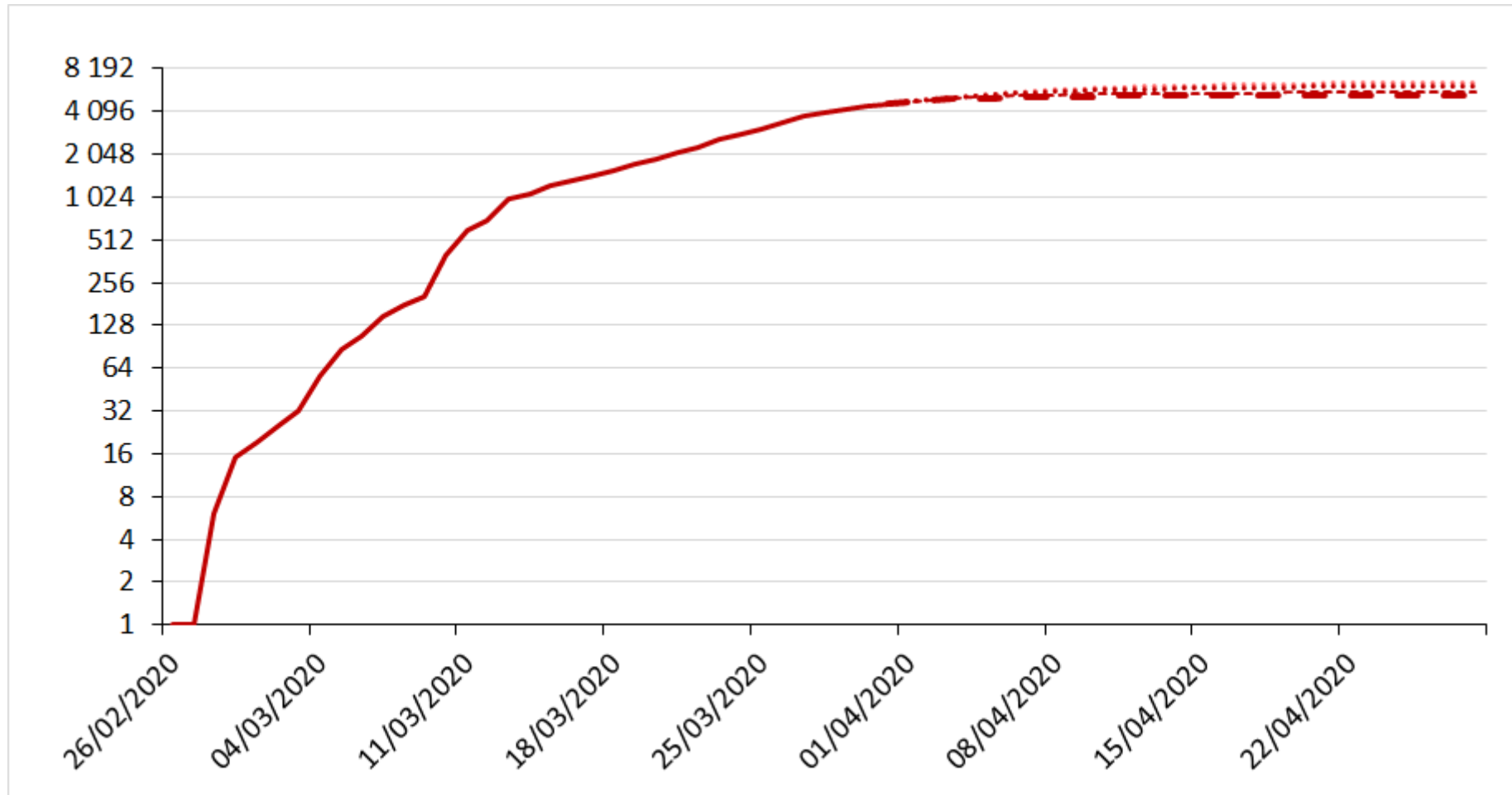
New Zealand



Data: The Johns Hopkins University, Politolog.com

Norway

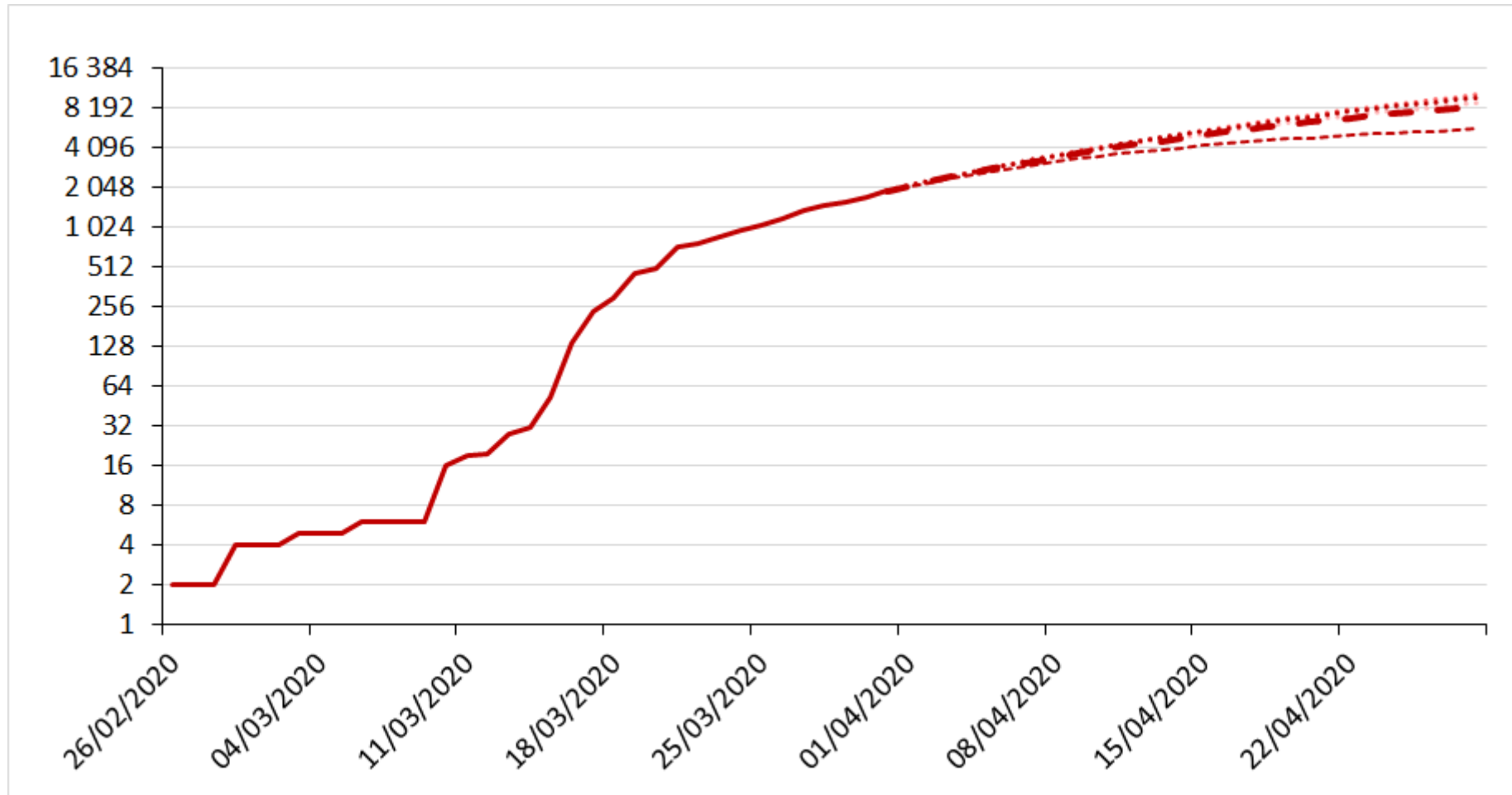
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Data: The Johns Hopkins University, Politolog.com

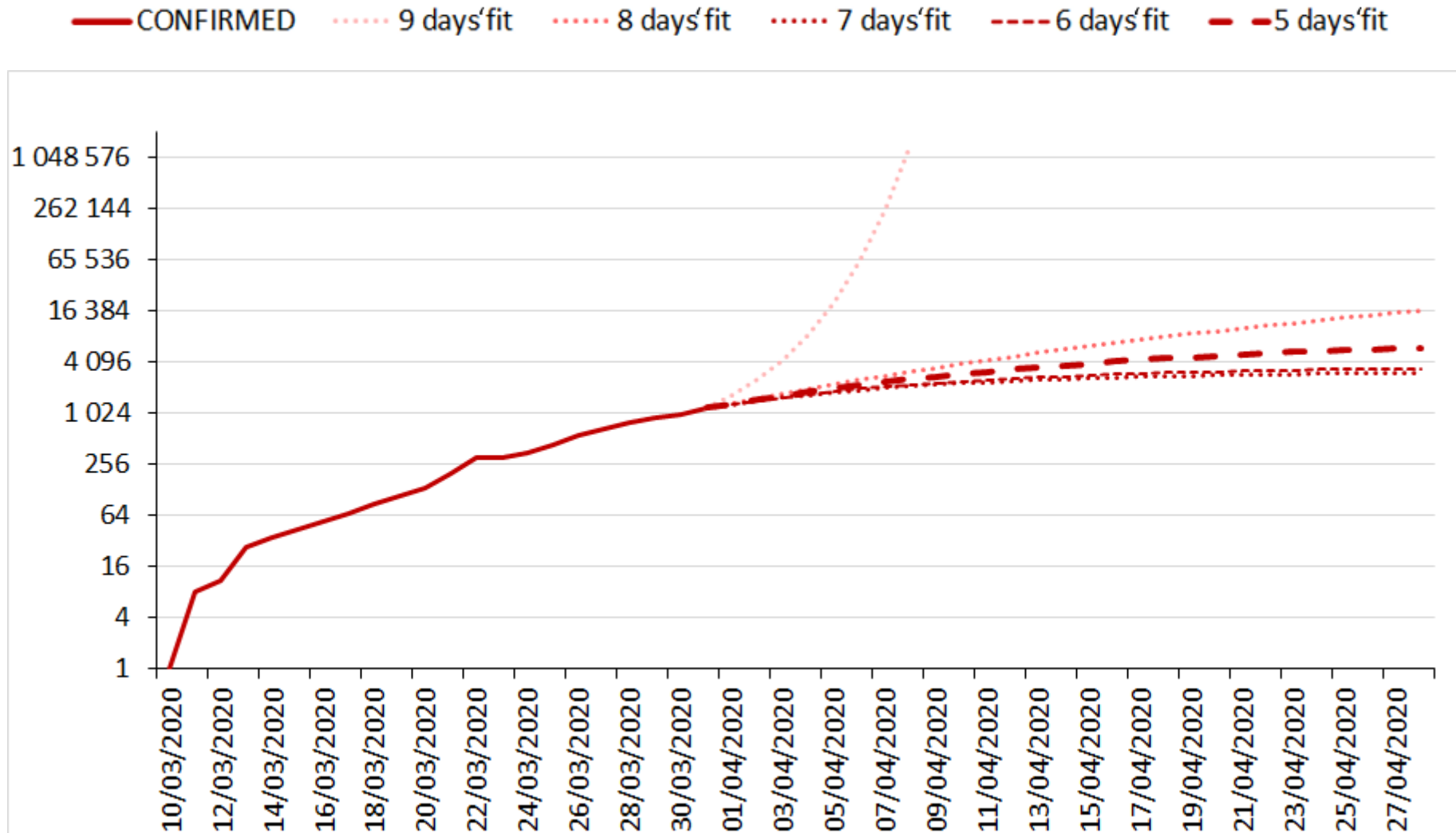
Pakistan

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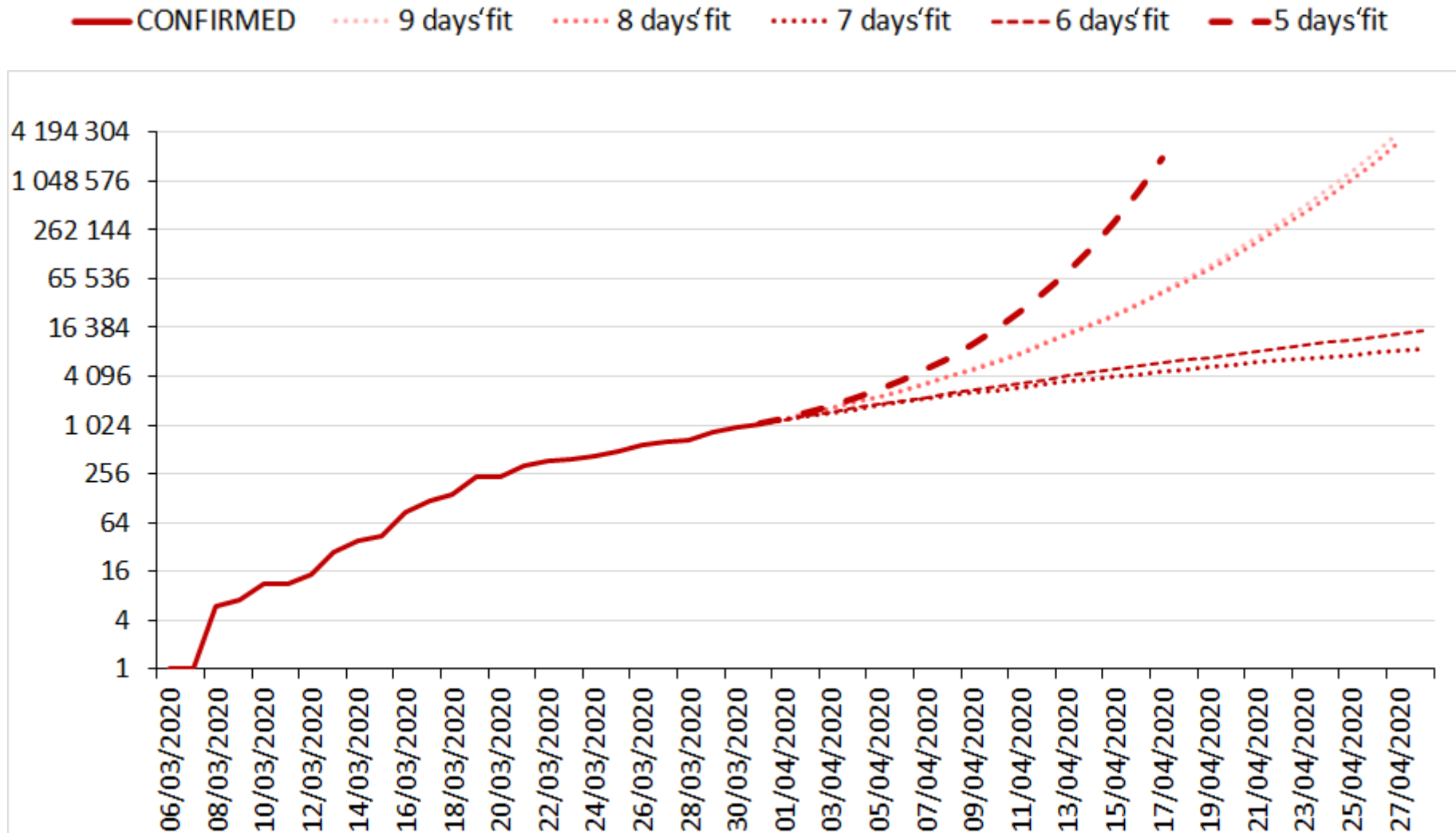
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Panama



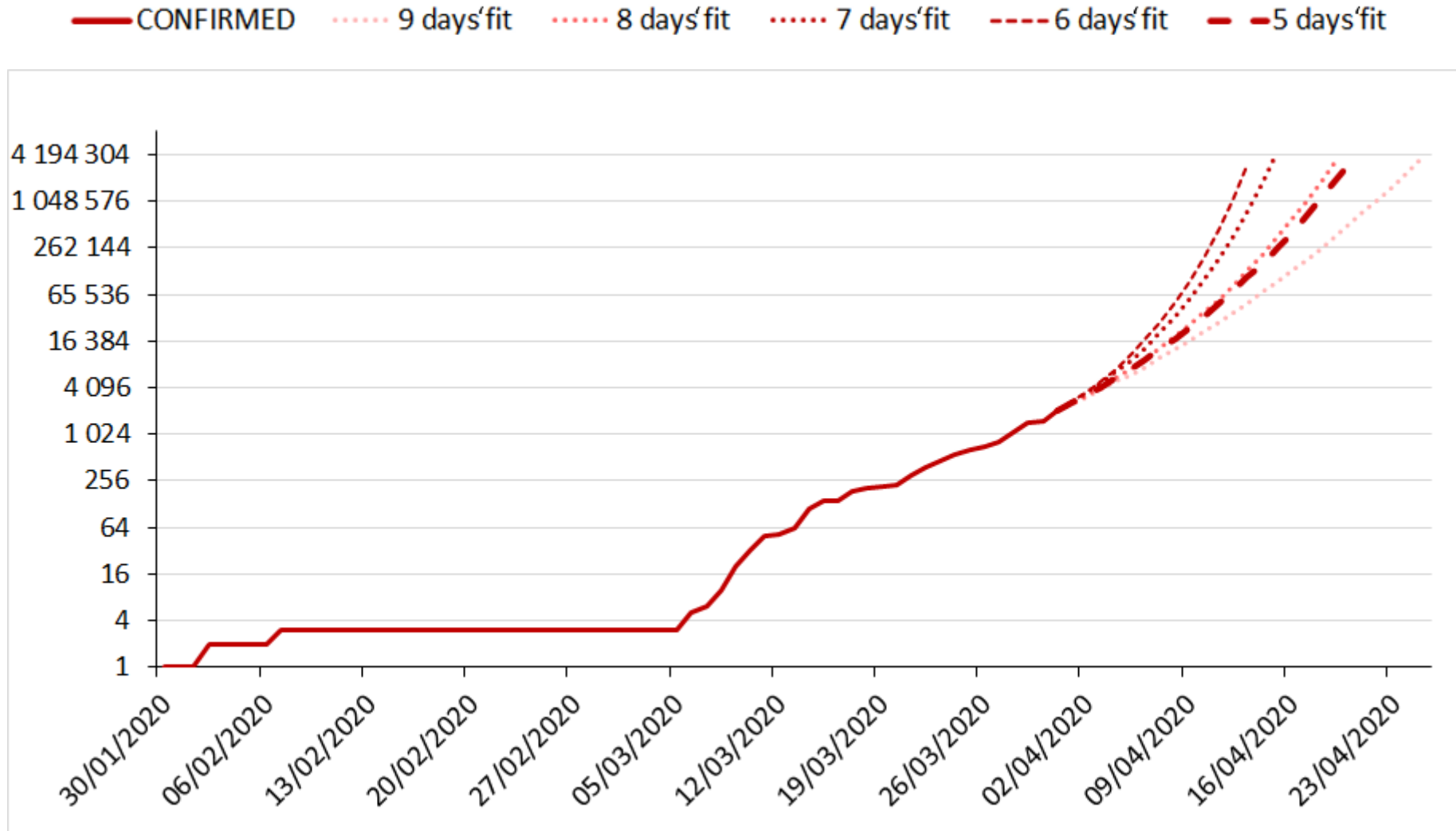
Data: The Johns Hopkins University, Politolog.com

Peru



Data: The Johns Hopkins University, Politolog.com

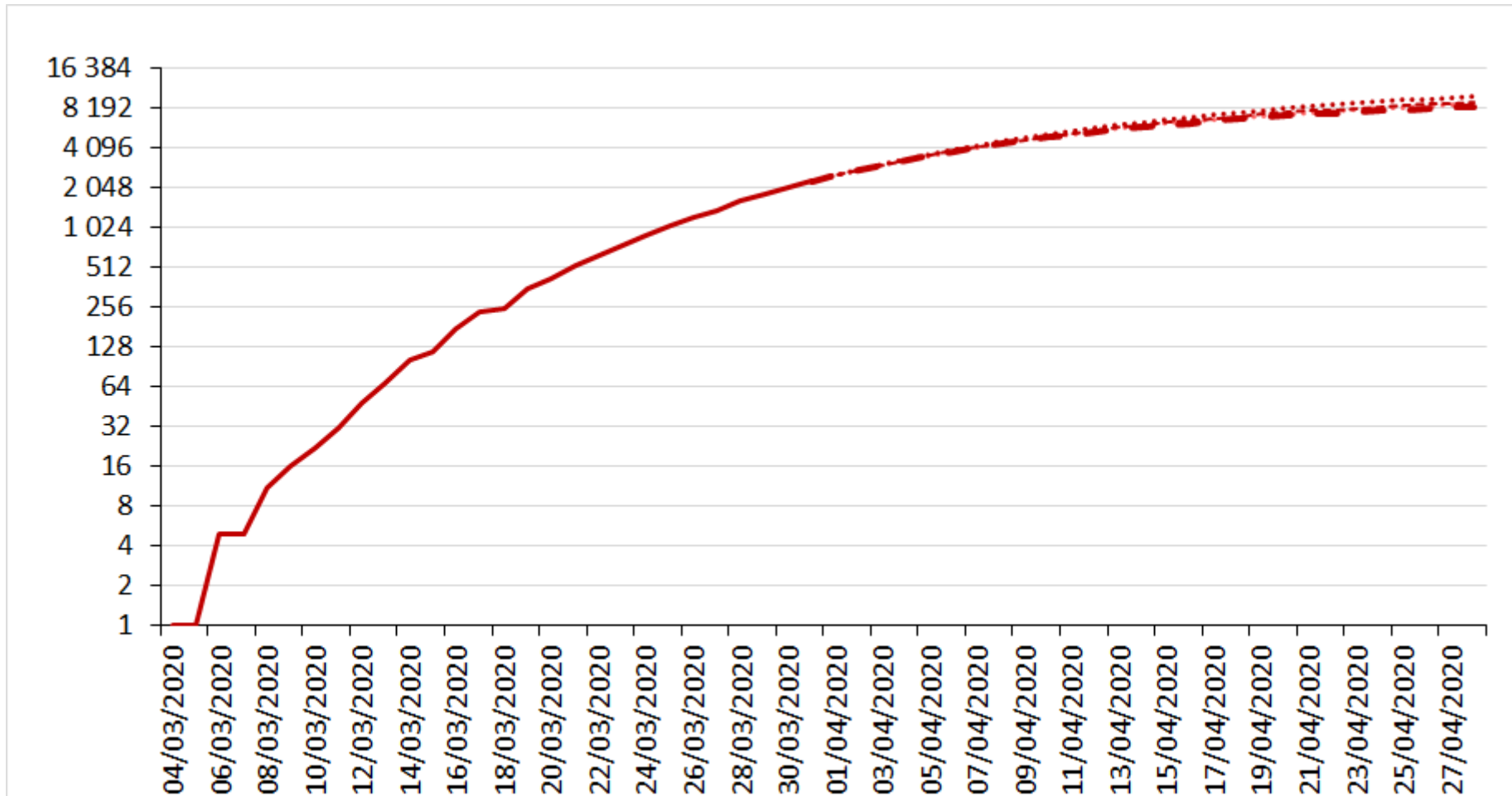
Philippines



Data: The Johns Hopkins University, Politolog.com

Poland

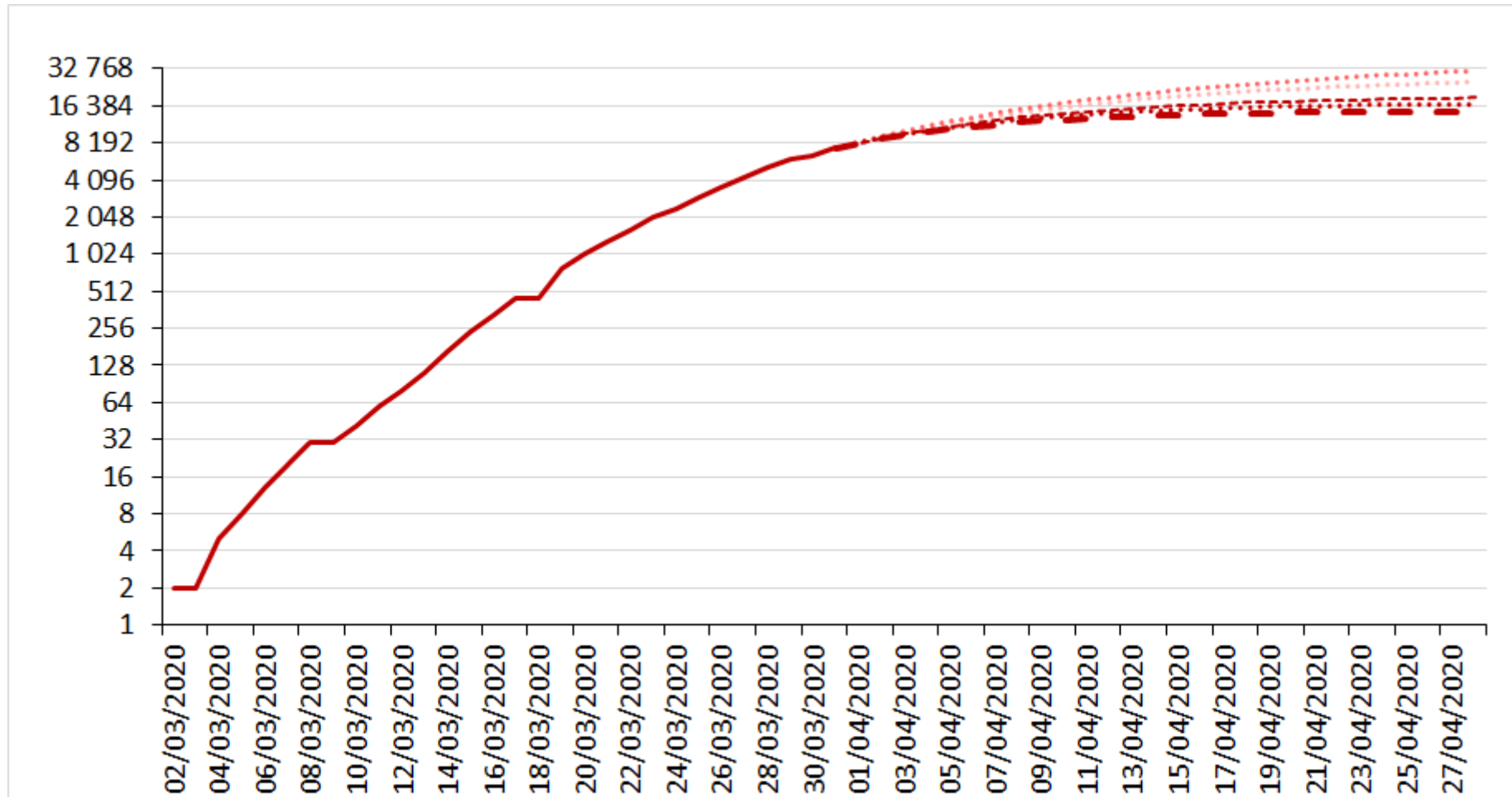
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Data: The Johns Hopkins University, Politolog.com

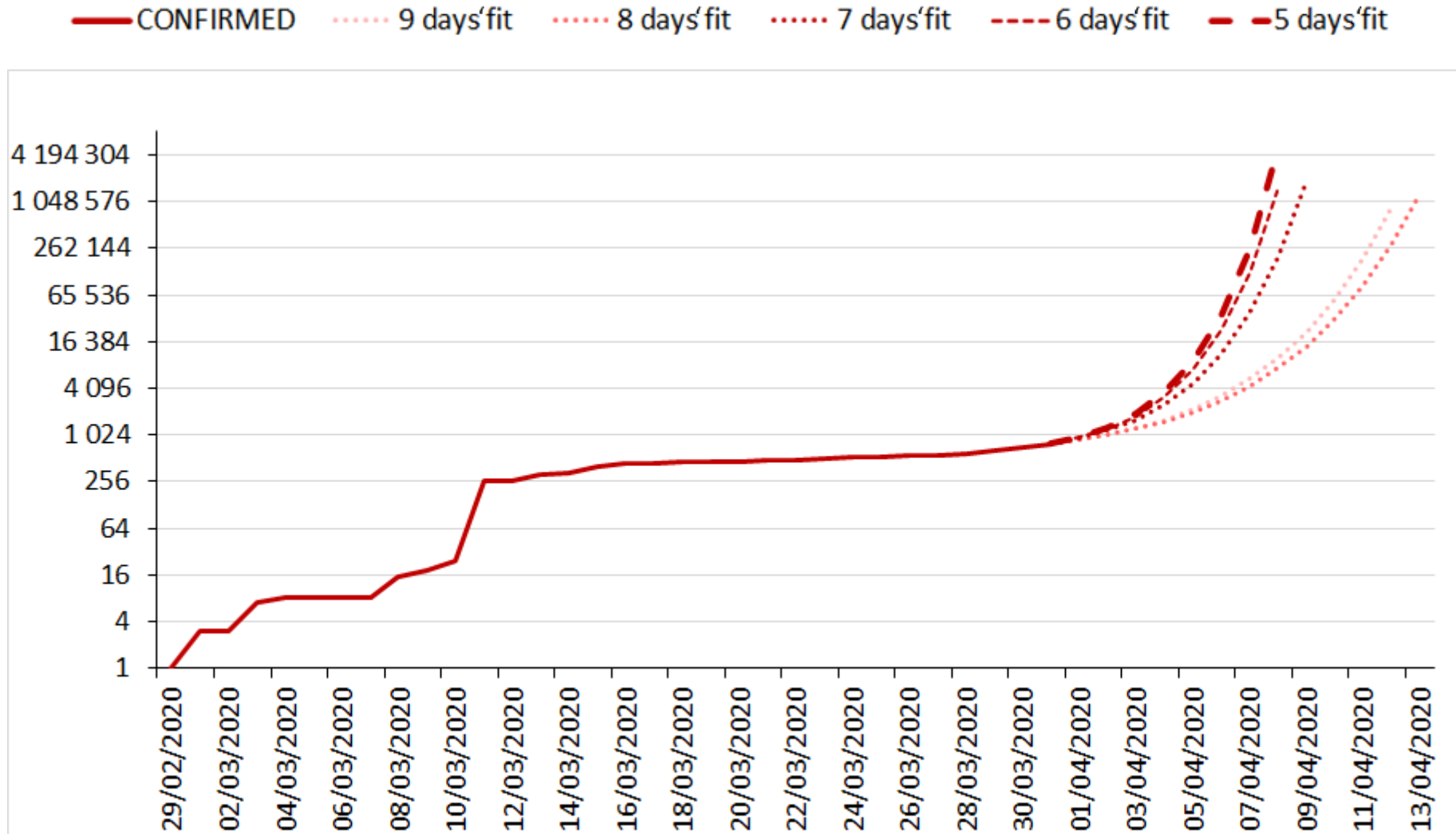
Portugal

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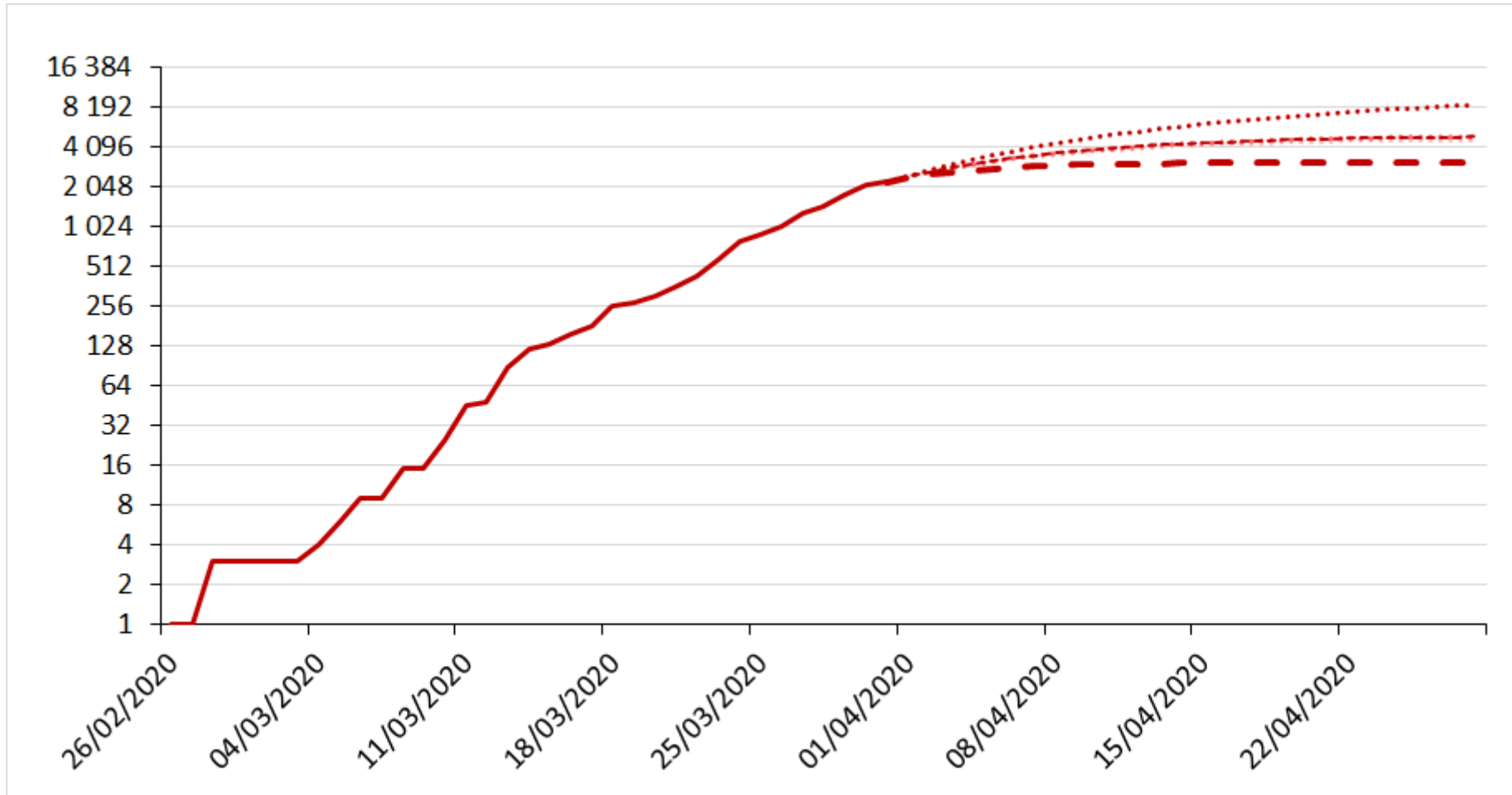
Qatar



Data: The Johns Hopkins University, Politolog.com

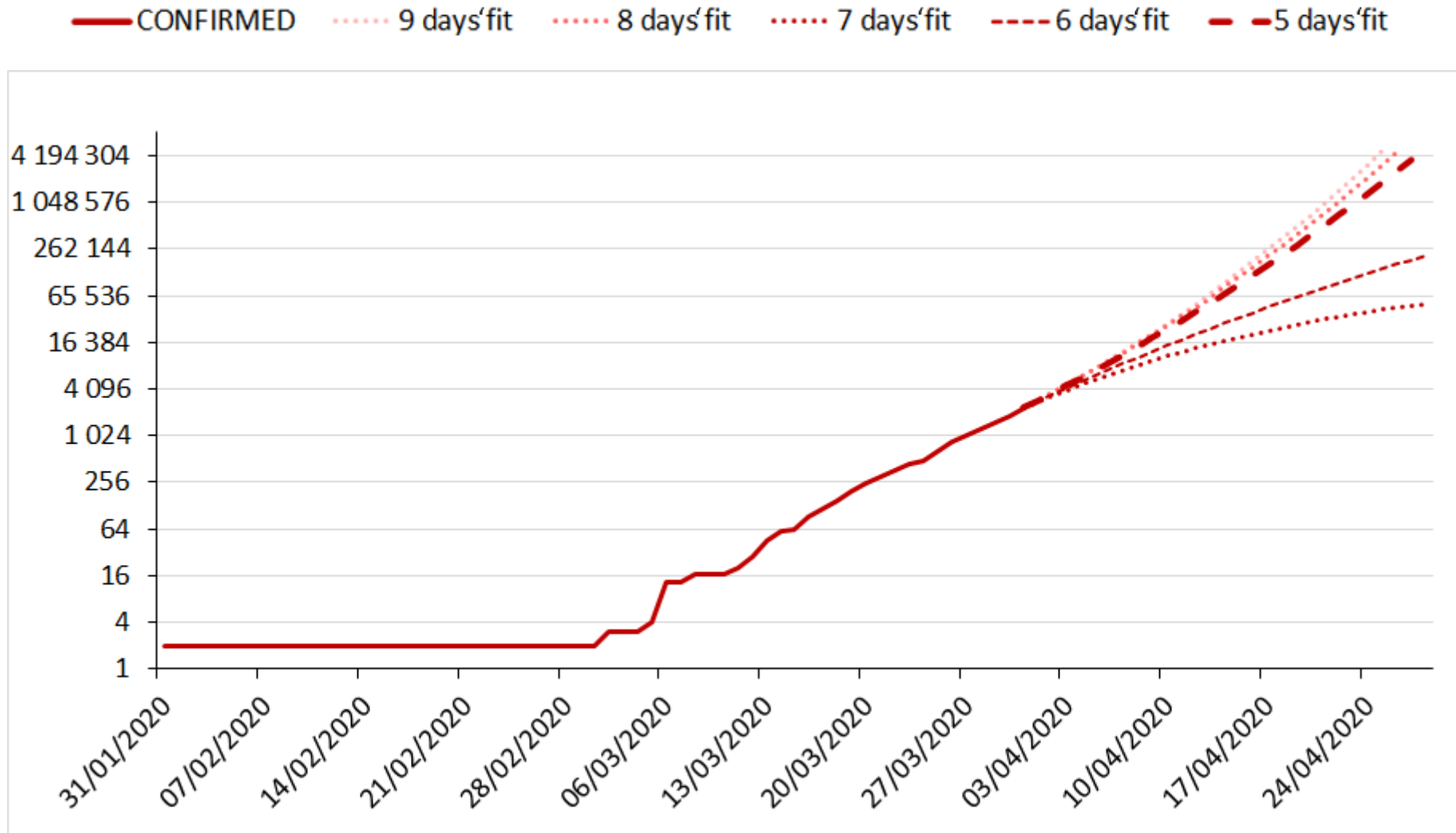
Romania

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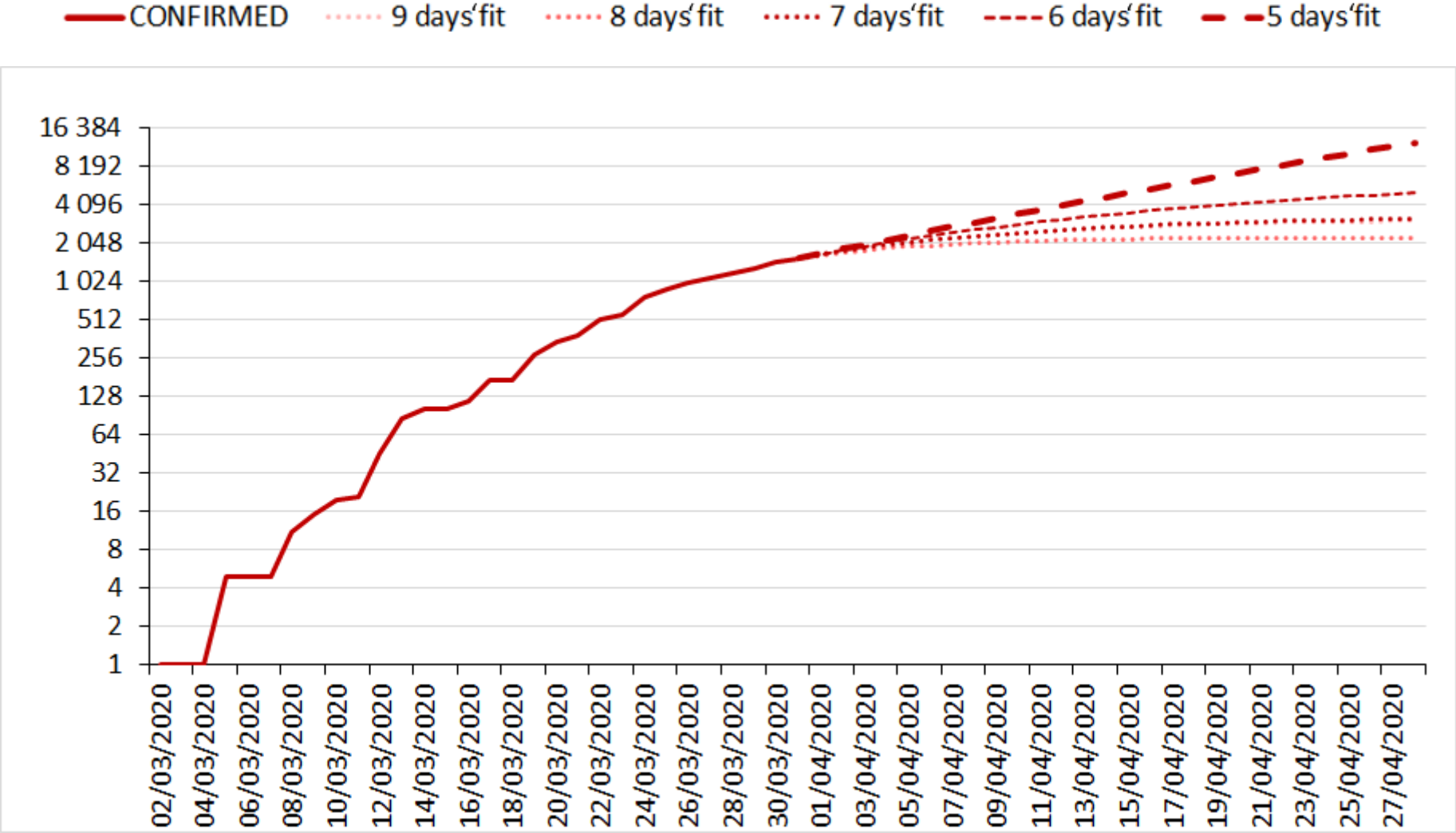
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Russia



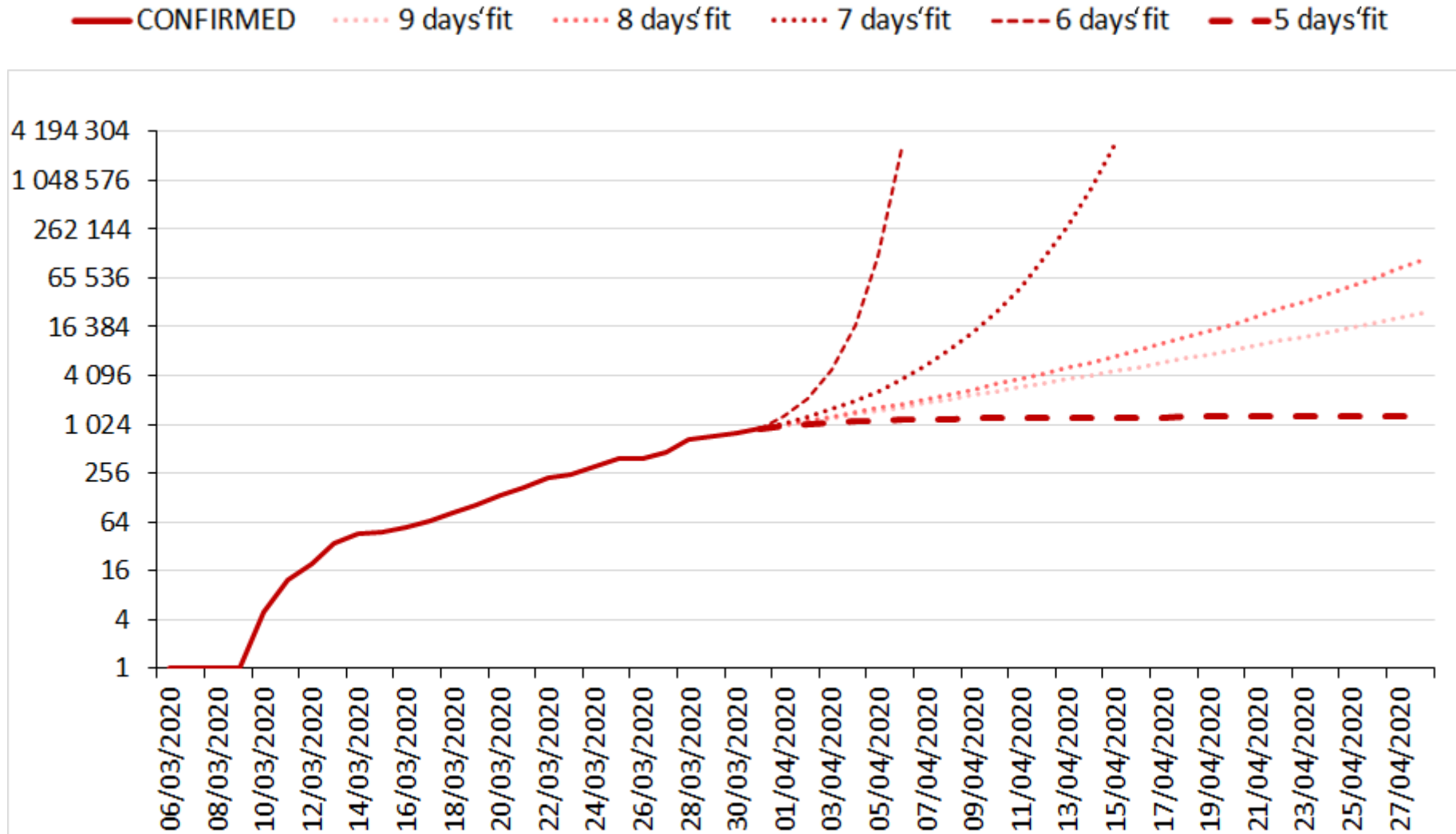
Data: The Johns Hopkins University, Politolog.com

Saudi Arabia



Data: The Johns Hopkins University, Politolog.com

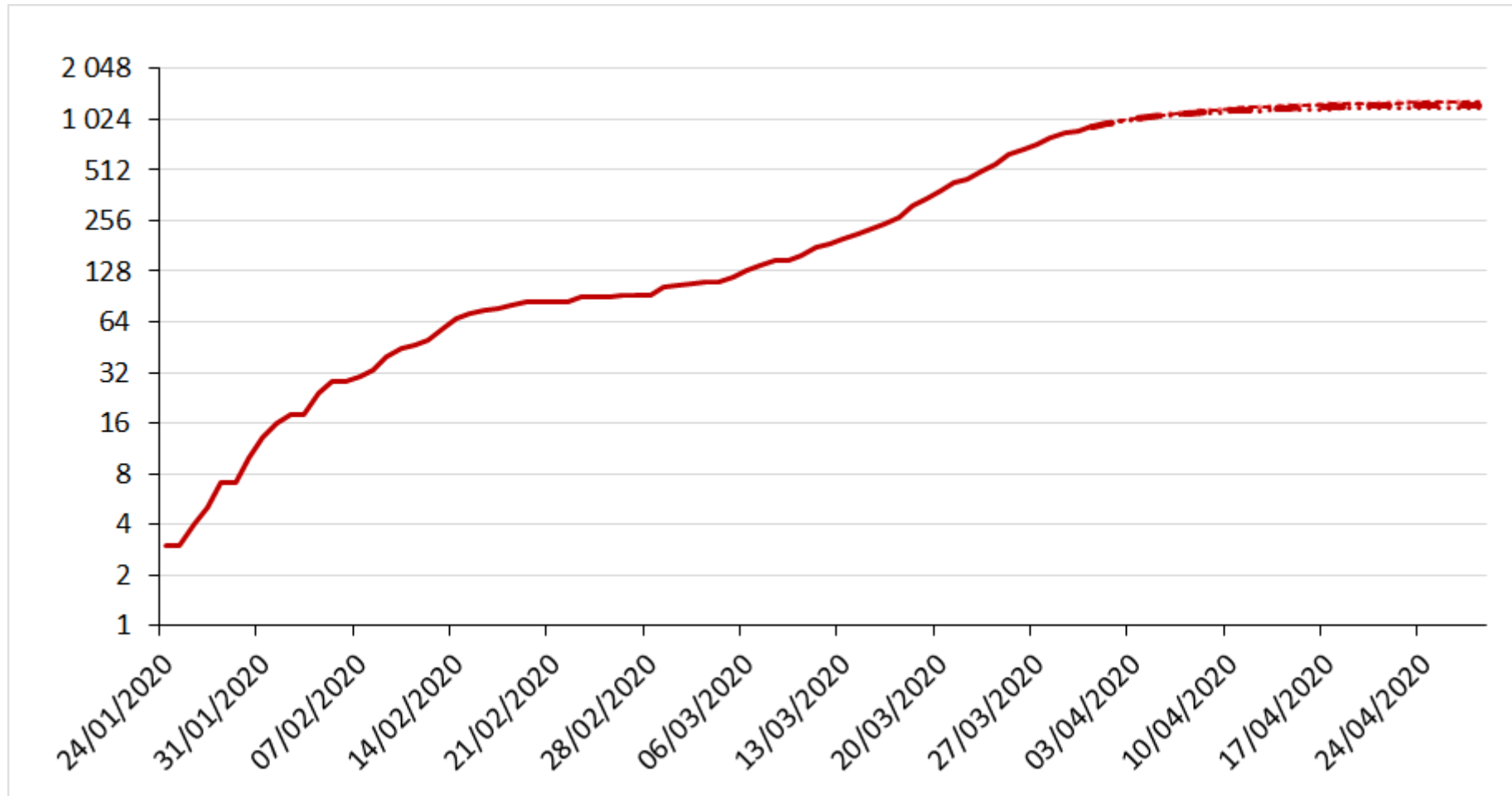
Serbia



Data: The Johns Hopkins University, Politolog.com

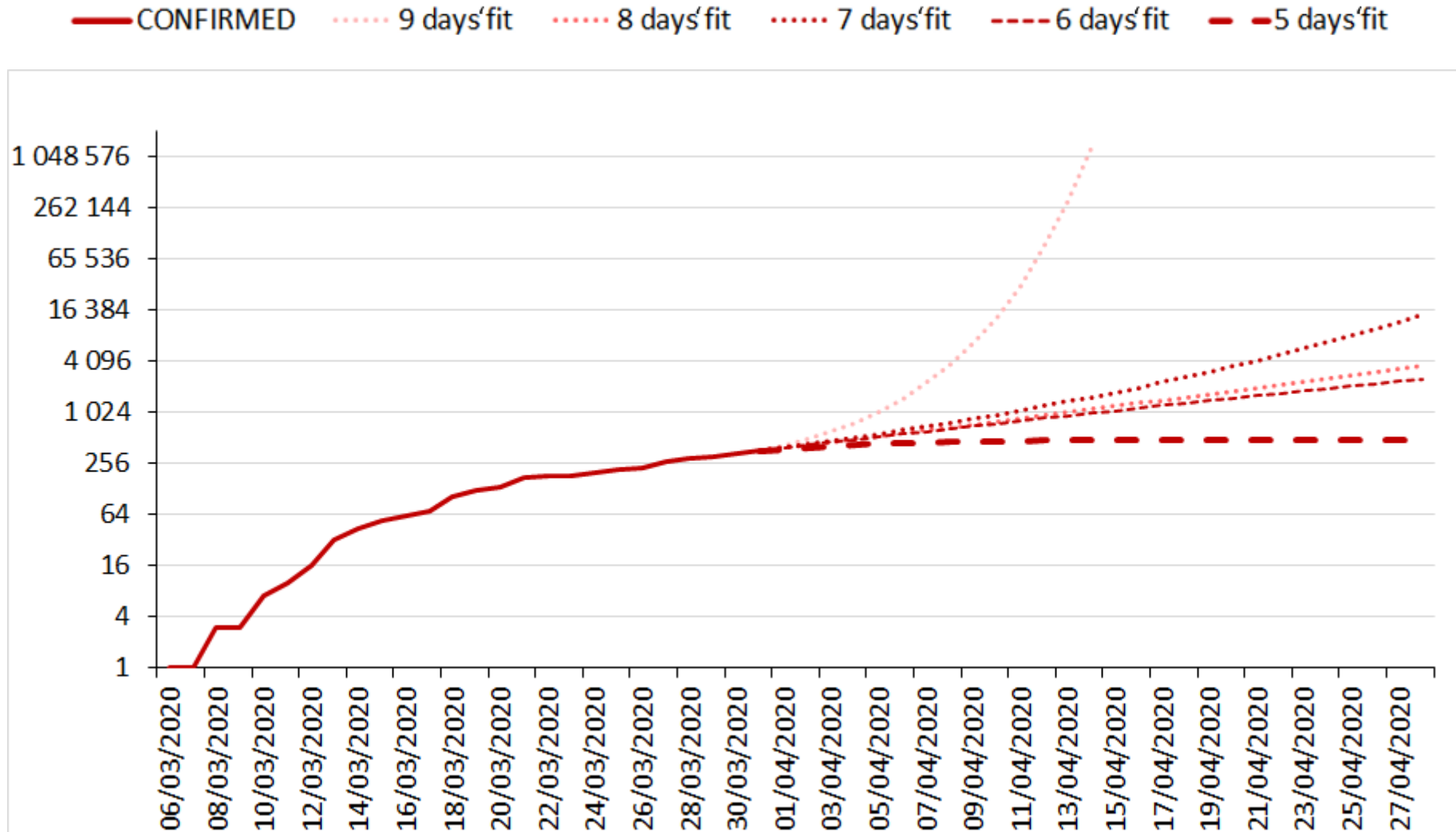
Singapore

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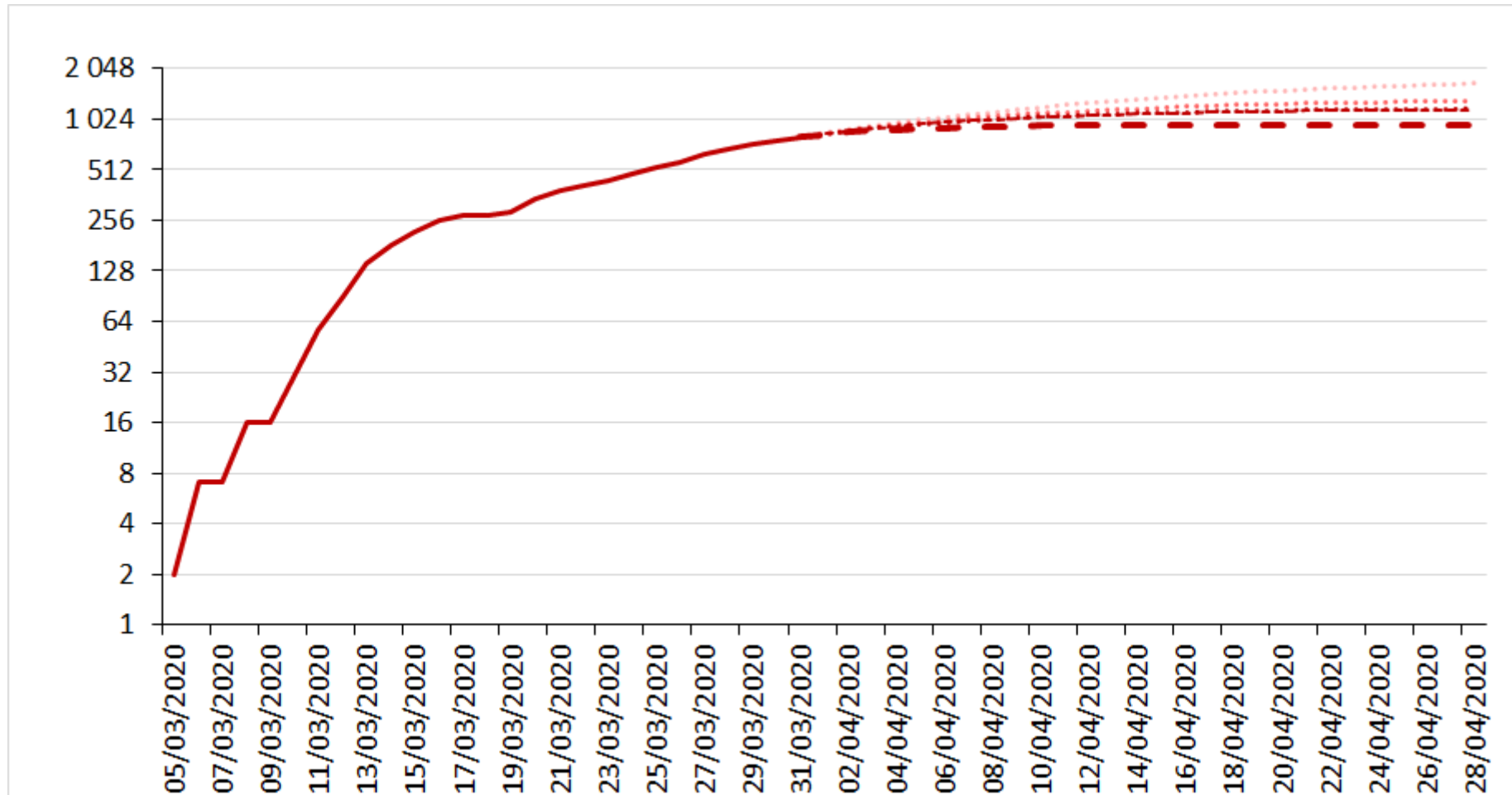
Slovakia



Data: The Johns Hopkins University, Politolog.com

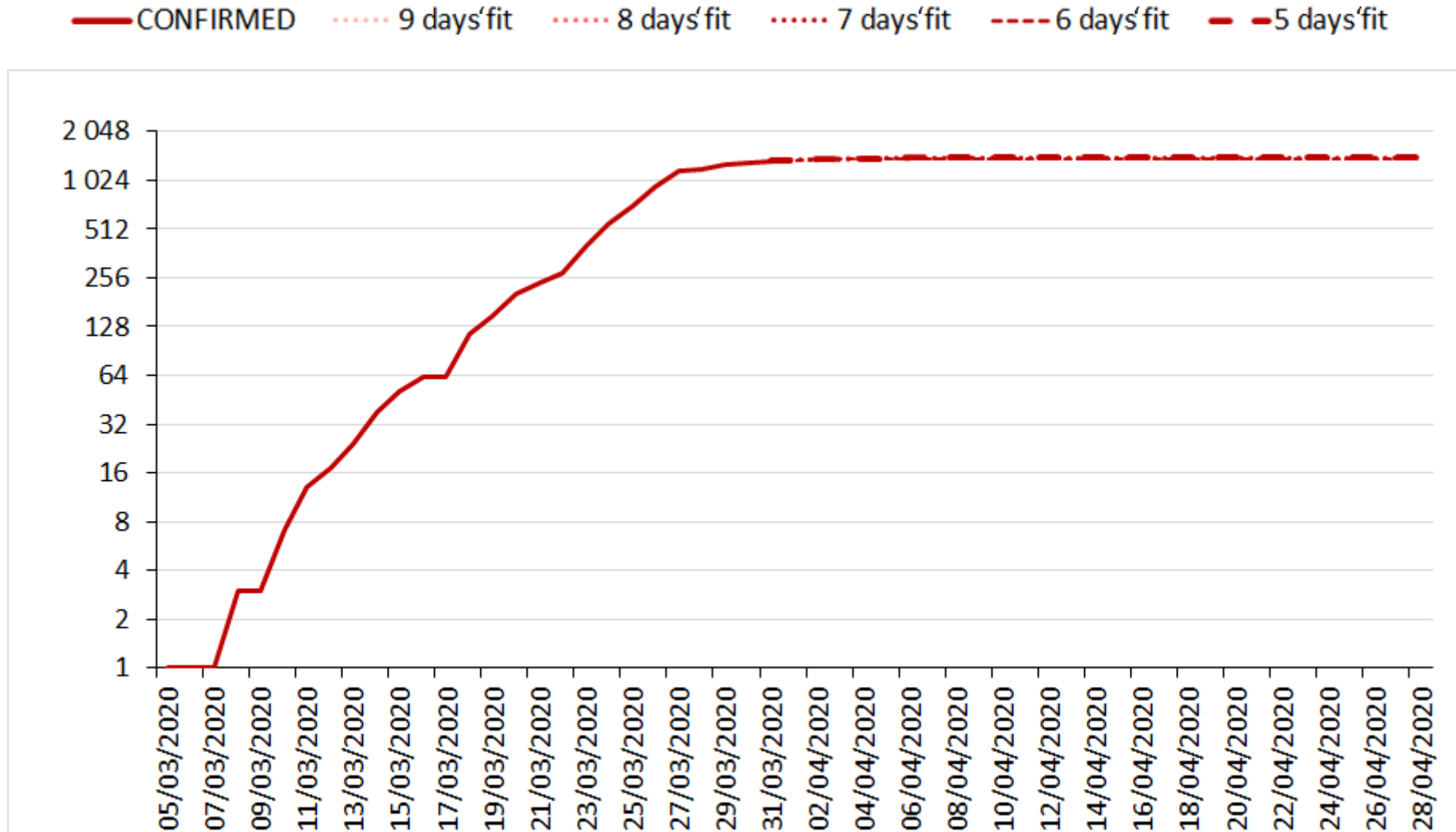
Slovenia

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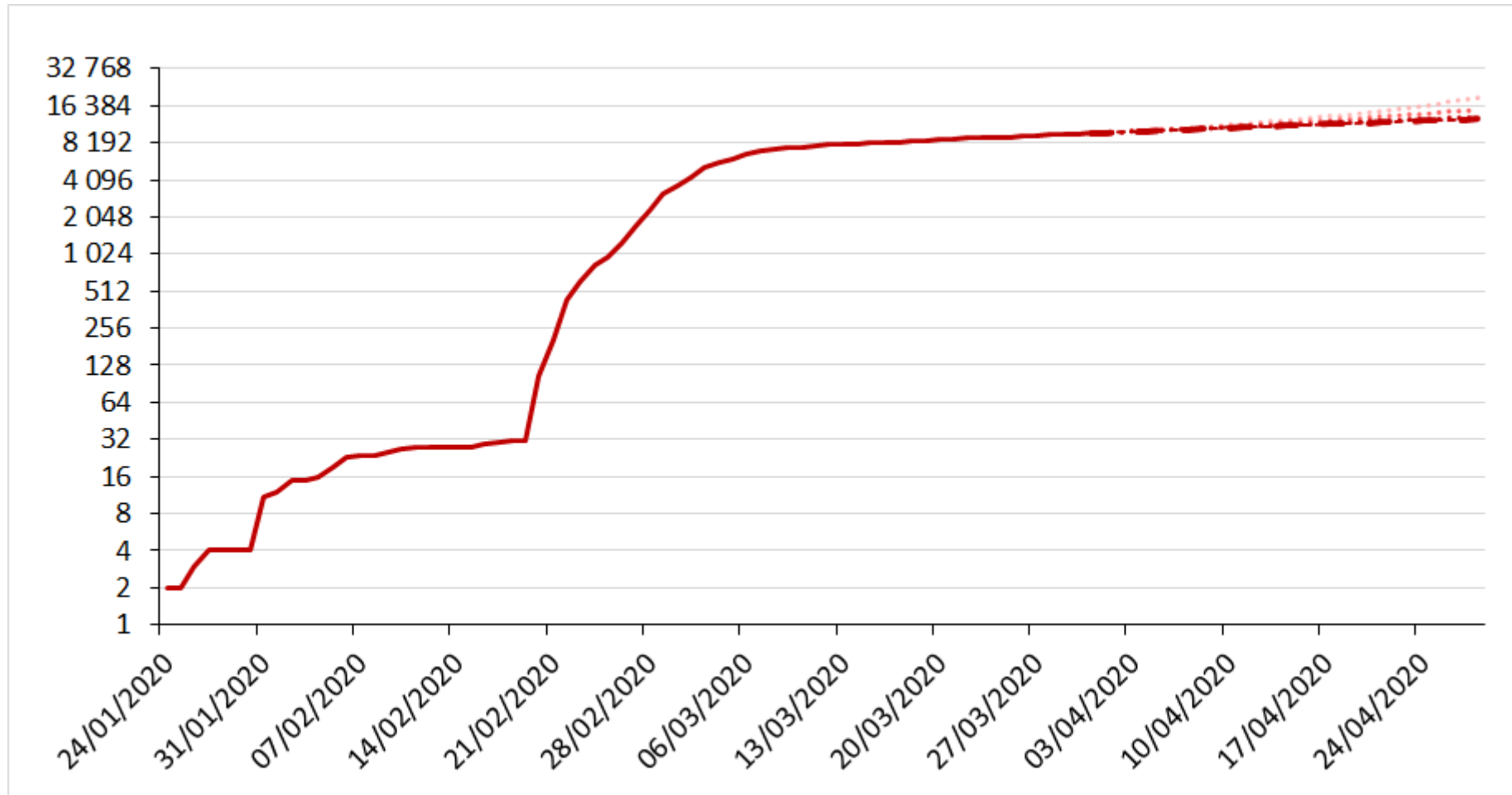
South Africa



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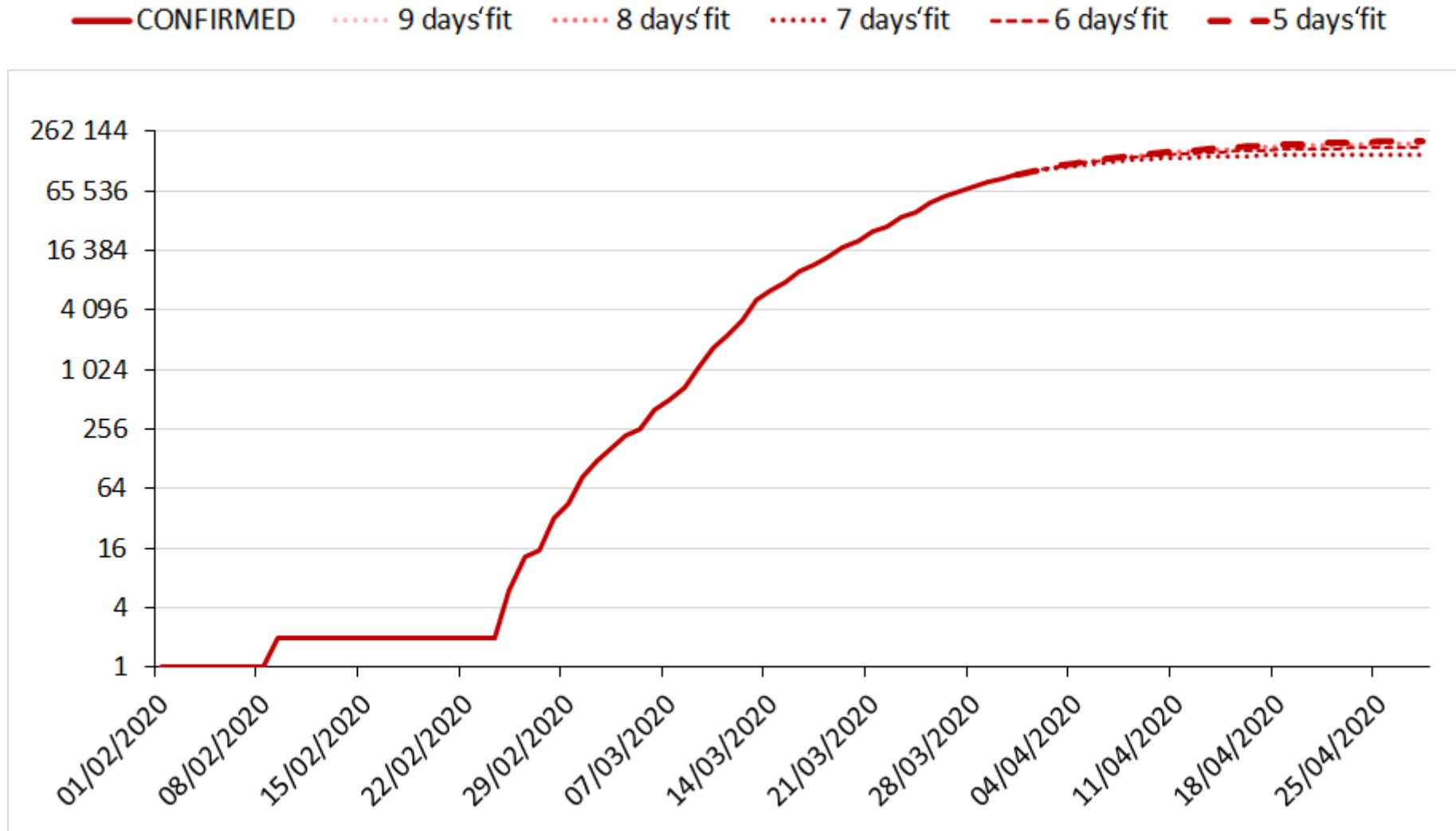
South Korea

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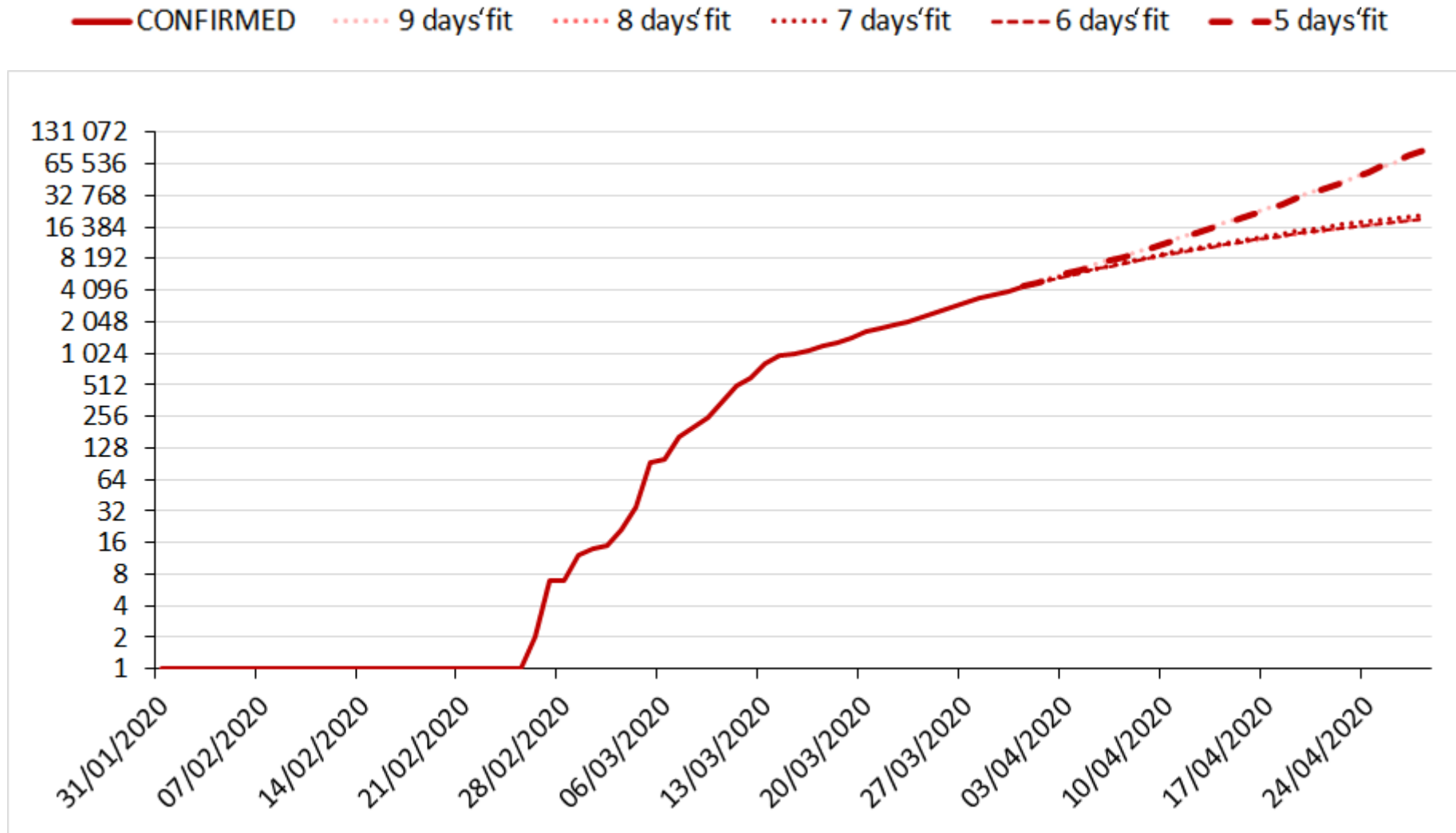
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Spain



Data: The Johns Hopkins University, Politolog.com

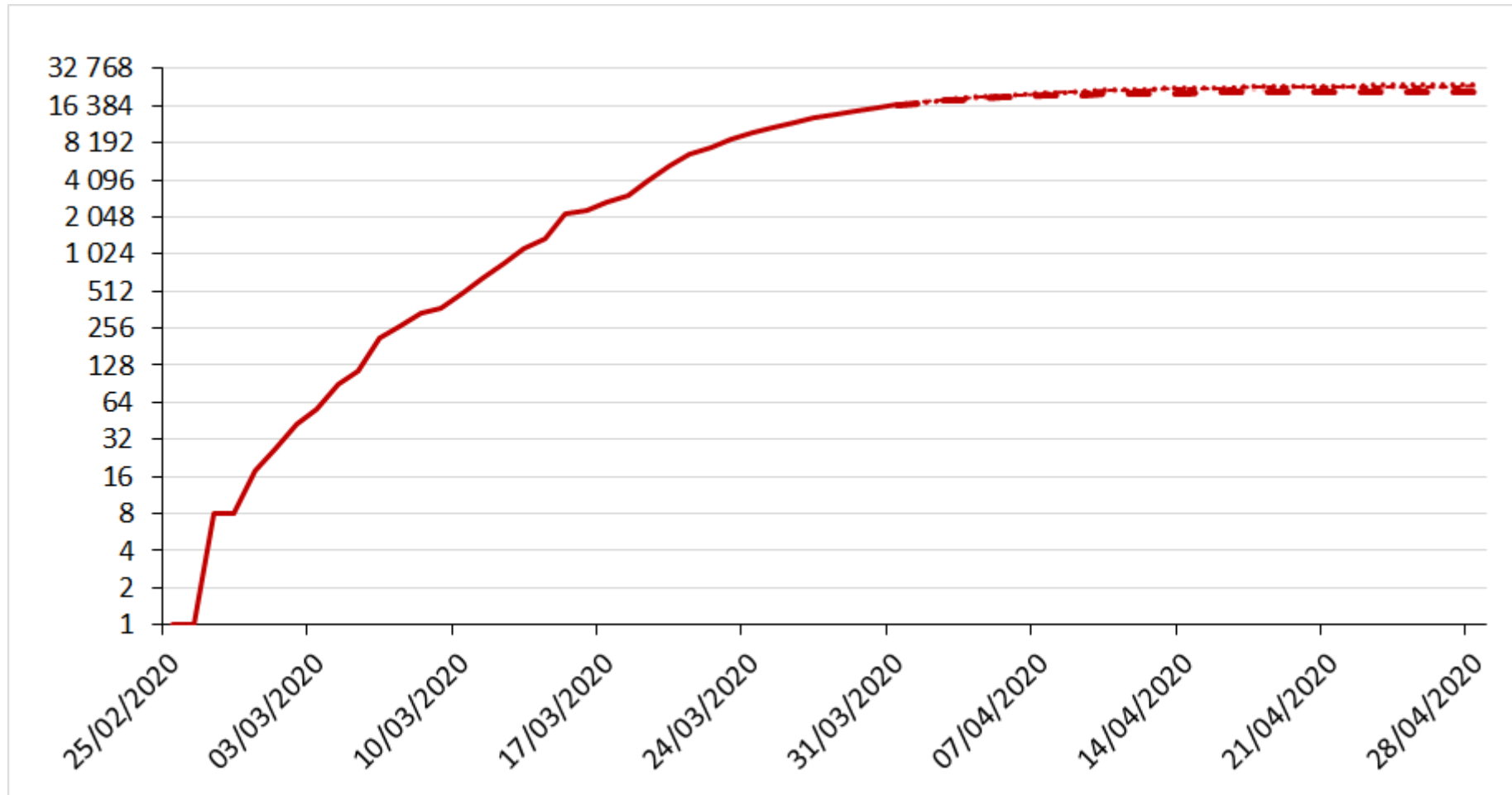
Sweden



Data: The Johns Hopkins University, Politolog.com

Switzerland

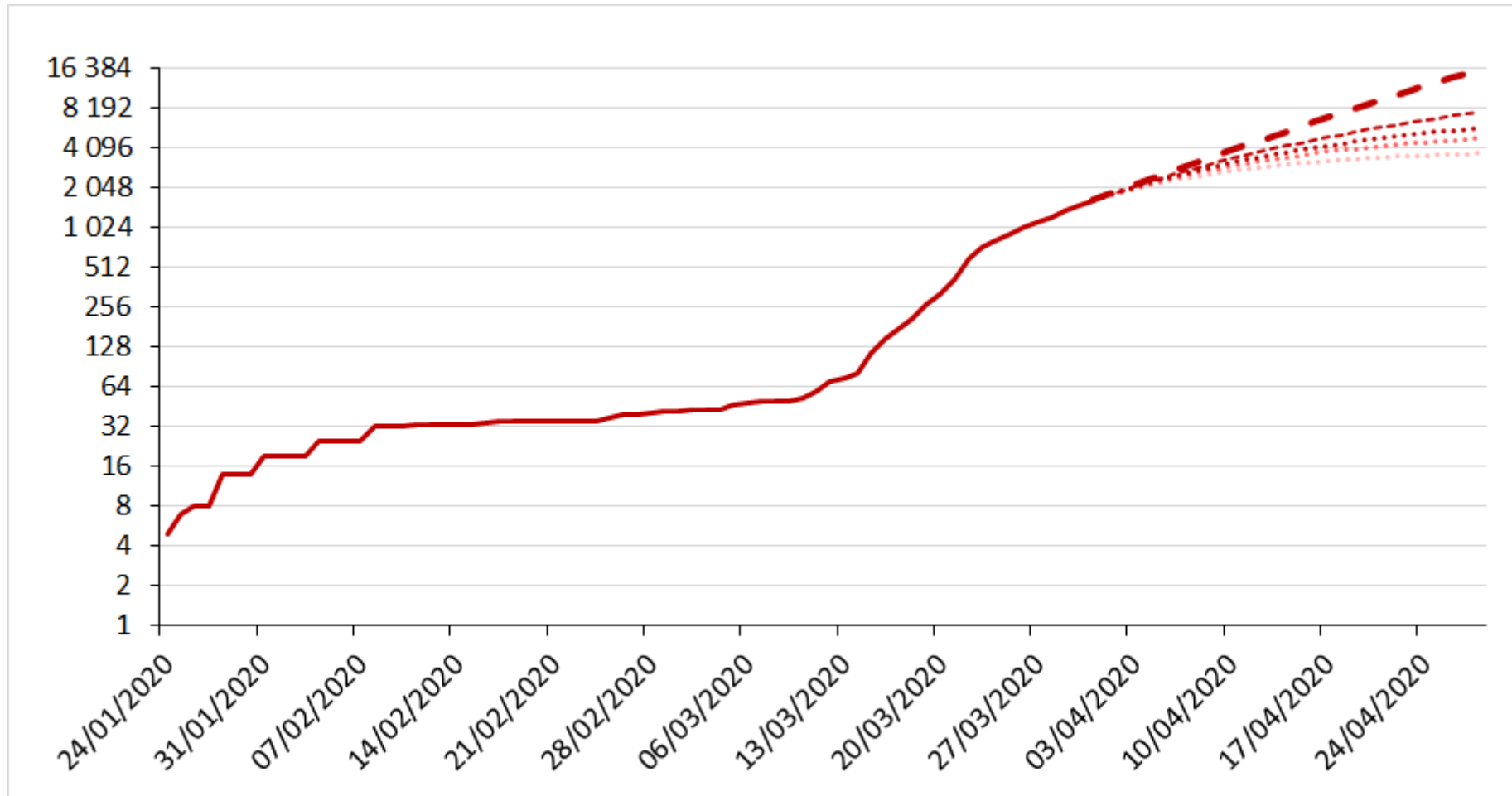
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Data: The Johns Hopkins University, Politolog.com

Thailand

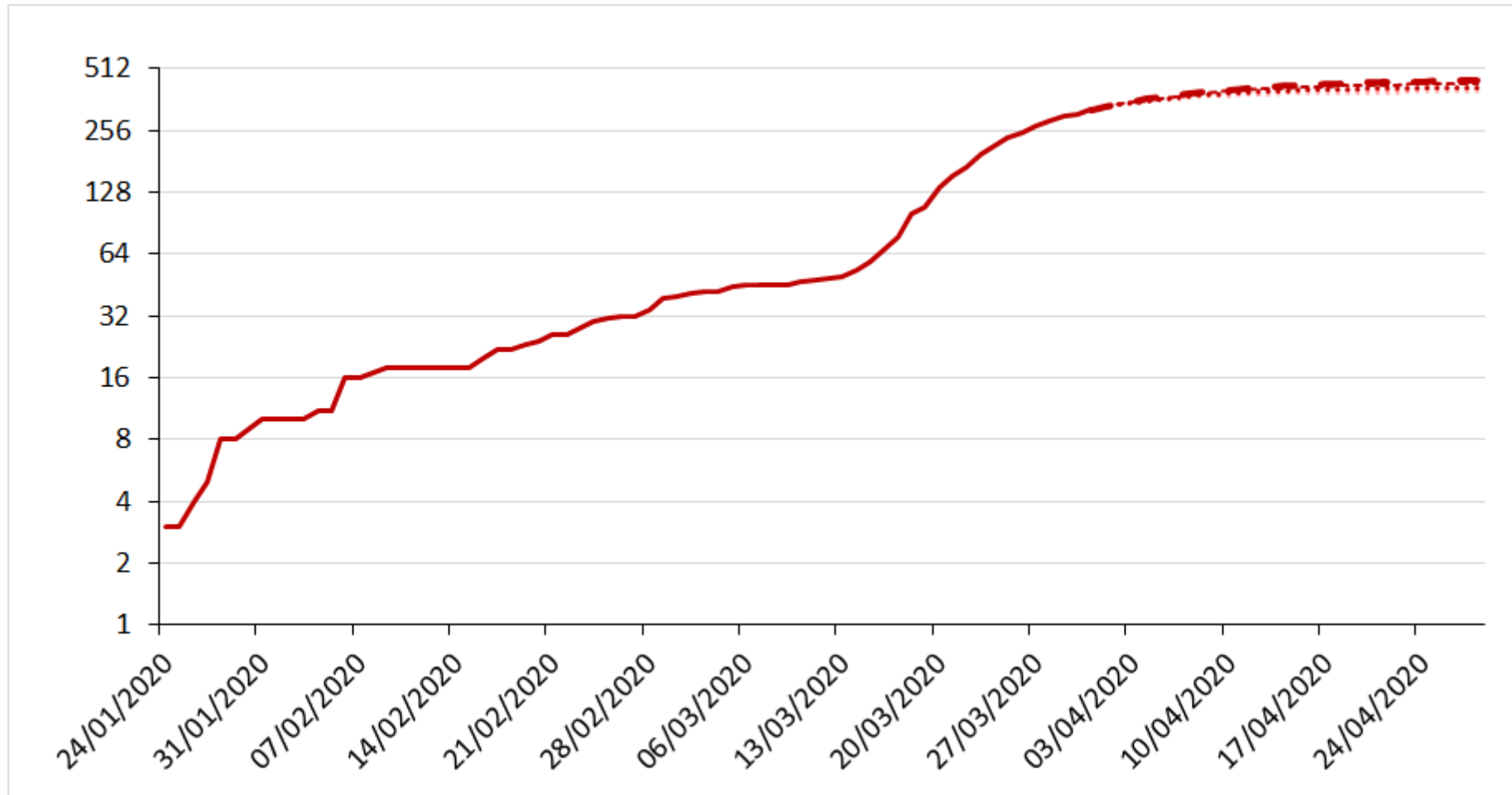
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Taiwan

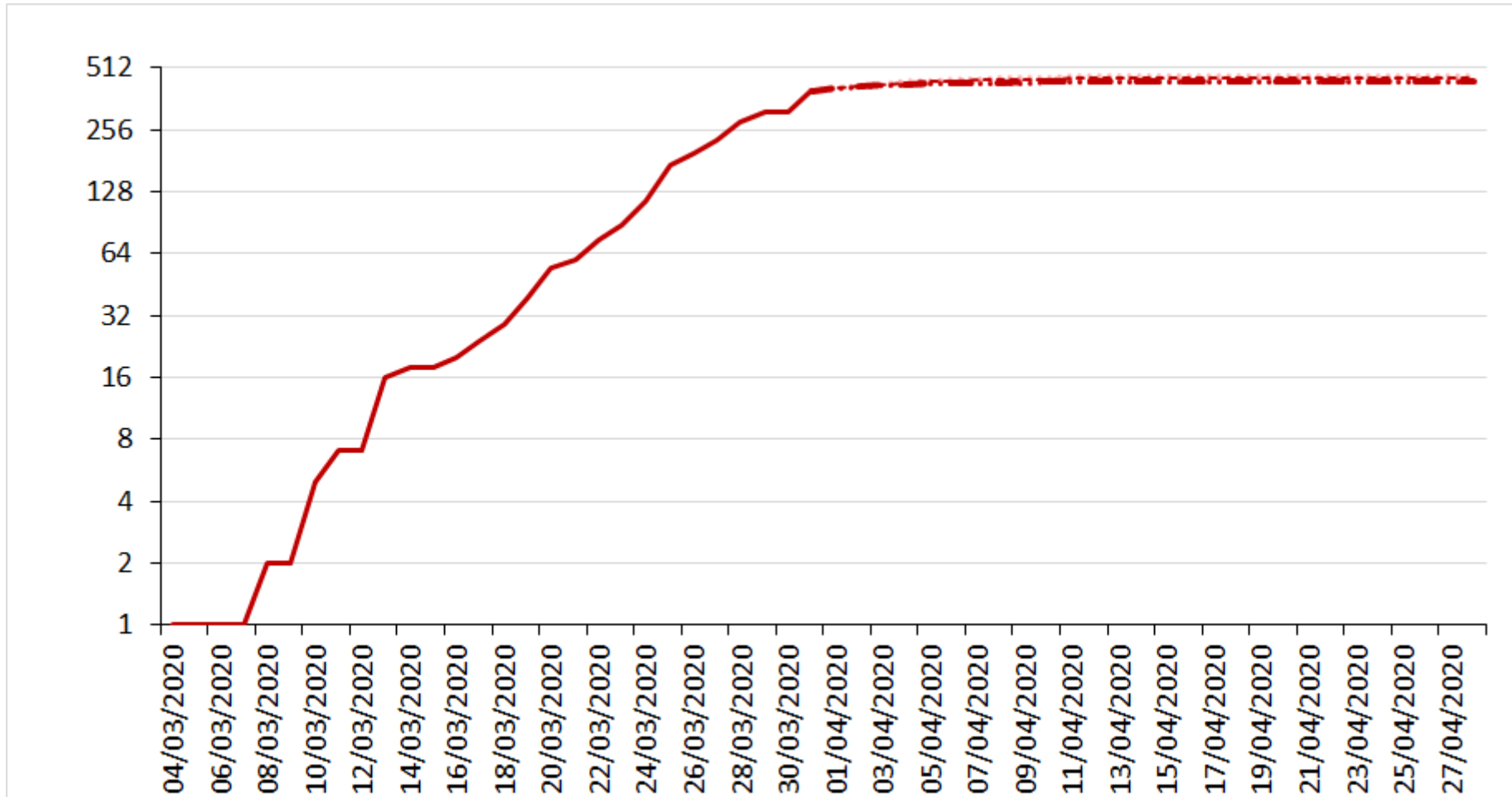
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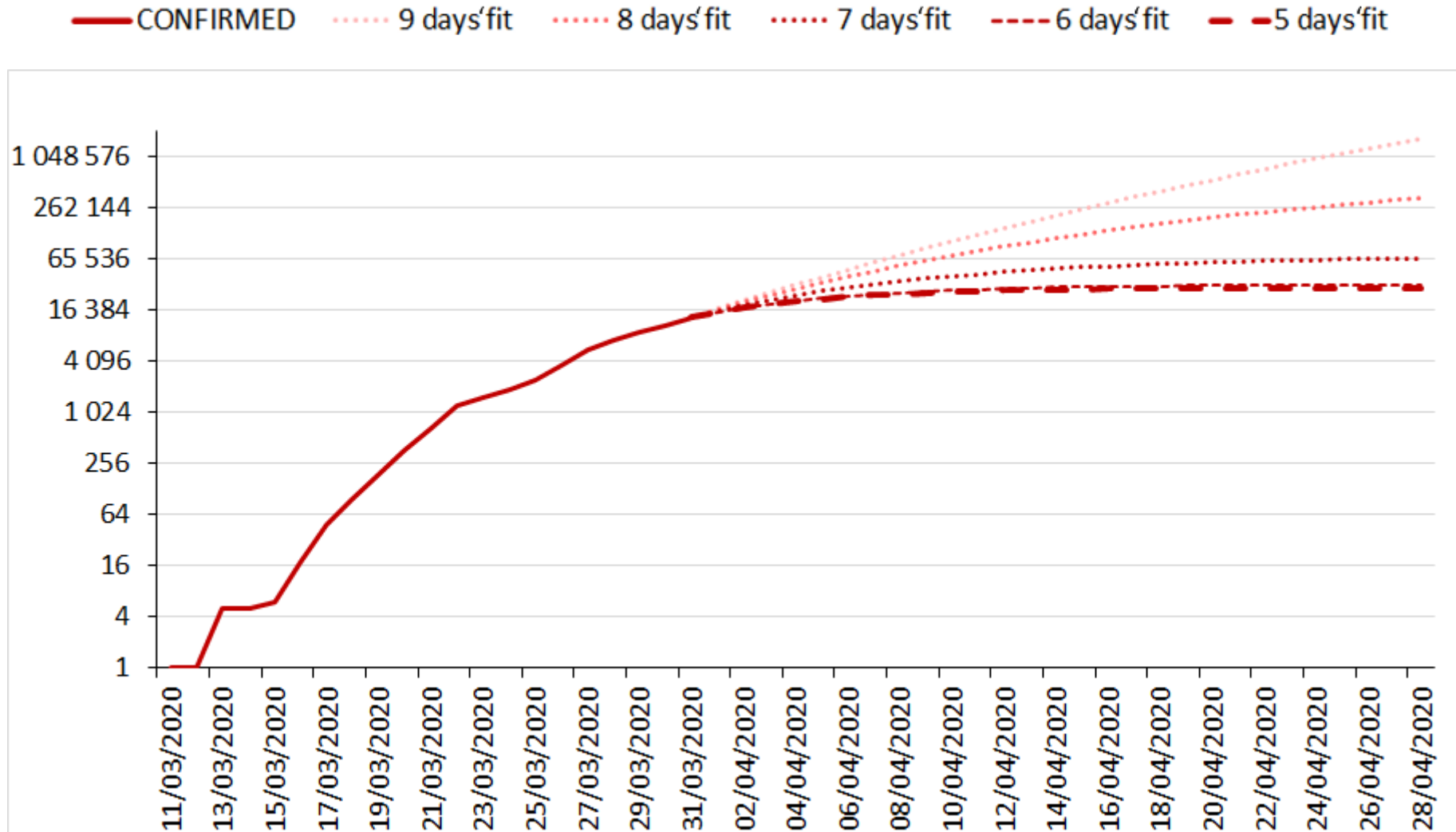
Tunisia

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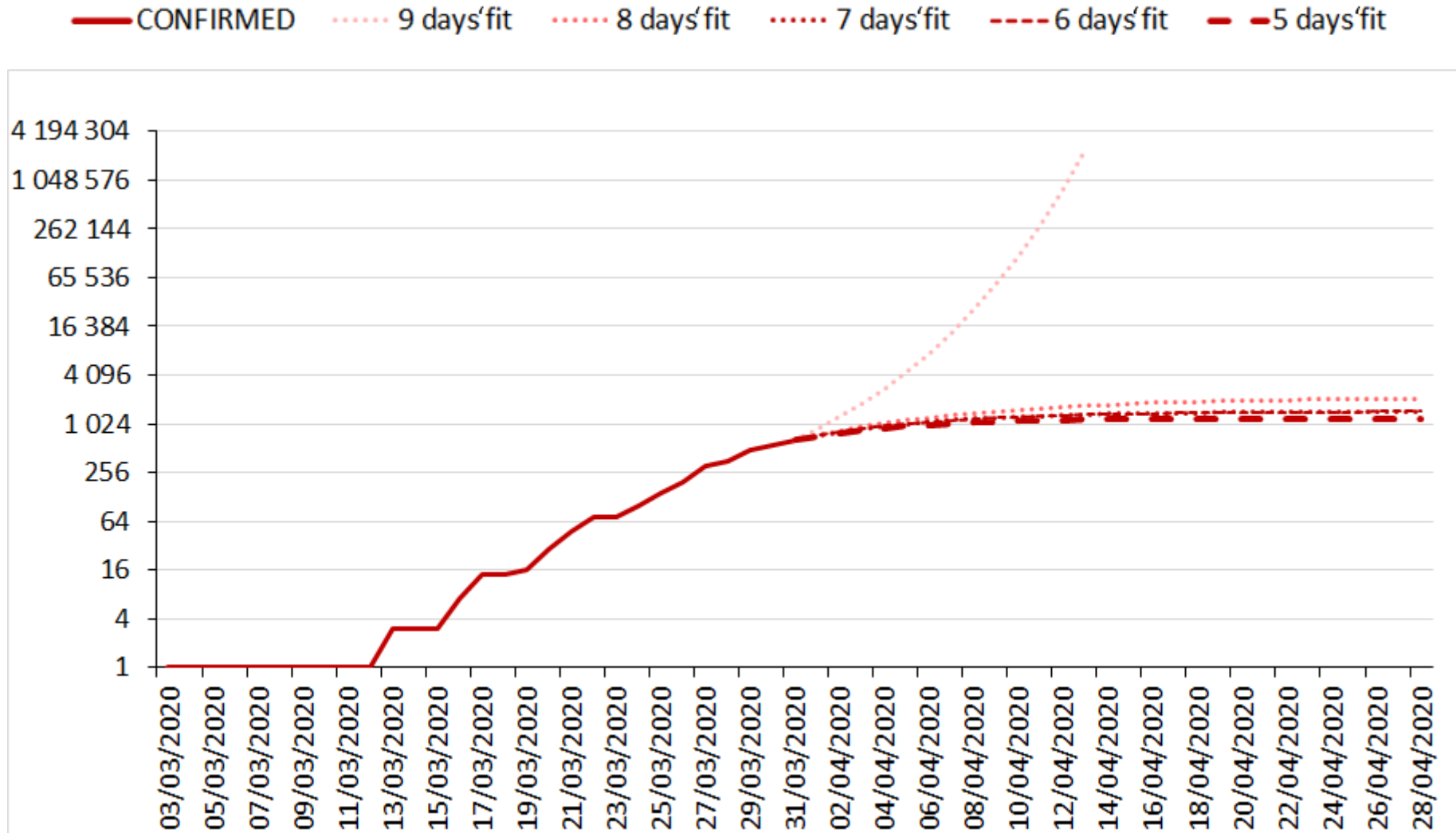
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Turkey



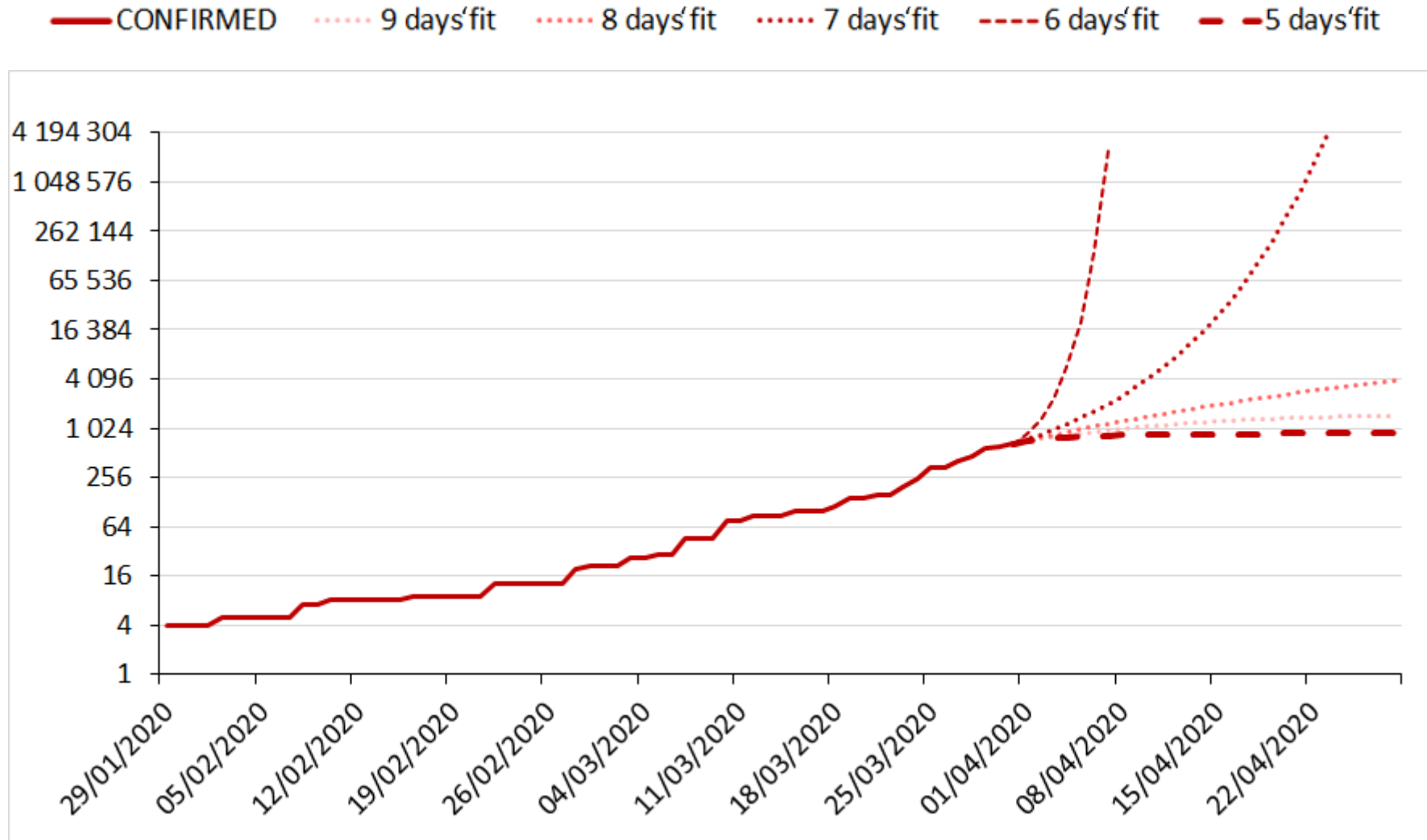
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Ukraine



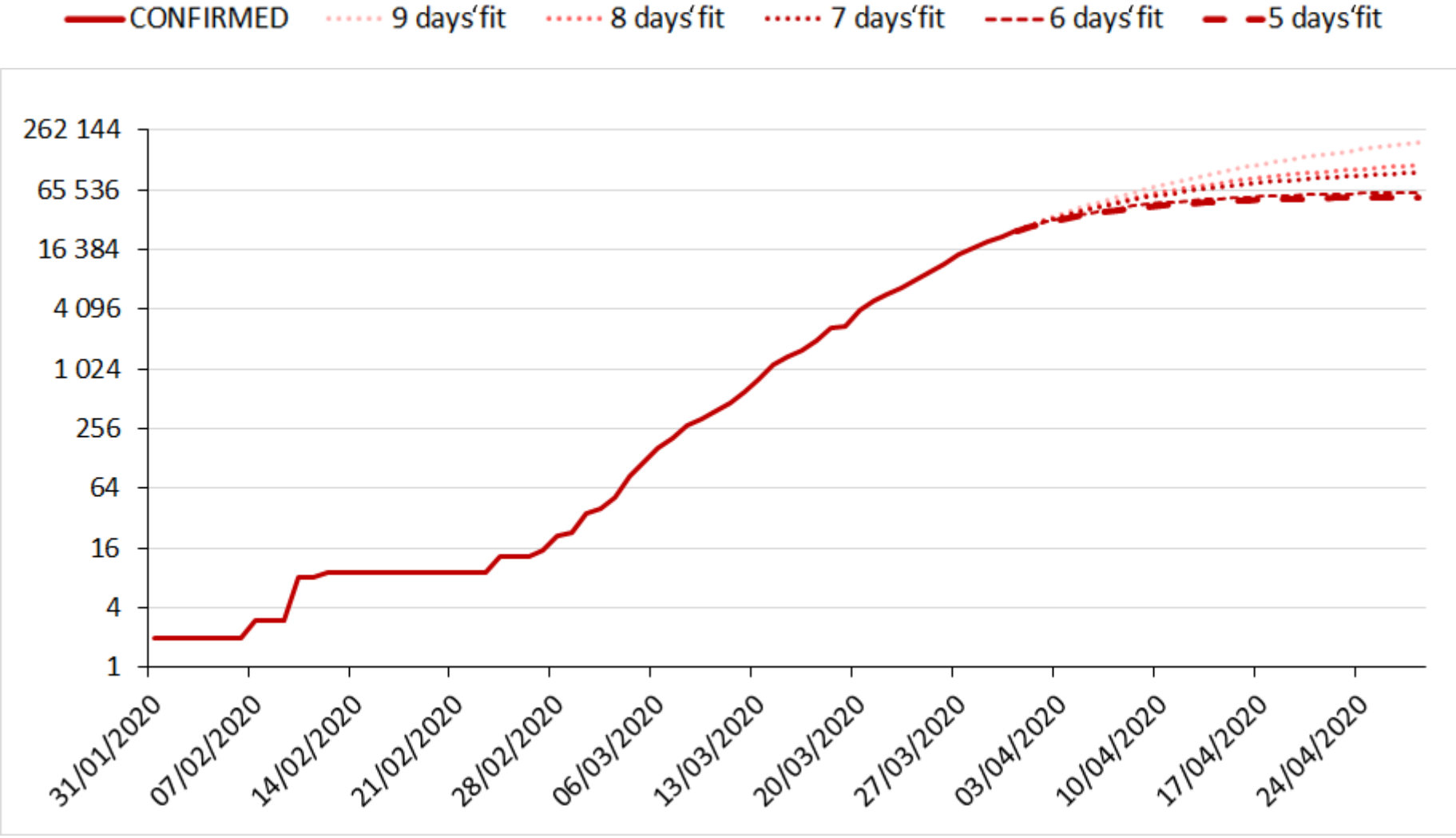
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United Arab Emirates



Data: The Johns Hopkins University, Politolog.com

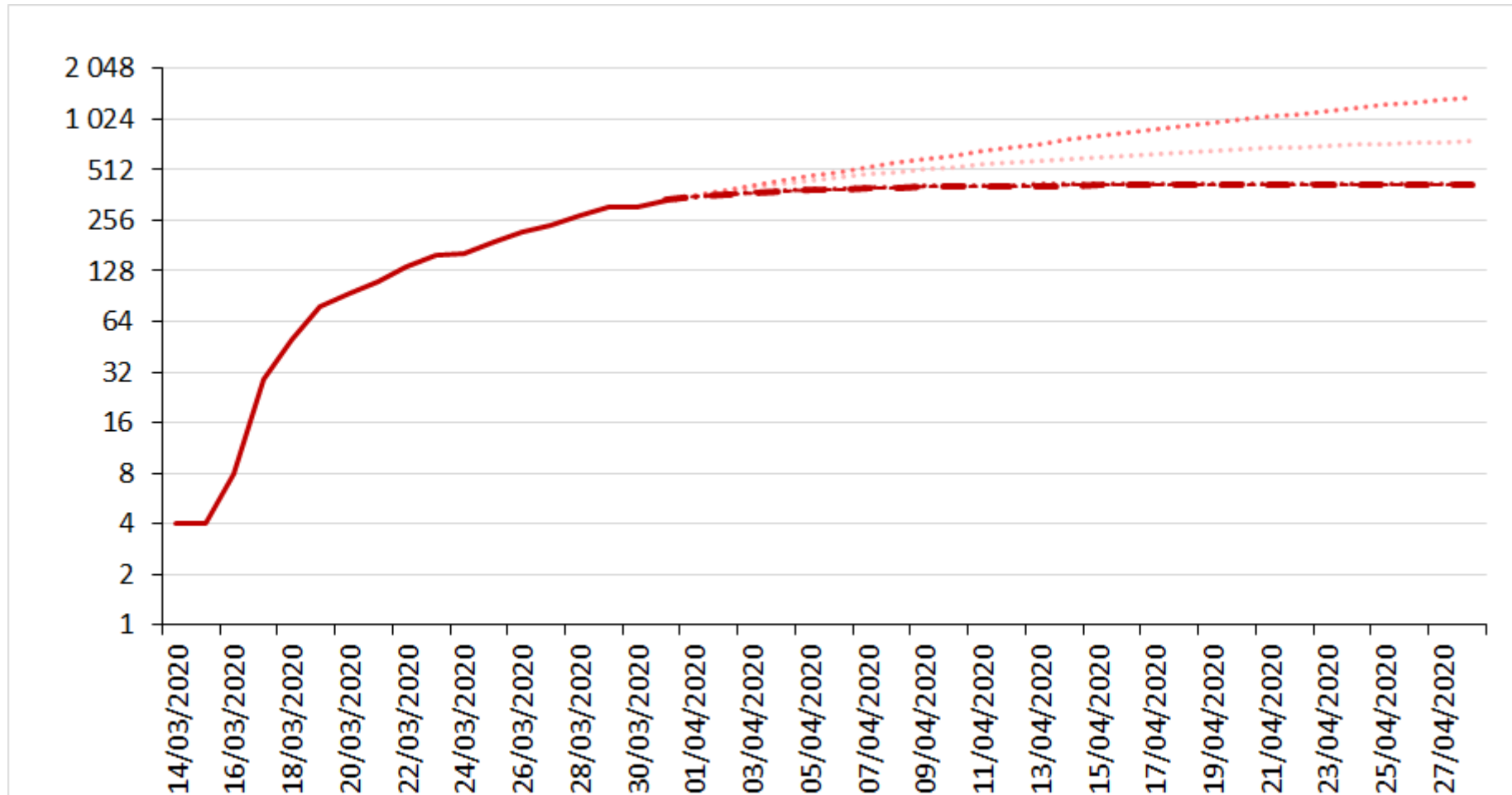
United Kingdom



Data: The Johns Hopkins University, Politolog.com

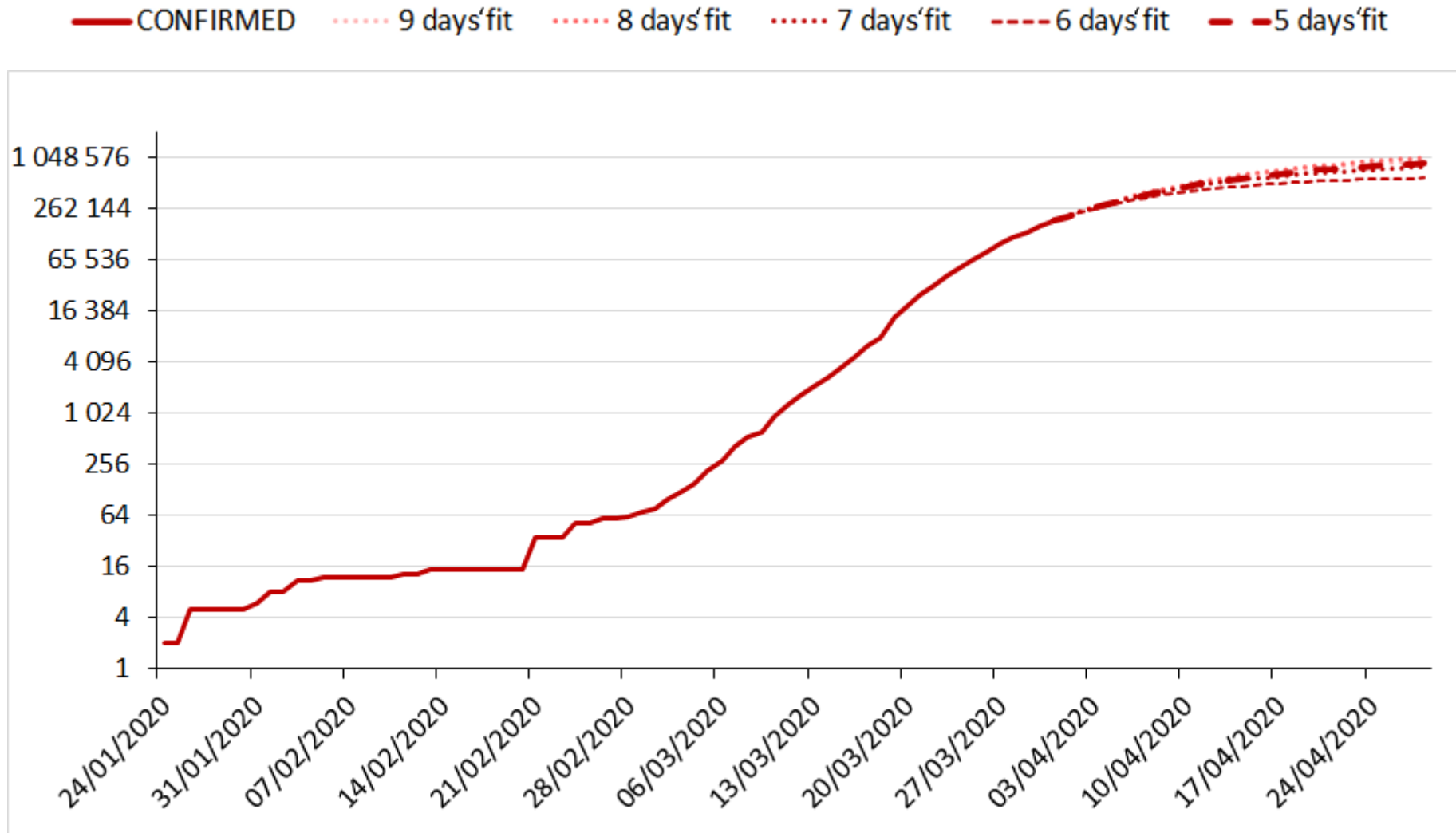
Uruguay

CONFIRMED 9 days'fit 8 days'fit 7 days'fit 6 days'fit 5 days'fit



Data: The Johns Hopkins University, Politolog.com

USA



Data: The Johns Hopkins University, Politolog.com



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