nature

October 'no-deal', but few will be rejoicing. In what the EU calls a "flextension", Brexit could happen before 31 January if Parliament approves a deal.

And if a deal such as the one Johnson and the EU have agreed is ultimately passed, the worst case is that Britain leaves the free-trade area known as the customs union. Free movement of citizens to and from the EU and Britain will end, and Britain's researchers might no longer be able to obtain funding from certain EU research programmes.

That is the scenario policymakers are planning for. But as this journal — along with organizations representing researchers, such as the Royal Society — has repeatedly said, fracturing more than four decades of joint working between the United Kingdom and its nearest neighbours will damage both science and society.

Aware of these concerns — and especially of the need to maintain scientific connections — the Johnson government has been talking up post-Brexit wins for research.

It plans a more favourable visa regime for students and researchers, and is shaping new funds, including a UK version of the United States' Defense Advanced Research Projects Agency. There's also talk of a generous European Research Council-style fund for UK researchers, should access to the EU scheme no longer be possible, and more funds to collaborate with the United States. And there's confidence among some policymakers that the world's researchers will continue to want to work with, and in, Britain.

Such confidence is premature. A more welcoming visa regime and extra funding will help to placate some of researchers' concerns, but new cash depends on how much the UK Treasury department has to spend, and that relies on two things that the country does not control. The first is how much Britain will have to pay the EU for any future relationship. The second — and more important — factor is that any funding increase for research needs the UK economy to continue to grow. Although the Treasury has carried out detailed economic-impact analyses of future growth, the chancellor of the exchequer, Sajid Javid, is not yet releasing the results.

But thanks to modelling from UK in a Changing Europe, we know that, under Johnson's proposals, income per capita is projected to be 2.5% lower on average than if Britain remained an EU member, based on economists' projections of income from trade and reduced immigration. The team also says that when trade falls, which it will in the initial period after Brexit, that also reduces productivity. After factoring productivity losses into the models, post-Brexit income per capita could be between 2.3% and 7% lower.

These figures call into question assumptions that Brexit will bring an economic dividend. And without such a dividend, the government will probably struggle to keep its promises of increased research funding.

As the Brexit saga rolls on, researchers need to continue their objective analyses of its potential impacts, and to call out what could be prematurely optimistic promises. They must highlight the risks to research and ensure that none of these issues is trampled on in the stampede to get a deal in place.

> **"The slow growth of India's tiger population is a rare good news story."**

Open data could save more tigers

India has a duty to give researchers access to the raw data on this threatened species.

On Global Tiger Day in July, India's government announced a victory. It declared that the nation is home to 2,967 wild tigers — a major increase on the 1,872 animals recorded in 1972.

Centuries ago, tens of thousands of tigers roamed the world. Today, only six sub-species remain and the International Union for Conservation of Nature estimates that there are no more than 3,159 individuals in the wild. But, after centuries of hunting and habitat destruction, India's tigers seem to be turning a corner. However, as we report on page 612, there's much more that could be done.

To begin with, tiger-conservation work must be improved in more of India's 50 tiger reserves — the current effort is concentrated in just a handful. And the government must give scientists at India's universities access to the reserves and the raw data on which its tiger estimates are based.

At present, scientists cannot access the full data that the government collects during the national tiger census, which is conducted every four years. This is in spite of the fact that India's National Data Sharing and Accessibility Policy states that scientific data collected using "public funds" should be made available to those with a legitimate research interest.

If researchers were allowed to see the raw numbers, they could independently verify tiger population estimates. Such verification is essential to knowing whether conservation measures are working. It could also allow scientists to project population trends over time, and estimate birth and death rates. These measures would help officials in the government forestry department to assess populations more accurately and act quickly if they foresee a risk of local extinction. Such action might have helped to prevent the complete loss of tigers from three reserves that the 2018 census reports.

Researchers are also keen to get involved in, and improve, the census itself. The four-yearly survey is a gargantuan effort. The 2018 one covered 381,400 square kilometres and amounted to nearly 594,000 human-days of work. It logged 35 million photographs taken with hidden motion-triggered cameras, yielding almost 77,000 images of tigers.

But instead of trying to count tigers across such a vast area, individual reserves — where 70–85% of India's tigers are thought to be found — could be sampled more often, and automatic image recognition used to process the pictures.

The slow growth of India's tiger population is a rare good news story in international conservation. But the Indian government could be doing more. It must trust independent scientists with the raw data, so that one of Earth's most iconic species can survive long into the future.