**1 June 2022**

# ECONOMIST DR ROSS HARVEY ON THE IVORY TRADE

## The impacts on levels of illegal killing of elephants since the closure of China's domestic market in 2017

Since 2015, when Chinese authorities first started to talk about imposing a domestic ivory ban (following on from then-US-president Obama indicating that the US would close its market), we saw ivory prices starting to fall. They peaked at about $1,200/kg in 2014 and the latest available data suggests prices for raw ivory at roughly $700/kg.

The latter is still a lot of money, however, the risk: reward ratio remains loaded in favour of poaching. Thus, as expected, we have seen a significant slowing in the *rate* of poaching since 2014, but the *levels* of poaching remain high.

The relationship between the ivory price and elephant poaching remains complex. It was evidently positive that China acted to close its domestic trade. It is pointless to impose an international ban but allow domestic trade, as that simply creates an incentive to illegally move ivory into a country with a large domestic market. Border anti-trafficking enforcement costs are simply too high when a legal domestic trade undermines a global legal trade. The problem remains, though, that if only the largest domestic markets close down but neighbouring markets remain open, then the problem is reduced but also displaced.

For elephant poaching to stop entirely, the market value of ivory has to be eliminated.[1] That can only be achieved through global collective action - elephant range states act simultaneously to dispose of ivory stockpiles and stop signalling to the market that they intend to sell ivory; countries demanding ivory need to stop consuming it.

Even if this occurred, however, the problem of stockpiling ivory remains. The disjunct between online ivory sales data and seizure data had indicated that organised criminal groups were likely stockpiling ivory for various reasons. We suspect that this was because they were 'banking on extinction' - literally funding poaching to create private ivory stockpiles, which they could then drip feed to the market once elephants had become extinct, or a legal trade reignited (or both). Domestic ivory bans should therefore be indefinite and complete. Unfortunately, if range states keep talking about selling their ivory, the incentive for stockpiling remains.[2]

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[1] Chris Alden and Ross Harvey, 'The case for burning ivory', *Project Syndicate*, https://www.project-syndicate.org/commentary/kenya-ivory-stockpile-destruction-by-chris-alden-and-ross-harvey-2016-04, accessed 1 June 2022.

[2] Ross Harvey, Chris Alden, and Yu Shan Wu, "Speculating a Fire Sale: Options for Chinese Authorities in Implementing a Domestic Ivory Trade Ban," *Ecological Economics* 141 (2017): 22–31, https://doi.org/10.1016/j.ecolecon.2017.05.017.

## Advocating for the resumption of a legal ivory trade is short-sighted thinking

It is difficult to identify anything in the motivation other than sheer rent-seeking.

The argument typically offered is that southern African nations have done well to conserve their elephant populations and should not be made to suffer for the high rates of poaching experienced elsewhere on the continent (such as in Tanzania between 2009 and 2014).[3] They argue that they should be allowed to benefit from legal ivory sales to capitalise their stockpiles and plough the revenues back into conservation.

This is short-sighted thinking at best, as it risks merely stimulating the very demand that resulted in the poaching onslaught that was observed in Tanzania. And now that Tanzania's elephant populations have been thinned out, and the greatest concentrations are to be found in Zimbabwe and Botswana, the poaching onslaught in those two countries would be alarming.

The second reason we see this as short-sighted thinking is that a legal ivory trade would simply serve as a conduit for laundering illegal ivory. The marginal cost of poaching is lower than the marginal cost of managing a legal trade in ivory. The costs of anti-trafficking efforts along large borders; those costs are also high at ports and airports where illegal ivory would exit from range states.

There seems to be a simplistic reasoning that assumes that a global legal trade would somehow crowd out an illegal trade instead of simply inflaming the latter. Some proponents of a limited legal trade do not see demand reduction efforts as incompatible with such a stance. However, the evidence suggests that demand reduction efforts are severely undermined by persistent signalling from some range states that their governments desire a legal trade. Zimbabwe and Botswana and Namibia are playing risky games. Even the money they think they would acquire from legal sales would be a pittance in comparison to the future lost tourism revenue that would accrue as a function of having their elephants poached out.[4]

Daniel Stiles and other pro-trade proponents believe that ivory prices simply surged because they were an alternative investment commodity to assets such as gold, and this correlated with growing income levels in south-east Asia.[5] However, it is difficult to overlook the event-sequence of the 2008 one-off sale (which brought very little revenue to African states). From when it began to be signalled, we saw poaching levels starting to tick up. The sheer scale of the subsequent losses (Selous Game Reserve - now the Nyerere National Park - lost about 70,000 elephants between 2006 and 2013) is hard to ignore. Statistically, the jury is still out as it is very difficult to control for intervening variables in trying to establish causality. An 'event-study' regression showed that the one-off sale had a significant impact.[6] Those who dispute the methodology argue that the sheer increase in demand was such that slaughter was inevitable. Ivory had, after all, been marketed as a heritage purchase in China.

Stiles has also argued that it was precisely because the sale was one-off and not a regularised trade that it created immediate artificial scarcity, which increased prices and escalated poaching. He suggests that a regular release of ivory would have kept prices lower and demand more satisfied. But this argument is speculative at best; it cannot be tested. The cold hard fact remains that the one-off 2008 ivory sale is strongly correlated with subsequent poaching. When determining causality, one must always consider at least correlation and sequence.

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[3] Jafari R Kideghesho, "The Elephant Poaching Crisis in Tanzania: A Need to Reverse the Trend and the Way Forward," *Tropical Conservation Science* 9, no. 1 (2016): 369–88, https://doi.org/10.1177/194008291600900120.
[4] Alden, C & R Harvey, 'Ivory sales by Zimbabwe and Namibia could create demand spike', *Business Day*, https://www.businesslive.co.za/bd/opinion/2016-05-17-ivory-sales-by-zimbabwe-and-namibia-could-create-demand-spike/, accessed 1 June 2021.
[5] Daniel Stiles et al., "Analysis of Ivory Demand Drivers," no. September (2015): 1–93.
[6] Nitin Sekar and Solomon Hsiang, "A Global Experiment in Black Market Dynamics: The Effect of Legal Ivory Sales on Illegal Ivory Production," 2015.

Pro-trade proponents such as Stiles and Rowan Martin believe that a regular trade (contrary to one-off sales) would avoid price spikes and speculation, thus driving prices down and subsequently poaching. In theory, it sounds reasonable - in utopia, governments drip feed their ivory stockpiles to the market through a central selling organisation that keeps prices at Goldilocks levels; just high enough to make money for range states so they can fund all their parks (not line their pockets); and just low enough that poaching would disappear. But this is like neoclassical economics 101, which assumes perfect competition and perfect information.

The real world is a lot more complicated. We are talking about governments who have shown insufficient *governance* credibility. One only has to look at Botswana releasing its elephant management plan two years after it took a decision to lift the elephant trophy hunting moratorium and released an annual quota based on zero science. And serious questions are being raised about the efficacy of Namibia's conservation model. The De Beers Central Selling Organisation (CSO) model, often referred to in this context, kept diamond prices high by controlling supply. But diamond supply can be controlled at much lower marginal costs than ivory supply - diamonds have to be mined. Illegal diamonds do enter the market, of course, but marketers now do clever things like certifying diamonds at source as clean, etc. These are not perfect mechanisms to override information asymmetry and moral hazard, but they are there.

In ivory, however, the question is: who exactly would run this utopian CSO and pay for its functioning? And is there any evidence to suggest that consumers would care about the source of the ivory? The evidence currently suggests that many consumers have no idea that the ivory they purchase is likely to come from poached elephants.

Raising awareness of this is the very thing that is starting to make demand-reduction campaigns effective - the idea that ivory belongs to elephants and has no value to humans. Running a regulated trade in ivory risks inflaming demand as to undermine all this demand-reduction work.[7] It also risks being completely ineffective at crowding out illegal ivory, which will always enter legal channels at low marginal costs to be laundered. In other words, the demand curve would likely shift out, driving prices up and incentivising poaching.[8]

A CSO model seems to assume that the demand curve would remain where it is now, and simply that increased supply would result in lower prices. That is naive and speculative. If the demand curve shifts out as a result of signalling to the market that the ivory trade is now legal again, we do not know if we would have sufficient supply to meet this (likely growing) demand. And with elephant numbers dropping as they are under a relatively lower-demand scenario, this seems an extraordinarily unwise speculation.

**Reference list**


Harvey, Ross. "Risks and Fallacies Associated with Promoting a Legalised Trade in Ivory." *Politikon*, 2016, 1–15. https://doi.org/10.1080/02589346.2016.1201378.

Harvey, Ross, Chris Alden, and Yu Shan Wu. "Speculating a Fire Sale: Options for Chinese Authorities in Implementing a Domestic Ivory Trade Ban." *Ecological Economics* 141 (2017): 22–31. https://doi.org/10.1016/j.ecolecon.2017.05.017.

Kideghesho, Jafari R. "The Elephant Poaching Crisis in Tanzania: A Need to Reverse the Trend and the Way Forward." *Tropical Conservation Science* 9, no. 1 (2016): 369–88. https://doi.org/10.1177/194008291600900120.

Sekar, Nitin, and Solomon Hsiang. "A Global Experiment in Black Market Dynamics: The Effect of Legal Ivory Sales on Illegal Ivory Production," 2015.

Stiles, Daniel, Rowan Martin, Wei Ji, and Brendan Moyle. "Analysis of Ivory Demand Drivers," no. September


[7] Xuehong Zhou et al., "Elephant Poaching and the Ivory Trade: The Impact of Demand Reduction and Enforcement Efforts by China from 2005 – 2017," *Global Ecology and Conservation* 16 (2018): e00486, https://doi.org/10.1016/j.gecco.2018.e00486.

[8] Ross Harvey, "Risks and Fallacies Associated with Promoting a Legalised Trade in Ivory," *Politikon*, 2016, 1–15, https://doi.org/10.1080/02589346.2016.1201378.

(2015): 1–93.
Zhou, Xuehong, Qiang Wang, Wei Zhang, Yu Jin, Zhen Wang, Zheng Chai, Zhiqiang Zhou, Xiaofeng Cui, and Douglas C. MacMillan. “Elephant Poaching and the Ivory Trade: The Impact of Demand Reduction and Enforcement Efforts by China from 2005 – 2017.” *Global Ecology and Conservation* 16 (2018): e00486. https://doi.org/10.1016/j.gecco.2018.e00486.