thebmj

BMJ 2018;361:k1433 doi: 10.1136/bmj.k1433

EDITORIALS

The benefits of taxing cigarettes in middle income countries

People on low incomes have the most to gain

Gordon C McCord *assistant professor*[1], Thomas E Novotny *professor emeritus*[2]

[1]School of Global Policy and Strategy, University of California, San Diego, La Jolla, CA 92093, USA; [2]Graduate School of Public Health, San Diego State University, San Diego, CA, USA

In a linked article, published on the heels of the 17th World Conference on Tobacco or Health,[1] Jha and colleagues in the Global Tobacco Economics Consortium (doi:10.1136/bmj.k1162) provide a detailed analysis of the effects of a substantial (50%) increase in the tobacco excise tax in 13 middle income countries.[2] In their model of half a billion male smokers, estimates of the responsiveness of demand to cigarette tax increases suggest they will result in substantial smoking cessation (particularly among people on low incomes), reduce tobacco attributable years of life lost, and decrease the risks of catastrophic medical costs in these countries. Many economists, including former US treasury secretary Lawrence Summers, argue that taxes could be more effectively applied to slow the global epidemic of non-communicable diseases, especially in low and middle income countries. Not only do such fiscal policies reduce tobacco consumption, they also denormalise tobacco use and can support funding for public health programmes.[3]

Here, we review some economic arguments for cigarette taxation. These are useful to justify these taxes, particularly to those who eschew government paternalism, and they inform the thornier discussion on how high the tax should be. Firstly, smokers generate costs for non-smokers, such as from diseases due to secondhand smoke or environmental pollution from discarded butts. Although most economists would agree that such environmental externalities justify some form of governmental intervention, direct regulation of exposure to secondhand smoke is likely a more effective policy instrument than taxation to deal with them. Moreover, the appropriate tobacco tax such that smokers pay the costs of environmental externalities is probably small.[4]

Secondly, smokers impose future costs on publicly financed health systems. This argument has been muddied (and subsequently exploited by the tobacco industry) because expenditures for smoking related illness can be offset by decreased public benefits due to shorter lifespans of smokers.[5] However, this accounting often fails to incorporate the economic and social contributions of those who live to older ages in good health.

A more powerful economic argument for high cigarette taxes rests on behavioural principles. Important evidence has emerged not only on the addictiveness of nicotine but also on people's hyperbolic discounting (a time inconsistent degree of patience—discounting the near term future more than the long term future—that prevents people from following through on past commitments). These behavioural features rationalise taxes as a way of aligning behaviour to long term preferences and suggest substantially higher taxes than those justified by concerns about externalities alone.[6 7]

Jha and colleagues usefully counter one common argument against cigarette taxes: that they are regressive. Indeed, people on low incomes are much more likely than people on high incomes to cease smoking as prices rise and will therefore reap health gains large enough to neutralise concerns about regression.

Much remains to be learnt: research is required across the developing world to estimate optimal taxes according to local tobacco markets, health system costs, and people's discount rates of the future costs of smoking. Also, cigarette taxes are often part of an anti-tobacco policy package, potentially confounding the estimated effects of tax increases on demand. Finally, taxes should be designed to minimise switching to cheaper (perhaps unhealthier) types of tobacco, and to prevent illegal tax avoidance.

Tobacco use remains a leading cause of premature mortality worldwide,[8] its health consequences are disproportionally on people on low incomes,[9] and tobacco production and use creates substantial adverse global environmental impacts.[10] Public health professionals advocate for total abstinence from tobacco use and view high excise taxes primarily as a public health intervention and not a government revenue tool.[11]

Economists might, however, argue that the optimal amount of smoking in society is not zero. As the number of smokers becomes small, the costs of anti-smoking policies can become

Correspondence to: G C McCord gmccord@ucsd.edu

higher than their social benefits. Yet we should remember that cigarette taxes do not exist in a policy vacuum. All countries are committed to reducing preventable non-communicable diseases, and this stated social preference means that reduction of smoking related illness counts not only towards the "private" gain of smokers but towards broader social goals.

Both economists and public health advocates agree that a substantial price increase on tobacco will result in decreased tobacco consumption and resulting illness. Jha and colleagues have done yeoman's work in their analysis, and they dispel some common misconceptions about raising tobacco taxes in middle income countries (see box 1 in the linked paper on bmj.com). Ministers of Finance of signatory countries to the Framework Convention on Tobacco Control should understand the fiscal and health benefits of the tax guidelines in the framework just as clearly as the public health advocates who so vigorously support them.[12]

Competing interests: We have read and understood the BMJ policy on declaration of interests and declare: GCM declares no conflict of interest or previous work on tobacco control. TEN has received funds for tobacco control research by the US National Institutes of Health, National Cancer Institute (2R01 CA091021-10A1); World Health Organization; University of California Tobacco related Disease Research Program, and the World Bank; is currently a consultant to the Truth Initiative in Washington, DC; has previous worked with the linked paper's lead author Prabhat Jha on tobacco policy research; and is the chief executive officer of the Cigarette Butt Pollution Project, a non-profit educational and research organisation registered in California.

Provenance and peer review: Commissioned; not peer reviewed.

1 17th World Conference on Tobacco or Health. Uniting the World for a Tobacco-Free Generation, 7-9 March 2018, Cape Town, South Africa. Accessed February 12, 2018 from http://wctoh.org/
2 Jha PGlobal Tobacco Economics Consortium. The health, poverty, and financial consequences of a cigarette price increase among 500 million male smokers in 13 middle income countries: compartmental model study. *BMJ* 2018;360:k1162.
3 Summers L. If we want to improve global health, we need to tax the things that are killing us. The Washington Post (Wonkblog Perspective), January 18, 2018.
4 Cherukupalli R. A behavioral economics perspective on tobacco taxation. *Am J Public Health* 2010;100:609-15. 10.2105/AJPH.2009.160838 20220113
5 Viscusi WK. Cigarette taxation and the social consqeuences of smoking. In: Poterba JM, ed. *Tax Policy and the Economy.* Vol 9. MIT Press for the National Bureau of Economic Research, 1995: 51-101.
6 Gruber J, Kőszegi B. *A Modern View of Tobacco Taxation.* International Union Against Tuberculosis and Lung Disease, 2008.
7 Gruber J, Koszegi B. Tax incidence when individuals are time-inconsistent: the case of cigarette excise taxes. *J Public Econ* 2004;88:1959-8710.1016/j.jpubeco.2003.06.001.
8 Global Report WHO. Mortality Attributable to Tobacco. Accessed February 12, 2018 from http://www.who.int/tobacco/publications/surveillance/rep_mortality_attributable/en/
9 United Nations, Economic and Social Council. *Report of the inter-agency and expert group on sustainable development goal indicators, revised.* United Nations, 2016.
10 WHO. Tobacco and its environmental impact: an overview. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. Accessed February 12, 2018 www.who.int/tobacco/publications/environmental-impact-overview/en/
11 Novotny TE. The tobacco endgame: is it possible?*PLoS Med* 2015;12:e1001832. https://doi.org/10.1371/journal.pmed.1001832. 10.1371/journal.pmed.1001832 26024483
12 Framework Convention Alliance. Putting the FCTC Article 6 guidelines to work. Accessed February 12, 2018, from www.fctc.org/images/stories/Guide_Art_6_guidelines_1014_WEB.pdf