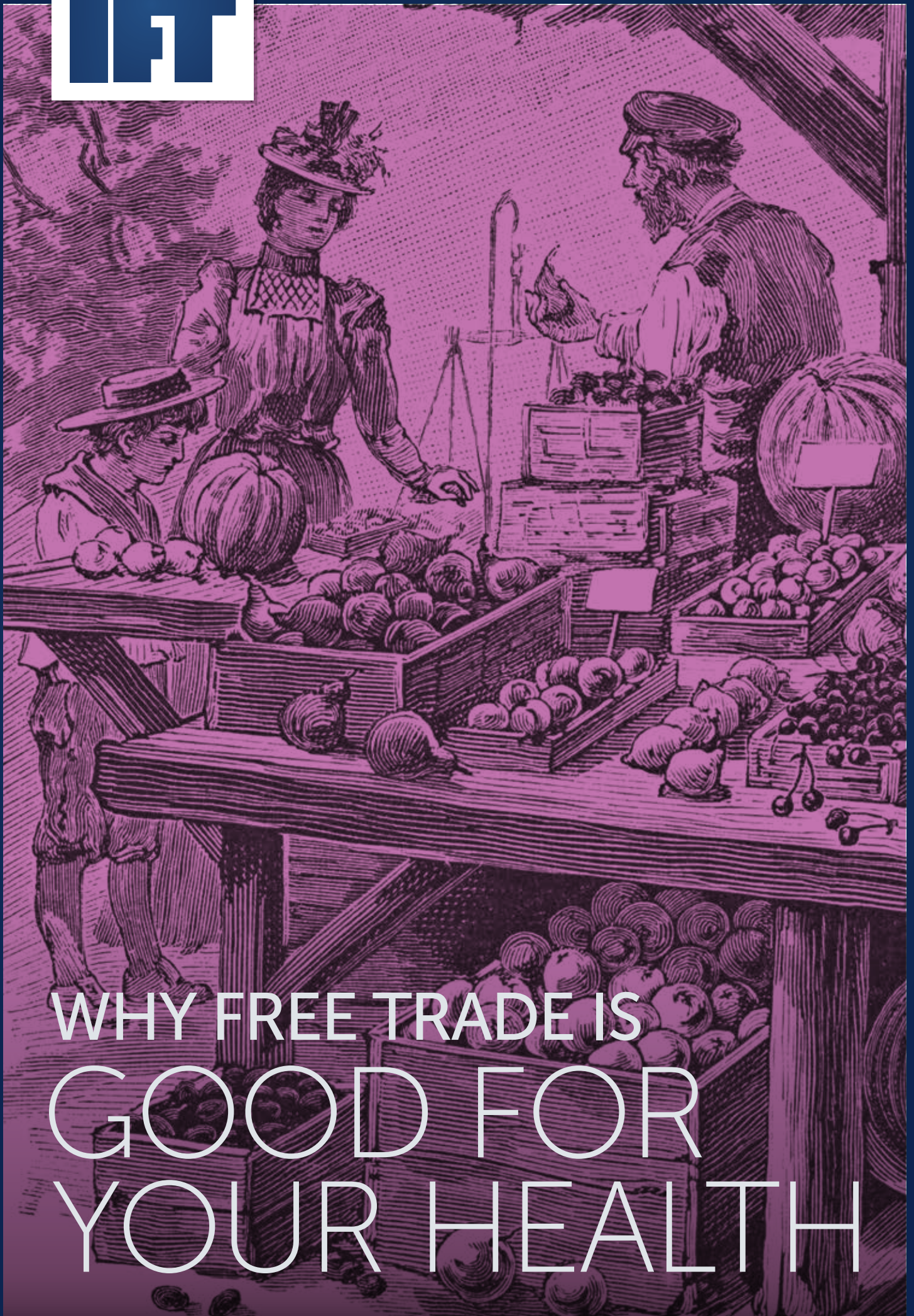


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WHY FREE TRADE IS
GOOD FOR
YOUR HEALTH



WHY FREE TRADE IS GOOD FOR YOUR HEALTH

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Geneva Network is a public policy research and advocacy organisation working at the nexus of innovation, trade and development issues.

Through our global network of academic researchers and thought-leaders, we are adding to the evidence base around innovation, trade and development debates.

Our hope is that our research and analysis contributes to better global policymaking in these important areas.



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AUTHORS:



Philip Stevens
Geneva Network Director



Nilanjan Banik
Professor of Economics, Bennett University, India;
Geneva Network academic consultant

www.geneva-network.com

ONE-MINUTE SUMMARY

Much of the public discourse about free trade focuses on the supposed dangers it poses to the environment, to vulnerable communities around the world and to our health. IFT has teamed up with the Geneva Network to produce this short pamphlet explaining the role of open trade in improving public health. We expand on the following arguments:

The economic dividend of free trade - higher individual and average incomes - helps improve health in three main ways:

- **Higher standards of living** mean people can afford things that increase health and keep disease at bay, like more nutritious diets and safer heating methods.
- A more open economy means a bigger public sector, which translates to **more public health spending** on things like clean water and vaccination programmes.
- Growth in incomes creates larger markets and larger potential rewards for investors, meaning an **increase in money spent on health-related R&D**.

Knowledge spillovers: When trade happens more freely, it is easier to disseminate domestic know-how to other countries, and medical technologies like antibiotics developed in richer countries can reach the rest of the world more quickly.

Intellectual property rights: Often thought to be an obstacle to the broad dissemination of new medicines, stronger IP protections are actually associated with speedier in-country launches of new drugs. Patents are simply not relevant to the majority of healthcare issues faced by people in low- and middle-income countries.

Food standards: WTO rules ensure that the UK will always be able to guarantee that imported food sold in Britain meets local health and safety standards, even under a free trade agreement. Nowadays many food standards are actually being employed in place of tariffs as a way of protecting domestic producers, without any genuine public health justification.

A SHORT HISTORY OF HUMAN HEALTH

The history of humanity shows that the most certain and sustainable way of improving human health is to increase individual prosperity and wealth. A seminal 1996 study by economists Lant Pritchett and Lawrence Summers (Pritchett and Summers, 1996) showed the dramatic effect which increases in incomes can have on health. They found a strong causative effect of income on infant mortality, and demonstrated that if the developing world's growth rate had been 1.5 percentage points higher in the 1980s, half a million infant deaths would have been averted.

In fact, the health of the world's population has been improving since modern economic growth began with the Industrial Revolution. Infant mortality and life expectancy rates have improved dramatically around the world, and food is cheaper and more abundant than ever before.



THE HEALTH OF THE WORLD'S POPULATION HAS BEEN IMPROVING SINCE MODERN ECONOMIC GROWTH BEGAN WITH THE INDUSTRIAL REVOLUTION. INFANT MORTALITY AND LIFE EXPECTANCY RATES HAVE IMPROVED DRAMATICALLY AROUND THE WORLD, AND FOOD IS CHEAPER AND MORE ABUNDANT THAN EVER BEFORE.

These indicators of human well-being improved noticeably in rich countries from the mid to late 19th century, as nations cleaned up their water supplies and instituted basic public health measures such as sanitation, pasteurisation and vaccination. Then, in the first half of the 20th century, antibiotics, pesticides such as DDT, and an array of vaccines were added to the arsenal of weapons against disease. Once the traditional infectious and parasitic diseases were essentially conquered, richer countries turned their ingenuity and wealth to dealing with the increasing burden of non-communicable diseases such as heart disease, cancer and pulmonary conditions. While these have not yet been entirely defeated, a vast array of new treatments, drugs and technologies now exist to mitigate their effects and, in the case of Hepatitis C, cure them.

By the 1960s, many western European countries, the United States, Canada and other liberal, free-trading democracies had already achieved high levels of life

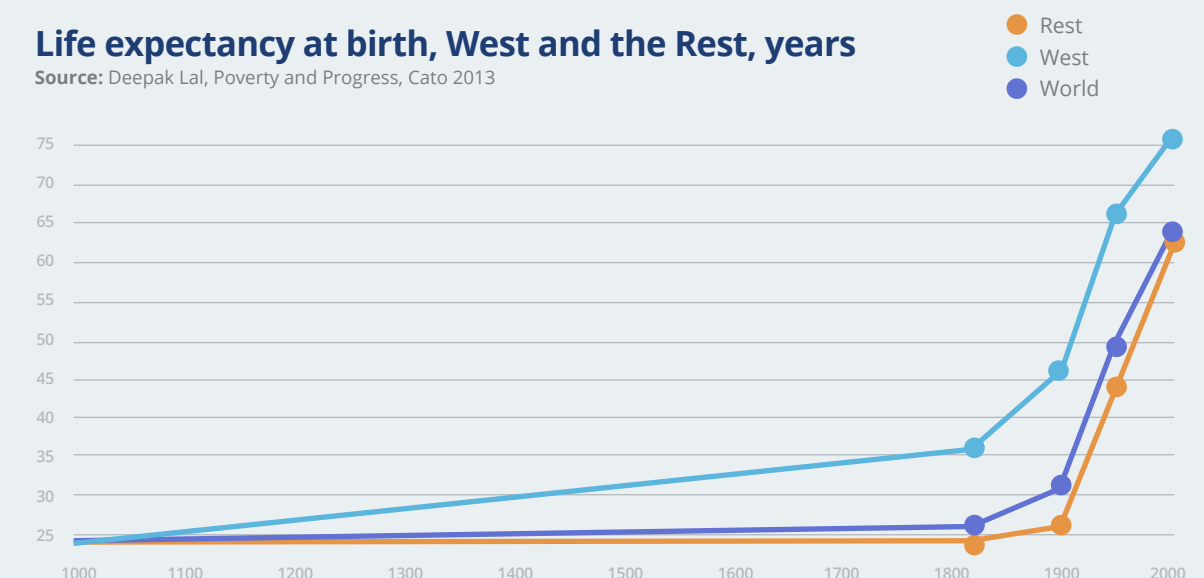


expectancy. Fortunately, the rest of the world was soon to begin the process of catching up. During the second half of the 20th century, the diffusion of technology from the rich to lower-income countries, as well as greater wealth in the lower-income countries, led to what has been described as the third of three great waves of mortality decline (Gwatkin, 1980). This period saw the following developments: increased access to safe water and sanitation services in lower-income countries; increases in per capita food supplies; the arrival

of basic public health services; greater knowledge of basic hygiene; electrification; the arrival of new medical technologies (such as antibiotics and tests for early diagnosis) that were instrumental in reducing mortality rates; and huge decreases in consumer prices in almost every sector. As a result of these advances, life expectancies lengthened worldwide, not just in the richest nations. Average global life expectancy increased from 46.6 years between 1950–1955 to 71.4 years in 2015 (World Bank Development Indicators, 2017).

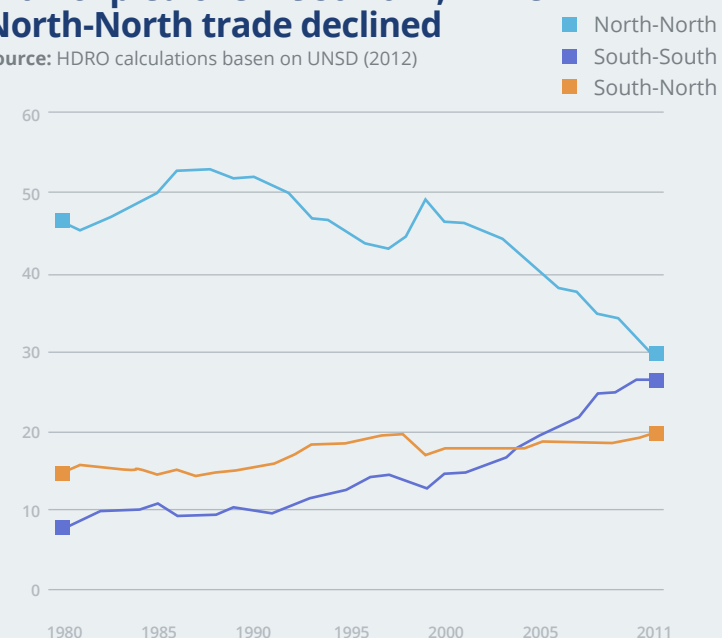
Life expectancy at birth, West and the Rest, years

Source: Deepak Lal, Poverty and Progress, Cato 2013



As a share of world merchandise trade, South-South trade more than tripled over 1980-2011, while North-North trade declined

Source: HDRO calculations basen on UNSD (2012)



Much of this economic growth and diffusion of health knowledge could never have been achieved without the dramatic increases in international trade that characterised the late 19th century and the second half of the 20th century. Before the late 19th century, cross-border trade was confined to a handful of nations. Today, all countries trade internationally and, with the occasional exception such as North Korea, they trade significant – and increasing – proportions of their national incomes. While higher-income countries still accounted for three quarters of global trade in 2000, lower-income countries have recently seen their share climb by one third as they have cut tariffs and dismantled other barriers to trade, moving away from the discredited models of import

substitution industrialisation and state-led economic development. The average tariff in low-income countries has fallen from 35.57 per cent in 1996 to 9.58 per cent in 2012 (World Development Indicators, 2017). Share of trade as a percentage of GDP for low-income countries has increased from 43.4 per cent in 1990 to 57.6 in 2016 (World Development Indicators, 2017).

Today, China's life expectancy of 76 years at birth is still lower than high-income countries, but comparable with many Western European countries in the 1990s, all of which had already benefitted from many decades of economic liberalisation. India's life expectancy has increased from 58 years in 1990 to 69 years today: a rise of 10 years in the 15 years or so since liberalisation began.

Much of this was possible because of reforms that opened China and India's economies. In China's case, this began in the 1970s with the de-collectivisation of agriculture,^[1] the opening up of the country to foreign investment, and permissions for entrepreneurs to start businesses. In the course of the 1980s and 1990s, China emerged as a major player in the global economy, with its foreign trade increasing exponentially from \$20 billion in the late 1970s to \$475 billion in 2000 and finally to \$4.28 trillion in 2017. A freer, more open economy has been instrumental in lifting millions out of poverty.



The tale is similar for India, which from 1991 began to allow greater private sector participation in the economy, brought down tariffs, and opened up the economy to foreign direct investment (FDI). From a mere 1.1 per cent growth of GDP during 1991, GDP growth increased to an average of over 8 per cent between 2003 and 2011. The poverty ratio (as a percentage of total population) fell from 39.1 per cent during 1991 to less than 22 per cent in 2017.

TRADE AND HEALTH

MAJOR STUDIES

The role of open trade in improving population health is a relatively new area of study in the economics profession, but there is a growing body of academic literature that attempts to understand better the relationship between free trade and health. There are now a handful of studies that have looked at the health-related data from the 1960s to the present day, using statistical and econometric techniques to assess the impact of trade openness on health indicators. The emerging consensus is that the more a country trades internationally, the better its health indicators will be, with the effect particularly pronounced for low-income countries.

One of the earliest studies was undertaken by Owen and Wu (2007), who looked at data from 219 countries and found that increased trade openness is associated with lower rates of infant mortality and higher life expectancies, especially in developing countries. Building on this study, Stevens, Urbach and Willis (2013) used more recent data to re-examine the relationship, again finding a clear relationship between free trade and health, with the effect

particularly evident for lower-income countries. The most recent study on this topic by Herzer (2017) finds once again that open trade has a robust, positive long-run effect on health, as measured by life expectancy and infant mortality, with the effect often greater in countries with lower development levels.



At the national level, this finding is replicated every time the question is asked. Alam, Shabaz and Abbas (2016) find that increasing openness to trade and FDI has contributed to increasing life expectancy in Pakistan. Ling et al. (2015) make similar findings for Malaysia, while Novignon and Boateng (2015) find that in their survey of 42 sub-Saharan African countries, greater openness to trade is clearly associated with

longer life expectancies, also noting that the more open to trade a country, the greater the sums it commits to public health financing. Even in the United States, where the current administration is vocally critical of the impact of free trade on the well-being of working class communities, the data from

1960-2011 shows that trade had a positive and significant long-run impact on population health, as measured by life expectancy (Herzer, 2014).

The evidence is mounting that free trade improves health in those countries at the lower end of the development spectrum. This fact asks awkward questions of critics of free trade who claim that it hurts the poor by worsening inequality.

[1] Under the collective agriculture system, all agricultural produce was sold to the state at a fixed price. The problem associated with lack of incentives led to low agricultural output.

WHY FREE TRADE IS GOOD FOR HEALTH



THE ECONOMIC DIVIDEND OF FREE TRADE - HIGHER INDIVIDUAL AND AVERAGE INCOMES - HELPS IMPROVE HEALTH IN THREE MAIN WAYS: THROUGH IMPROVED LIVING STANDARDS; BY INCREASING THE SUMS AVAILABLE FOR PUBLIC HEALTH INTERVENTIONS; AND BY INCREASING THE AMOUNTS THAT CAN BE SPENT ON HEALTH-RELATED SCIENCE AND RESEARCH AND DEVELOPMENT (R&D).

Economic growth

A few dissenting voices aside, it is now clear that opening a country to trade drives increases in prosperity as the most competitive firms expand to overseas markets while the least competitive are forced out of business. This process delivers over time overall rises in productivity (Melitz 2003), which translates into sustained economic growth and increases in individual incomes. The data backs this up: in a seminal 1995 paper, Harvard economists Jeffrey Sachs and Andrew Warner looked at a large number of countries and found that those with fewer trade barriers grew significantly faster than those with closed economies. Notable examples of tariff-reducing countries undergoing sustained economic growth are Japan in the 1850s, South Korea in the 1960s and Vietnam in the 1990s.

The economic dividend of free trade - higher individual and average incomes - helps improve health in three main ways: through improved living standards; by increasing the sums available for

Higher standards of living

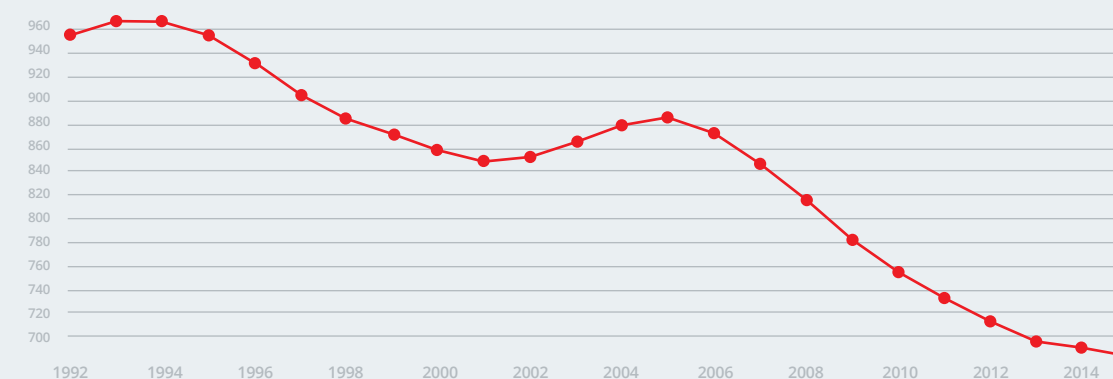
The Nobel Prize-winning economist Robert Fogel argued that one of the main drivers of the significant reduction in mortality that characterised the last two centuries was improved nutrition. As Western Europe and North America opened up their markets from the early 19th century, diets began to improve in terms of quality, variety and total calorific consumption. This meant that for the first time in human history the average worker consumed more calories than that required by their work, giving their bodies more energy to spend on maintenance and fighting infection. And, as diets improved, so too did life expectancy (Fogel, 2004). Today, thanks in part to higher average incomes and increasing levels of trade in foodstuffs, malnutrition is declining in almost all countries,



public health interventions; and by increasing the amounts that can be spent on health-related science and research and development (R&D).

Undernourished persons, millions

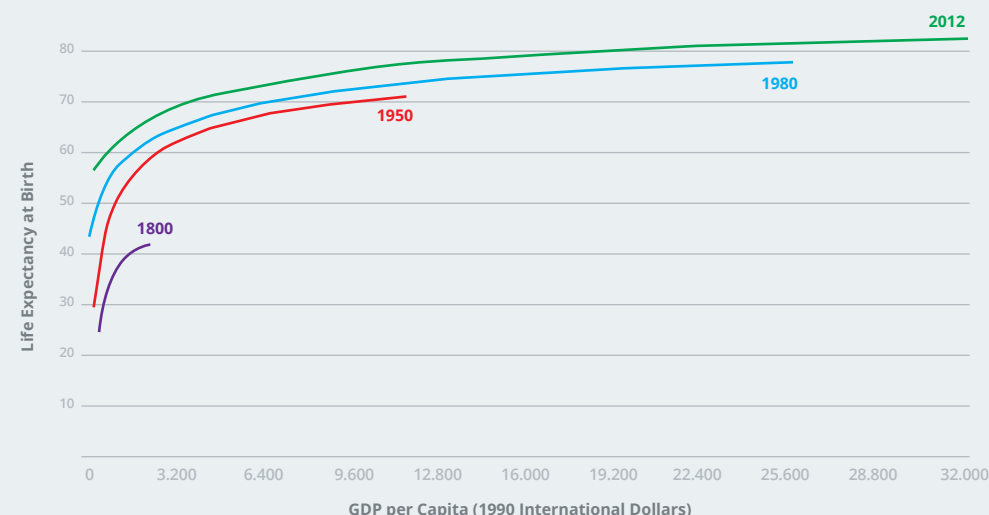
Source: FAO



Life Expectancy vs. GDP per Capita from 1800 to 2012

Source: Data on life expectancy are from Gapminder.org; data on GDP per capita are from the 'New Maddison Project Database'. The interactive data visualisation is available at OurWorldinData.org. There you find the raw data and more visualisations on this topic. Licensed under CC-BY-SA by the author Max Roser.

GDP per capita is measured in International Dollars. This is a currency that would buy a comparable amount of goods and services a U.S. dollar would buy in the United States in 1990. Therefore incomes are comparable across countries and across time.



with the global number of malnourished people declining from 953 million in 1992 to 685 million in 2015, even while the overall global population increased.

Higher incomes also allow people to afford higher standards of living in areas other than nutrition. Consider, for instance, that for most of human history people have used primitive biomass fuels such as dried animal dung and wood for all heating and cooking. The indoor air pollution this creates is pernicious for health, particularly for small children, provoking lung and pulmonary diseases and infections. According to the World Health Organization (WHO), around 4.3 million people annually die prematurely as a result of exposure to indoor smoke, mostly in lower-income countries, with this one of the leading causes of deaths for under-fives globally. Increases in income, however, have allowed people in many parts of the world to substitute these fuels with cleaner but more expensive

alternatives, including kerosene, natural gas and electricity. In high-income countries, such deaths are now almost unheard of, despite being relatively common 100 years ago.

Other improvements in living standards attributable to income increases have also had a positive impact on health. Take as an example the simple window. For most of human history, windows in buildings were either open or covered with materials such as canvas or cloth, with glass reserved for only the wealthiest households or important structures such as cathedrals. Improvements in glass processing technology coming out of Germany in the early 19th century significantly reduced the price of glazing in Europe at this time, enabling mass uptake of glass windows in wealthier parts of the continent such as England. In turn, this meant households could remain healthier by keeping heat in and cold out. The introduction of glazing also

contributed to the disappearance of malaria in Northern Europe by limiting the ability of mosquitoes to enter dwellings at dawn and dusk, thereby interrupting the transmission cycle of the malarial parasite (Reiter, 2008).

More money for public health

Some economists have observed that much of the global mortality decline of the 20th century is attributable to government-funded public health interventions such as the introduction of sewage systems, piped water, electrification, basic primary care and mass vaccination programmes. But these are generally capital intensive, requiring substantial levels of government investment if they are to be sustainable. Contrary to trade sceptics who argue that free trade inevitably leads to a "race to the bottom" on public spending, economists have long noted that the more open an economy the bigger its public sector (Rodrik, 1998; Adserà and

Boix, 2002; Epifani and Gancia, 2009), suggesting that such fears are ungrounded. There is some disagreement amongst economists as to the precise causes of this phenomenon. Rodrik (1998) suggests that workers in open economies are more exposed to economic risk, and therefore demand more public insurance from government. An alternative explanation is that greater involvement in foreign trade allows a government to shift more of the cost of providing a public good onto foreign consumers (Epifani and Gancia, 2009). Either way, claims that free trade forces governments to spend less on public services are not supported by the data.

Greater spending on health-related science

Finally, significant growth in incomes over the last 200 years has allowed far more money to be spent on health-related R&D by creating much larger markets and larger potential rewards for investors. It is hard to imagine that medical-related science could have progressed from its low-budget 18th century status (when germ theory was invented) to today's advances in cancer immunotherapy and gene-splicing without significant increases in income. As science has become more complex in recent decades, ever greater sums are needed to turn it into commercially useful health technology. It is therefore



inconceivable that the advances in medical technology that have been made over this period could have occurred without significant increases in incomes (Jones, 1995; Aghion and Howitt, 1992).

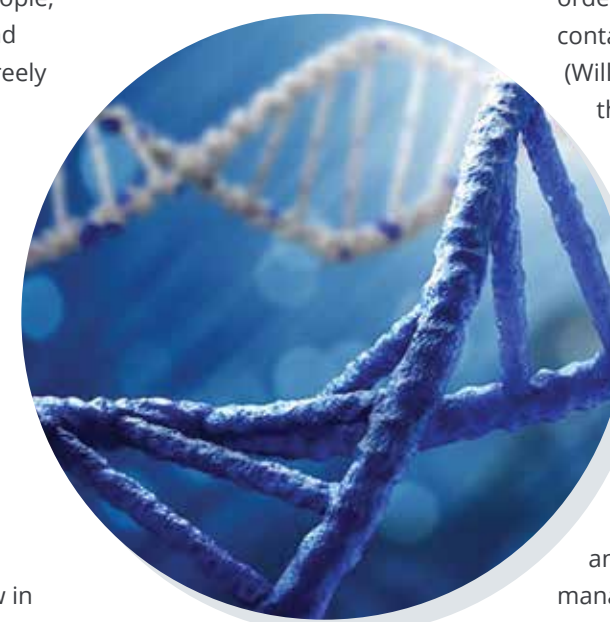
Trade, health and "knowledge spillovers"

The increases in incomes and prosperity that result from increased openness to trade, then, are one clear determinant of better population health. Another less obvious relationship between trade and health is related to "knowledge spillovers" that occur as people, ideas, knowledge goods and technologies move more freely around the world.

Knowledge spillovers are intrinsic to increased international trade. When the costs of trade are lowered, it becomes easier to disseminate domestic know-how to other countries. This knowledge can have a profound impact on health outcomes. For example, the discovery by John Snow in

London in 1854 that cholera is spread by contaminated water had significant implications for the prevention of infectious diseases throughout the world. "Germ theory" gradually filtered from its birthplace in London throughout Europe, where other

scientists built upon it and developed more refined and applicable technology regarding the role of microbes in the spread of disease. This diffusion of knowledge led European and city authorities to upgrade their water and sewage systems in order to prevent human waste contaminating water supplies (Williamson, 1990). Today, germ theory is widely understood and recognised by public health authorities all over the world as an important tool for fighting disease, with even the poorest countries recognising that sanitation infrastructure is vital for population health (even if the resources do not always exist to construct and maintain effective water management systems).





SOME OF THE MOST EFFECTIVE MEDICINES SUCH AS ANTIBIOTICS AND VACCINES WERE FIRST DEVELOPED IN RICHER COUNTRIES, BUT THE INTERNATIONAL MANUFACTURE AND TRADE OF SUCH TECHNOLOGIES HAS ALLOWED THEM TO BECOME READILY AVAILABLE IN MOST PARTS OF THE WORLD.

Germ theory was only the beginning; today the health consequences of over-eating, smoking, excessive drinking and inactivity are well known amongst medical professionals the world over. This knowledge is at the centre of today's attempts to tackle the rising incidence of chronic diseases in less-developed countries (WHO, 2011), even though the research

which originally gave rise to this knowledge was largely conducted in wealthy countries.

Similarly, lowering the costs of trade can speed up the rate at which medical technologies can be adopted by other countries. Some of the most effective medicines such as antibiotics and vaccines were first developed in richer countries, but the

international manufacture and trade of such technologies has allowed them to become readily available in most parts of the world.

The 1920s to 1940s saw huge advances in medical discovery, including penicillin, sulfa drugs, bacitracin, streptomycin and chloroquine. In the post-war years, with the arrival in Asia of these and other drugs, effective treatments became available at low cost and are largely responsible for the remarkable declines in Asian crude death rates. In the 1940s, Asia ended several decades of relative economic and cultural isolation, and started to integrate into the global economy. This brought with it a massive transfer and diffusion of public health programmes, technologies and techniques that originated in richer countries. Furthermore, the invention of DDT in 1943 gave authorities a hugely powerful weapon in the fight against malaria which allowed the disease to be eradicated from the US and Europe, and which lowered caseloads by over 99 per cent in parts of Sri Lanka and India (Gramiccia and Beales, 1988).

As a result of the widening availability and decreasing cost of such interventions – made possible by more open trade – crude death rates dropped steeply, particularly in eastern Asia in the late 1940s. By the 1950s and 1960s, fewer and fewer children and young people were succumbing to the easily preventable diseases which had historically depressed the region's health indicators, and life expectancy was on the rise

throughout the region (Bloom and Williamson, 1998).

This process continues today. New drugs and medicines invented in one place are made available elsewhere, throughout the world, via international markets. The majority of the essential medicines most commonly prescribed by physicians in both high and lower-income countries were originally developed in European, American and Japanese laboratories. They are available throughout the world at extremely low prices, allowing people in poorer countries to benefit from the knowledge and innovation of more affluent

countries. Recent examples of this include antiretroviral drugs, statins and insulin, as well as health technologies such as neonatal intensive care units, kidney dialysis equipment, screening equipment and myriad other modern medical devices.

Some support for this is provided by Angus Deaton and Christina Paxson's comparative examination of 20th century mortality trends of the United States and United Kingdom (Deaton and Paxson, 2004). They showed that mortality trends for infants and the middle-aged (in terms of fewer deaths from specific diseases) tend to appear about four to five years earlier in

the US than the UK. The authors suggest that the key driver behind these trends is technological change, with the more market-orientated US healthcare system driving earlier adoption of life-saving new medical technologies than the state-run UK system, even if those technologies were not originally invented in the US. For example, new cancer drugs are typically available in the United States several years before the United Kingdom. Contrary to Britain's single payer system, providers in the US market need to adopt new technologies as soon as possible to maintain competitive advantage: free trade is the overarching factor that allows it to happen.



WHAT THE CRITICS SAY



Since the close of the Doha Round of WTO negotiations in 2001, the multilateral trading system has stalled. In its place, there has been an increasing move towards regionalism, with a proliferation of bilateral Free Trade Agreements (FTAs) and Regional Trade Agreements (RTAs). RTAs and many FTAs have moved beyond addressing traditional tariff barriers to trade, and cover increasing

numbers of non-tariff trade barriers, and so-called “behind the border” issues such as regulatory standards, investment rules and intellectual property rights.

The potential of these issues to impinge upon public health has led to a great deal of criticism from public health academia, which worries about the impact of trade on health, for example

its potential to jeopardise health by weakening food regulatory standards, and to reduce access to medicines as a result of stricter intellectual property standards. Here, we briefly evaluate two of those criticisms: the role of FTAs in undermining food quality standards, and the impact of global intellectual property rules on access to medicines.

Intellectual property rights and access to medicines

Intellectual property rights (IPRs) such as patents grant inventors a time-limited period of market exclusivity before others can copy and sell their inventions. This gives inventors enough time to recoup their initial investment and turn a profit. IPRs are therefore considered very important for sustaining investment in innovation in high-tech sectors such as medicines and chemicals. They are particularly important for medicines given the sector's high upfront investment costs and significant risk of research failure.

IPRs are governed at the national level, and prior to the conclusion of the Uruguay Round of the GATT in the 1990s, there existed huge variation in standards country by country. As high-tech industries became increasingly global both in their markets and value chains, there was an increasing need for international harmonisation of IPRs, particularly ensuring the existence of basic standards of intellectual property protection in every country.

This culminated in the ratification in 1995 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) which continues to be administered by the WTO today. Amongst other things, TRIPS requires all WTO member countries to grant basic forms of IPRs, including patents with a minimum term of 20 years.

The arrival of global intellectual property rules has contributed to faster access to new medical

technologies outside the country of invention, with numerous econometric analyses finding that stronger intellectual property protections are associated with speedier in-country launches of new drugs; and conversely, weak IPRs being associated with new drug launch delays of many years (Lanjouw, 2005; Borrell, 2005; Kyle and Qian, 2013; Cockburn et al, 2016).

Nevertheless, TRIPS has proven controversial from its inception, particularly against the backdrop of the AIDS pandemic that was particularly severe in sub-Saharan Africa in the 1990s. The fear was that patents would reduce access to medicines by inflating their costs, but today over 15.8 million people living with HIV/AIDS globally have access to anti-retroviral treatment, with many



THE ARRIVAL OF GLOBAL INTELLECTUAL PROPERTY RULES HAS CONTRIBUTED TO FASTER ACCESS TO NEW MEDICAL TECHNOLOGIES OUTSIDE THE COUNTRY OF INVENTION, WITH NUMEROUS ECONOMETRIC ANALYSES FINDING THAT STRONGER INTELLECTUAL PROPERTY PROTECTIONS ARE ASSOCIATED WITH SPEEDIER IN-COUNTRY LAUNCHES OF NEW DRUGS.



of the medicines in use generic versions that are manufactured legitimately and in compliance with the TRIPS Agreement, for example through voluntary licenses or through patent-owners not asserting their rights.

In fact, patents are not really relevant to the majority of healthcare issues faced by people in low- and middle-income countries. The majority of medicines in a typical physician's toolkit are post-patent or not patented in developing countries – up to 95 per cent of the medicines recommended on the WHO's Model List of Essential Medicines, according to multiple studies. And the world's poorest countries currently enjoy a transition period

that will last until 2021 that allows them particular flexibility with regards to TRIPS. The fact that major healthcare failures persist in many parts of the world is more a result of poorly functioning healthcare systems, almost no social insurance, and a lack of skilled personnel.

The world and technology has moved on a great deal since the ratification of TRIPS over 20 years ago. Due to deadlock at the WTO, countries looking to modernise global IP rules are increasingly seeking to do this through bilateral and regional FTAs (for example the Regional Comprehensive Economic Partnership). For instance, bilateral FTAs concluded by the United States and European Union since the

early 2000s often require partner countries to legislate for stronger levels of patent protection, and specific protections for modern biotechnological medicines.

This has led to a great deal of criticism from academia and NGOs, which argue that the inclusion of these so-called "TRIPS-Plus" IP provisions damage health by raising medicine prices and thereby undermining access to medicines. While such criticism is theoretically appealing, there is little hard evidence to justify it. On the contrary, a 2015 analysis by Stevens and Venkatamaran of the impact on population health of 13 FTAs containing TRIPS-Plus IP provisions found modest positive health impacts, with the effect most pronounced in poorer partners. Another study by Bollyky (2016) found that medicine prices have not been impacted by FTAs concluded by the United States, despite the inclusion of higher intellectual property standards. This suggests that when it comes to health, FTAs should be judged by their contribution to increasing overall levels of trade, rather than by singling out specific chapters or elements.



Food standards

Consumers are rightly concerned that the food they eat is safe. In most countries, a large proportion of food is imported, so the quality of produce is uncertain. Legislation and food safety controls are therefore needed to ensure that food is safe for consumption, which is why the World Trade Organization (WTO) has enacted

for all food processing companies related to production, marketing and labelling of perishable food items. There is no international organisation that decides what are the most appropriate regulations for imported food for human consumption; instead, standards are set at the national level. For example, EU regulations

Post-Brexit, the UK will still maintain control of its food standards under WTO SPS rules. Nevertheless, the media has voiced concerns that this autonomy may be sacrificed as part of future FTAs, forcing the UK to accept imports from countries with lower food safety standards. In reality, WTO rules ensure that the UK will always be able to guarantee that imported food sold in Britain meets local health and safety standards, even under an FTA.^[3]

The real concern, however, is that any sovereign nation can use WTO SPS rules to restrict market access to imports, nominally for consumer safety, but really as a protectionist measure to benefit local producers. The SPS and Codex Agreements can therefore be used as non-tariff barriers (NTBs) if any country is setting standards (often higher than WHO standards) with the sole objective of restricting market access, and not to safeguard the health of its consumers. Due to WTO commitments, it is not easy for a country to increase tariffs without substantive negotiations with, and compensation to, affected parties, so many countries are now using restrictive SPS standards to protect their producers instead. In fact, some evidence suggests that the restrictive effect of SPS measures on exports into the country imposing them is far



the Sanitary and Phytosanitary (SPS) Agreement.^[2] Under the SPS Agreement, any nation can set its own standards on imported food products in order to safeguard consumer health. Similarly, there is the Codex Alimentarius Programme outlining guidelines

do not require most goods to be checked for conformity with rules at the moment of import at the border, but rather when they are put on sale. Sensitive goods - foods, chemicals and pharmaceuticals - are therefore subject to strict rules in the EU.

[2] Although the SPS Agreement came into force with the establishment of the WTO on 1 January 2005, this agreement was signed in Marrakesh on 15 April 1994, during the Uruguay Round of Multilateral Trade Negotiations.

[3] There are four different forms of regional trading agreements, namely: FTAs, custom unions, common markets and economic unions. In forming an FTA, members remove trade barriers among themselves but keep their separate national barriers against trade with outside nations. In a custom union, members not only remove trade barriers among themselves but also adopt a common set of external barriers. In a common market, members not only remove trade barriers among themselves but also allow full freedom of factor flows (migration of labour and capital) among themselves. In an economic union, members unify all their economic policies, including monetary, fiscal and welfare policies, while retaining the features of a common market.

EVIDENCE SUGGESTS THAT THE RESTRICTIVE EFFECT OF SPS MEASURES ON EXPORTS INTO THE COUNTRY IMPOSING THEM IS FAR GREATER THAN ANY POLITICALLY FEASIBLE TARIFF INCREASES.



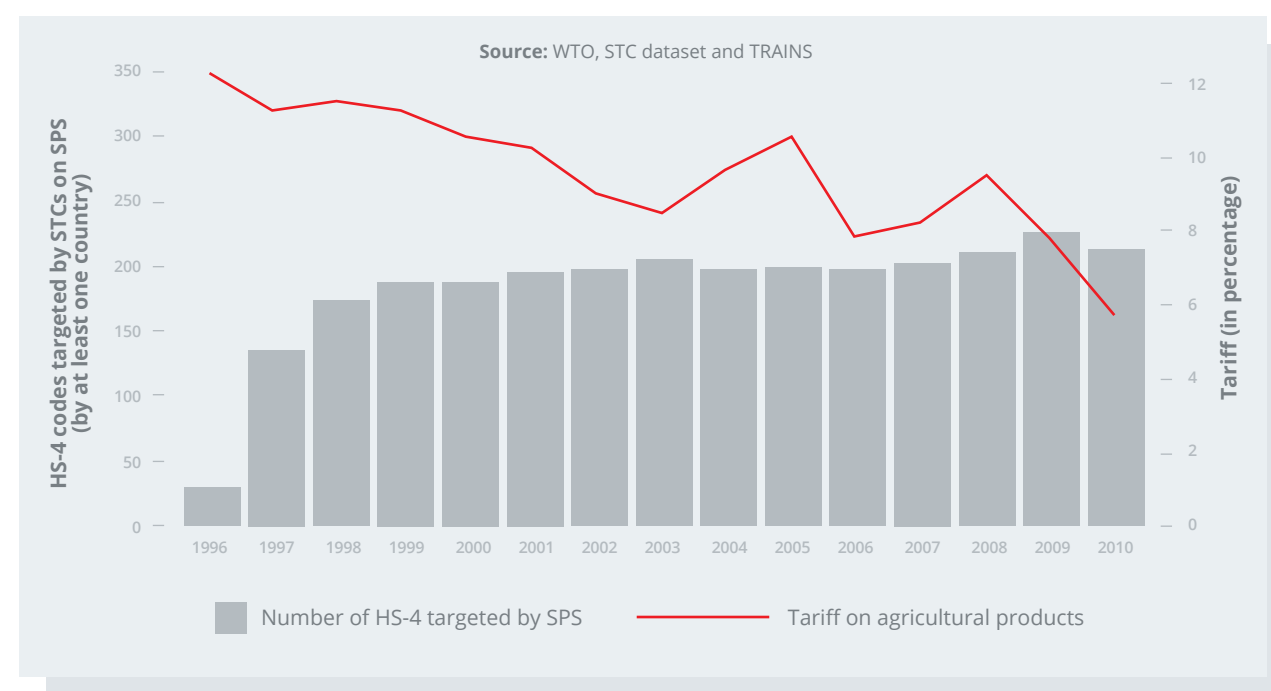
greater than any politically feasible tariff increases.

In a recent paper, Fontagne et al. (2015) show that the presence of a restrictive SPS measure reduces export participation by 4 per cent and exported value by 21 per cent. The study estimates that a 10 per cent increase in a certain product tariff leads to only a 1.4 per cent reduction in the value of the

product's export, so the effect of the restrictive SPS measure must equate to a huge tariff increase. Similarly, by using data on 619 firms in 17 developing countries, Chen et al. (2006) find that testing procedures imposed by potential destination countries reduce export shares by 19 per cent.

When an affected country feels that the importing country

is targeting its exporters by using stricter SPS standards than necessary, they can raise a specific trade concern (STC) at the WTO. As the following figure suggests, there has been an increased usage of STCs on SPS measures for agricultural items (falling under Harmonized System Code-4 category) as tariffs have reduced over time.



SPS barriers in practice



In the case of tobacco exports, the internationally permissible level of DDT residue is 4 parts per million (ppm). But Japan and the US have set their permissible level at less than 1ppm in order to block tobacco exports originating from countries like India, even though the potential health benefits of this measure are unclear.

Many EU countries continued to ban imports of British beef for years after it was declared safe in 1999 following the BSE crisis. China permitted its first imports of British beef since 1996 only in February 2018.

In fact, China in particular is guilty of deploying food standards as a protectionist measure, having at various stages banned imports of Irish pork, Belgian chocolate, Italian brandy, British sauces, Dutch eggs, and Spanish dairy products even though such products pose no threat to consumers.

The EU meanwhile maintains its ban on foodstuffs made from Genetically Modified Organisms (including Chinese wheat and rice products), despite the US National Academy of Sciences, Engineering and Medicine in 2016

declaring that the available evidence shows foodstuffs made from GMO crops to be safe for consumption.

According to the Global Trade Alert (GTA) database that tracks NTBs targeted towards foreign exports, between 2008 and 2017 even the United Kingdom has undertaken 29 harmful measures targeted towards preserved fruits, vegetables and nuts, and 32 against basic organic chemicals.^[4]

These kinds of NTBs are not just an inconvenience to consumers who have their choice arbitrarily restricted. Collectively, NTBs can act as a significant deterrent to trade, and may be responsible for the recent slowdown in world trade. Over the course of the last century, global trade was growing faster than global GDP. However, post-2008, this trend is reversing. 2015 estimates by the OECD show trade figures for the G-7 group of countries fell by 7.1 per cent while trade figures for major emerging economies including Brazil, China, India, Indonesia, Russia and South Africa slumped by 9.5 per cent.^[5] A widespread reduction in trade openness could slow down the rate of improvements in population health we've discussed in this paper.

[4] <http://www.globaltradealert.org/country/220>. Statistics on NTBs for other countries can be found on the GTA website: <http://www.globaltradealert.org/>.

[5] Also see: <https://thewire.in/28205/as-global-trade-slows-india-needs-to-start-firing-on-all-cylinders/>.



CONCLUSIONS

The story of trade and health is very positive. There is an increasing understanding that countries which are more open to trade improve health by increasing economic growth, which provides greater sums for individuals and governments to spend on health-enhancing goods and services. Food is more abundant and cheap, resulting in the lowest levels of malnutrition in human history. Rising incomes have created new markets for innovative

health technologies, with the commercial application of new scientific discoveries constantly creating new treatments for previously untreatable diseases. And the opening of borders in the second half of the 20th century, particularly in developing countries, has led to the global dissemination of health-related knowledge and technology, boosting life expectancy and averting millions of deaths. The message is clear: free trade is good for your health.

Whenever new barriers to trade arise, there will therefore be a knock-on effect on public health. So it is especially important to understand why the barrier has been erected and to distinguish between a measure intended to protect public health, which may be justified, and one intended to protect domestic producers *in the name of* public health, which may not. People can therefore pressure their governments to apply the right kinds of rules for the right kinds of reasons.

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The **IFT** launched in September 2017 at the UK Foreign & Commonwealth Office, with speeches by Foreign Secretary **Boris Johnson** and Trade Secretary **Liam Fox**.

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