# THE IMPACT OF TRADE LIBERALIZATION ON THE HEALTH OF THE CHINESE RESIDENTS

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We use the natural experiment of China's the Belt and Road Initiative, based on the model of Bartik IV, to empirically explore the impact and difference of the import shock caused by trade liberalization on the healthy human capital of Chinese residents. We find that in the Belt and Road regions where import and export tariffs have been reduced more, the probability of urban residents' hypertension, overweight and depression has increased significantly; the reduction of regional import and export tariffs leads to a decline in the labor participation rate of residents, a decline in income levels, and an increase in job mobility.

Keywords: trade liberalization; Belt and Road; Bartik-IV model; human capital; human health.

### ВЛИЯНИЕ ЛИБЕРАЛИЗАЦИИ ТОРГОВЛИ НА ЗДОРОВЬЕ ЖИТЕЛЕЙ КИТАЯ

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В данной работе используется естественный эксперимент для моделирования китайской инициативы «Пояс и путь», основанный на модели Бартик-IV, с целью эмпирического исследования влияние изменений импорта, вызванного либерализацией торговли, на здоровье как составляющую человеческого капитала жителей Китая. Нами установлено, что в регионах «Пояса и пути», где импортные и экспортные тарифы были снижены в большей степени, вероятность гипертонии, избыточного веса и депрессии у городских жителей значительно возросла; снижение региональных импортных и экспортных тарифов приводит к снижению коэффициента трудового участия жителей, снижению уровня доходов и повышению мобильности рабочих мест.

**Ключевые слова:** либерализация торговли; Пояс и путь; модель Бартик-IV; человеческий капитал; здоровье населения.

**Introduction.** Since the Belt and Road was proposed in 2013, China has signed 205 cooperation documents on the joint construction of the Belt and Road with 171 countries and international organizations until 2021. The total number of China-Europe trains has exceeded 46,000. Flights to countries along the «Belt and Road» are also distributed in 26 provinces along the route, 29 provinces are deployed in foreign-related parks, and 707 cities along the route have established win-win, mutually beneficial partnerships. Trade exchanges continue to grow, and investment cooperation continues to deepen. As of 2021, China's total import and export value to countries along the Belt and Road is 11.6 trillion yuan, an increase of 23.6 %, 2.2 percentage points higher than the overall growth rate of China's foreign trade in the same period. Among them, exports were 6.59 trillion yuan, an increase of 21.5 %; imports were 5.01 trillion yuan, an increase of 26.4 % <sup>1</sup>. The scale of trade reached a new high and the quality of cooperation was steadily improved. In 2016, Xi Jinping proposed to join hands to build a healthy Silk Road, taking health as one of the important contents of the Belt and Road construction. Therefore, to empirically explore the impact of the economic impact of the Belt and Road on the health status of Chinese residents, it is of great significance to explore the health care cooperation of the member countries to further improve the national health level of the Belt and Road member countries and achieve the common goal of harmonious development.

The December 2022 Maritime Silk Road Trade Index was released, as shown in Figure 1: In 2022, China's import and export trade index was 186.80 points, up 2.37 % YoY and down 8.93 % YoY; export trade index was 212.21 points, up 3.58 % YoY and down 10.11 % YoY; import trade index was 160.93 points, up 0.80 % YoY and The year-on-year decline of 7.30%. And the total import and export trade 632,045 million U.S. dollars, up 4.51 % year-on-year. Among them: total export trade of 36045.07 billion U.S. dollars, up 7.01 % year-on-year; total import trade of 27155.38 billion U.S. dollars, up 1.37 % year-on-year; trade surplus of 888.969 billion U.S. dollars, expanding 28.95 %. China's import and export trade steadily progresses and improves quality.



Maritime Silk Road Trade Index 2014–2022

Source: Ningbo Shipping Exchange [1].

<sup>&</sup>lt;sup>1</sup> https://www.yidaiyilu.gov.cn/xwzx/gnxw/163241.html, accessed on 10 February 2023.

The status changes of Chinese residents. As one of the important human capital, health is a key factor that helps to promote economic growth and development [2]. With the continuous improvement of technology and economy and the accelerated development of globalization, health has become an important international issue. The Healthy China 2030 Planning Outline proposes that by 2030, China will achieve a significant improvement in the level of people's health. However, the health status of Chinese residents in recent years deserves attention. Statistics show that in 2015, the prevalence of hypertension and obesity in Chinese adults aged 18 and over accounted for 25.2 % and 11.9 %, respectively, an increase of 6.4 and 4.8 percentage points compared with 2002<sup>1</sup>. It is undeniable that regional economic status is an important variable affecting healthy human capital [3]. However, with the deepening of trade liberalization, globalization not only promotes regional economic development and income growth, but also pollution, diseases, and unhealthy lifestyles [4; 5]. Therefore, exploring the impact of economic shocks on residents' health has important practical significance for promoting the harmonious and sustainable development of trade liberalization and healthy human capital. At present, the international research on trade and health has been relatively rich and mature. There is no lack of evidence from the United States, Denmark, Brazil, India, and other countries, which respectively prove the impact of trade liberalization on the health status of their residents [6]. However, in China, the impact of current trade shocks is mostly concentrated on enterprises and production, as well as the impact of trade activities on the labor market, household income and labor supply. There is insufficient research evidence on trade and healthy human capital.

Conclusion and further research. In summary, in the context of the continuous development of trade, exploring the changes in the physical health of the population and the relationship between the two has become an important issue in the context of the current economic development. This paper will use the exogenous impact of the Belt and Road and the data of China General Social Survey (CGSS) to empirically explore the impact of trade liberalization on the health level of Chinese residents using the model of Bartik IV. We supplement the existing research from the following two aspects:

Firstly, we have enriched the research on the impact of trade liberalization on human capital; at present, the research on China's trade and health is relatively lacking in evidence, especially the empirical research based on micro-large sample data and causal identification methods needs to be further supplemented.

Secondly, some studies believe that the impact of trade liberalization on the health of residents in developing countries may be a trade-off between income growth and environmental pollution. The transfer of pollution generated by trade liberalization has caused developing countries to face increasing environmental pollution problems, thereby affecting the health of residents [7]. Therefore, we provide an empirical basis for thinking about the influencing factors of residents' healthy human capital from the economic perspective of trade import and export shocks, and further analyze the potential mechanisms from the perspective of labor market shocks and environmental pollution.

<sup>&</sup>lt;sup>1</sup> Data Source: The Status Quo of Chinese Residents' Nutrition and Health (2002) and Report on Nutrition and Chronic Disease Status of Chinese Residents (2015).

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