

EDUCATIONAL CUSTOMS DUTIES AS A CRUCIAL ELEMENT TO CREATE FREE TRADE

Janusz Myszczyzyn

West Pomeranian University of Technology in Szczecin

Abstract. In the paper, the author indicates, based on an economic model and statistical data analysis, the justification of protectionist policy applied with a particular consideration of the educational customs duty. In accordance with the development stages, of Friedrich List, he indicates that the educational customs duty may be perceived as one of the stages of economic policy, whose ultimate objective is to increase the competitiveness in the domestic market and, in consequence, to join the vortex of free trade. Although, in a short period of time, economic costs of customs duties introduction may be high, practically all states, proponents of free trade, together with Great Britain, promoting their industry conducted in the initial stage of capitalist governance the policy of high customs rates which at the end brought about a change in the system of comparative costs.

Key words: infant industry, free trade, educational customs duties, Friedrich List

INTRODUCTION

In spite of many scholarly papers related to the periods of customs protection, it is difficult to find the consensus as to the economic and social effects as well as the justification for leading such policy. Lack of knowledge in the field of economic history is particularly visible in this aspect, and in the opinion of the author, may contribute to an objective evaluation of the problem.

The necessity to limit the imports of goods to protect one's own market, of the newly established industries included, has been raised for a few hundred years. The idea of positive trading balance was supported by representatives of both mercantilism and physiocracy. The classics of economics also indicated situations, in which the liberal policy (free trade) should be renounced and one's own market protected. In the 19th century, the followers of the protective policy for developing industries were

Corresponding author: Janusz Myszczyzyn, West Pomeranian University of Technology in Szczecin, Żołnierska 47, 71-210 Szczecin, Poland, e-mail: janusz.myszczyzyn@zut.edu.pl

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strengthened, among others, by representatives of German historical school, its founder Friedrich List included.

The research hypothesis put forward by him, the educational duties policy – although it seems to be contradictory to the idea of free trade – has always been an important stage of protection for the emerging national industries (infant industry) against the inflow of goods from abroad. The customs barrier for foreign goods allows for the development and increase in competitiveness of the national branches of economy, and in consequence, may contribute to an increase in the global welfare in the future.

A necessary condition to ensure the competitiveness and the consumer's surplus is a gradual renouncing the restrictive customs policy and the application of liberal duties policy together with the free trade policy.

Numerous statistical data on trading exchange and the rates of customs duties were used in the paper in the conditions of the 19th and the beginnings of the 20th centuries, and quite frequently the views of classical economists at the background of F. List's development stages.

RESULTS AND DISCUSSION

Classical theory of trading at the background of Great Britain trading exchange between 1800 and 1910. Free trade idea full bloom and crisis in the 19th century. The classical trading theory was developed at the end of the 18th century and its precursor was the “father of economics”, Adam Smith, and its creator David Ricardo. The free trade idea appeared for the first time in 1776 in the book by A. Smith *The wealth of Nations* [Smith 1954]. Smith indicated that the elimination of trading barriers allowed for specialising in those manufacturing branches for which there were the most advantageous conditions in a given country. The basis for the theory was an analysis of differences in the absolute costs of goods production. The absolute edge meant the capacity of a country to produce a larger number of goods from the manufacturing resources owned, compared to the country of competitor. The sources of this edge could be: a common access to advanced technology, a larger effectiveness of resources, a better capacity of labour, etc. [Rynarzewski and Zielińska-Głębocka 2006].

The position of a country, which does not have an absolute edge in the manufacturing of any goods inspired D. Ricardo to do research on relative costs. In his work *On the Principles of Political Economy and Taxation* (1817), he stated that the relative cost of wine manufacturing in Portugal was lower than cloth of manufacturing and therefore, Portugal should specialise in the manufacturing of wine and import cloth from England [Ricardo 1823]. The right of comparative advantages was based on the definition of comparative edge and comparative costs.

The principle of absolute and comparative costs became a foundation for the contemporary theory of international trading.

The economists of a new classical current (for instance Heckscher, Ohlin) searched for the sources of comparative costs in the differences of production factors (payroll, pension, per cent). Their theory of resources abundance (model 2×2) assumes that a country, manufacturing two goods, apart from labour, uses a relatively cheaper second production factor – the capital or land [Heckscher 1919, Ohlin 1933]. The main conclusion is the

allegation that the countries should export these goods, for whose production a factor more abundant in a given country is used, and it should import those whose manufacturing requires the use of a less abundant factor.

The policy of free trade was the consequence of industrialisation and not its effect, whose distinct example is England, the only country, in which the industrialisation triumphed starting from the 19th century. Although in 1814, the last residue of the craftsmen legislation was abolished, the rural protectionism was added to the system of protective duties related to industrial products (so-called corn-laws) [Kuliszer 1961]. In that period of time, the average duties amounted to: in the USA – from 35 to 45%, in Denmark – from 25 to 35%, in Prussia – from 8 to 12%, in the Netherlands and Belgium from 6 to 8% [Bairoch 1993]. It was only in 1846, facing the crop failure and starvation of many nationals, that England abolished the symbol of agrarian protectionism – the corn laws.

The period the protection in form of educational duties was in force in England was featured by selectivity. At the beginning wool, cotton and iron products were protected. Then, customs duties were introduced on import of other metals, leather, ships, silk. Too long maintenance of customs duties led to the fact that it was only in the mid-19th century that some industries riped to the competition in the domestic and international markets. Therefore, England is an example of gradual and selective liberalisation of trade, in accordance with the concept of infant industry.

Between 1821 and 1825, the net revenues from customs duties amounted to as much as 53.1% of the Great Britain import (in France 20.3%), in the years from 1841 to 1845, they amounted to 32.2% (in France 17.9%), between 1856 and 1860 – 15% (France 10%) [Irwin 2006].

The free trade was not the effect of an increase in the international competitiveness, but in its assumptions, it was depicted that the trade exchange would benefit also weaker participants of exchange.

In the below given figure, the author showed the results of Great Britain's foreign trade between 1800 and 1910 (in million GBP).

In the initial period, despite the effects of the technological revolution only a slow growth of trade can be noticed. The results of industrialisation were the changes in the industry and the development of the domestic market.

In 1840, the value of Great Britain's export was nearly 51.5 million GBP, or a value comparable to 1815. After the same period of 25 years or else in 1865, the value of export already amounted to nearly 166 million GBP, which was a triple increase. Therefore, the relationship between the trading policy after 1849 and the trading results seems to be obvious.

At the same time, after the period of customs duties liberalisation, Great Britain was experiencing a negative balance of foreign trade. Between 1820 and 1850 despite large fluctuations, this balance did not exceed 20 million GBP. After that time, the negative balance systematically increased. The surplus of import over export at the beginning of the 19th century reached one third of the British export and after the first decade of the 20th century, this balance exceeded nearly 60% of export (Fig. 1)¹. England became the

¹ In the 18th century, Great Britain had a negative balance of trade which was caused by import of colonial goods.

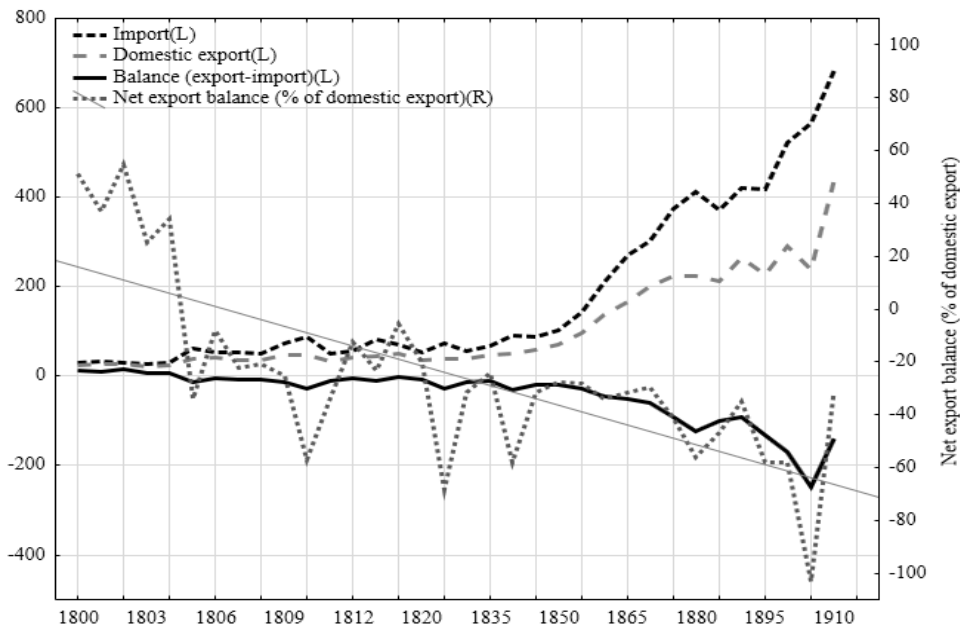


Fig. 1. Results of Great Britain's foreign trade between 1800 and 1910 (in million GBP)

Source: Own calculations based on Mitchell [1988, p. 450–453].

importer of cheap grain, other agricultural products, raw materials, being an exporter of industrial goods.

The period between 1850 and 1870 is the era of free trade in Europe [Capie 1994]. Analysing the average level of customs duties rates between 1857 and 1873, we may notice that Great Britain had the lowest duties for corn and industrial articles – most frequently it was 0% rate and duties rate for wine (other spirits) was an exception, which although high, reaching in 1857 – 69% dropped down to 25.8% in 1873.

Educational customs duty – a simple economic model

The economic evaluation of the effects, arising from the protection of the infant industry is depicted in the two models below. The curves of demand (D) and supply (S) relate to the market of X goods manufactured by the national industry (Fig. 2). For the free trade policy, the global price of X goods amounts to P_W .

The domestic demand at P_W price is D_1 and is completely satisfied by import. The national production at P_W price is zero. The global price is too low, to encourage the domestic production. The government, using the customs tariff, protecting against the inflow of goods from abroad, influences the increase in the domestic price to P_D . The customs tariff shall equal the difference between $t = P_D - P_W$.

The domestic price is sufficiently high to encourage national production at S_2 level. The higher P_D price influences the drop of the domestic demand from D_1 to D_2 and a drop in the import. The import amounts to $D_2 - S_2$ (AB section). In consequence at P_D price:

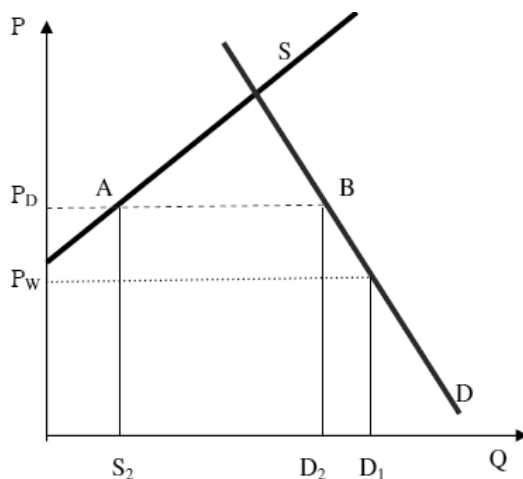


Fig. 2. Free trade policy and customs protection – advantages and costs

Source: Author's own model.

- consumers of goods have a lower consumer's surplus caused by a higher domestic price;
- some consumers renounce the purchase of goods ($D_1 - D_2$);
- new jobs are created in the protected domestic sector of the economy;
- domestic production may release demand for products and raw materials of other sectors;
- the government gains income from customs duty (import), which may bring about benefits to other parts of population.

The net effect of customs tariffs introduction is negative at a short-period of time because consumers have to pay a higher market price, some consumers renounce the purchase, and the volume of exchange is reduced.

After a period of customs protection, the $S \geq S'$ supply curve of the national industry shifts (Fig. 3). In reality, such a change is possible and shall take place gradually in time, as an effect of learning, acquiring experience, and by the same, a growth in efficiency.

If it is assumed that the national industry is covered by protection for some time and in the subsequent period, the customs tariff is completely done away with, and the protected industry may produce at the global P_W price, then:

- households achieve the same consumer's surplus as before the introduction of the tariff;
- the government does not gain any resources from duties;
- domestic producers with the global P_W price will manufacture the production volume $A = D_1 - S_1$;
- the domestic producers (with a change of the supply curve position) shall gain the producer's surplus;
- the terms of trade of the country will improve.

To sum up, if after a period, the protective customs tariff is in force, producers can adjust to lower (competitive) global prices, the desirable social effect of welfare may be achieved.

The customs tariff protection allows, in a way, the national industry to “grow up”, so as to ensure that after the abolition of tariffs, the national producers will compete on equal bases with developed countries.

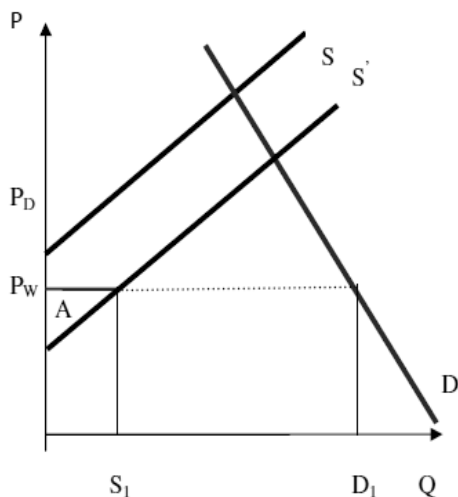


Fig. 3. Free trade policy and protective customs duties – effect of national growth in supply
Source: Author’s own model.

Another argument for the followers of the protection of industry is to stimulate the effects of learning, which contribute to the improvement in the efficiency and effectiveness. The results of learning may be translated into the remaining sectors of the economy, through the so-called spill-over effect, or in other words spreading over. The industry, being established and developed, contributes to the development of other industries, for instance, the development of railway increased the demand for iron, steel, coal, machines, leading to the development of the metallurgical industry, machine industry, excavation industry and deepened the demand for labour [Myszczyzyn 2013].

The industrialisation and the growth of gross domestic product (GDP) are, by the same, stimulated by the initial protection of the domestic industry. This proves that although the customs protection could be detrimental to the national prosperity in a short period of time, its positive effects could, however, have a prevailing impact in a longer period of time, also on the global economy.

A threat, arising from such protectionist policy may come from the politicization of the protection process, exertion of influence on deciders and sustaining high tariffs in a longer period of time (lobbying). In consequence, the protection may prove to be permanent, and the industries shielded by the wall of protectionism develop in a deformed and inefficient form and are doomed to painful adjustment, when in the end, they are forced to compete with external goods. In such a case, a production subsidy addressed to enterprises, which generate positive effects of learning would be more efficient.

Educational customs and stages of national economic development by F. List

Friedrich List did not approve of the concepts favoured by classics of economics. He was not an adversary to the free trade but considered the weaker and less competitive economy should be protected to be able to compete with other participants in the future. Great Britain was an example seen from the prospect of its trade exchange with the Netherlands.

Paul Bairoch states vividly that at the beginning of the 19th century, the policy of free trade made in Europe only few isles on the surrounding ocean of protectionism.

Arguments for the protection of “infant industries” were presented a little later than the theory of Smith, among others by Hamilton (1790). Hamilton, as a secretary of state of the USA tried to promote the young American manufacturing industry with the use of protective tariffs (*The Tariff Act of 1789*). In addition, Hamilton as an advisor of president Washington realized that customs were an important source of revenues of the State [Menzel 2009].

In the USA, the customs tariffs were changed many a time, for instance the years from 1824 to 1832 were characterised by a high level of protection, e.g. cotton and wool products were charged with customs duties of 33.3% of their value [Menzel 2009]. Between 1833 and 1842 a liberalisation of the American customs tariff can be noticed, but in the subsequent years 1843 to 1846 the protection path was restored. In those years, the customs tariff was on average about 30%, but for industrial products it was much higher. For instance, the customs tariff for pig iron was 72%, for manufactured iron products 163%, and for cotton products 95%.

In the United States, the liberalisation of trade occurred in 1846 after the customs tariff was introduced by the then Treasury Secretary, Robert Walker (the so-called Walker-Tariff). It was the result of a coalition of growers from the South and producers of cereals from the West of the USA. In view of the corn laws abolition by Great Britain, the growers could export agricultural produce, and at the same time import on convenient terms English industrial products. This policy of the USA was maintained for about 15 years, but their own industry being established in the Northern States, they expected a more strengthened policy against free trade.

The founder of the German historical school in economics F. List, mentioned earlier, developed the theory of exchange in the economy of German States.

Hence, it is not surprising that in W.H. Dawson’s book: *Protection in various countries: Germany* the author claimed directly that the fiscal policy of German states, the interest of the industry and agriculture of the future empire taken into account, had a protectionist character from definition [Dawson 1904, Bairoch 1993].

Friedrich List – a Professor of the Tübingen University, who for liberal political ideas, inciting against the existing state institutions included, was deprived of his chair (1819) and forced to emigrate (1822), in the end was incarcerated in the fortress of Asberg, and released after a few months on condition of renouncing his nationality and emigration (to the USA), was a proponent of the political and economic integration of many German states.

List published his famous work *Das nationale System der politischen Oekonomie* (*The National System of Politic Economy*) (1841), in which he gave, among other things, his evaluation and position on the assumptions of the classic school in the economy, the assumptions of the free trade included.

He set out in a manner characteristic for him that the nation is the basis for the economic system created thereby, differentiated from the classics of the economies. He emphasised that the nature of a nation bridges the gap between an individuality and the whole humanity [List 1910] (“Als charakteristischen Unterschied des von mir aufgestellten Systems bezeichne ich die Nationalität. Auf die Natur der Nationalität als des Mittelgliedes zwischen Individualität und Menschheit ist mein ganzes Gebäude gegründet”).

F. List in Chapter 32 (*Das Tauschwertsystem Adam Smith*) of his work underlines the fact that A. Smith, creating the theory of exchange ignored the nature of nations, nearly completely passing over the politics and state authority, he assumed a permanent peace and a universal union, not appreciating the development of domestic production capacities, and at the same time, he demanded free trade [List 1910]. Furthermore, Smith put on an equal footing private prosperity and social welfare, when List emphasised the important element of the nation.

In chapter 34 of his work (*Die Insularsuprematie und die deutsche Handelsunion*) List gives his arguments referring to the protection of the domestic market. At the same time, he shows the national interest, arising from establishing the German Customs Union (1834) and the application of the policy of internal market protection against competition (mainly English) by the customs tariff system. He cites J. Bowring, an English economist, suggesting that the policy of protective high customs duties related to domestic industrial products is appropriate and the prices of protected goods themselves may be lower than foreign ones. He emphasises that the internal competition between domestic producers and, at that time, the protection against foreign competition may be a factor leading to the achievement of an economic miracle [List 1910].

There are no illusions that the trading exchange of a country, relying on export of agricultural produce and raw materials will not ensure the strength, welfare and importance of such a country. It must fight for the development and growth of its industrial production, the growth of industrial products export included, with the simultaneous raw material import [List 1910].

In the development of a domestic economy related to internal trading, F. List distinguished a few stages, starting from most primitive and ending on the most developed (English) economy:

- 1) agricultural development; in consequence of industrial products import and raw material and agricultural produce export;
- 2) development of the own (domestic) industry besides import of goods from foreign countries;
- 3) protection of the country's industry and, to a significant extent, of its own market of industrial products;
- 4) export of a significant part of domestic industrial products and import of raw materials and agricultural produce.

According to List, the German Customs Union States achieved in mid-19th century the third stage, hence the demand to protect the domestic industry. At the same time, he criticises in many parts of his work the British protection policy, for instance, based on corn laws, so detrimental to the export of, for instance, Prussian wheat.

List assumed that in a short period of time, the prices of protected domestic goods could actually grow, but it was in the national interest to get them lowered as a result

of internal competition, so as to be able to conduct a successful open free trade in the future.

The protection of the domestic industry by the introduction of a customs tariff shall be maintained as long as the national industry is exposed to the activity of foreign competition. Customs duties must grow if the domestic consumption of foreign industrial goods is based mostly or completely on import [List 1910].

One of the most important arguments for the protection of the domestic market was the establishing of convenient conditions to build and develop new industries, in particular, in less or weakly developed countries. The authors of the theory drew attention to the fact that new enterprises had insignificant opportunities to compete efficiently with companies from developed countries (for instance Great Britain, Belgium). Companies from developed countries acted longer and with the time, they managed to work out methods of industrial production, and increase the efficiency of their production. They had a better quality of information and knowledge on the production process, they were better familiarised with the market, labour market included, and what is most important, their products could be relatively cheaper than “new comers”. In consequence, the existing companies could sell their goods at a lower price in the international markets and continue to have profitable production.

For instance – the domestic supply of metallurgical industry articles necessary for the development of Prussian industry, pig iron included, was insufficient and hence pursuant to the customs tariff of 26 May 1818 and from subsequent years, the customs duty was abolished.

The economy of the second stage of development needed relatively cheap goods. Only in 1844, facing the development of the domestic industry and strong competition on behalf of English products in the area of the states associated in *Zollverein*, the customs duty at an amount of 20 marks (RM) was imposed on each tonne of pig iron. The customs tariff protection allowed for the development and progress in the metallurgy. The duty was lowered only in 1865 after the trading agreement was signed with France and it amounted to 15 RM, and after signing a trading agreement with Austria (1868) it dropped to 10 RM. The new customs tariff from 1870, which was the effect of free trade policy, assumed a drop in the duties rates for pig iron to 5 RM per tonne. The customs tariffs were abolished from October 1873 [Kestner 1902]. On principle in 1873, the states associated in the German Customs Union produced over 2.2 million Mg of pig iron, which constituted already 14.9% of the global production. Besides Great Britain, Germany was the largest exporter of pig iron [Kestner 1902].

The estimated exponential trend for domestic production² (Fig. 4): allows to claim that in German economy between 1825 and 1879, the average growth rate of domestic pig iron production was 7.74% *per annum*. With the protection, the export of pig iron from the states of the German Union amounted to 10% (1834), and in 1879 it was 45%, the import correspondingly was 18 and 20%.

² Domestic production = 39,216 × exp (0.0774x).

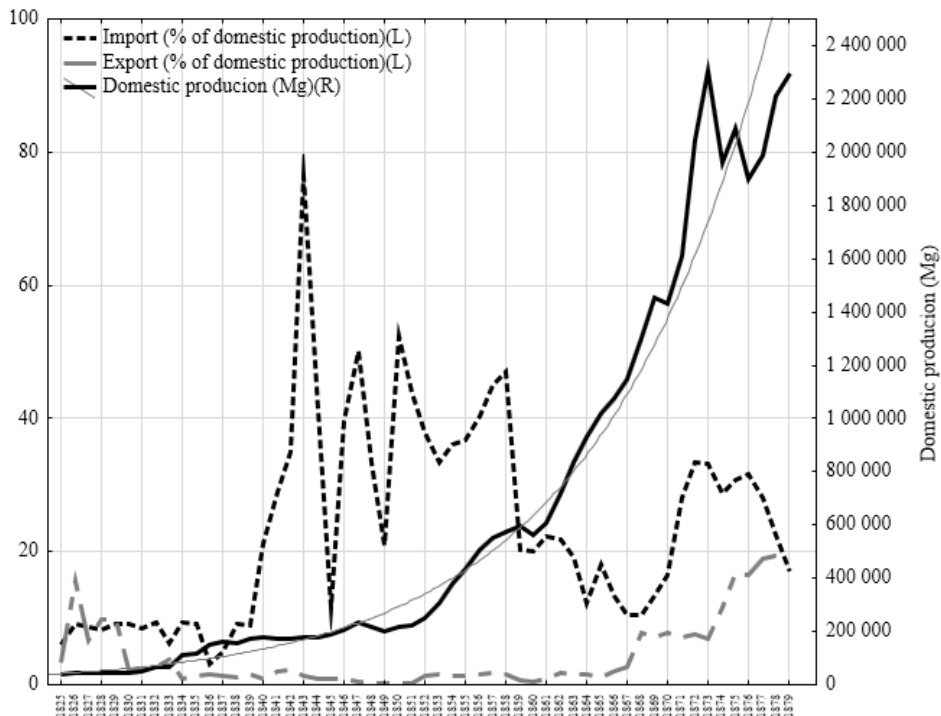


Fig. 4. Zollverein, German Reich – production, export and import of pig iron (1825–1880)

Source: Author's own calculations based on Kestner [1902, pp. 290–299].

CONCLUSIONS

The educational customs duties remain still a very important argument for the protectionist policy.

The protection of the domestic industry was applied by many world countries at the beginning stage of their development, Great Britain and the USA included. Despite the lapse of many years, such a protection has been frequently practised also today by less developed economically countries.

The idea of educational customs duties is not contrary to the idea of comparative costs because it is the purpose of the initial protection to achieve a maturity of the domestic industry so as to compete in the future with more competitive economies. In contrast to the theory of comparative costs, the presented model of educational customs rates is an example of a dynamic analysis as in a longer period of time, the abolition of the customs protection may lead to the introduction of the policy of free trade, at the same time, having an impact on an increased welfare in the domestic and global levels.

In case of the German Customs Union Economy, despite the strong scholarly support of the historical school, the member states of the Union (and the unified Germany) had applied the protectionist policy up to the end of the 1870s in a moderate form [Blackbourn 1997].

Friedrich List noticed the importance of the international trade for the poor and backward Germany, with a relatively late take-off. For infant industries, it became necessary to be protected against foreign competition, mainly English. List perceived the trading policy, as one element from the whole set of producers, taking into account the industrial, financial and educational policies [List 1910]. Despite the initial protection, the 1860s are rightly defined as the period of gold free trade [Sally 2008]. The crisis after 1873 (in Europe) as a response to the depression and the effect of request of selected producers' groups (e.g. iron and rye union in Germany). At that time Great Britain was the only country, which continued the policy of free trade.

REFERENCES

- Bairoch, P. (1993). *Economics and World History – Myths and Paradoxes*. Brighton, Wheathef. Blackbourn, D. (1997). *The Fontana History of Germany, 1780–1918*. Fontana Press, London.
- Capie, F. (1994). *Tariffs and growth: some illustrations from the world economy, 1850–1940*. Manchester University Press, Manchester.
- Dawson, W.H. (1904). *Protection in various countries: Germany*. King & Son Orchard House Westminster, London.
- Irwin, D. (2006). Free trade and protection in nineteenth-century Britain and France revisited: a comment of Nye. [In:] J.P. Dormois, P. Lains (Eds). *Classical Trade Protectionism 1815–1914*. Taylor & Francis, e-Library, 15.
- Flejterski, S. (2003). *Ekonomia globalna. Synteza*. Difin, Warszawa.
- Heckscher, E. (1919). *The Effect of Foreign Trade on the Distribution of Income*. *Ekonomisk Tidsskrift*, 21.
- Kestner, F. (1902). *Die deutschen Eisenzölle 1879–1900*. *Staats- und socialwissenschaftliche Forschungen*. G. Schmoller (Ed.). Bd. 21, book 3. Publisher Druncker und Humblot, Leipzig, 172.
- Kuliszer, J. (1961). *Powszechna historia gospodarcza średniowiecza i czasów nowożytnych*. Vol. II. KiW, Warszawa.
- List, F. (1910). *Das Nationale System der politischen Oekonomie*. Zweite Auflage, Verlag von G. Fisher, Jena, 40, 70–73, 454, 499–500, 516.
- Menzel, U. (2009). *Imperium oder Hegemonie? Großbritannien 1783–1919: Das Zweite Empire – Folge 12*. *Forschungsberichte aus dem Institut für Sozialwissenschaften ISW*. Technischer Universität Braunschweig, 93, 40.
- Mitchell, B. (1988). *British Historical Statistics*. Cambridge University Press, Cambridge.
- Myszczyzyn, J. (2012). *Przesłanki i ekonomiczne konsekwencje polityki protekcjonistycznej na przykładzie „unii żyta i żelaza”*. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 246.
- Myszczyzyn, J. (2013). *Wpływ kolei żelaznych na wzrost gospodarczy Niemiec 1840–1913*. Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Ohlin, B. (1933). *Interregional and International Trade*. Harvard University Press, Cambridge.
- Ricardo, D. (1823). *On the Principles of Political Economy and Taxation*. 3rd edn. John Murray, London.
- Rynarzewski, T., Zielińska-Głębocka, A. (2006). *Międzynarodowe stosunki gospodarcze. Teoria wymiany i polityki handlu międzynarodowego*. PWN, Warszawa.
- Sally, R. (2008). *Trade Policy, New Century. The WTO, FTAs and Asia Rising*. The Institute of Economic Affairs, London. Retrieved from: <http://www.iea.org.uk/sites/default/files/publications/files/upldbook432pdf.pdf>.

Smith, A. (1954). *Badania nad naturą i przyczynami bogactwa narodów*. PWN, Warszawa.

CŁO WYCHOWACZE JAKO ISTOTNY ELEMENT TWORZENIA WOLNEJ WYMIANY HANDLOWEJ

Streszczenie. W publikacji autor, wykorzystując model ekonomiczny i analizę danych statystycznych, ocenia zasadność stosowania polityki protekcjonizmu ze szczególnym uwzględnieniem cła wychowawczego. Zgodnie ze stadiami rozwoju Friedricha Lista wskazuje, że cło wychowawcze może być postrzegane jako jeden z etapów polityki gospodarczej, którego ostatecznym celem jest zwiększenie konkurencyjności na rodzimym rynku i w rezultacie włączenie się w wir wolnego handlu. Choć w krótkim okresie ekonomiczne i społeczne koszty wprowadzenia ceł mogą być duże, to praktycznie wszystkie państwa orędownicy wolnego handlu łącznie z Wielką Brytanią, promując swój przemysł, prowadziły w początkowym etapie budowy ładu kapitalistycznego politykę wysokich stawek ceł, co w końcu doprowadziło do zmiany układu kosztów komparatywnych.

Słowa kluczowe: polityka infant industry, wolny handel, cło wychowawcze, Friedrich List

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