

**Sandra Stojadinović Jovanović<sup>1</sup>**

*Academy of Professional Studies Western Serbia, Užice*

ORIGINAL SCIENTIFIC ARTICLE

doi: 10.5937/ekonomika2003027S

Received: March, 28. 2020.

Accepted: May, 04. 2020.

**Bojan Krstić<sup>2</sup>**

*University of Niš,*

*Faculty of Economics*

**Vladimir Radivojević<sup>3</sup>**

*University of Priština with temporary seat in Kosovska Mitrovica,*

*Faculty of Economics*

## NEW APPROACH TO TRADE AND ITS COVERAGE

### Abstract

*Contemporary trade flows increasingly take place via foreign direct investment flows, consequently we can no longer analyze them only classically, and through the prism of the existing methodology and statistic coverage. Therefore, the purpose of the paper is to point out the need for the new approach to trade flows and their coverage. The research has led to the setting up of a proposal for the new trade coverage, which, by including the primary trading channel, complements the existing, classic approach to trade flows and leads to more realistic trade picture. Only a real picture of trade flows may be adequate guidance to the economic and trade policy makers of the country in conducting these policies and making adequate strategic trade decisions.*

**Key words:** *trade, foreign direct investments, foreign affiliates, export, transnational companies, FATS.*

**JEL classification:** *F14, F21, F23.*

## НОВИ ПРИСТУП ТРГОВИНИ И ЊЕНОМ ОБУХВАТУ

### Апстракт

*Савремени трговински токови се све више одвијају кроз токове страних директних инвестиција због чега их не можемо више анализирати само на класичан начин и кроз призму постојећег методолошког и статистичког обухвата. Зато је циљ рада указивање на потребу за новим приступом трговинским токовима и њиховом обухвату. Истраживање је водило ка постављању предлога за нови обухват трговинских токова, који, тиме што је укључио доминантни облик трговања, допуњава постојећи, класични приступ трговинским токовима и води ка реалнијој слици трговине. Једино реална слика*

<sup>1</sup> sandrassj28@gmail.com, ORCID ID 0000-0003-1383-0225

<sup>2</sup> bojan.krstic@eknfak.ni.ac.rs, ORCID ID 0000-0003-4597-6819

<sup>3</sup> vladimir.radivojevic@ymail.com, ORCID ID 0000-0002-3928-0623

*трговинских токова може бити адекватан путоказ носиоцима економске и трговинске политике земље у вођењу ових политика и доношењу адекватних стратешких трговинских одлука.*

**Кључне речи:** трговина, стране директне инвестиције, стране филијале, извоз, транснационалне компаније, ФАТС.

## Introduction

During the second half of the 20<sup>th</sup> century the activities of transnational companies (TNCs) mainly contributed to the growth of trade flows. Nowadays, the main part of trading takes place via foreign direct investment (FDI) flows of TNCs, their international production, and sales of affiliates abroad.

TNCs are incorporated or unincorporated enterprises comprising of the parent enterprises and their foreign affiliates (UNCTAD, 2004, p. 345). By undertaking direct investments abroad, TNCs establish affiliates on host countries' markets (foreign affiliates). Different motives influenced their expansion, including resource seeking, market seeking, efficiency seeking and capability seeking (Duning, 1993, pp. 56-61). These companies are a key vehicle of FDI flows in the world economy. Thus, their expansion was accompanied by the expansion of FDI.

The possible impacts of FDI on the economies, especially on host economies, are numerous (Dunning, 1994; Kurtishi-Kastrati, 2013). Their impact on trade is the subject of numerous papers and research. Some authors consider FDI and trade as substitutes, while others consider them complementary (Pugel & Lindert, 2000). Some authors find substitution (Markusen, 1983), and some do not (Lipsey & Weiss, 1984; Brainard, 1997; Broadman, 2005), while some find both substitution and complementarity (Blonigen, 2001; Head & Ries, 2001). Besides these numerous findings regarding FDI and trade relation, the important issue to consider is whether the approach and analysis of trade flows should be changed due to this relationship, especially because companies are selling more through the transactions of their foreign affiliates than through the arm's-length trade and traditional export.

Just because of the close relationship and intertwining of FDI flows and trade flows in the contemporary global economy, the trade can no longer be analyzed classically and by means of the existing methodology and statistic trade coverage. Hence, the paper focuses on issues how to cover and analyze trade flows in contemporary conditions. Thus, the subject of the paper is an emphasis on the necessity for the new approach to contemporary trade flows, which will, by including the primary trading channel – foreign affiliates' trade, provide more comprehensive and realistic presentation of total trade flows, as well as, individual country trade flows. Consequently, the aim of the paper is to point out the need for the new approach to trade flows and their coverage. The given proposal for establishing the new statistic and methodology coverage, registering and calculating trade value is crucial. It shows how to calculate export, how to include it and register it statistically, i.e. how to calculate the values of country's export and, accordingly, the value of the country's trade.

The application of research methodology is determined by the specific nature

of the research subject. Firstly, the existing, current international trade methodology is presented. The analysis of relevant international publications and trade statistics data, lead to the detection and synthesis of the shortcomings of the existing international trade methodology and coverage, and its inappropriateness to the contemporary methods of trading. Besides, an inductive method is used in order to get conclusions from research. Secondly, the newly developed trade statistics and methodology is presented, which has been created in order to include activities of foreign affiliates, including foreign affiliates' trade, which is primarily important in this approach. Previous research and findings enable the setting up of the proposal of a new trade coverage and calculation which brings a new approach to trade flows and its coverage. At the same time, the proposal discovers the differences between the current and the new export value and trade picture of the country, and helps to show the possible way in which the trade analysis should go.

### **The classic trade statistics and methodology**

The classic methodology and statistical coverage of trade is based on the UN methodology of international trade statistics (UN, 1998), which includes only classic trade transactions that take place across national borders and are recorded in the national balance of payments accounts. UN (2010) recognizes changes in the way international merchandise trade is conducted and encourages countries to separately record goods which cross borders as a result of transactions between related parties. However, these are recommendations and the dynamics of their adoption depends on national statistical authorities.

The main source used for collecting the statistical data for trade in goods is Customs records. Data collecting systems register transactions related to transfer of goods across the border. In this way, the existing international merchandise trade statistics also include in its range the goods crossing the border as a result of transactions between parent companies and their firms founded by direct investments (foreign affiliates), which represents the trade between parts of one and the same company (TNC) located in different countries.

Regarding trade in services, the data on this trade is obtained by evaluating this trade on the basis of such services payment value which is related to services implementation abroad. This payment is registered in the country's balance of payments.

However, balance of payment data is not adequate for providing the real measure of the scope of trade in services for many reasons. Many services which are performed abroad are not recorded in the official statistics, because in many cases payments for those services are not registered. Another important disadvantage is the fact that many services are increasingly being performed via transfer of services production abroad, i.e. by TNCs' affiliates in other countries, which makes the existing calculation incorrect because these services are not taken into account.

FDI flows are also registered in the balance of payment as financial flows, but these data are not suitable for determining their connection with classic trade flows of either goods or services.

Such as it is, the classic methodology and statistic concept of trade is characterized by certain deficiencies and a number of measurement and comparability problems (Lindner et al., 2001). In addition to these deficiencies observed and explained so far,

the main shortage is its insufficient adjustment to contemporary trading conditions characterized by the increasing role of TNCs.

It must be kept in mind that at the beginning of the 21<sup>st</sup> century there are 103,786 TNCs with their 892,114 affiliates abroad (UNCTAD database, 2015) which accomplish around 50% of gross world product and they make 2/3 of the world trade, while a half of this share, that is 1/3 of the total trade, goes to intra-firm trade taking place within these companies.

Since 1990, owing to the large amounts of FDIs, indirect export of goods and services via TNCs' foreign affiliates has become the major channel of trade performance, while the direct export of goods and services, which is performed across the national borders and registered in the official trade statistics, has become the secondary channel of trade activities (Stojadinović Jovanović & Krstić, 2019). Due to the activities of TNCs, the trade does not only include classic trade in goods and services, but also the indirect export via affiliates abroad and FDI flows.

Contemporary export of goods and services does not only have a direct form. It also has an indirect one, via TNC affiliates which parent companies establish in foreign countries worldwide, and that is not taken into account by current methodology and statistical coverage of trade.

By means of direct investment, TNCs shift a part of their production abroad – into foreign affiliates (international production). Goods produced in such a way can be sold in the host country's market or can be exported to the third country's market. The important fact is that this affiliate, even though it is under the direct control of its parent company, represents an individual legal entity in relation to its founder, i.e. represents an individual company established in another country and it operates according to the national legislation of that host country. That means that foreign affiliates are treated as residents in the host country, i.e. they have the same treatment as other domestic, indigenous, national companies.

When the official trade statistics of a particular host country registers export and import, it registers sales and purchases of all of that country's companies made with foreign countries; in that way trade transactions of foreign affiliates in a given country (transactions between foreign affiliates located in a given country and their parent companies abroad and other subjects on the markets outside of the host country) are registered in the existing official trade statistics of the host country and are included in the officially registered import and export figures of that country, same as transactions of other residents.

TNC carries out the indirect export by means of its affiliates' sales. But since those affiliates are located in the market of the host countries, those sales are not statistically registered as the export of TNC's home country. In addition to that, when affiliates located in the market of the host country perform the export, that export is also not registered as export of the home country, but instead it is registered statistically as the export of the host country. This indicates irregularities on two bases:

- On one hand, from the aspect of the home country, it means that the home country is not attributed appropriate values of its companies' export which they carry out – either by domestic sales of its affiliates on the host country's market or by export of these affiliates from the host country's market to third countries' markets;
- On the other hand, from the aspect of the host country, it means that it is

attributed sales, i.e. export of affiliates of foreign companies, because they are located on its territory.

The observed deficiencies of the classic methodology and statistical coverage of the trade limit the existing framework of our analysis of the trade flows, as well as, our efforts to comprehend it realistically and completely. Also, these deficiencies lead us to think differently about trade flows, the way they are realized, and the way they should be statistically recorded and captured if we want to have their realistic picture.

As for coverage, registering and analysis of trade in goods, as well as, trade in services, we must bear in mind the perceived phenomenon that the trade flows and investment flows intertwine, and that changed trading conditions obviously lay down new methodological challenges, and require a new approach to trade flows, its coverage and analysis.

## **The newly developed trade statistics and methodology**

The newly-developed trade statistics and methodology is Foreign Affiliates Trade Statistics (FATS). It has been developed for statistical coverage of different activities of foreign affiliates, such as sales (turnover) and/or output, employment, value added, export and import of goods and services, number of enterprises or establishments and other variables.

FATS has initially been formulated in the Manual on Statistics of International Trade in Services – MSITS (UN et al., 2002) for the need of international trade in services statistics. MSITS just like the WTO General Agreement of Trade in Services (GATS) recognizes that companies in one economy can also deliver services internationally by means of foreign affiliates’ activities abroad, which should be measured in FATS.

The essential thing is that both in MSITS and in GATS coverage, domestic sales by foreign affiliates are included under the name of “international trade in services”. This means that the sales that the affiliates of foreign companies have made to the market of host economies are treated as trade in services across national borders, or that domestic sales are treated as foreign sales.

Besides MSITS, recommendations for FATS and for statistics on Activities of Multinational Enterprises (AMNE) have been given in the OECD Handbook on Economic Globalisation Indicators (OECD, 2005) and in OECD Benchmark Definition of FDI (OECD, 2008), recognizing that FATS variables should be compiled for all foreign affiliates, not only those in the services. This means expanding the scope to trade in goods, and thus to all activities of foreign affiliates.

FATS may be developed as inward FATS, for foreign-owned affiliates in the compiling economy, and outward FATS, for foreign affiliates of the compiling economy.

The coverage, the compilation of FATS variables, their attribution, and other issues relating FATS and FATS development are arranged by aforementioned international publications, primarily by MSITS<sup>4</sup> (UN et al., 2010).

Regarding FATS coverage, it is recommended to include majority-owned foreign affiliates (MOFA), owned either by one investor or investors group.

---

<sup>4</sup> MSITS 2002 has been revised in 2010 (MSITS 2010) in order to conform with the System of National Accounts 2008 and the 6th edition of the Balance of Payments and International Investment Position Manual (UN et al., 2010).

In FATS compilation, two basic approaches are possible: the implementation of separate surveys for FATS or the identification of a subset of foreign firms by using existing data on firms-residents. In both approaches, available sources, existing data on FDIs and company statistics should be used.

All these issues relating FATS, especially those regarding the attribution of variables, and recommendations made regarding them, represent guidance in setting up a new approach to trade flows and their coverage.

### **A proposal for the new trade coverage**

In setting-up a proposal for the new trade coverage the first important thing that has been taken into account is the fact that since 1990, due to the large amount of FDIs and TNCs' activities, indirect export of goods and services via TNCs' foreign affiliates has become the major channel of trade operations, and the direct export, registered in the official trade statistics, has become the secondary trade channel.

Besides, when setting-up the proposal, it has been started from that very fact that countries do not export goods and services only directly, but indirectly as well, via foreign affiliates. That indicates that the new approach to trade flows and coverage must be laid out by including the activities of foreign affiliates.

Starting with the newly developed statistics, idea that foreign affiliates' sales should be registered separately and attributed adequately, and also having noticed all aforementioned deficiencies of the existing methodology and statistics trade coverage and limited framework of our current classic trade analysis based on it, we have come to the conclusion that in methodology approach and statistic registering it is necessary to include and attribute particular trading transactions differently, in order to make our trade analysis more complete and adequate.

It can be observed that from the aspect of the home country of the (transnational) company, the sales of its company realized through its foreign affiliates are not registered as the country's trade, where they should be registered. These sales include the domestic sales of the affiliate on the host country's markets (domestic sales) and exports of the affiliate to third country's markets (these exports are registered but as host countries' exports).

It is therefore necessary to attribute these foreign affiliate's sales (domestic sales + exports) to the home country of the affiliate's parent company and also to deduct these sales from the host country's trade figures. Besides, it is also needed to attribute the sales of foreign affiliates of the host country's parent enterprises abroad to the host country.

Based on all aforementioned, a proposal can be set up representing a new way of calculation of the world trade (Stojadinović Jovanović, 2013) and also a proposal representing a new way of calculation of the individual countries' trade, i.e. their export (Stojadinović Jovanović, 2010), as follows:

A proposal for the new trade coverage and export calculation

	Export of the country (registered in official trade statistics)
-	Export of the foreign affiliates from the country to the third country's markets
-	Domestic sales of the foreign affiliates on the country's market

+	Sales of foreign affiliates of the country’s parent enterprises abroad
=	Export of the country (new value)

where:

the sales of foreign affiliates of the country’s parent enterprises abroad encompass domestic sales of foreign affiliates of the country’s parent enterprises on the host country’s markets and export of foreign affiliates of the country’s parent enterprises from the host countries to the third country’s markets.

This new way of trade coverage and calculation will help us obtain different export values and trade values of individual countries, which are more appropriate to the contemporary ways of trade flows performing, and more realistic, giving us the different, new trade values and analysis compared to the current one.

### **Expectations from the implementation of the proposal**

The implementation of the given proposal in the trade coverage and export calculations can provide important findings and reveal new picture of individual countries’ trade.

Depending on the value of export of the foreign affiliates from the country to the third country’s markets, domestic sales of the foreign affiliates in the country’s market and sales of foreign affiliates of the country’s parent enterprises abroad, the value of export determined according to the proposal can significantly deviate from the value of official trade statistics export. Namely, export value of individual countries, according to the official foreign trade statistics, can be significantly higher than the export value determined according to the proposal.

Apropos, the value of export calculated according to the proposal can be lower than the value of export according to the official trade records. The reason for that is the fact that the foreign companies can perform an important part of the country’s exports, whose value, according to the proposal, is deducted from the classically calculated exports of the host country, because we need to attribute it to the country of the ultimate investor (regarding to the FATS methodology, on which the proposal is also based).

This trade coverage and calculation of export according to the proposal also enables us to determine the amount of the country exports which is controlled by national capital and indigenous companies. Therefore, the important thing that the proposal brings is the calculation of the export value which represents indigenous export.

It can be also expected that the difference between the values of officially registered exports and exports calculated under the given proposal will be influenced by the volume of FDI flows of the country. Thus, for a small FDI outflows from the country it could be expected to result in a negligible number of foreign affiliates of the country’s companies abroad and their slight sales, and based on that, a very small value is added to the classic, official export value when calculating export according to the given proposal.

As long as the country has much higher FDI inflows than FDI outflows it could be expected that the export value determined according to the given proposal for the country will be considerably smaller than the export value determined according to the classic calculation.

For a higher FDI inflows into the country, it could be expected to result in a larger

number of foreign affiliates in these countries and, consequently, in both higher export and sales of these affiliates. However, these are the exact values which we deduct from the value of classic export in the given proposal, the result of which is a reduction of classic export value on the basis of foreign affiliates' activities in these countries bigger than the increase based on sale which foreign affiliates of these countries realize abroad. Therefore, as a result, it could be expected these countries to have smaller export value according to the given proposal than when applying the classic calculation.

For the countries with large FDI outflows it could be expected a larger number of foreign affiliates abroad and their large sales and, consequently, larger sales of foreign affiliates of domestic companies. And because this item (sales of foreign affiliates of domestic companies) is added to a classical official value of exports, it would contribute to the increase in export value calculated according to the given proposal and new trade coverage.

Hence, it could be expected that the countries with large FDI inflows, larger than FDI outflows, would have smaller export value calculated according to the given proposal than according to the classic concept. While for the countries with large FDI outflows, larger than FDI inflows, it could be expected the opposite – the larger export value according to the given proposal than the value of classic export.

If the value of the country's export according to the given proposal is much smaller than officially registered classic export it means that the “real” value of the country's export, i.e. indigenous export controlled by national capital, is much smaller than official statistics shows. And it reveals a less favorable picture of domestic export and trade.

However, only such a method of calculation makes it possible for us to comprehend the real amount of the export of the country, i.e. to find out how much of the export is controlled by foreign capital and how much is controlled by domestic capital. Consequently, by offering us a real picture of trading flows, it allows making adequate strategic trade decisions and leading adequate policy. Also, the given proposal opens the door for further suggestions and improvements of future trade coverage and analysis.

## Conclusion

The existing, classic approach to trade has not sufficiently been adjusted to contemporary trading conditions and new forms of goods and services delivery abroad. Balance of trade and the existing official trade figures show only one face of the reality of the trading flows. They do not include the dominant trading form in the contemporary world trade and in that way they limit the existing framework of our trade analysis and our efforts to perceive it realistically and comprehensively.

The proposal presented in the paper – proposal for the new trade coverage and calculation, including a dominant form of trading – trading via foreign affiliates – complements the existing, classic trade concept and makes possible the new approach to trade flows and their coverage.

The use of the given proposal would reveal a new, more realistic trade picture of the country, sometimes more favorable sometimes less favorable. But only by having a real picture of trading flows, economic and trade policy creators can lead adequate policy and make adequate strategic trade decisions.

Therefore, in order to observe the trade flows of individual countries, as well as,

of the whole world completely, and comprehend and analyze them adequately, each following trade analysis should be based on this new approach to trade, given proposal and trade coverage.

Also, the paper makes space for further suggestions and improvements of the given proposal and future trade coverage and analysis.

## References

- Blonigen, B.A. (2001). In search of substitution between foreign production and exports. *Journal of International Economics*, 53(1), 81-104.
- Brainard, S. L. (1997). An Empirical Assessment of the Proximity-Concentration Trade-off between Multinational Sales and Trade. *American Economic Review*, 87 (4), 520-544.
- Broadman, H.G. (Ed.). (2005). *From Disintegration to Reintegration: Eastern Europe and the Former Soviet Union in International Trade*. Washington: The World Bank.
- Dunning, J. H. (1993). *Multinational enterprise and the global economy*. Wokingham: Addison Wesley.
- Dunning, J. H. (1994). Re-evaluating the benefits of foreign direct investment. *Transnational Corporations*, 3 (1), 23-51.
- Head, K., & Ries, J. (2001). Overseas Investment and Firm Exports. *Review of International Economics*, 9(1), 108-22.
- Kurtishi-Kastrati, S. (2013). The Effects of Foreign Direct Investments for Host Country's Economy. *European Journal of Interdisciplinary Studies*, 5(1), 26-38.
- Lindner, A., Cave, B., Deloumeaux, L., & Magdeleine, J. (2001). *Trade in Goods and Services: Statistical Trends and Measurement Challenges*. Paris: OECD Statistics Brief, 1 (3).
- Lipsey, R.E., & Weiss, M.Y. (1984). Foreign Production and Exports of Individual Firms. *The Review of Economics and Statistics*, 66(2), 304-08.
- Markusen, J.R. (1983). Factor movements and commodity trade as complements. *Journal of International Economics*, 14(3-4), 341-356.
- Načinović-Braje, I., & Galetić, L. (2019). Top management remuneration in a post-transition economy: Does company ownership make a difference?. *Strategic Management*, 24(2), 34-44.
- OECD. (2005). *OECD Handbook on Economic Globalisation Indicators*. Paris.
- OECD. (2008). *OECD Benchmark Definition of Foreign Direct Investment*. Paris.
- Pugel, T. A., & Lindert, P.H. (2000). *International economics*. USA: The McGraw-Hill Companies Inc.
- Stojadinović Jovanović, S. (2013). A Proposal for New Coverage of International Trade Flows. *Actual Problems of Economics*, 4 (142), 480-486.
- Stojadinović Jovanović, S. (2010). *Novi pristup u analizi međunarodne trgovine*.

Doktorska disertacija, Ekonomski fakultet Univerziteta u Beogradu, Beograd, Srbija.

- Stojadinović Jovanović, S., Krstić, B. (2019). *Trade Competitiveness in the Global World Economy*. In B. Krstić (Ed.), *Improving the Efficiency and Competitiveness of Enterprises and National Economies - problems, factors, determinants, strategies and solutions* (pp. 1-19). Niš: Faculty of Economics Univesity of Niš.
- UN. (1998). *International Merchandise Trade Statistics: Concepts and Definitions 1998*.
- UN. (2010). *International Merchandise Trade Statistics: Concepts and Definitions 2010*.
- UN, EC, IMF, OECD, UNCTAD, & WTO. (2002). *Manual on Statistics of International Trade in Services (MSITS)*.
- UN, EC, IMF, OECD, UNCTAD, & WTO. (2010). *Manual on Statistics of International Trade in Services (MSITS)*.
- UNCTAD. (2004). *World Investment Report 2004*. UN: New York and Geneva.
- UNCTAD database (2015). Web table 34. Retrieved February 1, 2020, from [http://unctad.org/Sections/dite\\_dir/docs/WIR11\\_web%20tab%2034.pdf](http://unctad.org/Sections/dite_dir/docs/WIR11_web%20tab%2034.pdf)