

# TRADE IN SERVICES AND INCOME INEQUALITY IN DEVELOPING ECONOMIES

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*With technological revolution, trade in services has now gained a lot of importance in the trade literature. This paper discusses the impact of trade in services on income inequality, focusing in particular on the channels through which openness to trade in services can have an impact on income inequality in developing economies. The paper explores the relationship between trade in services and income inequality in developing economies with an emphasis on India which is by and large a service driven economy. It provides some insights on the question - why it is important to examine the impact of trade in services on income inequality separately from that of trade in goods in developing economies and how this impact is different in the two cases.*

**Keywords:** *International Trade, Goods, Services, Income inequality*

*JEL classification: F10, D31*

## 1. Introduction

Over the past few decades, developing economies have rapidly integrated into the world economy through increased international trade and foreign capital inflows. During this period of increased integration, changes have also been observed in income inequality within these developing economies. A number of studies have looked at the impact of international trade on income distribution<sup>2</sup>. But these studies have focused more on trade in goods rather than services. There are relatively few studies on the impact of trade in services on income inequality within an economy<sup>3</sup>.

Service sector is becoming increasingly important in global economy. With technological revolution, the services which were earlier considered to be non-tradable, have now become tradable. Trade in services helps in providing new opportunities for the economy, thereby, creating more jobs and making significant contribution to the GDP of the

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<sup>2</sup>For instance, see Feenstra and Hanson (1996), Goldberg and Pavcnik (2007), Topalova (2005), Meschi and Vivarelli (2009) etc.

<sup>3</sup>In Section 2, a brief review of these studies is given. In this paper too, inequality refers to within-country inequality.

economy. Service exports can also form an important part of country's growth strategy. For example, India is capitalizing on its boom in information technology services exports. Service imports can also improve the performance of domestic firms through greater competition, gives access to international best practices, investment capital, better skills and technology in the economy. Since large part of trade in services comes through foreign direct investment, it also helps in bringing in capital, which is a scarce factor in developing economies. Hence, the importance of services in international trade cannot be discarded anymore. However, despite its importance, there has been little research which explicitly examines the impact of trade in services on income inequality in developing economies.

The present paper makes an attempt to fill this gap in information. Specifically, one makes an attempt to identify the channels through which trade in services can have impact on income inequality within developing economies and also explore the relationship between trade in services and income inequality in India which is by and large a service-driven economy. The paper points out that it is important to look at the impact of trade in services on income inequality separately from that of trade in goods on income inequality in developing economies. It discusses how this impact might be different in two cases. The issues raised are both important and relatively new, especially in the context of developing economies. This is significant because of the pattern of development observed in many emerging economies, where services, rather than industrial sector has become dominant in terms of shares in output, employment and international trade. This pattern of structural change differs sharply from the historical development experience of OECD countries. With globalization, as developing countries integrate far more with the world economy, one needs to understand how increasing share of services in international trade will affect income inequality.

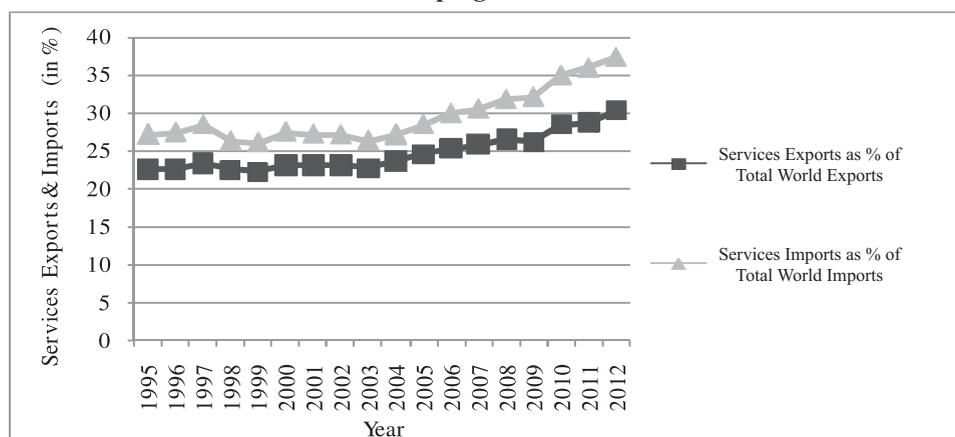
The whole paper is divided into different sections. After this introduction in the first section, Section 2 presents the theoretical discussion about how trade in services is different from trade in goods and how these differences can be important to examine the distributional consequences of trade in services. This section also identifies the channels through which trade in services can have impact on income inequality in developing economies. Section 3 provides more insights about impact of trade in services on income inequality specifically for India. Finally, Section 4 concludes and lists possible directions for future research.

## **2. Trade in Services and Income Inequality in Developing Economies**

A large number of studies have looked at the impact of international trade on income inequality in developing economies. However, these studies mainly pay attention to the trade

in goods, as traditionally, services have been treated as sectors with non-tradable output. However, with the advent of technological revolution, the notion that the services are non-tradable because of their non-storability and intangibility attributes (Fuchs, 1968) is no longer valid. Services sector has gained importance not only in the developed countries but also in the developing countries (See Figure 1). Several proposals regarding the liberalization of trade in services have been considered in different rounds of GATT negotiations. Trade in services is also becoming an important component of international trade in developing economies. The developing economies accounted for 34 per cent of the world trade in commercial services in 2013<sup>4</sup>. Since this acceleration in international trade in services has coincided with the period in which changes have also been observed in income inequality in developing economies, it becomes interesting and important to examine how this increasing share of services in international trade will impact the income inequality in some developing economies. In addition, new insights can be gained by examining the impact of trade in services on income inequality separately from that of trade in goods on income inequality.

**Figure 1: Total Services Exports and Imports of Developing Economies**



Source: Constructed by author using UNCTAD data on International Trade in Services

## 2.1 Goods Trade vs. Services Trade

In order to answer the above question, firstly, the question that needs to be addressed is: how are goods different from services and should we treat trade in goods differently from that of trade in services? This question has also received some attention in the literature.

<sup>4</sup>International Trade statistics, WTO, 2013

Services in the literature have been often differentiated from goods on the basis of mainly these four characteristics:—intangibility, non-storability, invisibility and transience. But, services are considered to be heterogeneous in nature, so not all the services satisfy these characteristics. Hill (1977) argues that goods and services are distinct and they belong to two different categories. He emphasized that consumption and production of services should take place simultaneously as services cannot be stored unlike goods. Melvin (1989) points out that Hill's definition is limited to services that need physical contact between consumer and producers. However, there are some services that can be embodied in an object like a floppy diskette and video tapes. Hence, for such kind of services, the production and consumption can be separated. Due to technological revolution, such services which do not require physical proximity between the producer and consumer are increasing rapidly. Stern and Hoekman (1987) point out that service can be complementary to trade in goods; substitute for trade in goods or be unrelated to goods. Hence, in order to trade services, they need to be embodied in objects, information flow or through movement of people. All these characteristics of services determine the manner in which services trade will occur.

According to World Trade Organization (WTO) under the General Agreement on Trade in Services (GATS), the international trade in services can be classified as follows:

- **Mode 1: Cross border supply** in which no physical contact between the producer and consumer is needed and it is the service which crosses the border through internet, phone, fax, etc.
- **Mode 2: Consumption abroad** in which the consumer of services goes to the place where services are provided by the supplier.
- **Mode 3: Commercial presence abroad** i.e. the supplier of the services provides services by establishing its commercial presence in another country through branches or subsidiaries.
- **Mode 4: Movement of natural persons** in which individual moves temporarily to the country of consumer to provide the services.

It is obvious from this classification that issues like labor mobility (when services trade occurs through Mode 4) and investment (when services trade occurs through Mode 3) are critical for the analysis of impacts of services trade. The determinants of services trade may also be different from those of trade in goods. The barriers to trade in services are different as well as higher than those to trade in goods. For instance, the restrictions to factor mobility

and investment can be major barriers to international trade in services. Moreover, sometimes the barriers to trade in services are difficult to quantify and measure. There are many services which cannot be traded across borders like goods and hence the tariff barriers are not important in case of those services. The services trade tends to be also reduced by the regulatory laws in the countries that deny access to both foreign as well as domestic service providers. These regulatory laws often vary between and within the different sectors in the countries. As far as economies of scale are concerned, it is common to assume an increasing return to scale for goods, whereas this may not be true in case of services as services are assumed to be highly heterogeneous in nature. It may be the case that some services do not exhibit the increasing returns to scale. All these characteristics make trade in services a diverse and a complex concept from that of trade in goods.

It is also important to determine to what extent the trade theories applicable to goods can be applied to services. Some trade theorists consider the goods and services to be equivalent and according to them, trade in services can be analyzed in the traditional models in the similar ways as trade in goods<sup>5</sup>. However, authors like Melvin (1989) argued that introduction of services require a different approach to be followed. He stated that when the theory of comparative advantage and Heckscher–Ohlin (HO) theorem is applied to services, it requires a different interpretation from that of standard model. Although, some trade theorists apply the standard trade models to analyze trade in services also, certain characteristics which are unique to trade in services highlight the need for some modifications to be done in standard trade theories in order to apply them to trade in services.

The standard trade model results are based on the trade pattern predicted with an assumption of given factor endowments in a country. For trade in services that occurs through mobility of labor or capital (Mode 3 or Mode 4), the factor endowments change. Also, factor mobility is a substitute to trade in goods, whereas in trade in services, the factor mobility is itself representing the trade<sup>6</sup>. This factor mobility can have important implications as to how the resources will be redistributed once the trade occurs which can then result in different impact of trade in services on income inequality as compared to that of trade in goods. Since the foreign direct investment is integral to trade in services, it is likely that the impact of trade in services on income inequality might be stronger than that of the trade in goods on income inequality. The impact of trade in services on income inequality will also depend on whether the foreign and domestic factors (say labor and capital) are

<sup>5</sup>For instance, see, Sapir & Winter (1994) & McCulloch (1988) etc.

<sup>6</sup>Chanda(1999)

substitutes or complements to each other. For example, if the domestic and foreign factors are substitutes, then the trade in services will give access to foreign factors, which will then lower the demand for domestic factors and their returns. This will further impact the income inequality negatively. However, if the domestic and foreign factors are complements to each other, then access to foreign factors due to services trade will also increase the demand for domestic factors and impact the domestic factor returns as well as income inequality positively. Some of the services are also used as an intermediate input into the production of some goods, so trade in those services can also have important implications for distributional consequences of services trade. Hence, it can be pointed out that there are many different features unique to trade in services which can have important implications for the distributional impacts of trade in services.

## **2.2 Services Trade and Income Inequality Channels**

An attempt has been made to identify the various channels through which services trade can have impact on income inequality in developing economies. At least four such identified channels are discussed below.

Some services are used as intermediate inputs into the production of certain goods and services. Trade in services will lead to these services available at a cheaper cost and increase their efficiency which in turn will increase the productivity of goods & other services sector. The increase in productivity will further affect the factor returns and hence the inequality in the distribution of income.

When the trade in services occurs through foreign direct investment (foreign affiliates sales), then it will have impact on the income inequality through technological spillovers, creating competition in the economy, etc. The presence of these foreign service providers is likely to be concentrated in the most dynamic regions of the country thereby neglecting the rural areas which will increase the rural-urban inequality in the country.

As discussed, with trade in services through the movement of professional personnel, there is a mobility of factor (labor) which can have implications for the income inequality in the developing countries. For example, if the services exported through this mode are skill intensive then it will lead to shortage of skilled labor in the developing economy and brain drain is known to impact the income distribution in the economy. However, if the workers whose services are exported are unskilled or semi-skilled workers, then it will create more employment for unskilled workers and hence help in decreasing the inequality in economy.

Services trade can also impact the income inequality through the growth channel. Higher service exports will contribute to higher growth in the economy which in turn affects the income inequality through the Kuznet curve relation between growth and inequality.

As observed, there are some channels through which trade in services can increase income inequality and some channels through which it can decrease the income inequality. In order to assess the net impact and for better understanding of impacts of trade in services on income inequality, there is a need to have cross-country as well as country specific empirical studies.

### **2.3 Services Trade and Income Inequality: Evidence from the Literature**

As far as existing empirical studies in the literature are concerned, there are very few studies that have examined the impact of international trade in services on income inequality. The reason for this can be lack of detailed and quality data on trade in services. Majorly, the studies in the literature are country specific (except one which is based on OECD sample). All the studies observed that the trade in services leads to widening inequalities in the countries. Cassette *et al.* (2012) examined the short run and long run relationship between international trade in services and income inequalities for a sample of 10 OECD countries for 1980-2005. They showed the differentiated impact of trade in goods and services. They find that trade in goods has both short run and long run impacts whereas the trade in services has only long run impacts. They also found that the impact of services trade is not only concerned with inequalities between the top income and low incomes but also between the median and low incomes. Amoranto *et al.* (2011) examined the impact of liberalization in selected services subsectors (banking, distribution, and telecommunications) on employment and wages in the Philippines from 1991 to 2004. Their results indicated that liberalization may have potentially harmed more vulnerable populations that are less educated, and created greater opportunities for employment in good jobs for higher-skilled males relative to females with an assumption that the value-added effects arise from service liberalization which subsequently increase productivity in other sectors and influence changes in average wages across industries. Besides these studies, there are some studies (Ahmed, 2008; De & Raychaudhuri, 2008; Mehta and Hasan, 2011<sup>7</sup>) which are specifically on India. There is no cross-country study with a sample of developing economies only. With share of services increasing in international trade in developing economies, there is a need for more empirical studies, especially in the context of developing economies to examine the

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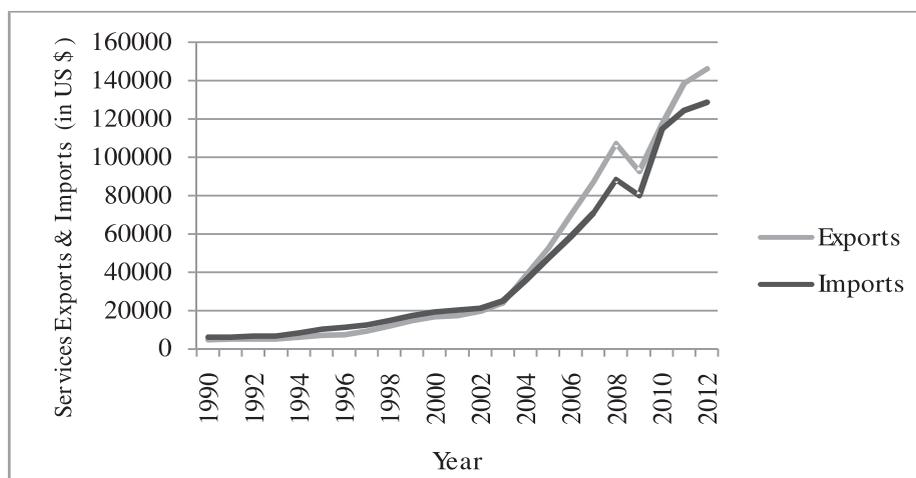
<sup>7</sup>The findings of these studies are discussed briefly in next section.

impact of trade in services on income inequality.

### 3. Trade in Services and Income Inequality in India

The importance of service sector in country like India is very well established. The share of services in GDP increased from 44.48 per cent in 1990 to 57.02 per cent in 2013<sup>8</sup>. According to Economic Survey (2013-2014), India has the second fastest growing services sector with its compound annual growth rate at 9 per cent, just below China's 10.9 per cent, during the last 11-year period from 2001 to 2012. Also, in India, the growth of services-sector GDP has been higher than that of overall GDP between the time period 2001-2014. Moreover, in general, it is considered that an economy transitions into services only after agriculture and manufacturing which is not the case in India. Trade in services in India has been increasing rapidly since 1990. Trade in services as a percentage of GDP increased from 3.2 per cent in 1980 to 14.8 per cent in 2012. As evident from the figure 2, services exports and services imports have been increasing since 1990 with a dip around 2008 and then it again started increasing.

**Figure 2: Services Exports and Imports in India**



Source: Constructed by author using UNCTAD data on International Trade in Services

There have been stark inequalities between rural and urban India, rich and poor, skilled and unskilled, backward and advanced states in India. According to a 2011 report published by the Organization for Economic Cooperation and Development (OECD)<sup>9</sup>, income inequality has doubled in India since the early 1990s. The richest 10 per cent of Indians earn

<sup>8</sup>Based on World Development Indicators (WDI)

<sup>9</sup>OECD Report on Special Focus: Inequality in Emerging Economies (EEs).

approximately 12 times more money than the poorest 10 per cent, compared to roughly six times in 1990. It can be inferred from the above data that there may be an impact of trade in services on income inequality in India.

The correlation coefficient for total trade, trade in goods and trade in services with the income inequality in India is calculated for the period 1980-2009. The total trade, trade in goods and trade in services is measured by trade (as % of GDP), trade in goods (as % of GDP) and trade in services (as % of GDP) respectively from World Development Indicators. The income inequality is measured by the gini coefficient calculated for net income from the Standardized World Income Inequality Database (SWIID). The correlation coefficient between trade and income inequality is found to be 0.44; between trade in goods and income inequality is found to be 0.42; between trade in services and income inequality is found to be 0.38. All the three correlation coefficients are found to be positive and significant at 5 per cent level of significance. The positive sign of the service trade coefficient shows that trade in services will lead to increase in income inequality in India. Since the value of the correlation coefficient between trade in services and income inequality is found to be somewhat close to that of correlation coefficient between trade in goods and income inequality, it seems interesting and equally important to examine how increasing share of services in international trade will impact the income inequality in India.

Ahmed (2008) used a simulation model built on a specific factors framework with a real world data on India to show how sensitive factor prices in different sectors may have been to the increase in Indian services exports and imports observed between 2001 and 2006. He observed that, the wages of all workers increased, although unskilled workers wages rose by only 6 per cent, compared to the historical 39 per cent increase for skilled workers from the increase in Mode 1 trade in services due to technological advancement. He concludes that the growth of the Indian services trade sector has the potential to widen income inequality between different factors, even though total income in India may improve. De & Raychaudhuri (2008) also argue that accelerated growth in the IT services sector in India has played an important role in reducing overall poverty, particularly among women, but it is at a cost of widening inequality as mainly educated, higher skilled and selected urban labor benefit from IT services growth. Mehta & Hasan (2011) examined the effects of trade and services liberalization on wage inequality in India between 1993 and 2004. They find that the effect of service reforms is many times larger than that of trade liberalization. They also find that the labor reallocations and wage shifts attributable to liberalization account for at the

most 29 per cent of the increase in inequality between 1993 and 2004, In contrast, 30-66 per cent of the increase in wage inequality is due to changes in industry wages and skill premiums that cannot be empirically linked to liberalization.

Nayyar (2012) in his book explains that there exists dichotomy in services sector. The services can be classified into two categories on the basis of capital and skill intensity. On the one hand, there are service sectors like wholesale, retail trade, hotels and restaurants, transport by other means and personal, recreational and entertainment services which are characterized by 'low to medium' capital intensity and skill intensity. These services subsectors are likely to absorb a large unskilled workforce and thereby reduce poverty directly. On the other hand, there are sectors like financial and business services, communication that are characterized as 'medium to high' capital and skill intensive. So, employment in these subsectors is likely to be biased in favor of individuals who are more skilled. The trade in these kinds of services will lead to increase in income inequality in India. Hence, this dichotomy of service sector can have important implications as far as impact of trade in services on income inequality in India is concerned.

Given the unusual service-led growth pattern followed by India, it becomes really important to empirically assess in detail the impact of increasing share of services in international trade on income inequality in India. The characteristics of different sub-sectors in services differ a lot among themselves and hence, in order to fully understand the distributional consequences of services trade in India, there is a need to look at a more disaggregated level of services sector. If growth of trade in the service sector is limited to largely skilled and technologically intensive activities, then, their relative growth will affect different sections of the society differently.

#### **4. Conclusion**

With the advent of technological revolution, services which were earlier considered to be non-tradable have now become tradable. Services trade has become an integral part of international trade in developing economies. Services rather than industrial sector have become dominant in terms of output, employment and international trade in many emerging economies. This paper discusses the impact of services trade on income inequality in developing economies with an emphasis on India which is by and large a service-driven economy. An attempt has been made to identify the various channels through which trade in services can have impact on income inequality in the developing economies. The paper points out that it is important to examine the impact of trade in services on income inequality

separately from that of trade in goods on income inequality in developing economies.

One finds that there are certain characteristics which are unique to trade in services that can have important implications on the impact of services trade on income inequality. For some services, cross-border trade is not feasible and hence in order to trade them, they need to be embodied in physical objects or information flow or movement of persons. Factor mobility and foreign investment which are vital to trade in services are important for the analysis of distributional consequences of international trade in services. Some services are also used as input into the production of many goods and services. Services imports leads to efficient services available at cheaper rates which further enhance the productivity of other goods and services too. The changes in productivity of different sectors then impact the inequality in the income distribution, thereby affecting the factor returns. Another point to be noted is the highly heterogeneous nature of service activities and the existence of dichotomy in the service sector on the basis of capital and skill intensity. This can lead to differential impacts of trade on inequality in the different service subsectors.

From the above discussion, it can be observed that the distributional consequences of services trade is an area that needs more research, especially, in the context of developing economies. With globalization as developing economies integrate far more into the world economy, this issue becomes even more relevant for the research. The fact that services is a complex and diverse concept, there is a need to take research at more disaggregated level to have better understanding of the distributional consequences of trade in services.

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