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Investigating The Establishment of Regional-Trade arrangement Between Iran and Neighboring Countries (With Land and Water Border)

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Abstract: In the recent era, interdependence among countries is an inevitable reality and a growing phenomenon. The countries' commercial affairs affect economic and non-economic enterprises of neighbors and even those of distant countries. So for the peaceful coexistence, international sustainable development and tackling some international challenges, governments are compelled to adopt some decisions and reactions in order to develop trade flows. In this regard, the countries around the world have a growing willingness to make economic – commercial arrangements and the regional orientations of trade. The presence of developing countries in different region-oriented classifications can be assumed as a reassuring hatch to enter less experienced economies of international competition atmosphere into global market so as to be adjusted with economy globalization. If Iran economy aims at following globalization, it must firstly strengthen regional contracts along with an active diplomacy and then join global commercial organization so that it can be able to benefit the available privileges and advantages in such exhibitions. Otherwise, entering global exhibitions, which increasingly becomes more and more privileged and impenetrable, won't be possible. Therefore, this article mainly aims at examining the impact of the constitution of a big regional contract including Iran all its neighbors, which have land or water confines with Iran, on bilateral commercial relationship. The fundamental assumption of this article is that such kind of economic cooperation can increase bilateral commercial transactions for union members. The present study, which is an empirical research, is an analysis in which to answer the main question, experimental investigation of the model is done by using the econometric models and then the results are analyzed. So, a model of commercial gravity which can evaluate bilateral commercial flows by applying influential economic and non-economic factors for both trade partners such as characteristics of economy structure, level of political and cultural relationships, languages, religion, human development indexes, geographical distance and also the integration factor by which countries are unified as a regional union, is used. For this purpose, panel data method is used. In this research, 72 trading partners of Iran (Postscript No. 1) from 2000 to 2010 were studied. In this paper, two scenarios were investigated and each of them could offer considerable and efficient results. The results gained from F-Tests of Lamer, Haman and the method of fixed effects, more than other evaluating methods, offer more suitable and efficient findings when individual effects related to each of trade partners were considered. Such data show that economic integration can increase the volume of bilateral commercial flows between Iran and other member states.

Key words: economic globalization, trade arrangements - regional economic openness, gravity model, Panel data.

INTRODUCTION

One of the unavoidable international realities of today is the mutual economic dependence between countries which is a growing phenomenon. Commercial flows of the countries- either arisen from governmental policies and decision makings or internal factors of countries' economic systems- affects on neighboring and even distant countries' economic and non-economic affairs.

So for the peaceful coexistence, international sustainable development and tackling some of the international challenges and barriers, governments are forced to make some decisions and reactions to develop trade flows.

For years and years, countries have tried to eradicate preventing barriers of international transactions which have negative effects on their national economy. Such attempts have been emerged as negotiations, general agreements on tariffs and trades called GATT and following it global trade organization (WTO). Simultaneously, a growing tendency to establish economic-commercial arrangements and different trade zonings has been emerged among countries.

The presence of developing countries in different economic contracts can be assumed as a reassuring hatch to enter less experienced economies of international competition atmosphere into global market so as to be adjusted with economy globalization. Since different economy unifications, as proper tools, can identify

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available opportunities and clarify entering problems and challenges into economy globalization. Regarding such significant issue as economy globalization and the basis role of preferable commercial arrangements and economic zonings in acquiring its goals and strengthening national economies for identifying available opportunities and challenges, this study tries to examine the relationship between regional convergence and development of commercial relationships based on different economic and non-economic parameters by making use of econometric models.

Globalization:

In recent decades, new conditions have been created in international trade which its main characteristic is economy globalization, that is, , more and more pressure of economic factors to open national markets aiming at create an unified global market. Also in the recent years, international trade as wide as one of the main components has become the agenda of all countries (both developed and developing). In these years, the pressure of economic factors and extraordinary technological growth in communication and telecommunication provide a new kind of commercial relationship among countries and different regions of the world. Also high growth of service and good trade and the increase of foreign investments have increased the role of such factors in economic growth of the countries extraordinarily.

For developing countries, which are not ready for a sudden entrance to free trade, commercial zonings can be the most effective way to open national economies of such countries gradually and merge them in global economy. In such conditions, the regional

Economy, by omitting non-tariff barriers and decreasing tariff barriers in the region, can facilitate reaching wider markets and remove transportation difficulties for investments and technologies in the region and generally provide more extensive horizons for them.

Regionalism and Its Trend in Recent Decades:

Regionalism in the 1950s and 1960s was under the influence of the Cold War and political - economic bipolarization of the world. Regional organizations, in these two decades, were established based on political and security policies. Up to mid-1970s, economic policies of most countries were based on protectionist policies, establishment of heavy tariffs for imports and import substitution policies. In the late 1970s, extrovert economic and commercial policies were taken account by economic policy-makers. From mid 1980s, important regional commercial arrangements created. Such arrangements were created as the result of policies which were based on free market and permanent development. Furthermore, prolonging the Uruguay Round, countries that wanted to implement the trade liberalization referred to regional arrangements as a solution to their economic and foreign trade problems.(Harsens, 1994), since the release resulted from regional integration is easier and more accessible, comparing with global release. Even some present the theory that deeper regional integration is more suitable than thorough integration (Cheney, 1996).

All of these factors created the form of regionalism in the 1990s so that the dominant trend of this decade can be considered as regionalism. Based on report of global trade organization, between the year 1948 up to early 1995, 109 regional agreements were reported to GAT. About third of these agreements were only signed during the years 1990 to 1994. Global economic integration flows are in forms which countries feel that entering regional treaties can be facilitative for entering global economy. Therefore, regionalism is nowadays one of vital criterion of global economy which has imposed its dominancy on national economic policies.

Regional organizations are struggling with the establishments of commercial regulations to support trade liberalization, facilitation of transit, preferential-regional tariff arrangements and regional economies. Using these tools may be associated with different purposes. Some of such purposes are as follows: economic benefits, social and political stimulates, fear of being in isolation in international commercial environment, support of new industries and stabilization of internal economic revisions .However, testing ground for arrangements of more extensive regional economic integration among countries will be confronted with the technical barriers of trade.

Position of Regionalism in The WTO:

Over the past half century the major international institutional structure in the formation of trade policy has been, "the General Agreement on Tariffs and Trade (GATT)" which now has been unified with "WTO". The foundation of GATT rules is based on three extensive principles:

1 - The trade must be based on indiscriminative principles for all parties of the GATT obligations which are required to follow prerequisite most favored Nation clause (MFN) in the application of export and import duties.
2 - Protection of domestic industries should be done through tariffs and not, to a great extent, with the use of other trade enterprises such as import quotas.
3 –There should be negotiations among different sectors to avoid any damages to the commercial interests of all signatories (Abebi, 1382).

The noteworthy point is that whether the nature of trade unions and regional arrangements, according the rules of WTO, is in contradiction with the important principle of most favored Nation clause or not. Since in unions, the given privilege to one or group of countries is not necessarily given to other countries this is in contradiction to the basis of the organization. Answering the above question, it is said that one of the exceptions of the important principle of Kamala governments of Alva dad in GATT and global commercial is related to preferred treatment in regional arrangements and trade unions. Following such exception, members are allowed to have some privileges and treat treaty members or regional union members more special than other external countries. It should be noticed that when a member of global commercial organization joins a regional arrangement, it will have better behavior with other members of the regional arrangement comparing with other members of the organization which don't join that regional arrangement. The principle of indiscrimination in cases (1) and GATT (2) General Agreement on Trade in Services (GATS) has been approved by the breach. However, WTO members are allowed to join such trade arrangements under clear and specific conditions. The conditions and characteristics described in the above three categories of rules and regulations can be clarified more extensively as follows:

From fourth paragraph to tenth paragraph of Article 24 of GATT, the necessary conditions for the formation of customs unions and free trade areas in the merchandise trade is enumerated. Main conditions stipulated in Article 24 of GATT 1994 are divided into the following:

1. Based on GATT system, the establishment and creation of a free commercial region is allowed if it aims at facilitating trade among regional members, not creating commercial barriers for foreign economies of the region (fourth paragraph of Article 24).
2. The limiting commercial rules and tariffs must not generally be more confining than available commercial rules and tariffs at the time of establishing custom and trade region and before establishing free commercial region (second part of fifth paragraph of the Article 24).
3. Accession and entrance into a free trade area must be immediately announced to
   The GATT / WTO (with paragraph (b) paragraph 7)
4. The country's high tariffs on imports from non-member countries will be required to provide for compensatory measures based on the formation of the Union (sixth Paragraph of the Article 24).

Under the Article of Strengthening (1979) the members are allowed to have a better and special behavior with developing countries regarding their merchandise trade (Hazed Taliban, 2003).

In 1979 and in Tokyo Round, developing countries presented their own problems concerning required considerations in entrance process of free trade and thoroughness under GATT system. Consequently, despite of the complete principle of Alva dad and the principle of indiscrimination, the members were allowed to behave developing countries in a special manner (but just in merchandise trade). The main purpose of this Article (Strengthening) is to strengthen developing economies to overcome their problems and retardations and suspend their commitments temporarily until when they reach certain level of economy development.

The Article 5 of general agreement on service trade which allowed the members to establish regional arrangements related to service trade for both developed and developing countries (Hazed Taliban, 2003).

5. The effects of economic integration on economic growth and development process in member countries

One of the aims of creating trade arrangements and increasing economy integration is the increase of foreign exchange or exports of member countries. Because export enhancement can pave the way for growth and development so it can be said that the member countries of such trade arrangements are pursuing their development objectives by increasing foreign exchanges.

The importance of foreign trade in economic development process has been shown through of the impact of the export on a wide range of economic variables at the micro and macro levels of economy. Based on the discussions presented by economists, development, and real export expansion will have many benefits.

1. Economy openness and having international relationship help countries to acquire new ideas and ways which can increase the competition and efficiency.
2 - Increasing the ability of small countries to overcome market constraints and acquiring business benefits resulted from scale savings.
3 - Reduction of foreign exchange restrictions that fail to make efforts for development (increased access to foreign exchange).
4 – The marginal positive effects which enter the country's economic structure.

In general, foreign trade is a main tool by which a country can expand its market abroad. So it can increase production specialization, efficiency of rare sources and acquire higher national incomes (Hussein, 2003 based on Riedel 1987).

The above discussion suggests that foreign trade is an essential tool and stimulus for economic development.

Purpose and Subject of The Research:

Since knowing the effective factors on trade flows is necessary, this research will study the mutual impact between economy integration and trade flows.

Since in the new world order, undoubtedly, the survival of developing countries depends on the level of their understanding of their conditions and abilities in establishing economic groups in their own geographical region, all effective factors in regional-economic cooperation of these countries must be examined.

Geographically, Turkmenistan, Azerbaijan, Armenia, Turkey and Pakistan have common land borders and the countries of Saudi Arabia, Kuwait, Bahrain, UAE and Oman are Persian Gulf states and Russia and Kazakhstan are also among the countries of the Caspian Sea that because e of Hydro-border cooperation of the business they can be together. Economic cooperation can also play a role in creating stable political - economic relations with other countries of the region and have a positive effect on composing relationships with other countries of the region. It must be noted that Afghanistan, Iraq and Qatar have been omitted from the list of Iran's neighbors because of lack of required statistics and data. According to reports, the impact of the EU on Iran's trade ties with its partners is studied in the two scenarios:

First, bilateral trade relations between Iran and its trading partners (follow (1)) is estimated as a hypothetical regional cooperation, but in the second scenario, all trade partners of Iran (follow (2)) are examined and Member States of new regional-economic arrangement are entered the pattern as an union to determine the impact of such variable on the whole of Iran' commercial relationships.

In order to have a proper planning and evaluation system to examine the effect of regionalism on the union' trade flows; a trade gravity model is used. Because the estimation resulted from the method of least squares (OLS) cannot include heterogeneity among Member States of the Union, it is with bias. The economic activities of the Union in an eleven-year period (2010-2000) are examined. Therefore, the panel data methodology as the most appropriate method for estimating the model results is confirmed.

Determinative Factors of Trade:

Estimating the trade potential between two or more countries is done by using factors which can be determinative. The economic characteristics of two countries are important to identify the barriers and suitable paths in their commercial relationships. These characteristics are as follows:

Gross Domestic Product (GDP):

This variable is the key variable in different models of commercial flows. GDP can also observe economic capacity, economic size and economic capability of an economic system while it observes the actual value of calculated productions. Actually, by increasing GDP, the country's ability to attract and produce more products is increased. The supply and demand for trade between two countries are improving. In other words, GDP has a positive effect on bilateral trade flows.

Geographical Size and Population of The Country:

There are factors that reduce foreign trade stimulus by increasing the size of the domestic market and promoting the level of internal economic activities. For a while, this idea can explain the inverse relationship between bilateral trade flows and population size. Countries with higher population have more tendencies to promote internal economic activities, because they can exploit better from economic scale originated from their domestic markets (Frankel 1997). It is expected that physical territory, the same as population, decrease trade flows to the extent that less endowed countries are more dependent on trade to acquire those natural sources that they don't have.

The Distance Between The Two Countries:

The distance between two countries is a critical factor in geographical trade patterns. Distance increases the cost of international goods and services transactions. In addition to distance, the costs of the cross-border trade are also deterrent and obstacle to trade. Further distance between the two potential trade partner increases bilateral trade costs and reduces the benefits of trade. (Kurgan, 1992)

Therefore, the geographical distance has a negative effect on trade flows and shows that increasing the distance of transportation increases transportation costs. Of course, the extent of such increase depends on the share of the cost of transportation on the price of goods.

Similarity or Dissimilarity of Economic Structure:

Based on Linder trade theory, similar countries tend to trade more with each other than dissimilar countries. This is due to similar infrastructure, complementary industries, production culture and even consumption production. The best indicative factor to determine the extent of similarity between the two countries is the difference between their per capita incomes. Less difference will lead to more bilateral trade. (Anon et al, 1996)

Degree of Economy Openness:

Degree of openness of the economy of a country is calculated by acquiring the ratio between its trade transactions (imports and exports in total) and its gross domestic products. Based on this index, if the ratio of

trade to a country's GDP is more, the country's economy is more open. Accordingly, in countries that have a more open economy, trade is more important. Because it implicitly suggests abolishing some restrictions and tariff barriers to trade

Human Development Index:

Human Development Index was firstly introduced and used to evaluate countries' developments in human development report of development program and United Nation Development Report. Since then, social-economic researchers, planners, politicians and governments have taken this index into account. In this index, human development is a process which expands the choice range for the people. At any level and phase of development, three necessary factors affect on the tension of such expansion which are as follows: achieving a long healthy life (life expectancy), the acquisition of knowledge (literacy index) and availability of needed resources and a good and decent standard of living (purchasing power standard). In the absence of these factors, the availability of many opportunities is impossible.

The Concept and Application of the Theory of Gravity:

Gravity model, after being firstly used by Tinbergen (1962) and Payphone (1963) for analysis of international trade flows, has become a general tool in the field of international studies and it is widely used in various types of movements, such as immigration, direct foreign investments particularly trade flows. Based on the original gravity model which is introduced by these two, the trade flow from country I to j (Tin) has been explained through economy sizes of exporting and importing countries (i.e. Dip and Gap) and the geographical distance between them (Dig). The general form of the model will be as follows:

Tin = f (*Dip Gap*, *D*ig) (1)

And it has been assumed that the amount of trade between two countries has a direct positive relationship with the increase of economy size (gross domestic production) and an inverse relationship with cost of transportation, that is, the increase of geographical distance between economic centers of countries.

$$T_{ij} = C\frac{GDP_i \,.GDP_j}{D_{ij}}$$

Now it can be found that why the name of this model is gravity model. It is, to a great extent, similar to Newton gravity model in which the gravity power is a direct subordinate of the powers the two substances and it is also an inverse subordinate of the

Distance between them $\frac{F_i\, F_j}{r^2{}_{ij}}$ the main advantage of the gravity model is its simplicity that makes it easy to be calculated by limited number of variables. The development of trade gravity model in recent years has improved the performance of this model in the international trade literature. A displayed form of trade gravity model is that the trade flow between the countries I and j is a subordinate of their income variables (yes, in), population (Ni, No), distance (Dig), virtual variables (Aim) to explain the proximity, trade arrangements and cultural –economic cooperation contracts. Its formula is as follows:

$$x_{ij} = \beta\, y_i{}^{\beta_1}.y_j{}^{\beta_2}\, N_i{}^{\beta_3}.N_j{}^{\beta_4}\, D_{ij}{}^{\beta_5}.A_{ij}{}^{\beta_6}.V_{ij} \qquad (2)$$

Where Vim is the indicative of interfering component (Zeros and Lehman, 2000)

Based on above-mentioned matters on gravity model, the present study also uses a gravity model to evaluate trade relationships among Iran and its trade partners which have membership in an imaginary regional arrangement and its other non-member partners. In this model, the amounts of partners' export to Iran and vice versa export to partners during 1993 and 2003 are estimated. In the model, only the main variables such as GDP, population, geographical distance and area, and also economic similarity and trade policy variables are used.
The final form of the model can be defined as follows:

$$LX_{ijt} = a_{ij} + \beta_1 LGDP_t + \beta_2 LPOP_t + \beta_3 LOPEN_{it} + \beta_4 LOPEN_{jt} + \beta_5 LTP_{ijt}(-1) + \beta_6 Linder + U_{ijt} \qquad (3)$$

In this formula, «L» indicates logarithm at the natural base and it indicates trade flows between countries I and j in time period t. More accurately, it reflects the amount of exports from country I to j. All the selected

countries are exporters because trade relationships are bilateral. (Only trade relationships of selected countries with Iran are concerned with other countries of the world). I country is exporter and j country is importer. Aim indicates those origins' widths of each pair which are called individual effects. As $a_{ij} \neq a_{ji}$ .GDP represents the total GDP for two trading partners, which indicate economic vigor's. The increased economic power, economies of scale may also be gained and become a suitable criterion to absorb and produce the products. Pop shows the total population of exporting and importing countries and indicates the size of economy which if it increases; it will have positive effect on trade flows. OPEN it and Open indicate the degree of economic openness which it is expected to have positive effect on trade flows. Because if the degree of economic openness is high, trade will have higher importance in that country Variable Tint (-1) indicates the trade policy with an interruption which is so influential in improving trade flows between two commercial partners and it is calculated as follows

$$TP = \frac{\left|X_{ij} - M_{ij}\right|}{X_{ij} + M_{ij}} \tag{4}$$

And

LTP = LOG (TP / (1-TP))

I indicate that exports of country I to country j, and Midi relates to the imports of the country I to the country j. The size of the index is between zero and one:

0<TP<1

When trade is one-sided, the number 1 appears (export or import). But the number 0 shows that exports and imports are equal. It is expected that the sign of this variable is negative. That is, as closer the imports and exports of the two trade partners are, the numerator will be smaller which cause trade relationships of the two partners be strengthened. Linder variable shows the similarity between importing country and exporting country and it in fact indicates the trade theory of Linder. According to this theory, similar countries tend to trade more with each other than other dissimilar countries. That is, as the gap between their economic indicators and structures is more, it will have inverse effect on related trade flows. The most appropriate economic variable to show the similarity between each pair of countries is per capita income. This variable is computed as follows:

$$linder = \ln((\frac{GDP_i}{PoP_i}) - (\frac{GDP_j}{PoP_j}))^2 \tag{5}$$

Dip , Gap, Pope, Pop, respectively represent the gross domestic product of I, the gross domestic product of j, populations of I and j. Viet refers to disturbance ratio which its mean is zero and it has a certain variance in each period.

In the model related to second scenario, PTA variable is used to depict the effect of new union on trade relationships of Iran with all its trade partners. In this model, the stable effects can't be calculated based on virtual variables. So virtual variables are integrated with Linder variable when the virtual variable resulted from PTA and Linder variable are multiplied, the result will indicate the mutual and complementary relationships among similar economic structures of Iran and union members. In this case, if the two partners have membership in a common union, the number multiplied by Linder variable will be 1. Otherwise it will be 0 and it will be introduced as follows:

PTA = Linder ×block

Finally, in the second scenario the model can be expressed as follows:

$$LX_{ijt} = a_{ij} + \beta_1 LGDP_t + \beta_2 LPOP_t + \beta_3 LOPEN_{it} + \beta_4 LOPEN_{jt} + \tag{6}$$

Variables such as religion, common language, distance, proximity, and the same variables are constant over time and cannot directly enter the model as fixed effects.

Also, variables such as level of political relations with partners and human development indicators can be entered the model as the virtual variables. Such variables are special for each pair of countries and are hidden in the width of the source (as individual effects), so they can be evaluated based on the evaluation of the width of the source (aim). So we have:

$$FX_{ij} = a_0 + a_1 LDis_{ij} + a_2 HDI_i + a_3 HDI_j + \alpha_4 P_1 + \alpha_5 P_2 + \alpha_6 P3 + \alpha_7 REG + \alpha_8 LW + \alpha_9 INC + \mu \tag{7}$$

Fix represents individual effects and Diesis refers to the distance between the capitals of the two countries. It is possible that geographical distance between the two countries makes the mutual trade economically unjustifiable. Therefore, it is expected that the correlation coefficient of this variable is negative, because it is considered as a substitution for transportation costs in trade. For a2 and a3 it is also expected that the virtual variable has a positive effect on human development index of importing country and exporting country. Countries whose indexes are higher than 0/8 are referred to as countries that have high development index and are assigned with the number 1 Countries whose indexes are lower than 0/8 are referred to as countries which lack high human development index and are assigned with the number of 0. Because this range hasn't changed during the study period, the year 2000 has been the basis for calculations. Variables P2, P1 and P3 indicate the levels of political relations that are, respectively, indicating the level of first-class political ambassador with extensive political, economic and cultural relationships such as: China, second-class level of political relations which is at ambassador level in which relations are not as extensive as first-class relations such as Australia, and finally third-class level of political relations which is at minister level in which relations are limited such as Thailand. These are variables virtual also and thereby are entered into the pattern that those partners with first-class political relations are numbered 1 and others are numbered 0. The other two levels have been numbered in this way (i.e. 1 and zero). We expect the correlation coefficients a**4**and a**5** to have more meaningful and greater intensity in the direction of increasing trade flows.REG is the indicator of common religion which seems to have some effects on the intensity of commercial relations with its partners. LW variable refers to common line and language stating that, according to Bora (2004), reduces business costs of bargaining. So it is expected that this variable has a positive effect on bilateral trade flows. INC variable represents the history of cultural exchanges and bilateral trade. It means that bilateral trade, to a large amount, will be affected by past cultural exchanges. Because, during the past years, a country can become familiar with interests and market consumption patterns by cultural exchanges Such kind of familiarity is an important factor in choosing the how of entering foreign consumption market. So it is expected to have positive effects on trade flows. But, above all, different correlation coefficients have been acquired from various studies and such variety is because of all unpredictable international issues which will be calculated in the next part in which clarified models are presented.

***Model Estimation**:*

As it was said in previous part, gravity model can examine and predict mutual trade relations between Iran and its trade partners. It can also examine the impact of unification among countries, by establishing regional cooperation, on their mutual trade relation. As it was mentioned before, the best method to calculate mutual trade flows is a method that includes individual effects related to each of trade partners. In other words, it must be able to eradicate non-convergence oblique. In order to compare the results of this estimate, the results of four different methods, that is, pooling ,between groups, within groups (fixed effects) and random effects are presented and based on the F statistics and Haman test, the appropriate method is selected. On the other hand, the decision about choosing one of two choices of fixed effects or random effects Haman test has been used. This acceptance occurs at level of 95%.

The model estimation has been carried out in two different scenarios and most results are in agreement with subject literature. Model 3 has been used for calculating the first scenario and model 6 has been used for calculating the second scenario.

The Results of the First Scenario:

The calculation of Member States' integration in a theoretical regionalism:

The calculation results of gravity model in this convergence have been presented in Appendix (1). These estimates have been observed in 1235 cases and the results of four methods of combining data, between group, fixed effects and random effects are also included. Based on F Test, with higher than 99% probability, null hypothesis which refers to the similarity of individual effects of Member States of hypothetical regionalism can't be verified. Therefore, the results of ordinary least squares method are biased and should adopt the way that individual effects due to the heterogeneity of each pair of partners can be included.

Between group estimates (the second method) include the difference and non-convergence between each pair of countries as individual units. But it gives up presenting any intergroup data of each pair of countries. . Fixed and random effects methods, considering the individual effects, provide reliable results and are more efficient than previous methods. Based on the Haman test (H=16.447) the null hypothesis referring to adjutancy of coefficients cannot be accepted. Therefore, using fixed effects, comparing with random effects method, becomes more efficient method of voting. Results are expressing that total GDPs of importing countries and exporting countries have positive relationship and statistically is at the level higher than %90 that is quietly significant. As %1increase in total GDPs of the exporter and importer causes 0/87 increase in the rate of commercial volume flows Total ratio of populations of exports and imports is positive and it is significant enough. The size of this coefficient indicates the fact that %1 increase in total populations of exporting and

importing countries causes 4/98 increase in the volume of trade flows between the two partners. It can be concluded that, in these

Countries production is more activity-based than capital-based because production is more economic as population increases. On the other hand, the need for the merchandise will also increase and such increase can be a good reason to increase trade tendency among partners. The coefficient of trade balance variable is that of expectation (-0/24) and it means that the closeness between the amounts of mutual imports and exports of the partners can increase trade relations in the future. Such similar trade balances of the two partners cause stimulus to develop and continue trade cooperation in future years. The low significance of this coefficient confirms the non-accordance of mutual trade flows between Iran and its partners, comparing with their past mutual trade flows. The coefficient of Linder variable which indicates economic similarities among Member States of the convergence acquires the necessary sign and statistically is at the high level of %95. It means that %1 decrease in the gap among economic structures of partners, by approaching their per capita income, causes developing available trade flows to the amount of 0/12. The other calculating variables such as Open and Open, which refer to economic openness of importers and exporters, respectively, cause increasing the percentage of trade flows up to 1/48 and 0/78 when it has %1 increase. Openness of economic system has an effective impact on decreasing transportation costs. And because these countries are next to Iran, this transportation expense decreases more intensively. Such decrease has double influence on developing the volume of trade flows among partners. It must be explained that the explaining power of the model is 0/8.

Since the calculation of variables such as geographical distance, political parameters, cultural factors and other fixed variables across time passage is not possible in the fixed effects method, the effects of such variables are indirectly calculated by estimating individual effects resulted from calculating the effects of fixed effects on so-called variables. The calculation results of this model, which has been attached in Appendix (3), reveals that confidence level of the distance variable is higher than %90 and is meaningful. It's minus mark (-2/95) depicts the negative impact of this variable on the volume of trade relations among Iran and other partners which have membership in the union. It means that distance has a strong effect on Iran's trade relations, although in modern era the impact of distance has faded a lot. The variables Hide and Hid are representing, respectively, human development indicators of importing and exporting countries that are significant at the level of 90%. These coefficients indicate that countries with high human development index over 0/8 have an influential effect on developing the trade volume among partners. Since the size of this index in Iran is lower than 0/8, it is classified as virtual variable and it is labeled 0. On the other hand, half of the relations refer to Iran. So the question which comes to mind is that how this variable is significant. Answering the question, it can be claimed that in oil-field countries, like Iran in which most exporting volume refers to oil, most importing countries are also the aims of oil exporting and since oil-applicant countries are industrialized countries they have high human development index. So, because of such mutual dependency, part of the influence of human development index in this pattern has been originated from human.

Development indexes of the countries which import the oil of Iran. Other variables don't have necessary significance. It must be noted that these variables explain only 0/55 of

Changes of individual effects Therefore there are lots of other unknown parameters which can be effective on the manner of creating efficient trade relations.

The Results Related To the Estimation of the Second Scenario:

The impact of establishing new regionalism on Iran's total trade relations

Regionalism in developing countries has a direct relationship with their development policies. The first stimulus of developing countries in regionalism can be the hope of these countries to be industrialized by substitution of regional imports which is based on the assumption that new industries can firstly export in regional protected markets (Mole, 1992). This article only focuses on the effect of unification of Iran and selected trade partners on promoting trade relations of Iran and its all partners. In addition, it is believed that before the establishment of an arrangement and its various related negotiations on decreasing tariff and non-tariff barriers of trading among members, the amount of trade creation or deviation in a union can't be accurately estimated. Such estimation will be possible with entering virtual variable of block marker in the model related to all partners and comparing it with model estimation before entering such virtual variable.

The results of this convergence (Table 2) indicate that based on F statistics (41/25) and Haman test (H =24) in this estimate, including 4643 observations, the fixed effects method is more accurate and efficient than random effects method and other estimating methods in explaining trade flows. This method completely considers the non-convergence effects. The high explanatory power of this method (0/86) also confirms this claim.

Results reveal that the total GDPs of exporter and importer countries have positive marks and statistically are significant with a high level of %95. %1 increase in total GDPs of importer and exporter countries increases the volume of trade flows as the rate of 1/5 percent. Total population ratio of exporter and importer countries is negative and its significance is at the level of %90. That is, population increase doesn't lead to efficiency in

economic scale meaning that production hasn't been activity-based. It is also revealed that population increase reduces purchasing power. Such reduction itself cause demand reduction. Accordingly, they will have negative effect on developing trade flows. The amount of this coefficient indicates the fact that %1 increase total population of exporters and importers causes 0/1 reduction in the volume of mutual trade flows between the two partners. Variable coefficient of trade policies has desired mark meaning that the closeness of mutual export and import amounts among trade partners logically increases trade flows in the future. The variable trade balance reveals %90 significance which leads to 0/24 increase in trade volume and %1 decrease in the amounts of import and export heterogeneities. The coefficient of Linder variable, which refers to economic similarity among trade partners, is statistically meaningless and shows that Iran economic

Structure is not similar to that of all its partners. Such result was predicted. Other calculating variables as open and open, which refer to economic openness of exporter and importer countries, respectively, cause 0/65 and 0/31 increase in the volume of trade flows when they experience %1 increase As it is presented in Table 2, regarding coefficient significance and intensity, the coefficient of economic openness in exporter countries has more impact on the volume of trade flows than that of importer countries. Building new regional block causes %10 increase in the volume of trade flows. It means that the reduction of income gap among selected union members has a positive effect on increasing mutual trade flows among them. That is, the establishment of this union affects positively on the total trade flows of Iran. %1decrease of the gap among per capita incomes of regionalism members leads to 0/1 increase in total trade relations of Iran with its partners. It must be noted that the explanatory power of this model is equal to 0/86.

As previous model, for calculating the variables which are fixed during time passage, individual effects resulted from calculating fixed effects are used. And the impact such variables on trade flows is examined by exploiting OLS method. The calculation results of this model have been attached in Table (3). These results show that the distance variable is significant at a confidence level of %95 and the minus mark of its calculated coefficient(-0/72) reveals the negative influence of this variable on the volume of trade relations between Iran and other member partners of the union. It means that, in Iran, transportation expenses still decrease economic justification of developing trade relations with distant countries.

Variable Hide is representing Human Development Index of exporting countries that are at the level of 95% and it is significant. That can be inferred that large amounts of exports belong to industrialized countries which have specialized man power and high technologies. Such factors explain the positive effects of this index on developing the volume of trade flows. The variable of political relations at all three levels (P1, P2, and P3) is not only very significant but also has great influence on the volume of trade flows. The variable of cultural exchanges (INC) also has a significance of %90.These results show the strong function of political and cultural exchanges on trade formation. The other significant variable is the common language which unexpectedly has a negative mark. This result is because of the fact that Iran economy is oil-based. Most of oil-based countries trade with industrialized countries which don't have common language. They trade less with countries which have common language but they also have oil-based economy. Other variables aren't significant enough. It should be regarded that these variables only explain 0/32 of changes of individual effects.

RESULT AND DISCUSSION

In this paper, two scenarios were investigated and the results of which could offer considerable and efficient results. In addition, based on F tests of Lamer and Haman and regarding the acquired results, it must be noted that comparing with other calculation

Methods the fixed effects method has presented more proper and efficient results because it takes into account the individual effects of each pair of trade partners.

Before starting generalization , it should be pointed out that the researcher have been aware of the fact that trade flows affected by various reasons as the reduction of tariff and non-tariff barriers are quite different before and after establishing a trade block. So he only aims at determining the degree of influence related to effective factors in promoting trade flows between Iran and selected countries. In other words, the available trade relations has been shown based on data and information pertaining to effective factors in a trade flow such as gross domestic product(GDP), population(POP), the degree of economic openness(OPEN) and etc . The improvement of the available trade relations is possible after establishing a trade block, sitting on negotiation tables and choosing ways for facilitating trade among member countries of the union.

With regard to what offered in the previous section, under the title of the results of model calculation, and comparisons of the variables as population (POP), the degree of economic openness (OPEN) of exporting and importing countries, Linder, human development indicators in Table (1), pertaining to hypothetical regional block, and Table(2), concerning the all trade partners, it can be inferred that taking required negotiations to establish such regional unions is quite beneficial for Iran economy because the creation of such unions has great positive effects on increasing the volume of trade flows among Iran and partners. The significance of the virtual variable of union representative (link) in Table (2) also confirms this claim. Of course, it must be noted again

that all these generalizations are based on data pertaining to selected time span and applied variables in this article. All other conditions and variables are assumed to be fixed.

Table 1: The Members of Regional-Trade Arrangement

Explanatory Variable	pooling	between	FE(Fixed Effect)	RE(Random Effect)
LGDP	1.99	2.68	0.87 (1.72)	1.67
LPOP	0.6	1.32	4.89 (2.72)	0.85
Linder	-0.28	-0.85	-0.12 (-2.09)	-0.14
LTP(-1)	-1.63	-5.6	-0.24 (-1.09)	-0.32
Open	2.65	6.17	1.48 (3.2)	1.66
Open	2.68	6.26	0.78 (1.7)	1.18
F H -	27.89 16.447			
	0.273	0.39	0.8	0.78

Table 2: All Trade Partners with New Regional Block.

Explanatory Variable	pooling	between	FE(Fixed Effect)	RE(Random Effect)
LGDP	1.63 (18.72)	1.8 (5.68)	1.5 (8.49)	1.44 (11.58)
LPOP	-0.2 (-2.1)	-0.4 (-1.01)	-0.1 (-1.73)	-0.13 (1.98)
LTP(-1)	-1.43 (-7.01)	-2.6 (2.2)	-0.24 (-1.84)	-0.35 (-2.78)
Linder	-0.24 (-4.8)	-0.34 (0.4)	0.015 (0.4)	-0.05 (-1.41)
$Lopin_q$	0.14 (0.94)	0.19 (-3.03)	0.31 (1.84)	0.21 (1.06)
$Loren_e$	0.97 (6.44)	1.03 (1.78)	0.65 (2.88)	0.72 (3.64)
LINCB	0.21 (9.25)	0.18 (2.53)	-0.1 (-2.03)	0.11 (2.34)
F H -	41.25 24.06			
	0.3	0.33	0.86	0.84

Table 3: Individual Effects

Explanatory Variable	C	Lids	Hid_e	Hid	P1	P2	P3	LW	REG	INC
The Members of Convergence	-73.53 (-7.6)	-2.95 (-2.51)	1.87 (1.72)	2.14 (1.75)	-2.14 (1.75)	-2.28 (-1.15)	0 (0)	-1.27 (-1.02)	1.05 (0.85)	0 (0)
All Trade Partners	-19.1 (-6.54)	-0.72 (-2.6)	1.46 (3.55)	-0.33 (-0.8)	4.1 (3)	3.39 (2.54)	3.06 (2.24)	-0.9 (-1.7)	0.22 (0.4)	0.89 (1.73)

REFERENCES

Altai, B.H., 1995. Econometric Analysis of Panel Data New York: Wiley and Sons.

Anon, A. and *et al*., 1996. the Potential for Trade between Israel, the Palestinians & Jordan the World Economy, 19: 113-133.

Baraga, 2004. INDIAs GLOBAL TRADE POTENTIAL: THE GRAVITY MODEL APPROACH. India Habitat Center Lodi Road. New Delhi.www.icrier.org, website2.www.icrier.resin.

Economic policy New York 2005) World Development Indicators World Bank. Postscript (1) United Arab Emirates - Azerbaijan - Turkey - Russia - Turkmenistan - Bahrain - Saudi Arabia - Kazakhstan - Pakistan - Oman - Kuwait - Armenia.

Frankel, J. and *et al*., 1995. Trading Blocks & Americans: The Natural, the Unnatural & the Supper-Natural The Development Economics., 47: 61-95.

Gerald, M., Mayer, 2003. International business environment (competition and governance in the global economy) Translation: Abebi, Ali. Publisher: Management and Planning Organization. Support Department Center of scientific documents and publications first published in Tehran.

Gujarati, D.N., 2003. Basic Econometrics New York: City University of new York.

Harmsen, R. and S. Leidy, 1994. Regional Trading Arrangement. The Uruguay Round and Beyond Background Papers Valhi.

Hazed Taliban, Ali, 2003. Regionalism in the multilateral trading system Journal of Commercial Studies

Javari, Abbes, 2003. Modern Glob logy of Countries Tehran: Institute of Geography and Cartography of Glob logy.

Marzoghi, Hassan and Hussein, Mir Abdullah, 2003. Expansion of the ECO trade by reducing tariffs. Publisher: Institute of Business Research. First published Tehran.

Payphone, P., 1963. A tentative model for the volume of trade between countries Westward schaftliches Archive 90, 93-99.

Tinbergen, J., 1962. Shaping the world economy Suggestions for an international.