FOREIGN DIRECT INVESTMENT AND

MACROECONOMIC STABILITY:

THE TURKISH CASE

Merve ALTIN

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MERVE ALTIN

MASTER THESIS

Departmant of Economics

Supervisor : Prof. Dr. İlyas ŞIKLAR

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Anadolu University, Graduate School of Social Sciences

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JÜRİ VE ENSTİTÜ ONAYI

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İmza

Üye (Tez Danışmanı) : **Prof.Dr.İlyas ŞIKLAR**

Üye : **Doç.Dr.Ethem ERGEÇ**

Üye : **Yrd.Doç.Dr.Burhan DOĞAN**

Prof.Dr.Kemal YILDIRIM
Anadolu Üniversitesi
Sosyal Bilimler Enstitüsü Müdürü

Abstract

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This study investigates the relationship between foreign direct investment (FDI) and macroeconomic stability for Turkey. To represent the macroeconomic stability, two main variables are examined. The first of these is inflation rate that represents the economic stability in real sector and the second one is real exchange rate representing the stability in the financial sector. In addition to these variables; market size, openess to trade and financial development variables are used as control-transmission variables. Used data are mothly and include the term from 2003 January to 2015 April. Emprical methods used in the study are unit root tests, cointegration analyses, VECM model and Granger causality test. Obtained emprical results show that fluctuations in inflation and real exchange rate have a negative and permanent effect on FDI which means that instabilities occured in real and financial markets negatively affect the inward FDI. Therefore, Turkey which has enough potential to attract FDI, has to provide stabilitiy in its macroeconomic indicators to attract more amount of FDI.

Key Words: Foreign Direct Investment, Macroeconomic Stability, Turkish Economy

Yüksek Lisans Tez Özü

DOĞRUDAN YABANCI SERMAYE YATIRIMLARI VE MAKROEKONOMİK İSTİKRAR: TÜRKİYE ÖRNEĞİ

Merve ALTIN

İktisat Anabilim Dalı

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Bu çalışmada Türkiye'de doğrudan yabancı sermaye yatırımları ile makroekonomik istikrar arasındaki ilişki 2003:Ocak – 2015:Nisan yılları arası aylık veriler kullanılarak incelenmiştir. Çalışmada makroekonomik istikrarı temsilen iki değişken göz önüne alınmıştır. Bunlardan ilki reel sektörde istikrarı temsil etmek üzere enflasyon oranı, ikincisi ise finansal sektörde istikrarı temsil etmek üzere reel döviz kurudur. Bu değişkenlere ek olarak; piyasa büyüklüğü, dış ticarete açıklık ve finansal gelişme değişkenleri birer aktarma kontrol değişkeni olarak modele dahil edilmiştir. Çalışmada kullanılan ampirik yöntemler; birim kök testi, eşbütünleşme testi, VECM modeli ve Granger nedensellik testidir. Elde edilen ampirik bulgulara göre, enflasyon oranı ve reel döviz kurunda meydana gelen dalgalanmalar, doğrudan yabancı yatırım girişleri üzerinde negatif ve kalıcı bir etkiye sahiptir. Reel ve finansal piyasalarda gözlenen istikrarsızlıklar ülkeye gelen doğrudan yabancı yatırım miktarını ters yönde etkilemektedir. Bu nedenle doğrudan yabancı yatırım çekmek için gerekli potansiyele sahip olan ve daha çok doğrudan yabancı yatırım çekmeyi amaçlayan Türkiye, bu değişkenler üzerinde istikrarı sağlamak durumundadır.

Anahtar Kelimeler: Doğrudan Yabancı Sermaye Yatırımları, Makroekonomik İstikrar, Türkiye Ekonomisi

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List of Abbreviations

ADF: Augmented Dickey Fuller

CPI: Consumer Price Index

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

ISPAT: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency

M&A: Mergers and Acquisitons

OECD: Organisation for Economic Co-operation and Development

TURKSTAT: Turkish Statistical Institute

UNCTAD: The United Nations Conference on Trade and Development

VAR: Vector Autoregression

VECM: Vector Error Correction Model

YASED: International Investors Association of Turkey

WEF: World Economic Forum

Introduction

One of the important aspects of globalization is increasing foreign capital flows. Inside of these flows, foreign direct investments provide further advantages to the both home and host country. While it brings capital, technology, know-how and new management skills to the host country, it positively affects the home country's balance of payments with increasing the inward flow of foreign earnings. From this aspect, flow of direct foreign capital is a win-win game. Also, in terms of foreign firm, while it contributes to increase employment level in the host country, it decreases its production costs thanks to lower labor costs and increases its profit.

In the past, most of the developed and developing countries conducted restrictive FDI policies on the purpose of protecting and encouraging the development of national (local) firms. However, especially after the 1990's, with the understanding of positive effects of FDI to the host country, most of the restrictions abolished and flow of FDI has been dramatically increased in the world.

If history of FDI in Turkey is examined it will be seen that until 1980's there was not significant FDI amount to the country. After 1980 liberalization decisions and following 1989 liberalization of capital decisions, FDI entry to the country increased. Neverthless, Turkey's share in the developing countries was too little. However, after the 2003 FDI Law, FDI entry's accelerated and this increasing FDI has contributed to finance current account deficit of the country. One of the other important reasons of increasing FDI after this date is provided macroeconomic stability in the country. Especially, transition to the strong economy programme that is conducted after 2001 crisis, has contributed to increase macroeconomic stability. Also, political stability that occured with the advantage of single party government, has contributed to increase macroeconomic stability so foreign direct investments in Turkey.

To explain the determinants of FDI different approaches are asserted. Traditional market perfection theories assume that FDI is the result of highest return seeking process so FDI is done to the capital scarce countries. Also, when determining the host country, investors consider the risk factor. Since these theories could not explain the real causes of FDI, by time market imperfection theories are asserted. Hymer (1976) and Buckley and Casson (1976) point out that the cost of lobor is an important determinant for FDI. Vernon (1966)

who is the originator of the product life cycle hypotheses asserts that market size, cost of production and openess of market are main determinants of FDI. According to Dunning's eclectic approach; market size, inflation levels, public incentives and possibility to access resources are main determinants of FDI. Also, in the empirical studies; real exchange rate, market size, openess to trade, growth rate, labour cost, financial developmet are predicted as an important determinants of FDI. However, there are different results related with the price level of the host country. While some studies found price level as a determinant of FDI, some studies conclude that price level of the host country has no effect on inward FDI.

In this study to examine the relationship between FDI and macroeconomic stability the period between 2003: January and 2015: April is handled and two main variables are used to represent economic stability: inflation and real exchange rate. To represent the inflation rate, consumer price index; to represent the real exchange rate, real effective exchange rate is used. In addition to these, 3 more variables are used as control-transmission variables. To represent the market size real GDP, to represent the openess of trade the ratio of export + import to GDP, to represent the financial development the ratio of private sector domestic credit volume to GDP are used. Then, related emprical tests are conducted. Results show that there is a negative relationship between macroeconomic instability and FDI.

This study has 4 sections. In first section, notions related with FDI are described; determinants, effects, policies, history and theories of FDI are examined. In second section, approaches related with macroeconomic stability are indicated. In third section, history of FDI and macroeconomic stability in Turkey is examined. In the last section, theoretical and empirical literature of the topic is asserted. Used variables and their descriptive statistics are presented. Also to search the relationship between FDI and macroeconomic stability, econometric model and methodology used are reviewed shortly. Lastly, the empirical results and the conclusion of the study are presented.

Chapter 1

Foreign Direct Investments

In this section, types of foreign investments and foreign direct investment are described; types of FDI, determinants of FDI, effects of FDI, government policies for FDI, history of FDI, and theories for FDI are examined.

1. Types of Foreign Investments

International capital flows that started about 19th century, reached huge amounts today. In recent years, a number of developing and transition countries have enjoyed large inflows of foreign capital which also cause concern because of their potential effects on macroeconomic stability. If the causes of this capital flows are examined, it will be surely seen that there are three main causes of these flows: autonomous increases in domestic money demand function, increase in the domestic productivity of capital and external factors like interest rates (Haque et al, 1997: 3).

If these types of capital inflows are searched with looking into the balance of payments (BOP), it will be seen that in BOP, capital and financial account measures net foreign investment or net lending/net borrowing vis-à-vis the rest of the World (IMF, 1993: 160). Moreover, at the financial part of this account, foreign investments are examined under three headlines: direct investments, portfolio investments, and other investments.

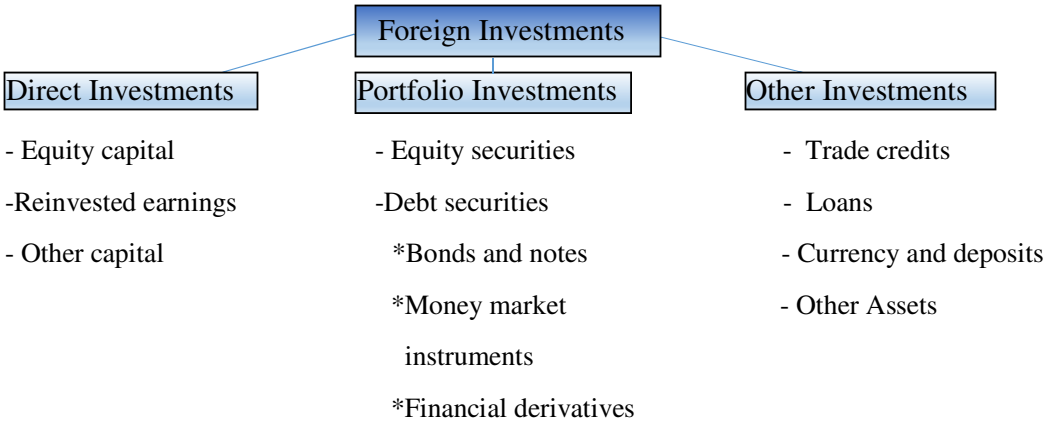


Figure 1. Structure of the International Capital Flows

Source: Constructed by the author depending on the IMF Balance of Payments (1993 : 87,91,95)

Portfolio investments form the important part of the foreign investments. At this type of foreign investments, an investor purchases securities (like bills and bonds) in the secondary markets for a return on their investment. Investor has no direct control on his/her investment and doesn't have firsthand information about the operations. Since investor takes his/her investment decisions with relying on publically available information or brokerage firms' recommendations, he/she becomes an "outsider" (Wu, Li, and Selover, 2012: 645-646).

Portfolio investment not only includes equity securities and debt securities but also money market instruments and financial derivatives such as options (IMF, 2014: 91). Since this type of investment is done to the high liquidity assets, investor can draw his/her money easily in case of any economic or political instability. Therefore, this type of investment is the least risky investment for investors while it is the most risky investment for host country (Pazarlıoğlu and Gülay, 2007: 208).

Portfolio investment provides capital return that includes interest and divident. Moreover, one of the most important factors that effect the portfolio investment decisions is the risk factor. The rate of capital investments in home country and foreign country is the function of interest rate and expected risks. Depending on these factors, investor can diversificate his/her portfolio. International diversification of portfolio thesis states that if investor invests his/her money not only to the home country but also to the foreign countries, he/she will get the better earnings thanks to better returns or lower risks (Yıldırım, 1979: 24). Also, the important point of the topic is that investor should take into consideration that the rate of the return stemming from investment must cover the risk.

The third type of investment which is evaluated under the topic of other investments was described as "It is a residual category that includes all financial transactions not covered in direct investment, portfolio investment, or reserve assets" (IMF, 2014: 95). These capital flows include non-tradable instruments (such as loans and deposits, trade credit and payment arrears on outstanding debt) (Hoggarth and Sterne, 1997: 14).

Foreign capital flows generally moves from developed countries to developing countries. Also, foreign capital flows from developed countires to developed countries occurs. These are especially portfolio investments and speculative capital flows. Apart from these, a third type foreign flows may occur between less developed and less developed

countries but this is not a common case. However, capital flows from developing countries to developed countries is a virtual situation. The reason why developing countries choose developed countries is the less risky structure of these countries in terms of both political and economical (Bulutoğlu, 1970: 9).

2. Description of FDI

For UNCTAD, FDI is "an investment involving a long term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise, or foreign affiliate)" (The United Nations World Investment Report, 1999: 465).

IMF (2004) defined FDI "as an incorporated or unincorporated enterprise in which a foreign investor owns 10 per cent or more of the ordinary shares or voting power of an incorporated enterprise or the equivalent of an unincorporated enterprise."

Here in first description, "lasting interest" is seen, this seperates the FDI from portfolio investment. FDI is long term investment. From this aspect, it is better than portfolio investments because in case of any economical or political instability hot money leaves out urgely, but FDI is more durable by comparison with portfolio investments.

In this type of foreign investment, investor directly oversees his/her investment and has firsthand information about the operations, this makes investor "insider" of the firm. Therefore, in direct investment, the risk of being misinformed or expropriated by other insiders is substantially reduced (Goldstein and Razin [2006] in Wu et al, 2012: 645).

The importance of FDI for developing countries can be compressed as;

- FDI provides required capital to the countries that do not have enough capital
- Transfers of technology and management techniques realized via FDI
- FDI contributes to BOP
- FDI provides integration to the world economy (İncesulu [2001] in Akay and Karaköy 2008: 71).

Comparing with other type of investments, FDI may be more attractive as there is generally a direct link between the inflow of the financial capital and new plant and machinary. Foreign technology and management skills that come with FDI provide higher productivity and export growth (Hoggarth and Sterne, 1997: 14). Moreover, Dunning (1970) states that in general, direct investment is more likely to promote world economic growth than portfolio investment.

Foreign investor decides his/her investment with looking to the rate of return on investment and certainties and uncertainties surrounding these returns. The expectations of private investors in a host country are guided by several economic, institutional, regulatory, and infrastructure-related factors. These factors can be called as pull factors. Before making an investment, investors investigates certain major economic policy issues, especially relating to trade, labour, governance, and the availability of physical and social infrastructure. Country's robust macroeconomic fundamentals (like high and sustainable growth, macroeconomic stability, and world class infrastructure) and proreform policies effects the foreigners' investment decision in a host country (Sahoo et al, 2014: 163-164).

2.1 Types of FDI

Initially, FDI has two main forms which are greenfield investments and merger&acquisitions. Greenfield investment means establishing an entirely new operation in a foreign country. However, merger&acquisitions require an association with an existing firm in a foreign country. Acquisitions can involve minority stake (which entail the foreign firm takes a 10 percent to 49 percent interest in the firm's voting stock),majority stake (a foreign interest of 50 percent to 99 percent), or full outright stake (foreign interest of 100 percent) (Hill, 2011: 232).

In another classification; FDI is divided to 3 types; horizontol FDI, vertical FDI, and conglomerate FDI.

Horizontal FDI: It refers that multinational companies produce roughly the same products in host country and home country. Multinational corporations choose to produce the same products in different countries because it is less costly for them. Namely because of the export costs (like transportation costs, taxes etc.) or trade barriers multinational

companies have difficulties for being able to bargain their products, but with horizontol FDI, they can overcome these problems. Via horizontol FDI, exploiting more fully certain monopolistic or oligopolistic advantages, such as patents or differentiated products are provided, particularly if expansion at home were to violate anti-trust laws (Moosa, 2002: 4).

According to Caves (1996) horizontal FDI occurs only if the plants that MNC control and operate get lower costs or higher revenue productivity than the same plants under seperate managements. Furthermore, expected benefits of horizontal FDI can be expressed as;

- Providing efficient use of resources
- Specialization in production process and minimizing production costs
- Getting advantage in marketing and distribution of the product
- Providing colloboration in production technology
- Getting competitive advantage (Akay [1997] in Turan, 2007: 16)

Vertical FDI: In this type of FDI, multinational firm spreads production process geographically. It produces inputs and intermediate goods in different places. Vertical FDI is conducted in order to benefit from factor price differences between countries (Hanson, 2001: 10). Vertical FDI basically consists of two groups. If multinational firm produces inputs at host country it refers backward vertical FDI. If multinational firm produces inputs at home country and than use them at host country, it refers to forward vertical FDI. Generally, backward FDI is more common than the other one. Multinational companies (MNC) prefer backward vertical FDI to obtain input, so they carry production process to the less developed countries.

Conglomerate FDI: It involves horizontal and vertical FDI. MNC expands the production process that is not releated with their own production (İyibozkurt, 2001: 142).

Another classification of FDI is expansionary and defensive FDI. According to Chen and Ku (2000), expansionary FDI seeks to exploit firm-specific advantages in the host country. In defensive FDI, MNC wants to diminish production costs with cheap labor (Moosa, 2002: 5).

Also, as Dunning (2002) asserts depending on the MNCs motives, FDI may be classified into market seeking, resource seeking, efficiency seeking and asset seeking.

2.2 Multinational Corporations

Multinational corporations are "incorporated or unincorporated enterprises comprising parent enterprises and their foreign affilities"(UNCTAD,1999). For Barnet and Cavanagh (1995), MNCs are the architects of the globalization process. Lall and Streeten (1977) have defined basic features of MNCs as:

- MNCs are ascendant in certain monopolistic or oligopolistic industries
- MNCs' products are generally new and advanced. Also they cater for consumers who have high incomes and sophisticated testes, and who are responsive to modern marketing.
- MNCs use the most advanced techniques in their respective fields
- Via expansion, MNCs aim to carry its oligopolistic power to the foreign markets.
- With the maturing of MNC, various commercial practices occur that contribute to bolster its market dominance
- MNCs tend to large and growing economies that have also poltical stability.
- MNCs are more and more centralized later on in the finance, marketing and research.
- Complete or majority ownership of subsidiaries is prefered by MNCs.
- MNCs' increasing international role has important implications for the structure of socio-political power in developoed and developing countries (Moosa, 2002: 9).

Forming a MNC or choosing FDI is the last step of the internalization process. Figure 2 shows the steps of this process.

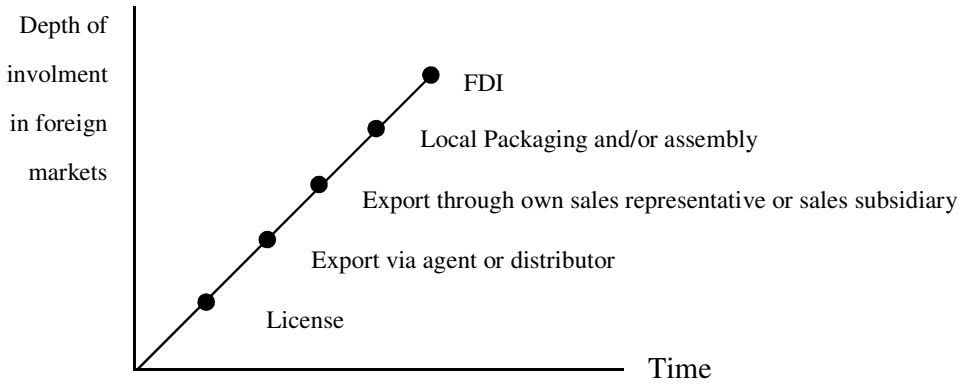


Figure 2. The internalization process

Source: Rugman and Collinson, 2006: 41

Firms choose FDI as a means of entering to a foreign market instead of exporting or licensing. As it is known, exporting involves producing goods at home and selling it to the foreign markets. Moreover, licensing involves granting a foreign entity (the license) the right to produce and sell the firm's products in return for a royalty fee on each unit sold. Here, comparing with these two choices, FDI may be both expensive and risky. Because of the costs of establishing production facilities in a foreign country or acquiring costs, foreign direct investment is expensive. Also, doing business in a foreign culture brings some problems, namely it carries risk, since the rules of the game can be different there. A foreign firm undertaking FDI in a country for the first time can make costly mistakes rather than a local firm. If a firm chooses exporting rather than FDI, it does not have to bear these costs and risks. Moreover, this firm can choose licensing. In this case, it will have no concern since license bears the costs or risks (Hill, 2011: 239).

The question is that in spite of these concerns why do firms become multinational enterprises? Rugman and Collinson (2005) explained some important reasons for this decision. One of the reasons why firms choose foreign direct investment is that they want to protect themselves against domestic business cycles so they can diversicate their investments. Economic and political risks and uncertanities in the home country force investors to take this decision. The second reason is that these firms crave to take a pie from growing markets. Especially US market is preferable for MNCs since it has large population and high per capita income. Americans have desire for new goods and services and they have money, so it is gainful market for the investors. Also, China's growing

economy and large population attract foreign investors. The third reason why companies choose to become MNC is that firms are willing to protect their home market share and they want to take place against incresed foreign competition. MNCs set up operations in their competitors' country in an effort to threaten them. If they attack the MNCs' home market, they will face a similiar response, it is a kind of retaliation. The fourth reason is minimizing the costs. With FDI, transportation expenses can be eliminated, MNCs become closer to the customers so they can respond more accurately and rapidly to their needs and wants, and since there will be no need for intermediaries for marketing their products, the overall costs will decrease. Another reason for forming a MNC is escaping from tariffs and non-tariff barriers. Especially, in Europian Union (EU), tariffs on goods exported to EU countries have been conducted. Therefore, firms form MNCs in EU instead of exporting their products. The last reason for becoming a MNC is protecting the "knowledge". Namely; giving patents, trademarks, or technological expertise to other firms will dispute your advantage against other firms. For example, Coca Cola has a special formula and if the firm decides to license it, they will loose the advantage of this knowledge. Therefore, instead of licensing, firms choose forming a MNC.

Briefly, exporting and licensing are not good choices for firms since they bring some problems. Exporting has two handicaps: transportaion costs and tariffs. If your product has a low value-to-weight ratio that causes high tranportation costs, the attractiveness of exporting decreases relative to either FDI or licensing since it can be produced in almost any location. However, if your product has a high value-to-weight ratio, the importance of transportation costs in the total costs is minor, and the attractiveness of exporting, licensing and FDI are relatives. Moreover, tariffs that governments imposes on imported goods, cause to increase the cost of exporting relative to FDI and licensing. Also, firms prefer FDI rather than licensing since they wish to maintain control over their technological know how, or over its operations and business strategy, or when the firm's capabilities are simply not amenable to licensing (Hill, 2011 : 239-242).

To become a multinational corporation, a firm has some ways. These are merger&acquisitions, joint ventures, doing greenfield or brown field investments and strategic alliances.

2.2.1 Merger and acquisitons (M&As)

A merger is the absorbtion of one company by another and an acquisition is forming a new company with the common power of two different companies. Basically, if we form a C company, with A and B companines assets, liabilities and stock, it becomes an acquisiton.

There are 3 types of mergers:

1.Horizontol Merger: Companies are doing the same business, namely they are competitors.

2.Vertical Merger: A company combines with a supplier or customer that are in the same production line.

3.Conglomerate merger: The companies that will merge are in different industries.

Today the barriers to trade and investment were lifted and global economic integration grewed. Therefore, international dimension of M&As has developed dramatically in the corporate restructuring of enterprises, including the improvement of performance, meeting financial requirements, etc. (IMF&OECD, 2003). Furthermore, there are some important massive economic factors that effect M&As:

- The economic integration of the EU represented by the Single Market which began in 1992. European companies increasingly perceive the integrated market as their 'home' market.
- The establishment of the European Monetary Union (EMU) and the introduction of the single currency euro in 12 member countries of the EU in 1999 (called the Eurozone or Euroland). These impacts on cross-border trade and investment not only in financial services such as banking, insurance, investment management, etc. but also in product and services goods markets.
- Globalization of product and service markets, with the convergence of consumer needs, preferences and tastes creating both the demand for and supply of goods and services by companies originating in different countries.

- Increase in competition, which has assumed a global character with companies competing in several markets, e.g. pharmaceuticals, investment banking.
- Explosion of technology based on massive investments in R & D, design, marketing and distribution. To recover these costs, companies have to sell to the largest market possible, which means globalization, e.g. automobiles
- Availability of capital to finance acquisitions and innovations in financial markets such as junk bonds
- Privatization of state enterprises, as in many European countries, which have become targets for foreign acquirers or have felt liberated to follow more aggressive growth strategies both at home and abroad, e.g. in power, gas, telecommunications
- A more useful and less opponent attitude to foreign ownership of national corporations partly induced by economic crisis and need for corporate restructuring, e.g. the automobile industry or banking in Japan
- Economic reforms undertaken by many developed and developing countries that emphasize competition and free markets and a positive and welcoming attitude to FDI and acquisition by foreign firms (Sudarsanam: 2003: 197).

2.2.2 Joint ventures

The second way for firms to enter the cross-border markets is joint venture. Joint venture basically means share holding in a business entity and its main characteristics are; "(i) the entity was established by a contractual arrangement (usually in writing) whereby two or more parties have contributed resources towards the business undertaking; (ii) the parties have joint control over one or more activities carried out according to the terms of the arrangements and none of the individual investors is in a position to control the venture unilaterally." (UNCTAD, 2015). Also, according to UNCTAD (2015), a joint venture has three forms:

1)Jointly controlled entity; the joining together of two or more enterprises resulting in the creation of a third enterprise in order to undertake a specific business venture. It is not a continuing relationship like a partnership. A jointly

controlled entity is established under contractual agreement whereby the parties to the agreement contribute resources towards the business undertaking. Both parties have control over the activities carried out according to the terms of the agreement and no party can control the joint venture unilaterally.

2)Jointly controlled assets: the coordinated use of parts of the investors´ enterprises in order to work on a common project which does not form separate entity, and which operates with a loose organizational structure. The assets and expertise of each partner remain under the direct control of that partner.

3)Jointly controlled operation: the contribution of resources by investors to a joint venture project which is managed by either one of the investors or by a joint management team. In such a venture, a joint venture agreement defines the terms of the project, and each investor possesses an undivided interest in the assets of the project.

Sudarsanam (2003: 221) mentioned some reasons of forming a joint venture as;

- globalization of product markets;
- globalization of competition;
- rapid technological change and short product life cycle;
- huge costs of research and development;
- high fixed costs of brand development, distribution networks and informationtechnology;
- diffusion of technological capabilities and resources;
- relatively high cost of acquisitions and mergers.

2.2.3 Greenfield and brownfield investments

Depending on the investment type, foreign investments divided into two parts, so to become a multinational (so doing FDI) also investments are seperated as greenfield investment and brownfield investments. As explained in description of FDI issue, greenfield investments are creation of a subsidiary from scratch by one of more non-resident investors (IMF&OECD,2004). With the greenfield project, an entirely new orginization occurs in the host country and it usually implies a gradual market entry (Meyer and Estrin, 1998: 1).

As a special form of acquition, brownfield investment is another entry type. Meyer and Estrin (1998) described it as: "a brownfield is a foreign entry that starts with an acquisition but builds a local operation that uses more resources, in terms of their market value, from the parent firm than from the acquired firm." As Dunning(1993) indicates; thanks to brownfield investments, firms can gain locational and ownership advantages with the opportunities that provide to combine resources from alternative resources. Figure 3 shows the difference of brownfield, greenfield,and acquistion investments.

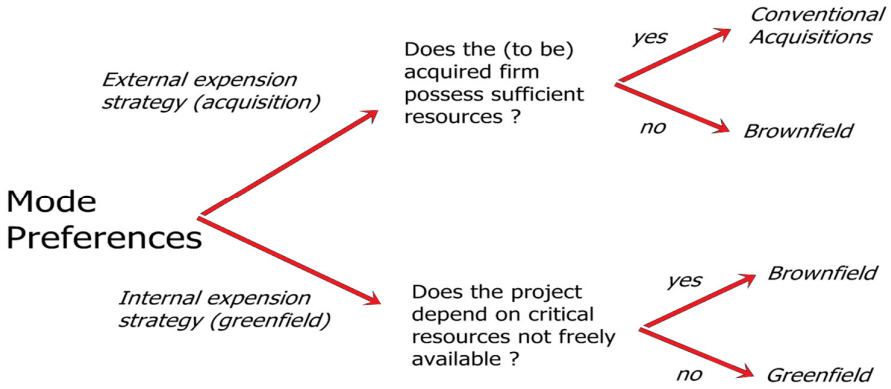


Figure 3. Difference of greenfield, brownfield and acquisitions

Source: Meyer and Estrin, 1998: 20

2.2.4 Strategic alliance

One other form for entering to foreign markets is strategic alliances. Strategic alliances aim cost reduction, technology sharing, product development, market access or access to capital. They can be less costly than acquisitons and the logic of this alliance is that if two or more companies pool their resources their joint objectives can be secured more easily and economically (Sudarsanam, 2003: 217).

In this method, two firm changing their some portions of share with one another. With this way, the firm can turn over its shares to safe places. However, this part forms only portfolio investment. If they not only change their shares but also form a structure for producing goods and services, this means FDI (Kurtaran, 2007: 368). This method is important for especially technolgy sector that requires long term and costly R&D, and choosing the true time for entering to the market (Seyidoğlu, 2007: 723).

Some types of strategic alliances can be ranged as;

- supply or purchase agreement
- marketing or distribution agreement
- agreement to provide technical services
- management contract
- licensing of know-how, technology, design or patent
- franchising (Sudarsanam, 2003: 218)

3. Determinants of FDI

The answer of questions like "why FDI distribution to the countries is not homogeneous and what are the main factors effecting country choosing?" depends on the host countries' structure.

Foreigners usually direct their investments to the countries where it is possible to combine the ownership advantages with the location specific advantages of the host country through internationalization advantages of foreign investment (UNCTAD, 1998). Before country choosing for investment, firms are looking to the some indicators of host country, like;

- GDP growth,
- GDP per capita,
- Natural and human resource endowments,
- Cost and productivity of labor,
- Transaction costs,
- Macroeconomic stability,
- Exchange rate,
- Entry restrictions,
- Taxes,
- Market size,
- Quality of infrastructure,
- Political stability,
- Law system,

- Financial development,
- Privatization opportunities,
- Easiness of doing business.

Inside of these determinants, attractiveness of market size is important because the host country's market size shows this country's demand structure. The foreigners' earnings from the investment depend on the demand size of the host coutry. Thus, if host country's GDP per capita is high, domestic demand would be high. Also, another determianant for the investors is low wage rates of the host countries. This means lower costs for the investors. Another important determinant for foreign investors is fiscal burden. Low level of tax rates attracts foreign investors and the countries that aware of this situation, conducts some tax incentives to attract more FDI (Çinko, 2009: 120-121). Foreign investors also take into consider host country's openess of trade, integration level with world markets and its judicial system's contemporary (Karacan, 1997: 97). In addition to these, country risk and political risk are main determinant of FDI. In some studies, it is concluded that political risk has a disincentive effect on FDI (Akay and Karaköy, 2008: 73).

Some of these indicators are traditional determinants like market size. On the other hand, the importance of cost differences among locations, the quality of infrastructure, the easiness of doing business and the availability of skills have increased (UNCTAD, 1996).

There is one more important issue that is about choosing the country. In the country choosing, there are some important determinants. According to Dunning (2002) these locational determinants depend on:

- The type of motivation for the FDI (comparing natural resource seeking with market seeking, efficiency seeking and asset augmenting objectives).
- Host, or potential host countries' the economic and business environment and their FDI related policies.
- Entry or expansion mode of the FDI (comparing greenfield FDI with mergers and acquisitions).

4. Effects of FDI

FDI has some positive and negative effects on both home and host country. These effects are important in terms of deciding the FDI policies for countries.

4.1 Positive Effects of FDI on the Host Country

FDI has positive spillovers on the host countries' many factors. As Josef Christl (2007) stated, there are three ways a host country is positively effected by the inflow of FDI:

- Increase in the capital stock: Most fundamentally, an inflow of capital will benefit any country in which this factor of production is scarce. FDI can compansate for the lack of sufficient investment by residents and according to the basic Neoclassical Growth Model, the resulting higher capital/labor ratio raises national welfare measured as GDP per capita. For this kind of positive effect arise, it is sufficient to assume foreign and domestic capital to be homogeneous.
- Higher productivity: Moreover, foreign-owned firms tend to operate more productively than domestic firms; therefore an inrease of FDI causes overall productivity in the host country to increase. The emprically well documented higher productivity of foreign firm is typically ascribed to the superiority of foreign technology imported by host countries through FDI; hence, foreign and domestic capital are heterogeneous.
- Positive spillovers: Finally, the higher productivity of foreign controlled firms might spillover the rest of the economy. While the notion of 'spillover' might imply that these effects ocur more or less automatically, specific channels of transmission need to be in place for spillovers to materialize. Among the channels identified by economists are the knowledge transfer via employees who change from foreign firms to domestic ones, the spreading of production standarts imposed on foreign firms' domestic subconractors, or simply the increase of competition resulting from the entry of foreign firms into previously sheltered markets. The amount of spillovers depends on both the policies that the host country applies and the business strategies that foreign investors pursue.

One of the main benefits of inward FDI for a host country is resource-transfer effects. FDI makes positive contribution to the host countries economy by supplying capital, technology and management resources that contribute to improve country's economic growth rate. Firstly, compared with local firms, MNCs have financial strength, also thanks to its reputation, it can access to financial resources and can borrow money from capital markets easier. From the technological side, as it is known, technology stimulates economic development and industrialization and it takes two forms. Technology can be incorporated in a production process or it can be incorporeted in a product. However, many countries (especially less developed ones) don't have such production processes or such products since they are weak in research and development areas. Such countries need the advanced technology of industrialized nations to stimulate economic growth, so FDI provides it. Lastly, foreign management skills provide important benefits to the host country. Thanks to well educated foreign managers, the latest management techniques can be used and this provides to increase efficiency of operations. Also, there can be beneficial spin-off effects that arise from local personel who trained in the subsidiary of the foreign MNC and then leave the firm and help to establish indigeneous firms. Furthermore, superior management skills of a foreign MNC can stimulate local suppliers, distributors, and competitors to improve their own manegement skills (Hill, 2011 :249-250).

Effects of FDI on some economic indicators will be reviewed below.

4.1.1 The effect of FDI on growth

Since one of the main resources of growth is capital accumalation to effect the output and economic growth, FDI should increase capital accumulation so as to contribute growth. Also technology is a part of production function and in comparison with the general growth models that accept it as exogenous, technology accelerates the growth so development. Since FDI brings new technologies to the host country, it contributes to growth.

As explained in UNCTAD report (1999); "FDI brings into the recipient economy resources that are only imperfectly tradable on markets, especially technology, management, know-how, skilled labour access to international production networks, access to major markets and established brand names. These assets can play an important

role in the modernization of the national economy and in the acceleration of economic growth."

Another view is releated with gap in knowledge. Romer(1993) asserts that nations are poor because their citizens do not have access to the ideas that are used in industrial nations to generate economic value. Therefore, the main problem of developing countries is gap in knowledge rather than physical capital. Thanks to MNCs, less developed countries can reach know-how and can close this gap. Then, they can converge to developed countries.

In addition to these opinions, Borensztein et al. (1998) states that FDI enhances the growth through increasing domestic capital formation, technology, and improved productivity only if the host country has a threshold stock of human capital.

Hill (2011) states that if FDI takes the form of a greenfield investment this can increase the level of competition in a national market. Thus, it decreases prices and rises economic welfare. In the long run, productivity growth increases, product and process innovations realizes and greater economic growth occurs.

4.1.2 The effect of FDI on employment and wages

FDI can effect the employment and wages both positively and negatively in the host country. Moosa (2002) stated some positive effects of FDI that arise via these following ways:

- FDI affects increasing employment directly by setting up new facilities, or it effects indirectly by stimulating employment in distribution.
- FDI contributes to employment by acquiring and restructing ailing firms.

Hill (2011) divided the effects of FDI as direct effects and indirect effects. Direct effects arise when a foreign MNC employs host country citizens. Indirect effects arise when jobs are created in local suppliers (increasing employment in support industries) as a result of the investment and when jobs are created because of increased local spending by employees of the MNC.

The effects of FDI to the host country's employment vary by the country's development level. While realization way has importance in developed countries; in the developing

countries, production and management techniques that FDI brought, have importance. In developing countries, usage of labor abundant production techniques have importance in terms of solving unemployment problem. However, MNCs often prefer modern and effective technology across from their rivals. Here, the important point is the adaptation of the host country to the chosed technology. This adaptation and the country's talent to improve this technolgy affects the employment level in the host country (Efe, 2002: 23).

Moreover, FDI could effect the avarege level of wages in a country or industry by raising the demand for labor or through the higher wages paid by the foreign plants themselves (Lipsey, 2002: 32).

Lipsey (2002) gives answers to the question that why did foreign firms pay higher wage than domestic firms? He says one of the reasons can be arise from host country regulations or home country pressures. As Findlay (1978) assumes, it can be because of struggle for establishing good public relations. Another reason he suggests is that local people can prefer local firms for working, to overcome this preference, foreign firms can offer higher wages. Also, because of the turnover costs, firms pay higher wages. The last reason is that bacause of the foreign firms' limited understanding of local labor markets, they pay higher wages to attract better workers.

4.1.3 The effect of FDI on balance of payments (BOP)

FDI can improve the host countries' BOP via bringing foreign exchange and can effect it in the long run with increasing export and decreasing imports (Seyidoğlu, 1994: 589).

According to Broadman, in the first step of FDI, because of the MNCs capital equipment needs there may be an increase in host countries' intermediate input imports. However, from the point of view of the balance of payments, this initial deterioration in the current account position is offset by inflows into the capital account (Broadman, 2005: 361-362).

Hill (2011) asserts that FDI helps to the countries for improving their balance of payments with two ways. The first way he mentioned about is that if the FDI is a substitute for imports of goods or services, this improves the host country's current account of balance of payments. With this way, a host country which has current account deficit will not in need of close its deficit via selling its assets to the foreigners, this is also an indirect postive effect. The second way is that subsequent to invest in a foreign country, if MNC

exports its goods and services to the other countries, it both improves balance of payments of the host country and provides export-led economic growth in that country. China is a good example for this case. Thanks to increasing foreign investments, especially, during 1990s, China has been exhibited export-led economic growth. However, since less developed countries' governments are discontent from the MNCs export performances and enforce them for more export, MNCs put some certain expressions to the agreements done by host governments or local firms which restricts or completely forbids export (Yıldırım, 1979: 114).

Also, some studies have showed that the effect of FDI can be different on developed and developing countries, depending on which sector was choosed for FDI. Because of the high import content of the investment, investment in manufacturing can have detrimental effects on balance of payments of developing countries. (Moosa, 2002: 83).

4.1.4 Other positive effects of FDI

FDI have some other positive effects like contributing to the training of local employees. Moreover, it contributes to establishing international economic and political relations. It can effect the market structure of the host country via increasing competiton.

Foreign direct investments also helps to improve of capital formation since it increases the capital level in the host country. This increasing capital helps to the countries that have low level of savings and low level of foreign exchange (Ercan, 2001: 87).

4.2 Negative Effects of FDI on the Host Country

FDI can result negative effects on the host country because of the following reasons (Zeren and Ergün, 2010: 69):

- MNCs can have a right to say on economic administration with capturing the main sectors of the economy. Hereby, foreign governance can increase on the host country's economy.
- Thanks to FDI, firms can overcome the protecting obstacles like tariffs,quotas.
- High-tech investor firms can take unfair competition advantage across from the host firms that have low-tech. Also, with increasing the interest rates that caused

by borrowing of investor company from host country, domestic investments can decrease.

- FDI can deteriorate the unity of economy and can form a dual structure economy. From one side modern techniques can be conducted, from other side traditional methods can be conducted for production. Also, modern techniques can cause to decrease demand for labor, so it can increase unemployment.
- Foreign firms may want to provide raw meterials from outside of the host country, this effects BOP negtively. Moreover, profit transfers causes a negative effect on BOP.
- If foreign firms do their reasearch and development activities in their home country, it causes to increase technologic dependency of host country.

In addition to these, FDI can contribute to unemployment. When FDI is done by a foreign firm, local firm in the same industry may lost its market share and this causes to dismiss its workers. Also, when FDI is the form of an acquisiton, with reducing employment, MNC tries to restructure the operations of the acquired unit to improve its operating efficiency (Hill, 2011: 250).

Hill (2011) adds that if MNC has greater economic power than local firms, it can clear the market from local firms and gain a monopolistic power in the host coutry. With this monopoly power, it can increase the prices and this causes to decrease host nation's economic welfare. This situation is more possible in less developed countries which has few large firms than in developed countries. Therefore, while less developed countries take this risk into account and concern about it, developed countries have a relatively minor concern about the issue. Moreover, this case occurs especially in acquisition type of FDI. Since investor firm acquires local firms in a host country and subsequently merges them, the level of competiton decreases in that country and this creates monopoly power for the foreign firm, reduces consumer choice and raises prices.

Hoggarth and Sterne (1997) point out some other possible negative effects of FDI as;

- FDI, which can already be financed locally, may merely be replacing investment since it may only substitutes domestic savings.

- Since FDI includes purchases of residential property, it can cause to rise domestic property prices rather than economic activity.
- FDI may occur with an acquisition of an existing domestic firm (like privatization) and so may not be accompanied by any immediate capital formation.

4.3 Effects of FDI on the Home Country

FDI brings benefits and also costs to the home country. These costs and benefits are shown in Table 1 .

Table 1. Benefits and Costs of FDI to Home Country

Benefits	Costs
Stream of income from foreign earnings	Balance of Payments • Initial capital outflow (but often set off by future stream of foreign earnings • Current account suffers if FDI is to serve home market from low cost production location • Current account suffers if FDI is a substitute for direct export
FDI may import intermediate goods or inputs for production from the home country, creating jobs.	
MNCs may learn skill from exposure to foreign countries	Employment effects: • FDI a substitute for domestic production

Source: Zhang (2001) in Nourbakhshian et al, 2012: 277.

Initially, benefits of FDI arise from three sources. The first, thanks to inward flow of foreign earnings, home country's balance of payment is effected positively. Also, if MNC imports its capital equipment, intermediate goods, complememtary products, etc. from the home country, this rises home country's exports and positively effects its BOP. Secondly, since MNCs' this demand to the home country's products requires to hire more workers in the home country to satisfy this demand, there will occur employment effect in the home country. The last beneficial effect is reverse resource-transfer effect. MNC can learn valuable skills (like superior management techniques and superior product and process Technologies) from its exposure to foreign markets that can be transferred back to the home country later. After these skills transfered back to the home country, they contributes to the home country's growth rate (Hill, 2011: 253).

Despite these benefits, FDI has some important costs to the home country too. One of the important costs occurs in balance of payments. Firstly, initial capital outflow to finance the FDI negatively effects the BOP of the home country. However, this negative effect is generally more than offset by the subsequent inflow of foreign earnings. Also, if MNC decides foreign investment to serve the home market from a low-cost production location, current account of the BOP suffers. It also suffers if the FDI is a substitute for direct exports. Another negative effect is on the employment of the home country. When FDI is seen as a substitute for domestic production, it is dangerous for the home country (especially in the countries that already suffer from unemployment) since it can cause to reduce employment (Hill, 2011: 253).

5. Government Policies for FDI

Home countries and host countries conduct some policies for attracting or restricting FDI. These policies depend on the costs and benefits of FDI for the countries. Here, initially the home country policies for encouraging outward FDI and restricting it will be examined.

5.1 Home Country Policies for Encouraging Outward FDI

First of all, to encourage the FDI, many governments use government backed insurance programs to cover foreign investment risk. For example, in case of expropriation or war, these programs cover the losses. To encourage the firms to the especially politically unstable countries, these programs are useful. Secondly, many countries choose to eliminate double taxation to encourage their firms for foreign investment. Lastly, many powerful countries use their political influence to persuade host countries to relax their restrictions on inbound FDI (Hill, 2011: 254).

5.2 Home Country Policies for Restricting Outward FDI

Most of the investor countries have conducted some restriction policies over outward FDI from time to time. One of the policies was limiting the capital outflow because of its negative effect to the BOP. Moreover, countries have manipulated tax rules to encourage their firms to invest at home. Some countries (like Britain) had taken more tax from MNCs' foreign earnings than their domestic earnings. In this policy, the aim of the countries is to increase employment inside. Another restriction is related with the politic

relations of the countries. Namely, governments prohibit national firms investing in certain countries for political reasons (Hill, 2011: 254-255).

5.3 Host Country Policies for Encouraging Inward FDI

The first step of the encouraging FDI is liberalization. However, country experiences indicated that although liberalization can help to get more FDI, it is certainly not enough to get the most from it. There should be national policies that provide to get more benefits from FDI. These policies can induce faster upgrading of technologies and skills, raise local procurement, secure more reinvestment of profits, better protect the environment and consumers and so on (UNCTAD, 2003: 18).

Countries offer some incentives to the foreigners for investing their country. Moreover, most common incentives are tax concessions, low interest loans, and subsidies. Host countries use these policies to utilize from resource transfer and employment effects of FDI (Hill, 2011: 255).

To attract the FDI, host countries form investment promotion agencies (IPAs). From the early 1990s, the number of these agencies has been increased. In 1995, World Association of Investment Promotion Agencies (WAIPA) were formed and today it has 244 national and sub-national agencies from 162 different countries. These agencies use some techniques to attract FDI like (WAIPA, 2015);

1.Advertising in general financial media.
2. Participating in investment exhibitions.
3. Advertising in industry- or sector-specific media.
4. Conducting general investment missions from source country to host country or from host country to source country.
5. Conducting general information seminars on investment opportunities.
6. Engaging in direct mail or telemarketing campaigns.
7. Conducting industry-or sector-specific investment missions from source country to host country or vice versa.
8. Conducting industry- or sector-specific information seminars.
9. Engaging in firm-specific research followed by "sales" presentations.
10. Providing investment counseling services.

11. Expediting the processing of applications and permits.
12. Providing postinvestment services (Wells and Wint, 2000: 21).

Here the techniques 1 to 5 are image building techniques that are used for changing the image of the country as a place to invest. However, techniques 6 to 9 are investment generating techniques which can generate investment directly and techniques 10 to 12 are investment service techniques (Wells and Wint, 2000: 22). As it is seen, IPAs provide information about their country to the foreigners, they also show investment opportunities and after investment, they provide services.

In addition to these, countries conclude international investment agreements (IIAs) at the bilateral, regional, and multirateral levels. For most host countries, it mainly helps to attract FDI. At the bilateral level, the most important instruments are bilateral investment treaties (BITs) and double taxation treaties (DTTs). BITs are primarily instruments to protect investors and DTTs are primarily instruments to address the allocation of taxable income and they aim to reduce the incidence of double taxation (UNCTAD, 2003: 15-17).

5.4 Host Country Policies for Restricting Inward FDI

Countries conduct some policies to avoid from potential dangers related to FDI. These policies can contain anticompetitive practices and prevent foreign affiliates from crowding out viable local firms or acting in ways that upset local sensitivities. There is need for some instruments to put these policies in place (UNCTAD, 2003: 18). Host governments use many ways to restrict inward FDI. Ownership restraints and performance requirements are the most common ones. Ownership restraints include to exclude the investor firms from some specific fields like mining, media, and tobacco. This exclusion can totally exist or the foreign firms can invest these fields at a particular share at the host country. Governments use this policy because of the national security issues and to protect their infant industries. Moreover, performance requirements are controls over the behavior of the MNC's local subsidiary which is used to maximize the benefits and minimize the costs of FDI for the host country (Hill, 2011: 256).

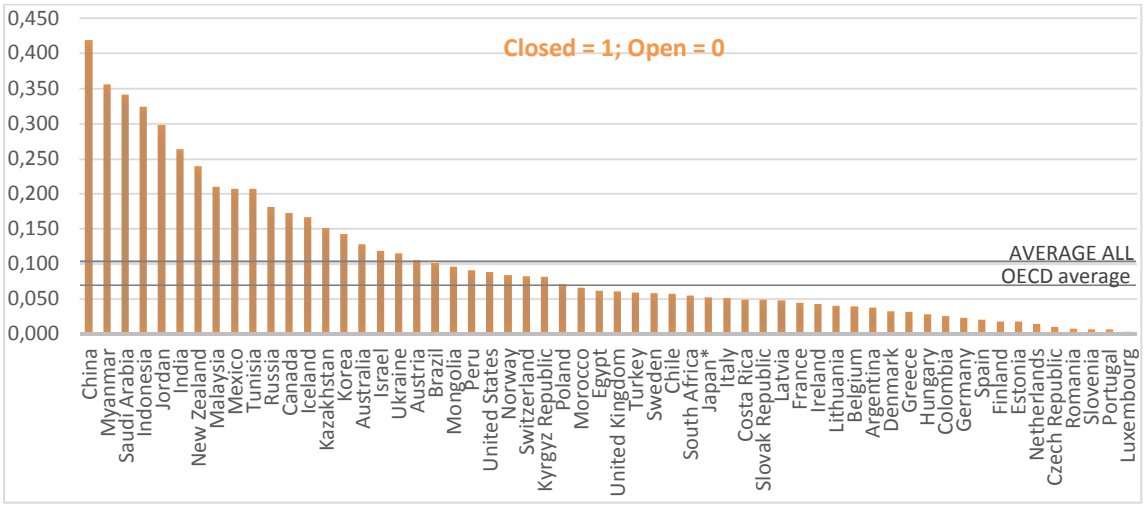
Today, restrictions on FDI is still going on. The below table shows the restrcitions on the foreign equity ownership across sectors and regions

Table 2. Restrictions Across Sectors and Regions, Foreign Equity Ownership Index (100= full foreign ownership allowed)

Sector Group	East Asia & Pasific (10 Countries)	Eastern Europe & Central Asia (20 Countries)	High Income OECD (12 Countries)	Latin America & Caribbean (14 Countries)	Middle East & North Africa (5 Countries)	South Asia South Asia (5 Countries)	Sub-Saharan Africa (21 Countries)	AB Sector Avarege (87 Countries)
Mining, oil and gas	75.7	96.2	100.0	91.0	78.8	88.0	95.2	92.0
Agriculture and Forestry	82.9	97.5	100.0	96.4	100.0	90.0	97.6	95.9
Light manufacturing	86.8	98.5	96.8	100.0	95	96.3	98.6	96.6
Telecommunications	64.9	96.2	89.9	94.5	84.0	94.8	84.1	88.0
Electricity	75.8	96.4	88.0	82.5	68.5	94.3	90.5	87.6
Banking	76.1	100.0	97.1	96.4	82.0	87.2	84.7	91.0
Insurance	80.9	94.9	100.0	96.4	92.0	75.4	87.3	91.2
Transportation	63.7	84.0	69.2	80.8	63.2	79.8	86.6	78.5
Media	36.1	73.1	73.3	73.1	70.0	68.0	69.9	68.0
Sector group 1: Construction, tourism and retail	91.6	100.0	100.0	100.0	94.9	96.7	97.6	98.1
Sector group 2: Health care and waste management	84.1	100.0	91.7	96.4	90.0	100.0	100.0	96.0
AB regional avarage	74.4	94.3	91.2	91.6	83.5	88.2	90.2	89.3

Source: World Bank, Investing Across Borders, 2010 Report

Moreover, from the OECD datas, the restrictions on FDI can be seen on country basis and according to the Graph 1, the most closed country is China.



Graph 1. FDI regulatory restrictiveness index, 2013

Source: OECD

6. History of FDI

FDI has a long past than we guess. In related studies, it is generally seen that the oldest FDI had done by British and US in 19th century, but Mira Wilkin states that the issue reaches to the older times; "…in 2500 B.C., Sumerian merchants found in their foreign commerce that they needed men stationed abroad to receive, to store, and to sell their goods…the East India Company, chartered in London in 1600, established branches overseas…In the mid-seventeenth century, English, French, and Dutch mercantile families sent relatives to America and to the West Indies to represent their firms. So too, in time, American colonists found in their own foreign trade that it was desirable to have correspondents, agents, and, on occasion, branch houses in important trading centers to warehouse and to sell American exports…" (Lipsey, 2001: 17).

In the next times, 19th century, foreign investment was done by Britain to other countries to finance their development via ownership of financial assets. However, Godley(1999) analyses the British manufacturing industry prior to 1890 and founds that from 1890 onwards big part of the FDI depends on the industrial goods sector. (Moosa, 2002: 16)

Some studies in the literatüre claim that, FDI was rare before the 1914, the lion pie belonged to the portfolio investment (Bloomfield, Hobson, Rosesenstein-Rodan and Dunning claimed same as). However, Svedberg (1978) stated that FDI flows form an

important part of the total flows at that times in developing countries and he estimated that about 44 to 60 % of the $19 billion of accumulated investment in underdeveloped countries in 1913-14 was in the form of direct investment. Table 3 shows the estimated portfolio-direct composition of foreign private investment in developing countries.

Table 3. The share of FDI in Total Foreign Private Investment in Developing Countries,in 1913-14,by Continent

	Estimated share of direct Investment (%)	Estimated accumulated foreign private investment ($ ml)
Latin America	45-66	10,352
Africa	31-58	2,795
Turkey	20-38	1,216
India and Ceylon	25-28	2,250
China	69	1,610
Southeast Asia	82	1,262
Total	44-60	19,485

Source: Svedberg, 1978: 769

Moreover, Table 4 shows the investor and host country information at the same year.

Table 4. Creditors and Debtors, July 1, 1914 (in billions of U.S. dollars)

Principal Sources of Capital		**Principal Recipients of Capital**	
Home Country	*Amount*	*Host Country*	*Amount*
United Kingdom	*18.0*	United States	*7.1*
France	*9.0*	Russia	*3.8*
Germany	*7.3*	Canada	*3.7*
United States	*3.5*	Argentina	*3.0*
Netherlands	*2.0*	Austria-Hungary	*2.5*
Belgium	*1.5*	Spain	*2.5*
Switzerland	*1.5*	Brazil	*2.2*
-	-	Mexico	*2.0*
-	-	India and Ceylon	*2.0*
-	-	South Africa	*1.7*
-	-	Australia	*1.7*
		China	*1.6*
Other	*2.2*	Other	*11.2*
Total	*45.0*	Total	*45.0*

Source: Wilkins, 1989: 145.

As seen on the table, United Kingdom (UK) was the biggest investor and the United States (US) was the largest debtor since it attracted the greater FDI. However, subsequent to the First World War, UK lost its power and the United States (US) took its place. US has became both debtor and investor country.

After the Second World War, FDI started to grow depending on two reasons. The first reason was associated with technological situations. Improvement in transaction and communication technologies provide better controling from distance. The second reason was the need of US capital of European and Japan that had been dameged so much because of the war for financing the reconstruction. Also, US tax laws supported FDI. In 1960s, host countries started to show resistance to the US ownership and they started to recover than initiated FDI to the US. These caused a slowdown in the outflow of the US. In 1970's FDI declined again but the Britain was not effected, it increased its gains thanks to North Sea oil surpluses and abolution of foreign exchange controls in 1979 (Moosa, 2002: 16-17).

Table 5: Flows of FDI Between 1990-2012 (millions of dollars)

	FDI Inflows			**FDI Outflows**		
Years	*World*	*Developed countries*	*Developing countries*	*World*	*Developed countries*	*Developing countries*
1990	184	152	32	225	217	8
1995	331.1	203.5	113.3	355.3	305.8	49
1999	1086.750	828.352	231.880	1092.279	1014.331	75.488
2000	1270.8	1005.2	240.2	1149.9	1046.3	99.5
2001	817.574	571.483	219.721	721.501	658.094	59.861
2002	678.751	489.907	157.612	596.487	547.603	44.009
2003	559.576	366.573	172.033	612.201	569.577	35 591
2004	742.143	418.855	283.030	877.301	745.970	117.336
2005	945.795	590.311	314.316	837.194	706.713	115.860
2006	1305.852	857.499	379.070	1215.789	1022.711	174.389
2007	1970.940	1306.818	573.032	2174.803	1829.044	294.177
2008	1744.101	965.113	658.002	1910.509	1541.232	308.891
2009	1185.030	602.835	510.578	1170.527	850.975	270.750
2010	1409.000	696.000	637.000	1505.000	1030.000	413.000
2011	1652.000	820.000	735.000	1678.000	1183.000	422.000
2012	1351.000	561.000	703.000	1391.000	909.000	426.000

Sources: UNCTAD, 1992: 14,UNCTAD, 2001: 3,UNCTAD, 2007: 251,UNCTAD, 2004: 367-372,UNCTAD, 2013: 14.

In 1980s, developing countries were attracking pretty higher inflows rather than developed ones. Moreover, US became a net recipient again. It had a low saving and big current account deficit problem and tried to cover it with foreign flows. Moreover, during the second half of 1980s, global foreign direct investment flows grew four times faster than domestic output (UNCTAD: 1992).

In the 1990s, there was increment in FDI flows with sustainable way and especially in the second half of 1990s, thanks to world economic growth and libarelization policies, flows of FDI reached to the pretty high levels as seen in Table 5 above. Dunning (2002) presented the changing characteristics of paradigms and theories in the 1970s-1980s and 1990s as follow;

Table 6: Diferences Between 70s-80s and 90s

1970s-1980s	1990s
• FDI mainly to exploit O-specific advantages of investing firm; one-way flow of resources and capabilities	• Multiple motives for FDI; more global sourcing of assets
• Largely greenfield FDI and sequential FDI financed by reinvested profits	• FDI (particularly in Triad) largely in form of acquisitions and mergers and reinvested profits
• O advantages largely based on privileged possession of (home) country-specific assets (Oa)	• O advantages more firm-specific and related to degree of multinationality and ability to harness and utilize created assets throughout the world
• Clear-cut choice between alternative modalities of exploiting O advantages (licensing compared to FDI, and so on)	• Systemic approach to organization of MNE activities; alternative modalities often complementary to each other; more institutional pluralism
• O-specific advantages (for example unique resources and capabilities) internal to firms	• Recognition of importance of complementary resources and capabilities external to firms (including the quality of institutional and social capital), and how these are coordinated with internally generated O advantages
• Comparatively little foreign-based innovatory activity; foreign affiliates less embedded in the host countries	• Considerable foreign-based innovatory activity (carried out mainly in advanced industrial countries) and/or via strategic alliances with foreign firms
• Significant inter-country barriers to both trade and FDI	• Reduced barriers to trade and FDI
• Clear-cut international division of labour based on H- and O-type distribution of factor endowments	• International specialization of MNEs based more on Schumpeterian type and FDI
• Locational choices made mainly in respect to asset usage	• Locational choices also made with respect to asset augmentation
• Relatively little attention paid to 'spatial' market failure and location-specific external economies	• More attention paid to gains arising from being part of a complex, or cluster, of firms, and from spatially linked learning economies
• Static nature of major paradigms	• Better appreciation of need to consider the dynamic nature of OLI variables; and to extend the theory to embrace path-dependent asset-creation and learning capabilities
• Hierarchical organizational structure of MNEs	• Flattened pyramids; more heterarchical structures; more delegation of responsibilities to line managers
• Most strategies towards market failure 'exit' rather than 'voice' strategies	• More voice strategies towards market failure; and particularly towards capturing dynamic externalities of common governance
• Cautious attitudes by many governments to FDI	• Welcoming attitude to FDI by most governments
• Few attempts to integrate interdisciplinary approaches to understand MNE activity	• Recognition of need to draw upon interdisciplinary theories to construct a meaningful and robust systemic paradigm of MNE activity

Source:Dunning, 2002: 390-391

After the 2000, flows of FDI had been decreased till the 2004. Then, it again started to increase. 2008 global financial crisis caused to decrease FDI until the 2010, then it has been increased (Here, the amount total FDI inflows and outfflows in the world must be equal to each other, difference between the amount of FDI inflows and outflows stem from countries' different calculating systems for FDI).

Moreover, if we look over the issue from development side, it will be seen that the share of the developing nations from FDI inflows has been increased year by year. In the mid to late 1990s, %35-40 of the total FDI was done to the developing nations. In 2000-2002 period, developing nations' share from total FDI decreased to %25 and than rised to %31-40 between 2000 and 2008 (Hill, 2011). As seen from the Table 5, the inflows of FDI to the developed countries had been bigger than developing countries till the 2012. However, in 2012, FDI flows to developing economies reached to $703 billion, accounting for 52 percent, while developed countries remained at an historical low (39 percent) levels with $561billion (UNCTAD, 2013).

Most recent inflows into developing countries have been targeted at the emerging economies of South, East, and Southeast. Especially, China attracts the biggest part of the FDI in the developing nations. Also, Latin American countries attract significant amount of FDI. However, because of the political unrest, armed conflict and frequent changes in economic policy, African countries are weak to attract investments (Hill, 2011). Table 7 shows the top 10 host and home countries that attracting FDI by 2012;

Table 7. Top 10 Host and Home Countries (billions of dollars)

Host Countries		**Home Countries**	
Country	***FDI amount in 2012***	***Country***	***FDI amount in 2012***
1.US	168	1.US	329
2.China	121	2.Japan	123
3.Hong Kong	75	3.China	84
4.Brazil	65	4.Hong Kong	84
5.British Virgin Islands	65	5.United Kingdom	71
6.United Kingdom	62	6.Germany	67
7.Australia	57	7.Canada	54
8.Singapore	57	8.Russian Fedaration	51
9.Russian Federation	51	9.Switzerland	44
10.Canada	45	10.Britsh Virgin Islands	42

Source: UNCTAD, 2013

As it is seen from the table, US is still in the first rank as a host country with $168bl. Moreover, 6 of 10 biggest host countries are developing countries. Also, interms of the home countries, US protects its biggest debtor and investor place and four developing countries placed as the biggest investors of the world.

If looked over the sectoral distribution of FDI (in terms of value of cross border M&As), it can be seen that until the 1994, FDI to the manufacturing sector was higher than primary and services sector. However, subsequent to this date, service sector's pie in FDI has started to increase and it has reached to pretty high levels (UNCTAD, 2014)

There is another indicator related with FDI which is the stock of FDI. These data represent the total accumulated value of foreign owned assets at a given time (Hill, 2011). If looked at its values, it will be seen that since 1980s, stocks of FDI in developed countries are bigger than developing ones. Moreover, from 1980 till today, the world FDI inward stock has increased about $22. 196bl.

Table 8. FDI Stock Between 1980-2012 (millions of dollars)

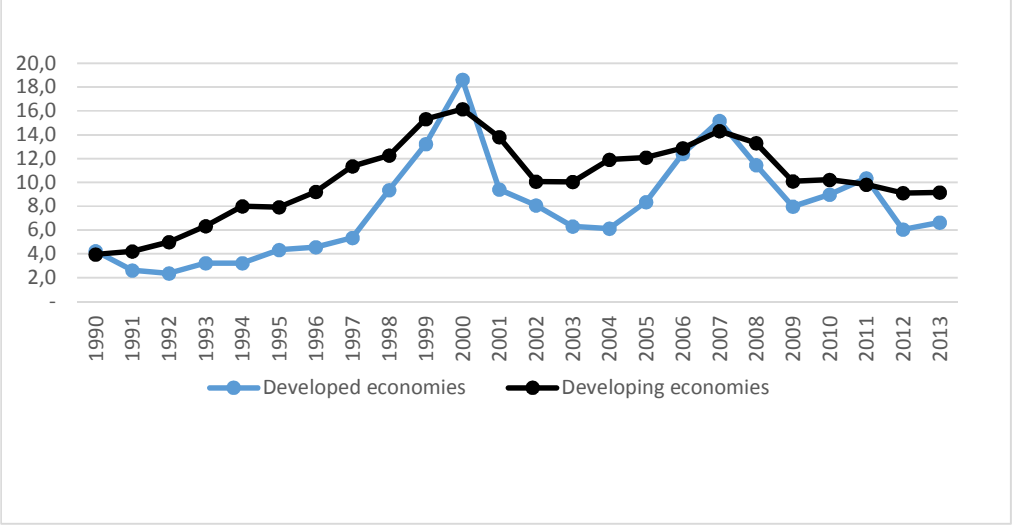
	FDI Inward stock			**FDI Outward stock**		
	World	*Developed countries*	*Developing countries*	*World*	*Developed countries*	*Developing countries*
1980	615.805	374.968	240.837	523.854	507.366	16.484
1985	893.567	546.281	347.237	707.786	675.215	32.546
1990	1.888.672	1.397.983	487.694	1.717.444	1.637.265	79.821
1995	2.937.539	2.051.739	849.376	2.879.380	2.621.165	252.861
1999	5.196.046	3.353.701	1.740.377	5.004.831	4.379.976	611.363
2000	6.314.271	4.210.294	1.979.262	5.976.204	5.248.522	710.305
2002	7.371.554	5.049.786	2.093.569	7.209.582	6.355.130	796.503
2007	15.210.560	10.458.610	4.246.739	15.602.339	13.042.178	2.288.073
2009	17.743.408	12.352.514	4.893.490	18.982.118	16.010.825	2.691.484
2010	19.140.603	12.501.569	5.951.203	20.408.257	16.803.536	3.131.845
2011	20.438.199	13.055.903	6.625.032	21.168.489	17.055.964	3.705.410
2012	22.812.680	14.220.303	7.744.523	23.592.739	18.672.623	4.459.356

Source:UNCTAD, 2013: 217; UNCTAD, 2012: 173; UNCTAD, 2011: 191; UNCTAD, 2010: 172; UNCTAD, 2008: 257; UNCTAD, 2004: 376-382; UNCTAD,2001: 301-307.

If these stocks' distribution by sector is examined, it will be seen that service sector has become the main sector and then manufacturing sector comes. Moreover, in service sector, M&As have been concentrated on especially finance, trade and business services. In manufacturing sector, food, beverages&tobacco, chemicals and chemical products,

electrical and electronic equipment increased their share and in 2012, they formed 67% of manufacturing FDIs (UNCTAD, 2013).

In addition to these datas, we can look at the FDI's percentage in the gross fixed capital formation. This statistic summarizes the total amount of capital invested in factories, stores, office buildings and the like (Hill, 2011). There are significant differences in the countries' inward FDI flow pies in their gross fixed capital formation.For example, in 2013, the place of inward FDI in the gross fixed capital formation is %6 in US, %10.2 in UK, %110.3 in Hong Kong, %14 in Canada and %0.2 in Japan. In the developing nations, FDI's share is increasing in the gross fixed capital formation. Graph 2 shows the inward FDI as a % of gross fixed capital in developed and developing nations between 1990-2013.



Graph 2. Inward FDI as Percentage of Gross Fixed Capital Formation 1990-2003

Source: Constructed by the author from data in UNCTAD World Investment Report, 2013.

Loking at the graph, it can be concluded that FDI is an important source of investment especially for developing economies.

Here, there is one important detail. This detail is that FDI has grown more rapidly than world trade and world output. The reason for why firms prefer FDI in terms of trade is that despite the general decline in trade barriers over the past 30 years, business firms still fear protectionist pressures. Executives think that they can protect their firms from future trade barriers via FDI. Also, economic and political improvement especially in

developing nations make these countries more advantegeous. Economic growth, economic deregulation, privatization programs which are open to foreign investors and removal of many restrictions on FDI in across much of Asia, Eastern Europe and Latin America have made these countries more attractive to foreign multinationals. Also, the globalization of the world economy has made a positive impact on FDI (Hill, 2011: 232-233).

7. Theories for FDI

In the literature, based on the market structure, theories are divided into three parts: Market perfection therios, market imperfection theories and other theories. It will be started with market perfection theories below.

7.1 Market Perfection Theories

These theories assume that markets are perfectly competitve. In fact, we may call them as hypothesis since none of them exactly explains FDI. Therefore, three hypothesis will be explained under this title: Differential rates of return hypothesis, diversification hypothesis, output and market size hypothesis. Since these theories depend on hypothetical assumptions and could not explain the real causes of FDI, other theories replaced them.

7.1.1 The differantial rates of return hypothesis

It is assumed that FDI is the result of highest return seeking process. Namely, FDI is done to the countries which are capital scarce rather than capital abundant. With this way, firms can get the highest rates of return. Until the 1950s, there wasn't an explicit theory explaning FDI. Therefore, this hypothesis derived from the traditional theory of investment which assumes that "the objective of a firm is to maximize profits by adopting the marginalist approach of equating the expected marginal return with marginal cost of capital" (Agarwall, 1980: 741). Since developed countries are capital abundant and less developed countries are capital scarce and labor abundant; according to this hypothesis the direction of FDI should be from developed countries to less developed countries.

However, if looked at the FDI flows, it will be seen that FDI to the developed countries was higher than developing countries till 2013 (UNCTAD, 2013). Although share of developing countries has increased, only a few developing countries have taken the

advantage of FDI like China and Hong Kong. Namely, investor did not prefer high-return locations. Its cause can be neglected factors. For example, this hypothesis ignores risk factor, so assumes risk neutrality. It means FDI, in any country, is perfect subtitute for FDI in any other country including home country (Moosa, 2002: 24). However, in the real world, investor thinks not only the rates of return but also macroeconomic and political factors-risks, the location preference can be differrent than the hypothesis.

Also, according to this hypothesis, there should be only one direction of FDI from low-rate country to the high rate country, but in the real life, countries are both taking flows and sending flows. In addition, this theory doesn't explain why a firm prefers FDI rather than portfolio investment (Moosa, 2002: 24).

7.1.2 Portfolio diversification hypothesis

This hypothesis inserts risk factor in FDI decison. Namely according to this hypohesis, when firms take their investment decision, they take into consideration not only the rate of return but also the risk. Here while FDI is a negative function of risk, it is a positive function of the rate of return. This hypothesis' theoretical background depends on the Tobin (1958) and Markowitz (1959).

To test the hypothesis, many empirical workings were done that trying to explain relationship between FDI and the rate of return and risk.However, results were generally weak (Agarwall, 1980: 745). The problem is here that investors compare return and risk prior to investing their money. However, return arises after the investment, so it is expost variable, so is risk. Therefore, when testing this relationship a proxy for these two or rational expectations theory can be used (Moosa, 2002: 26).

Although this hypothesis can explain the cross investments between the countries, it has no answer to the question that why MNCs prefer FDI rather than portfolio investments which provide a better instrument for geographical and sectoral diversification of their portfolios (Agarwall, 1980: 745).

7.1.3 Output and market size hypothesis

These two hypothesises are near to each other, but the main difference is that output hypothesis explains the issue from micro side and assumes that there is a positive relationship between the FDI of a firm and its sales in the host country whereas market

size hypothesis take the issue from macro side with assuming that FDI is a function of host country's GDP (Agarwall, 1980: 746). This hypothesis will be discussed in the emprical section of the study.

7.2 Imperfect Competition Theories

Hymer (1960) is the first person who explains that the neoclassic ideas are inadequate for explaining the FDI. Moreover, he is the first person who seperated the foreign investments to foreign portfolio investments and foreign direct investments.

Hymer(1976) and Kindleberger (1969) stated that FDI brings some disadvantages to foreign firms, like the cost of operating from distance and lack of information. They support that local firms know the economic and legal information, costumers' choices and business and other social customs are better than foreign firms. Therefore, a foreign firm must have some certain advantages, which local firm doesn't have, to overcome these disadvantages (or costs). These advantages can be better technology, marketing strategies, patents and effective management which provides to earn more than local firm. (Agarwal, 1980: 749). Foreign firms should save its advantages. With this way, it can reduce the competition and can get more profit than local firms do. This requires the imperfection of market structure (Hymer, 1976).

Subsequent to Hymer's idea, many hypotheses that explain FDI with imperfect market conditions were developed. Main hypotheses are the industrial organization hypothesis, the internalization hypothesis, the location hypothesis, the eclectic theory, the product life cycle hypothesis, and the oligopolistic reaction hypothesis.

7.2.1 Industrial organization hypothesis

Hymer (1976) talks about the some advantages of the foreign firms againist the local firms as it is mentioned above.The question is why firms use these advantages for FDI and why they don't use these advantages for export, licence selling or other internalization ways. Hymer supports that FDI is the best way if these advantages consist of intangible assets. On the subject what these intangible assets are Lall and Streeten (1977) presents some intangible advantages for a firm:

Table 9. Advantages that increases FDI

Advantage	Description
Capital	Larger or cheaper cost of capital than local or smaller foreign competitors
Management	Superior management in the form of greater efficiency of operation or greater entrepreneurial ability to take risk or to identify profitable ventures.
Technology	Superior technology in the form of ability to translete scientific knowledge into commercial use.This involves the functions of discovering new processes and products, product differentiation and various support activities.
Marketing	The functions of market research,advertising, and promotion, and distribution
Access to raw meterials	Privileged access to raw meterials arising from the control of final markets, transportation of the product,processing or, the production of the meterial itself.
Economies of scale	The finance and expertise to set up and operate facilities that enjoy these economies.
Bargaining and political power	The ability to extract concessions and favaurable terms from the host government.

Source: Moosa , 2002: 31

Comparing FDI with license selling shows that FDI is better than license selling because it must be difficult to put price to the advantage of the firm (since it is intangible) and license selling is more costly since it requires a licence agreement and administration of it. Also, it is impossible to sell oligopolistic power. Therefore, Hymer supports FDI provides to strengthen oligopolistic power of the firms. From one side, MNCs use imperfect market structure advantages to increase their profits, from the other side, they use their advantages to create an imperfect market structure (Akçaoğlu: 2005: 16).

7.2.2 The internalization hypothesis

This hypothesis basically tells that to avoid from some external costs like transaction costs, marketing costs, etc. managers perefer to form a firm in the foreign country. The hypothesesis belongs to Buckley and Casson (1976).

Imperfect market conditions cause to endure to high transaction costs and it forces firms for internalize their facilities. Causes of internalization are listed by Buckley and Casson (1976). They stated that because of the lack of coordination, long time lags between initiation and completion of production process, firms prefer to internalize. Also, for sustainable market power, firms conduct discriminatory pricing on intermediate goods and to do this, they need to internalize. Another case is that when there are two big firms in the market, their competition can cause instability in the market. Solution is whether dealing together on a treat or decision of merger or acquisition. It requires market internalization. If there is a misinformation between the buyer and seller about the goods' value, nature, or quality; integration may occur. Also, the interventions of host country's government like tariffs and restrictions can cause to internalize firm's faclities at foreign country (Ietto-Gillies, 2005: 102). In addition, the process of internalization is concentrated in industries with relatively high incidence of R&D expenditure (Moosa, 2002: 33).

7.2.3 The location hypothesis

This hypothesis states that because of the immobility of the some factors of the production, firms carry their production to the less costly countries. The countries which have low real wage rates are perferable investment destinations for the firms that aim minimizing their costs. According to this hypothesis, direction of FDI should be from high wage countries to low wage countries. However, since high wage is an indicator of qualified labor, MNCs prefer high wage countries, too. In addition to low wages, less costly capital is also an important factor for FDI decision (Moosa, 2002: 33-36).

Depending on the location theory countries' specific advantages can be catagorized as (V.Denisia, 2010: 57);

a)Economic advantages which consist of quantitative and qualitative factors of production, costs of transport, telecommunications, market size etc.

b)Political advantages that include common and specific government policies that affect FDI flows.

c) Social advantages like distance between the home and host countries, cultural diversity, attitude towards strangers etc.

7.2.4 The eclectic theory (OLI Paradigm)

With combining ownership, location, and internalization theories Dunning (1977, 1988) formed the Eclectic Theory. He supports that compared with other firms, if a firm has an ownership advantage which brings more advantages when they use at a better location that provides better access to natural resources, better tax regimes, cheaper factors of production and if internalising its advantages is more profitable than licensing or franchising them, then firm can invest at a foreign country.

Since the theory combines 3 hypotheses, it has broader concept. This borader concept brings some criticisms. Dunning (2001) evaluated these criticisms and gave answers to them. One criticism is that the theory includes many variables and this causes that the predictive value of variables are almost zero. Dunning says it is a general model and every general model which is related with FDI and MNC can be criticisized from this side. Also, independency of OLI variables from each other can be shown as another critcism. Dunning accepts this criticsm partly. Moreover, it was claimed that paradigm is static (or comperatively static) and doesn't exactly explain the dynamics of internationalisation process of firms (or of countries). Dunnig says strategies of firms in today are effected by their past strategies or behaviours. This provides a dynamic structure to the model. Another criticism was done by Kojima (1982), claiming that Dunning's eclectic theory is not a macroeconomic theory, it is microeconmic and indifferent from internalization theory. Dunning doesn't agree his opinion and says that their macroeconomy definitions are different.

7.2.5 The product life cycle hypothesis

This theory belongs to Vernon (1966). He developed the theory in an effort to explain US foreign direct investments in Western Europe after the Second World War in manufacturing industry (Denisia, 2010: 55). He explains the international production step by step.

Initially, he assumes that enterprises in the advanced countries are equal in accessing scientific knowledge. However, they are not equal in embodying this scientific knowledge, they put into practice them in different ways and while they are doing this, they have to consider their own market condition. Therefore, knowledge is an endogeneous variable. Since US market is a very large market, consumers' financial situation is pretty good and this market is capital abundant-labour scarce, it offers unique opportunities for the exploitation of knowledge and its embodiment in new products. In spite of the high production costs, Vernon suggests that the new product should be located in advanced country (in his example, US). What is the reason of this choice? Why is new product produced in capital abundant country even though it has high costs? Answer is that at the initial stage, communication between consumers and producers is important since producer should take into consideration consumers choices, advaces etc. This requires nearliness of producer and consumer. Secondly, in the products' early stages since the product is new, has no rival and target consumer have already had high income, price elasticity of demand is low, it means producer does not have to worry about reflecting high costs to the consumer. However, after the increase of demand and the product reaches to maturity, the need for proximity to costumers declines. Moreover, firms have to take into account production costs since other firms started to produce the same product and compete with it. In addition to increasing domestic demand, overseas demand grows at this stage. Firm can respond this demand either via export or via FDI. Home country is net exporter and other countries are net importer at this stage. The threat of import controls in other advanced countries and lower production costs in other advanced countries forces the firm investing in abroad. Moreover, imitation production in other countries threats the firm, so it causes foreign direct investment at advanced countries. As the product becomes more and more standardized, production process will formed from high capital intensity and unskilled labour. Than, imitation will be easier, competiton will increase and it causes the seeking new production destinations that have lower labour costs.Therefore, at second stage firm's advantage pass to other advanced countries, than at third stage it passes to developing countries. Eventually,home country will lose its comperative advantage as a production location,and it will become a net importer (Ietto-Gilies, 2005: 69-72).

Related with the application of the theory in today's economies there are criticisms to this approach. Cantwell (1989;1995) shows that MNCs are leaders in innovation but this doesn't require their home country being the leader. Their innovative activity is located in many countries (Ietto-Gilies, 2005: 77). Therefore, there is no strict rule that forces the innovative firm for starting its production process in the home country. Also, Vernon (1979) himself accepts that since the income and technological gaps between the US and other industrial countries have narrowed, the simple product life cycle hypothesis become less aplicable (Moosa, 2002: 40). Moreover, Hill (2011) asks that after seeing the poteantial demand that support local production in a foreign country, why firms think that it is profitable for them to undertake FDI rather than continuing to export from its home base or licensing a foreign firm to produce its product.

7.2.6 Oligopolistic reaction hypothesis

This hypothesis claimed by Knickerbocker (1973) who is a research student of Vernon, to explain the increaed FDI after the Second World War. He observed that after the Second World War firms increased their international activities and these activities concenterated in the same countries. The main resamblance of these firms was their oligopolistic structure. He explains their behaviour with depending on two investment types: Agressive investment and defensive investment. He defines agressive investment as it is the first establishment of the first subsidary in a given industry and given country. Defensive investment is the establishment of subsequent subsidiaries on completion of the first (Ietto-Gilies, 2005: 81).

The reason why countries watches their behaviours and do the same attack is that the firm which does agressive move could gain some production or marketing advantages, that make leader it on both home markets and international markets, and it can use these advantages on its rivals for eliminating them from the market. Rival firms export to this country can decrease because of first mover firm performance. Therefore, other firms prefer to avoid from these risks and they also invest to the same country. Nameley, they make defensive investment. This defensive policies which aims to minimize risks causes 'bunching up' FDI (Ietto-Gilies, 2005: 82).

After his research, Knickerbocker (1973) reached the conclusion that increased industrial concentration causes increased oligopolistic reaction in the field of FDI except at very

high levels. Moreover, he find that the profitability of FDI was positively correlated to entry concentration and that the later was negatively correlated to product diversity (J. Agarwal, 1980: 752).

There are some criticism to this hypothesis. The one of the most important criticism is that why firms choose FDI as an agressive policy. Theory doesn't explain its reasons. Another criticsm is that theory depends the firms' defensive policies to the risk avoidance strategies. However, risk couldn't quantify and risk avoidance strategies difficult to assess. Moreover,after the agressive move of first firm,other firms don't have to do same investment in a foreign country. They can conduct countervailing strategies with buying up source of raw metarials (Ietto-Gilies, 2005: 86-87).

Chapter 2

Macroeconomic Stabilization Approaches

In this chapter, main macroeconomic approaches about the need for economic policies in case of instability in the economy are presented. First the macroeconomic stability concept with referencing the monetary and fiscal policies will be discussed and then Classical, Keynesian, Monetarist and New Classical approaches will be exhibited.

1. Macroeconomic Stability

Until the 1930s, governments accept that the best policy is politicism. In case of fluctuations, they had not try to stabilize the economy because they believe that these fluctuations are temporary and economy can recover them itself.

In the 19th century, governments' role to maintain employment almost had not been argued. Because administrators accept the laissez-faire doctrine and famed Say's law that states every supply creates its own demand. This also means that there is no involuntary unemployment and there is no over or under production. This view had been accepted by other famous economists like David Ricardo. However, in the 1920s, it was obviously seen that there is involuntary unemployment and cannot be ignored anymore. Moreover, by the 1930s, unemployment was an international phenomenon. Thus, governments accept that they should adopt stabilization policies to prevent the growing unemployment and inflation problem (Dickenson, 1996: 417).

It is obviously seen that whatever the government type is, the main aim of the administrators is to provide sustainable growth, price stability, equilibrium in balance of payments, exchange rate stability, low unemployment, better life standards, and possibility to maintain his/her life at least standard conditions (Demir, 1997: 223). To success these, policymakers may use macroeconomic policies.

Macroeconomic policies aim to minimize deviations of the actual variables from real variables. Therefore, policies are implied to provide convergence between (Parasız, 2006: 355);

- Actual employment and the full employment level of employment,
- Actual output and the full employment level of output,
- Market interest rates and the real interest rates

These are the ways for reaching macroeconomic stability in an economy. Macroeconomic instability also means "to phenomena that make the domestic macroeconomic environment less predictable, and it is of concern because unpredictability hampers resource allocation decisions, investment, and growth" (Zagha et al, 2005: 95).

Economic stability doesn't mean staying at the same economic level. It means a steady progress. Therefore, in the stationary societies encountering with such a problem is rare. Only in the random and unpredictable situations, it affects these countries. However, in the progressive societies, economic stability is an important problem (Boulding, 1963: 52).

Some of the economists state that if stabilization policy has been successful in the past disturbances, it could be conducted, but if stabilization policy caused destabilizing in the past experiences, then passive policy would be better (Mankiw, 1992: 328). Also, the used methods to stabilize the economy have an effect on the growth rate of the economy and social values (Grampp and Weiler, 1961: 24).

Some economists claim that economy is inherently unstable. There are frequent shocks to aggregate demand and aggregate supply that can cause output, unemployment, and inflation to fluctuate. Using with monetary and fiscal policies, economy can be stabilized. These policies helpful for slowing the economy in case of overheated and it is helpful for stimulating the economy in case of depression. Moreover, some other economists believe that economy is already naturally stable and there is no need for government policies (Mankiw, 1992: 322).

In this section, it is tried to show these different approaches. Before explaining them, monetary and fiscal policies are shortly described. Then classicals, Keynesians, Monetarists, and New Classicals' approaches are presented.

1.1 Monetary Policy

Monetary policy implies "the rate of growth of the nations' money supply (Ms) and is under the control of a government institution known as the central bank" (Abel et al, 2005:9). This policy's instruments are money supply and interest rate. Its main targets are price stability, low level of unemployment and a satisfactory rate of economic growth (Wood, 1980: 14).

To control the monetary aggregates, a central bank has three tools (McEachern, 2009: 331);

- Open market operations: central bank buys or sells government bonds from/to the commercial banks and the public.
- The discount rate: it is the interest rate the central bank charges for loans to the commercial banks and thrifts.
- Required reserve ratio: it is the minimum fraction of reserves that banks should hold against deposits.

All of these tolls are useful for monetary control, but open market operations are the most important one in case of the business cycles. Since to buy or to sell securities in the open market is flexible, central banks can easily buy and sell large or small amounts of securities daily. If open market operations and reserve requirement changes are compared, it will be seen that open market operations work more directly. Central bank increases or decreases bank reserves over the business cycles via this tool. It is a mechanism that works routine in a way. On the contrary, changes in reserve requirements and discount rates are used only in special cases (McConnell et al, 2009:317).

In case of a recession, central bank conducts expansionary monetary policy (or easy money policy) which lowers the interest rate to rise spending that will increase aggregate demand and real output. To decrease the interest rate, it can use open market operations and buys bonds from the commercial banks and the public. Alternatively, it can decrease reserve requirements or lower discount rate (McConnell et al, 2009:318). Also, as it is showed in Figure 4, decreasing interest rates causes depreciation of domestic currency which leads to increase in net exports, thus increase in real GDP (O'Sullivan et al, 2010: 317).

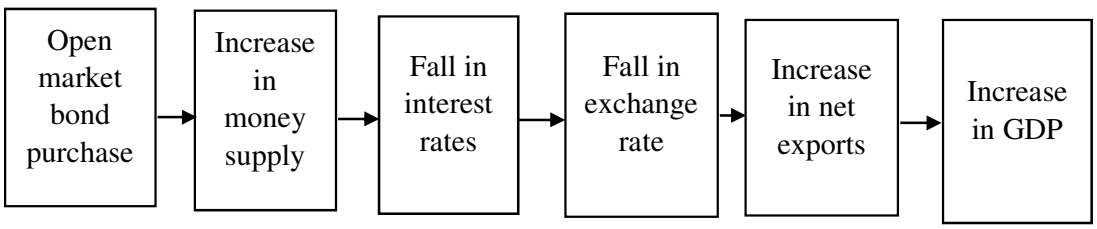


Figure 4. Process of Expansionary Monetary Policy

Source: O'Sullivan et al, 2010: 317.

Contractionary monetary policy (or easy money policy) is conducted at the rising inflation periods. The aim of using this policy is to rise the interest rate, thus reducing borrowing and spending. Using with open market operations, central bank sells bonds to the commercial banks and public. Alternatively, it can increase reserve requirements or discount rate (McConnell et al, 2009:319). Moreover, as it is showed in Figure 5, raised interest rates causes appreciation of domestic currency which leads to decrease in net exports and decrease in real GDP (O'Sullivan et al, 2010: 317)

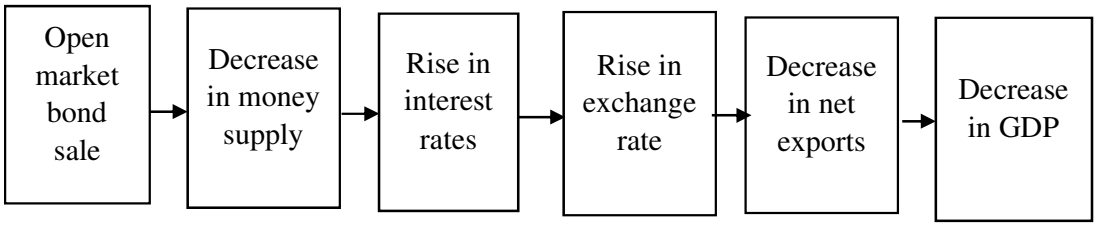


Figure 5. Process of Contractionary Monetary Policy

Source: O'Sullivan et al, 2010: 318.

1.2 Fiscal Policy

Fiscal policy was carried out in the economies with the Keynesian Revolution. After the 1929 great disaster, desirable solution was found at fiscal policy. Fiscal policy composes of changes in government expenditures and taxes to achieve macroeconomic goals. It can be expansionary or contractionary (Arnold, 2010: 235).

Expansionary fiscal policy is conducted when aggregate demand is less than aggregate supply, namely when unemployment occurs, policymakers increase government expenditures and/or decreases tax rates. This policy causes budget deficit. Government can decrease direct tax rates to increase disposable income of the taxpayers. The effect of this policy depends on the consumers' choice between spending these residual money that is provided from tax decrease and saving these residual money. If consumers save all of these money, the expansionary effect of this policy will be little. However, if government decreases indirect taxes rather than direct taxes, it encourages expenditure since it reduces the prices. If still consumers don't spend enough, government can increase its own expenditures. Increasing transfer payments which is directed to people that have low income so high propensity to consume, helps to increase public expenditure so with this multiplier effect economy can be stabilized (Dickenson, 1996: 419).

On the contrary, if the aggregate demand is higher than aggregate supply, contractionary fiscal policy is conducted via decreasing government expenditures and/or increasing taxes. At the same time, government should encourage firms to invest and product more which leads greater competitiveness and productive capacity, by grants and tax allowances. In fact, the reason of conducting contractionary fiscal policy is inflation. To reduce the amount of money in circulation or to increase the supply of goods to restore the equilibrium, fiscal and monetary policy is required. This policy results with budget surplus (Dickenson, 1996: 419-420).

Furthermore, there is another classification in fiscal policy. Discretionary fiscal policy is planned deliberately for all different economic disturbances. On the other hand, in automatic fiscal policy, changes in government expenditures and/or taxes occur automatically without any additional govermental (administrative) action (Arnold, 2010: 235).

The effects of fiscal policies can be different in the economies which use fixed exchange rate regime and flexible exchange rate regime. In an economy that has fixed exchange rate regime and has no capital movements, assume that government wants to increase national income so employment level. To success this, it conducts fiscal policy and increases government expenditures. Initially, increased government spending increases aggregate demand, thus equilibrium level of income increases. However, some of the increased aggregate demand can be met by imports because of the country's import inclination. This causes to increase foreign trade deficit. Then, central bank issues foreign currency to the market which causes a contractionary effect in the economy. Therefore, in an economy that uses fixed exchange rate regime and has no capital movements, the efficiency of fiscal policy decreases because of the both tendency for foreign products and central bank's action. On the other hand, if capital movements are included in this case, there will be different results. Since increased government expenditures raise interest rates, entrance of foreign capital to this country increases. Then, central bank purchases these foreign currencies which increase money supply at the same time. In this

way, the effectiveness of fiscal policy to increase the equilibrium level of income increases more via money supply (Ataç, 2002: 94).

If a country's exchange rate regime is flexible, in case of an increase in government purchases, aggregate demand and national income increases (capital movements ignored here). Some of the aggregate demand tend to foreign countries and import increases. However, increasing demand to the foreign goods increases foreign currency demand. Thus, while domestic currency depreciates, foreign currency appreciates. Because of the appreciation of foreign currency, inclination for foreign goods decreases and demand for domestic products increases. As a result , foreign trade deficit doesn't increase, foreign currency exchange reserves are not effected and money supply doesn't decrease. Fiscal policy is more effective in the flexible exchange rate regime. If capital movements are taken into account, increased government spending increases capital movements to the country because of the raised interest rates. If central bank purchases foreign currency, money supply increases and interest rate decreases. In this case, increase in income level is higher because of the increasing money supply (Ataç, 2002:92-93).

Fiscal policy is more important in the less developed countries. In these countries, the main goal of the administrators is economic development. If these countries want to develop, they should accept the government's leadership position. Government can realize economic development via intervention to the economy. Using production factors and facilities efficiently for economic development can be realized with fiscal policy instruments. Also, one of the main problems of the less developed countries is low capital accumulation. To accelerate capital accumulation, it is needed to raise the ratio of savings to gross domestic product. Since voluntary savings are considerably low in less developed countries, fiscal policy provides capital accumulation. As Ragnar Nurkse indicates; a fast economic development depends on the governments' willingness to increase savings. Therefore, government should increase both voluntary savings and compulsory savings that obtained via taxes (Türk, 2008:16-17).

2. Classical Approach

Classical approach accepts that all markets are competitive (labor, good and financial markets), firms are price takers and profit maximizing, prices are flexible (no price-wage

rigidity) that provides equilibrium in all markets, consumers are rational, all agents have perfect knowledge, how much economy can produce is determined by production function of the economy, and there is full employment (of all factors of production). Under these assumptions, economy is efficient, and in case of deviation from equilibrium level, it is temporary and economy turns back equilibrium level itself, there is no need for government policy.

Flexible price framework exhibits "classical dichotomy" which claims that changes in nominal variables effect only nominal variables not real variables. For example, changes in inflation and the money supply has no effect on aggregate output, real interest rate or investment (Mishkin, 2011: 214).

In classical economy, equilibrium level of output could be shown by using the following graph:

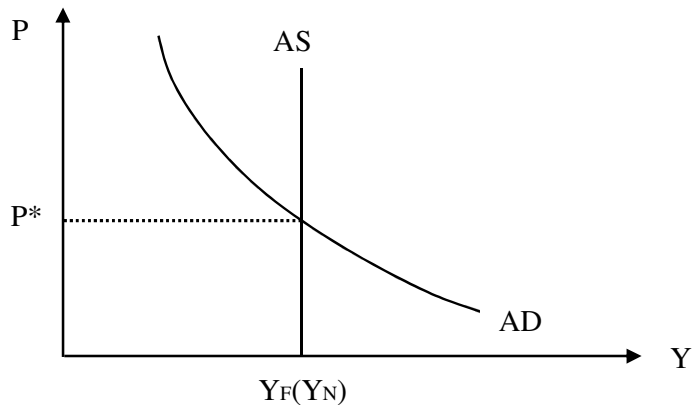


Figure 6. Classical AD-AS Framework

At this classic AD-AS model, vertical AS curve predicts how much economy can produce with full capacity, and AD curve determines prices. Here, Y_F is full employment level of output. This equilibrium shows that there is always full employment level of employment in this economy (if there is an unemployment, it is voluntary-natural unemployment that is the sum of frictional and structural unemployment). Since economy is always in full employment level of output, neither expansionary monetary policy nor expansionary fiscal policy increases total output. If government conducts an expansionary monetary policy, it only increases prices and doesn't affect output level (Ünsal, 2005: 278).

Classicals conclude that government shouldn't conduct any policy to stabilize the economy. If there is a problem, it is temporary and can recover itself. The main task of the government is providing defense of the nation, contacting international relations, and realizing balanced budget principle (Ataç, 2002: 6).

2.1 Monetary Policy in Classical Model

Classicals claim that monetary policy has no real effect. The main reason that underlies this conclusion relşes on their assumption which states that all prices and wages are flexible. Figure 7 shows implementation of expansionary monetary policy and results step by step.

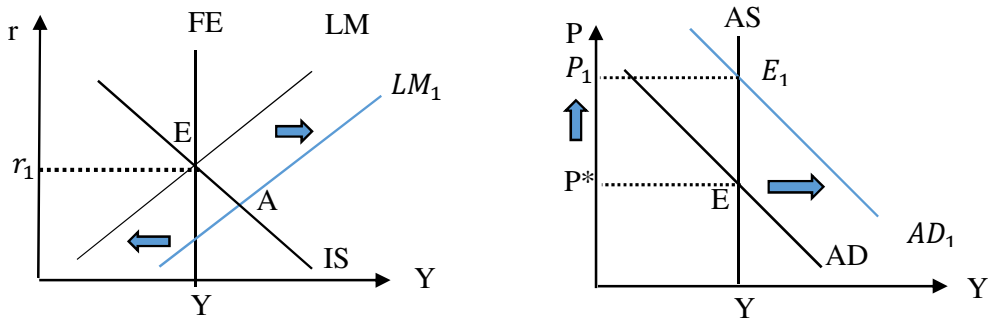


Figure 7. Effects of Expansionary Monetary Policy in Classical Model

Economy is in equilibrium at Y natural output level and P* price level. Then government decides to conduct expansionary monetary policy. Increasing money supply shifts the LM cureve right to LM_1 which causes interest rate to decresase. This decreasing causes to shift LM curve to the right (from LM to LM_1). New intersection point of IS and LM_1 is A. At this point, AD>AS which means prices have to increase. Since prices are already flexible, they increase which causes to shift AD curve from AD to AD_1. Also the rise of the price level causes to reduce real money supply and shifts the LM curve up. Finally, economy comes to its initial output level at E. As it seen, expansionary monetary policy cannot effect output level. It only effects prices. Therefore, as it said, in classical model "Money is neutral".

Another important point is that increasing money supply caused to increase prices at the same level (for example if government increases money supply 5%, this causes to increase prices 5%). This is explained as Quantity Theory of Money in classical model.

This theory says the only reason of the inflation is money supply increases. Therefore, in classical model, if government wants to control inflation, it should control the increases in money supply (Ünsal, 2005: 278).

2.2 Fiscal Policy in Classical Model

Classicals' aspect to the fiscal policy is not different than monetary policy. Figure 8 shows the results of an expansionary fiscal policy. Initially, economy is in full employment level of output at Y and P* price level. Government conducts expansionary fiscal policy and increases government expenditures which cause to decrease private savings (↓S=Y-C-G↑). Decreasing savings causes to increase interest rate which then causes to shift IS curve from IS to IS_1. New intersection point is A where AD>AS. Since prices can be adjusted rapidly, AD curve shifts to the right (from AD to AD_1) and prices increase from P* to P_1. Increased prices cause to shift LM curve from LM to LM_1. Finally, economy reaches general equilibrium at point B which is the initial output level. Consequently, expansionary fiscal policy has no effect on output.

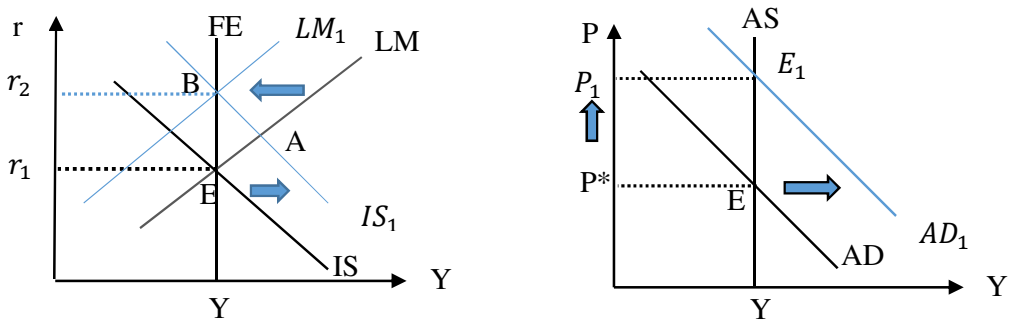


Figure 8. Effects of Expansionary Fiscal Policy in Classical Model

This increased price level causes to decrease real money supply and increase interest rate which also causes to decrease private investment expenditures. In classical model, increasing government expenditures causes to decrease private investment expenditures. This is called as "crowding out effect" (Ünsal, 2005: 280). Crowding out effect has two types: complete and incomplete crowding out effect. Figure 9 shows that what happens to the real GDP and unemployment in the context of crowding out operation mechanism.

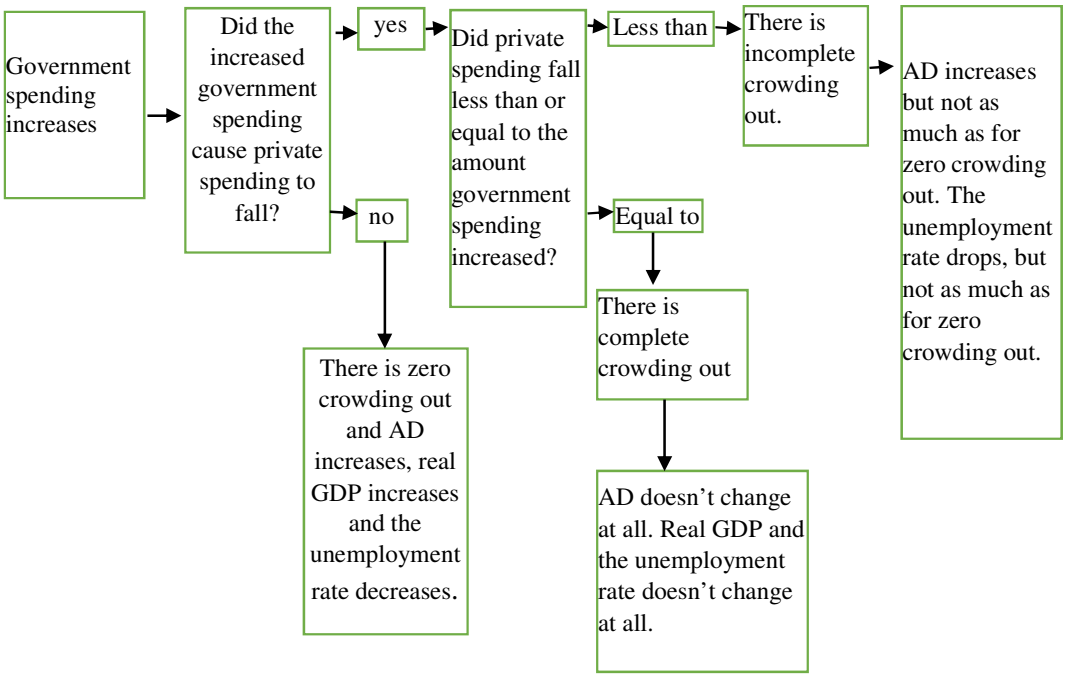


Figure 9. Effects of Expansionary Fiscal Policy In Terms of Crowding Out Effect

Source: Arnold, 2010: 241.

3. Keynesian Approach

Before Keynes, authorities had accepted that the best policy is politicism. Economic fluctuations were perceived as natural disaster like storm, earthquake and flood. Keynesian revolution started at the mid of 1930's and lasted till 1960s. Keynesian approach had a fundamental change in economic theory (Parasız, 2006: 356). During the Great Depression, when authorities looked for a remedy, Keynes suggested government interference as a rescuer solution. He suggested that the government decisions especially about government purchases and taxes can significantly affect output and employment levels. Namely, fiscal policy is effective in stimulating demand and output. Monetary policy is also practicable, but it is not effective as fiscal policy to increase output. After the war years, the main opinions of the Keynesian school can be ranged as;

1. The economy is intrinsically unstable and is subject to erratic shocks. These shocks initially affect changes in the marginal efficiency of investment that also causes a change in the state of business confidence, or as Keynes referred a change in investors' 'animal spirits'.

2. In case of a disturbance, if politicism is choosen, the economy can take a long time to recover and to return to the neighborhood of full employment after a shock which means that the economy is not rapidly self-equilibrating.
3. The aggregate level of output and employment are essentially determined by aggregate demand. Therefore to recover more quickly the economy, the authorities can intervene to influence the level of aggregate "effective" demand.
4. Since the effects of fiscal policy measures are more direct, predictable and faster acting on aggregate demand than those of monetary policy, fiscal policy is generally prefered. These opinion is shown in the orthodox Keynesian model, known as the IS-LM model (Snowdon and Vane, 2005: 102).

Furthermore, Keynesians claimed that prices and wages are not flexible. Prices are sticky because of the monopolistic competition and menu costs. Wages are rigid because of the effective wages (because of the labors' health status, turnover costs, and carrot and stick effect, firms offer higher wages than the market clearing wage). Unlike the Classical approach, Keynesians cover unemployment issue as an involuntary situation.

Moreover, AS curve is not vertical in the Keynesian approach. As mentioned above, economy is not always in full employment level of employment. Initially, AS curve has positive slope than it takes vertical shape (namely full employment level of output).

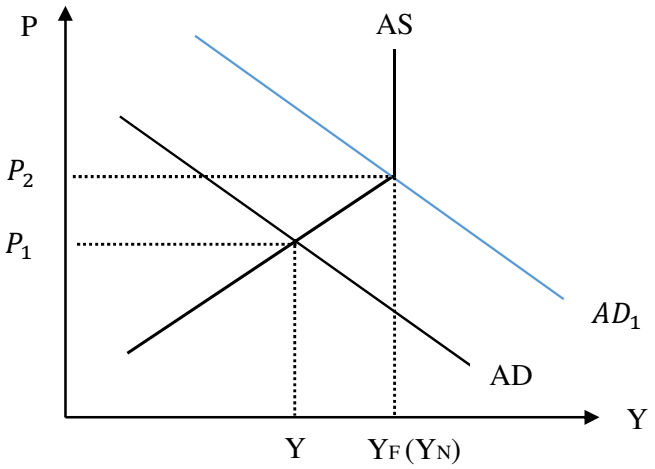


Figure 10. Keynesian AD-AS Framework

If aggregate demand curve is AD, equilibrium level will be less than full employment level of output. Also there will be unemployment in this economy. However, if aggregate demand curve is AD_1, there will be full employment level of output. Output level is decided by AD's location in the Keynesian approach. The main difference of the Keynesians from Classics is the results of monetary and fiscal policy. They believe that if any decline occurs in economy's private sector demand side, it should be offset by monetary or fiscal policy to stabilize aggregate demand, output and employment (Froyen, 2009: 233). Using with these policies economy can reach to full employment level of output (Ünsal, 2005: 282). Active stabilization policy is needed to maintain good economic performance (Dornbusch and Fischer, 1990: 437).

3.1 Monetary Policy in the Keynesian Model

Keynesians reject the flexibility of prices, and accept that prices are sticky at least in the short run. This means that economy is not in general equilibrium in the short run. However, when prices adjust, economy reaches its general equilibrium at the intersection of IS curve, LM curve and FE line- in the long run. In Figure 11, economy is its initial level at point E, then central bank increases MS which causes to shift LM and AD curve to the right (a 10% increase in MS shifts AD curve up by 10% at each level of output). Unlike the classical model, sticky prices cause to reach new equilibrium level that output is higher than full employment level which is point A (because of menu costs firms don't immediately react to increased demand by raising prices, they increase production in the short run). Expansionary monetary policy increased output in the short run.

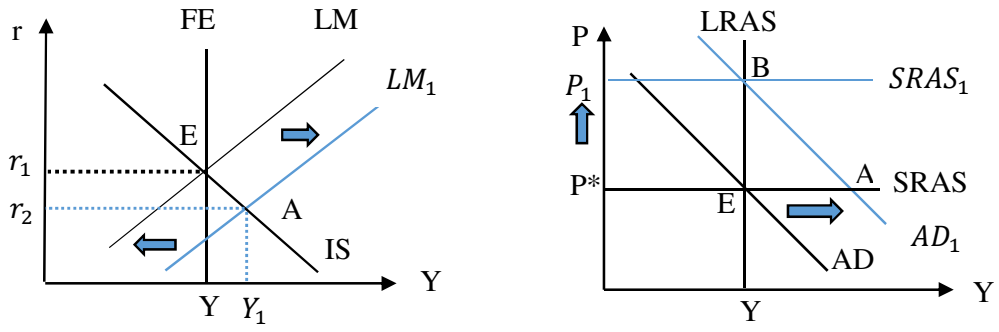


Figure 11. Effects of Expansionary Monetary Policy in Keynesian Model

However, the rigidity of the price level is not permanent. Eventually, firms review and readjust their prices, allowing the economy to reach its long-run equilibrium. The rise in the price level returns the real money supply to its initial level, which shifts LM_1 curve back to LM, and shifts SRAS curve to up, and restores the general equilibrium at point E (B at AD-AS). Consequently, Keynesian model predicts that money is not neutral in the short run (it is neutral in the long run).

Keynesians believe that the indirect effect of monetary policy has more importance. They state that monetary policy effects real output through changes in the interest rate. In case of increase in money supply, money supply curve shifts right and there will be more money than desired in people's hand. Therefore, they will spend this excess money to buy bonds. It will cause to increase prices of bonds and will decrease interest rate. This reduction in interest rate will effect planned investment and it will also increase. An increase in investment will also increase aggregate demand. Than real GDP will increase. This is described as "Transmission Mechanism of Money". Increased money supply finally caused to increase output. However, many traditional Keynesians believe that monetary policy is not very effective toward recessions. Although expansionary monetary policy can decrease interest rates, it has a little actual impact on interest rates. It stems from the risks of unemployment and other losses which lead people to accumulate this excess money in their bank accounts. Their desire for increased liquidity prevents interest rates from falling very much which than causes virtually no change in investment spending and aggregate demand (Miller, 2004: 387-397).

Indirect Keynesian transmission mechanism implies that changes in money market don't directly affect the goods and services market. Crucial role is belong to interest rate. However, sometimes although interest rate is low, investments are not as much as high. It stems from firms pessimistic expectations about the future. In such cases, investment is insensitive to the interest rate. Furthermore, if investment is not affected across from changes in money supply, this means economy is in liquidity trap. In liquidity trap, money demand curve is vertical and increases in money supply do not decrease interest rate. Therefore there will be no change in aggregate demand, investment and real GDP (Arnold, 2010: 314-315). This sequence can be seen in the following graph.

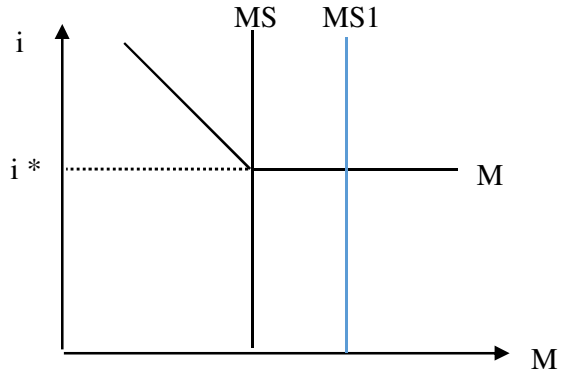


Figure 12. Effects of Monetary Policy at Liquidity Trap

3.2 Fiscal Policy in the Keynesian Model

To conduct the expansionary fiscal policy, there are two instruments: Increasing government purchases or decreasing taxes. Figure 13 shows the effects of an expansionary fiscal policy. Initially, economy is in equilibrium at point E. A temporary increase in government purchases increases the demand for goods and reduces desired national saving at any level of interest rate. Then AD curve shifts right. Also IS curve shifts up. Producer who sees the increase in AD, doesn't adjust prices quickly so increases production. Short run equilibrium is in point A. Output increases to Y_1 and real interest rate rises to r_2 As firms increase production, employment increases too.

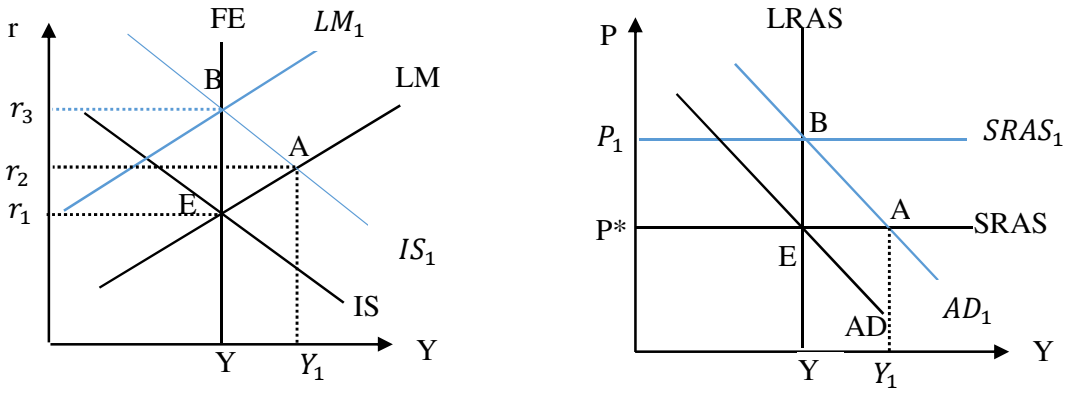


Figure 13. Effects of Expansionary Fiscal Policy in the Keynesian Model

At point A, the aggregate demand for output is greater than full employment output. Therefore producers eventually adjust the prices and increase them. LM shifts to left. In the long run, economy reaches full employment general equilibrium at point B with same output and higher price level.

The difference between expansionary monetary and expansionary fiscal policy in terms of change of interest rate is open. In the case of expansionary monetary policy interest rate falls, whereas in the case of expansionary fiscal policy interest rate rises (Mishkin, 2003: 567).

A contractionary fiscal policy (decrease in government spending or increase in taxes) reverses this process and causes aggregate demand to fall which shifts IS curve to the left and causes both aggregate output and real interest rate to fall. Therefore, aggregate output and the interest rate are positively related to government expenditures and negatively related to taxes (Mishkin, 2003: 568).

4. Monetarist Approach

This approach's prime mover is Milton Freidman who was awarded the 1976 Nobel Prize in economics. He listed key propositions of monetarism as (Freidman, 2003 : 83-87);

1. There is a consistent though not precise relation between the rate of growth of the quantity of money and the rate of growth of nominal income. That is, whether the amount of money in existence is growing by 3 per cent a year, 5

per cent a year or 10 per cent a year will have a significant effect on how fast nominal income grows. If the quantity of money grows rapidly, so will nominal income; and conversely.

2. The relationship between the quantity of money and nominal income is not obvious to the naked eye largely because it takes time for changes in monetary growth to affect income and how long it takes is itself variable.

3. The rate of monetary growth is not very closely related to the rate of income growth today. Today's income growth depends on what has been happening to money in the past. What happens to money today affects what is going to happen to income in the future.

4. The changed rate of growth of nominal income typically shows up first in output and hardly at all in prices. If the rate of monetary growth is reduced then about six to nine months later, the rate of growth of nominal income and also of physical output will decline. However, the rate of price rise will be affected very little. There will be downward pressure on prices only as a gap emerges between actual and potential output.

5. On the average, the effect on prices comes about six to nine months after the effect on income and output, so the total delay between a change in monetary growth and a change in the rate of inflation averages something like 12–18 months. That is why it is a long road to hoe to stop an inflation that has been allowed to start. It cannot be stopped overnight.

6. Even after allowance for the delay in the effect of monetary growth, the relation is far from perfect.

7. In the short run, which may be as much as five or ten years, monetary changes affect primarily output. Over decades, on the other hand, the rate of monetary growth affects primarily prices.

8. Inflation is always and everywhere a monetary phenomenon in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output.

9. Government spending may or may not be inflationary. It clearly will be inflationary if it is financed by creating money, that is, by printing currency or creating bank deposits. If it is financed by taxes or by borrowing from the public, the main effect is that the government spends the funds instead of the taxpayer or instead of the lender or instead of the person who would otherwise have borrowed the funds. Fiscal policy is extremely important in determining what fraction of total national income is spent by government and who bears the burden of that expenditure. By itself, it is not important for inflation.

10. Monetary growth affects interest rates in one direction at first but in the opposite direction later on. More rapid monetary growth at first tends to lower interest rates. But later on, as it raises spending and stimulates price inflation, it also produces a rise in the demand for loans which will tend to raise interest rates. In addition, rising prices introduce a discrepancy between real and nominal interest rates. That is why world-wide interest rates are highest in the countries that have had the most rapid rise in the quantity of money and also in prices– countries like Brazil, Chile or Korea. In the opposite direction, a slower rate of monetary growth at first raises interest rates but later on, as it reduces spending and price inflation, lowers interest rates. That is why world-wide interest rates are lowest in countries that have had the slowest rate of growth in the quantity of money – countries like Switzerland and Germany.

According to this approach there are two aggregate supply curves so there are two equilibrium level. Considering Figure 14, for the short run, equilibrium level is the point that SRAS and AD curves intersect. For the long run, equilibrium level is the point that AD, SRAS, and LRAS curves intersect (Ünsal, 2003: 286).

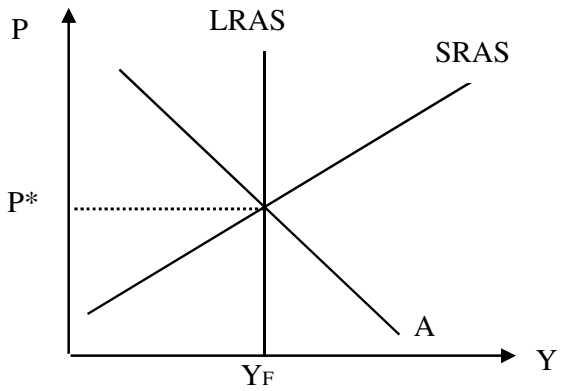


Figure 14. Monetarist AD-AS Framework

Monetarists support constant growth rate rule (CGRR) that advocates a fixed percentage growth rate for the money supply, in contrast to the variable growth rate. Moreover, they are optimistic about the underlying stability of the private economy but pessimistic about the efficacy of stabilization policy. They believe private spendings are stable (the stability of private spendings stems from the permanent income hypothesis of consumption.) Furthermore, not only private spending is relatively stable but also demand for money. As a result, the velocity of money grows at a steady and predictable rate. Also, after conducting a policy, it sometimes shows its effects so late that can cause to push economy to the wrong direction, so an activist monetary or fiscal policy can cause more harm than good. They believe that any observed instability just reflects the side effects of manipulation of the money supply or other activist policy intervention. Monetarists put little emphasis on short-run events and pay primary attention to the consequences of present actions in the future (Gordon, 1990: 454-457).

4.1 Monetary Policy in the Monetarist Approach

To get intended result from monetary policy depends on whether public has the information of MS increasing or not. If producers have an information like central bank will increase money supply at 10%, then they will increase prices at the same level. However, if they have no information about the increase in MS, they will adjust their expectations according to past experiences. This is called as adoptive expectations hypothesis;

$$P_t^e = P_{t-1}^e + \lambda(P_{t-1} - P_{t-1}^e) \quad 0<\lambda\leq 1$$

Here, P_t^e is the current period's expected inflation.P_{t-1}^e is the last period's expected inflation. As it is seen, current period's expected inflation depends on past expectations. When λ=1, P_t^e equlas P_{t-1}.This is static expectations which means that this year's inflation is expected to be the same as last year's inflation. People look at the expected inflation at last period and realized inflation at last period if there is a difference between them than they change expected inflation for next turn (Gakieh, 2008: 5). If actual price level is higher than expected price level, output exceeds full employment level of output. Otherwise, if actual price level is lower than expected price level, output is less than full employment level of output. In the long run, the expected price level equals to the actual price level so output equals full employment level of output. Thus, the long run AS curve is vertical. Figure 15 summarizes this process.

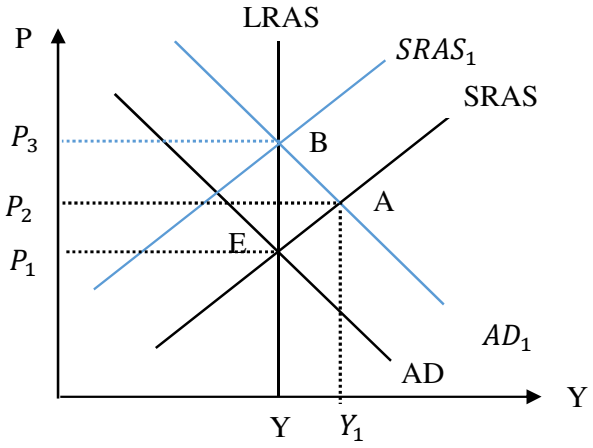


Figure 15. Effects of Expansionary Monetary Policy in the Monetarist Approach

Here, economy is initially in general equilibrium at point E. Everyone expects the money supply and the price level to remain constant. However, central bank increases it by 5%. Then AD curve shifts from AD to AD_1. In the short run, new equilibrium is at point A. Here, the actual price level exceeds the expected price level, and output exceeds full employment level of output. Since the increase in money supply leads to rise in output, money is not neutral in the short run. The reason why money is not neutral is that producers are deceived. Although output increases in the short run, producers are not better off. If they had known the true relative prices, they would have end up producing more than they would have. People then obtain information about the true level of prices

and adjust their expectations accordingly. Conclusively, an anticipated increase in the money supply raises output and is not neutral in the short run. However, after people have learned true price level, it is neutral in the long run.

Monetarists also have an explanation related with transmission mechanism of money. They believe that expansionary monetary policy works more directly into the economy. With increasing in money supply, people will have more money than they desired and they will spend this excess money to buy more durable goods like cars and houses. However, people cannot buy more of these goods and eventually prices increase, so in the long run there will be no real effect only price level increases (Miller, 2004: 388).

Although there is a short run real effect of monetary policy, monetarist states that because of the lags, conducting expansionary monetary policy may cause to make worse current inflation. Namely, it can cause to destabilize the economy. Because of this reason, policymakers should follow a monetary rule which offers increasing money supply steadily at a rate consistent with the economy's long run potential growth rate such as increase in the money supply smoothly at 2% per year. Therefore, instead of a central bank, even a computer program can do this job (Miller, 2004: 388).

4.2 Fiscal Policy in the Monetarist Approach

Keynesians stated that fiscal policy by itself effects the level of income and large deficit that stems from expansionary fiscal policy would have the same expansionary influence on the economy whether it was financed by borrowing from the public or by printing money. On the contrary, monetarists assert that fiscal policy by itself is generally ineffective. For them, if government increases expenditures without increasing taxes, government can meet deficit with printing money. Here, issue is wanted to take hand from only fiscal side so it is out of the topic. Second way for meet the deficit is borrowing from the public. This causes that people who lend the fund to the government have less to spend or lend to others. While government and people who receive government funds can spend higher, people who lend to government can spend less. Therefore, monetarists give more importance to the monetary policy than fiscal policy (Freidman and Goodhart, 2003: 78-79).

5. Lucas Critique and the New Classical Approach

At the beginning of 1970s, it was obviously seen that macro-economic policies cannot provide the desirable stability. At those years, unemployment was increasing and output was decreasing while inflation was accelerating. It caused to emerge a new opinion which explains how the economic fluctuations occur and how they can be eliminated. This opinion's main point was the rational expectations hypothesis. It mainly states that a policy's effectiveness depends on whether this policy is anticipated or not. Therefore, depending on whether policy is anticipated or not, its effectiveness on the output, price and other variables can be analyzed (Parasız, 2006: 356).

Lucas tried to explain the failure of the activist policies with using rational expectations. He implied that when people form their life-cycle consumption, they not only think their current income, but also take care their expected future income. While Keynesians ignore expectations, new classicals give main importance to this issue. Rational expectations states that individuals form their expectations not only with using past experiences as adaptive expectations states but also using with the all available information. In fact, Freidman's permanent income model is a good example for rational expectations. If government announce that taxes would be cut for all future time, people who form their expectations rationally will consider that their permanent income so consumption would rise; but people who have adaptive expectations wouldn't predict the increase in their future income since it is based merely on past income, and this will cause that prediction of the consumption function will be under predict (Hoover, 1988 :185-186).

In this model, although individuals form rational expectations, they can make prediction mistakes which cause short run deviations of real variables from their long run equilibrium levels. This is because economic agents don't have perfect information. On the other hand, what classicals had supported is that economic agents have perfect information and even in the short run, there is no deviation from the full employment level of output (Froyen, 2009: 233).

The main features of the new classical approach can be ranged as (Snowdon and Vane, 2005: 223);

- All economic agents are rational. While firms maximize their profits, labor and households maximize their utility.

- There is no money illusion which means that only relative prices have importance for optimization of decisions.
- There is complete and continuous wage and price flexibility that provides market clearing.
- This approach also shows that macroeconomic theorizing can be supported with neoclassical choice theory micro foundations within a Walrasian general equilibrium framework.

According to New Classicals 'the ultimate macroeconomics is a fully specified general equilibrium microeconomics. This situation can be interpreted as: this approach mentions both the revival of classical models and the euthanasia of macroeconomics (Snowdon and Vane, 2005: 220).

5.1 Effects of Policies in the New Classical Model

People who have rational expectations don't make systematic errors. Forward looking labor suppliers cannot be systematically fooled. New classical economists imply that a policy's effectiveness depends on whether it is anticipated or not. Policy change can be anticipated, because the policymaker announces the policy change or policymaker acts in a systematic way that could be predicted. If policy was anticipated, than there will be no change on the real macroeconomic indicators. However, if it was unanticipated, there will be change in real variables in the short run. Figure 16 shows the anticipated and unanticipated policy change's effects.

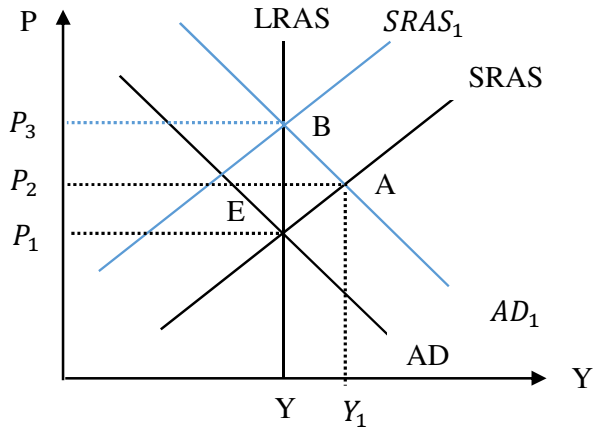


Figure 16. Effects of Anticipated and Unanticipated Monetary Policy on the Real Output and Prices

Initially, economy is in general equilibrium at point E. Central Bank announces that it is going to increase money supply. Then, all agents form their general price level expectations relying on this information when the MS increases, AD curve shifts up from AD to AD_1. Because the increase in the money supply is anticipated by public, the expected price level increases at the same level. Thus, the SRAS curve shifts up from SRAS to $SRAS_1$. New short run equilibrium is the same as the long run equilibrium. An anticipated increase in the money supply is neutral in both short run and long run so there is no need for active stabilization policy. Fully anticipated monetary policy has no effect on real variables even in the short run. This is called as policy ineffectiveness proposition (Miller, 2004: 409).

On the other hand, in case of private agents expect no change in money supply and price level what happens if central bank increases money supply? Firms and labor have imperfect information about the general price level and misinterpret changes in the general price level as changes in the relative prices of their goods/service. Therefore, there will be increase in production and labor supply. AD curve will shift from AD to AD_1. This unanticipated change in money supply causes deviation from full employment. However, when agents obtain information about the true level of prices and adjust their expectations, SRAS curve will shift from SRAS to $SRAS_1$ and economy will come to equilibrium at full employment level again. In the long run, an unanticipated change in money supply effects only price level. Therefore, New Classicals state that in the long-run money is neutral.

If a shock occurs in an economy which was anticipated by policymakers formerly, other economic agents also could anticipate this shock. In this case, there is no need for conducting economic policies. If the shock is unanticipated, policymakers and other economic agents would have been unable to offset this shock because of the imperfect information. If the effects of this shock are expected to continue in the next periods, since other private agents would have this expectation still there would be no need for an active economic policy (Froyen, 2009: 235).

One of the other important features of the new classical approach is that this model shows that an expansionary policy can decrease total output. If people wait more expansionary

policy than conducted, this situation occurs. Thus, policymakers cannot be sure the results of the policies that they will conduct (Şıklar, 2012: 270).

Keynesians directs some criticisms to the New Classicals. Some of their criticisms can be ranged as (Froyen, 2009: 244);

- New classical model failure to explain the prolonged unemployment experienced by the US and other industrialized countries.
- Rational expectations assumption is unrealistic since it assumes all the agents can reach all the information.
- Since labor market is a contractual market, wages are not flexible, which causes involuntary unemployment.

Also they are criticized because of their representative agent assumption. This assumption states that the aggregate economy has only a single individual, whereas in the real world, almost all the problems in the macroeconomy stems from interactions of different agents making different choices. New classical economists accepts this criticism (Colender, 2008: 347).

Briefly, new classical approach states that in recessions neither monetary nor fiscal policy is useful to stabilize the economy. The most useful way is using the automatic stabilizers which helps to reduce the intensity of the recession (Colender, 2008: 350).

6. Automatic Stabilizers

Some economists believe that active monetary or fiscal policy can cause destabilize the economy because of lags and prediction difficulties. However, automatic stabilizers that connected with national income provides to ease business cycles without any new government action. Income taxes, transfer payments and government purchases are basic automatic stabilizers.

For instance, in case of a recession, unemployment rises. This causes to consumption decrease, thus income decreases via multiplier process. However, thanks to unemployment insurance system, government pays some amount of money that helps to recover individual's income. In this manner, government spending increases, and decrease in income is stopped automatically without any action. Furthermore, tax system provides stabilization in an economy automatically. In case of a recession, tax revenues

fall; in case of an expansion tax revenues rise. Thus, it provides to stimulate the economy (Colander, 2008:345). Also, agriculture support programs are one of the main automatic stabilizers. Since, agricultural product market has a fluctuating structure, to provide stability in this market government uses this stabilizator. In case of excess supply in this market, government enters to market and purchases this excess supply. Also, if there is a shortage in agricultural products market, government launches the products that it purchased before. By this way, government protects price and amount stability in agricultural products (Demir, 1997: 230). In addition to these, private institutions also have automatic stabilizers. For example, custom of corporations maintains their dividents in all circumstances and in the future these retained earnings act like a shock absorver or automatic stabilizer (Samuelson, 1981: 336).

If automatic stabilizers are strong, in case of a recession, budget deficit occurs; in case of an inflation, budget surplus occurs. The power of automatic stabilizers depends on elasticity of public revenue and public expenditure. Namely, it depends on that how much public revenue and expenditure increases with an increase in national income. It is named as income elasticity of budget. If budget has enough income elasticity, changes in macroeconomic indicators will bring about to changes in tax revenue and government spending at a required level and required way. Thus, stabilization can be realized (Serin, 1998: 313).

Samuelson (1981) concludes that although automatic stabilazors are first line of defense, they are not sufficient to maintain full stability in an economy. They can decrease the intensity of fluctuations but cannot wipe out 100% of the disturbance. Today, an automatic gyropilot can control an airplane quite stable for a while but when it encounter for an unusual situation, human pilot must take over the airplane. It is same also in social field. Any country haven't form their own set of constitutional procedures that displace discretionary monetary and fiscal policy.

7. Lag of Economic Policies

When governments conduct a stabilization policy, they have to take into account that they should adjust their policy instruments to keep the economy on the desired path. Because of the long and variable lags, monetary and fiscal policy can cause worse results. Namely, stabilizing policies can cause destabilizing (Mankiw, 2000: 384).

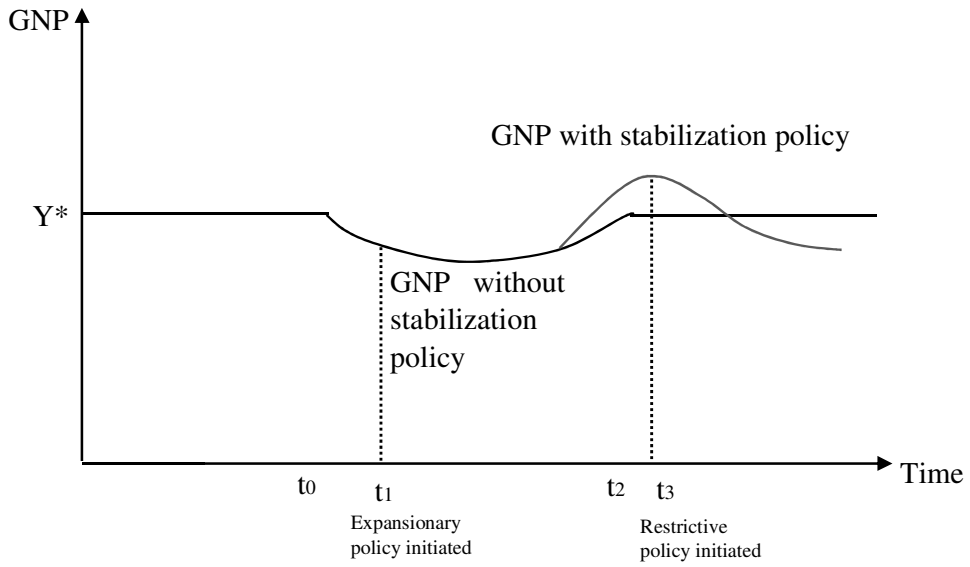


Figure 17. Lags and Destabilizing Policy

Source: Dornbusch and Fisher, 1990: 452.

Figure 17 shows what it is implied exactly. Suppose that there is an aggregate demand shock at time t_0. If government doesn't conduct a policy, initially output declines. However it then recovers and reaches the full employment level again. However, if government see disturbance and conducts an active stabilization policy at time t_1, its effects will appear sometime after because of the lags. Finally, this expansionary stabilization policy causes to recover output faster which than cause to overshoot the full employment level. Then, restrictive policy is conducted by government at time t_3. This policy also causes to turning down of output toward full employment and it may continue to cycling for a period of time. Consequently, stabilization policy may destabilize the economy (Dornbusch and Fischer, 1990: 452).

Also figure 18 shows the drawbacks of lags. In case of a recession, conducting fiscal policy may cause to sustain instability.

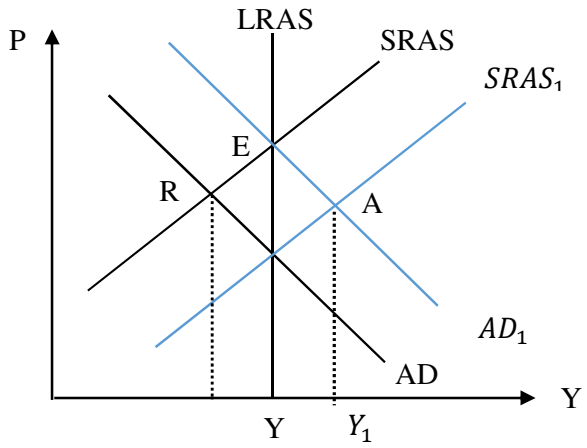


Figure 18. Effects of Lags When Conducting an Active Fiscal Policy

Initially, suppose that economy is in a recessionary gap at point R. When government officials recognize the disturbance, they consider that economy cannot healing itself so there is need to conduct an expansionary fiscal policy to shift the AD curve from AD to AD_1 so that it will intersect the SRAS curve at full employment level of output (point E). By the time, the economy is said to be regulating itself. The SRAS curve shifts to the right from SRAS to $SRAS_1$. Since it takes time to collect and analyze related datas, government officials cannot aware this change. Government action causes to intersect AD and SRAS curves at point A rather than point E which also causes an inflationary gap. Instead of stabilizing the economy, government action caused destabilizing.(Arnold, 2010: 242)

7.1 Types of Lags

Lags are distinguished to two types as inside lag and outside lag. Since, after the shock, policymakers look for an appropriate remedy (true policy), inside lag occurs between the shock to the economy and government policy decision. It is divided to three parts: recognition lag, decision lag and action lag (Parasız, 2006: 357).

Recognition lag occurs between the starting of economic disturbance and the time administrators recognize that action is needed. If the disturbance is predicted and appropriate policies are considered before, this lag can be negative. Moreover, Solow and Kareken found that the recognition lag is about five months. They observed that the lag is shorter when the required policy is expansionary, and it is longer when required policy

is restrictive. Recognition lag is the same for monetary and fiscal policy (Dornbusch and Fischer, 1990: 453).

However, there are differences between fiscal policy and monetary policy in decision lag. Decision lag is short for monetary policy and long for fiscal policy. A long decision lag is an important problem especially for conducting fiscal policy for economic stabilization. For instance, in the US, to conduct a fiscal policy (change in taxes or expenditures) president and Congress have to approve that legislation together. However, the slow legislative process generally makes fiscal policy an inaccurate tool for stabilizing the economy. Unlike fiscal policy, central bank decides and conduct monetary policy more promptly. Therefore, monetary policy usually has a much shorter decision lag (Mankiw, 2000: 384).

Action lag which is between policy decision and its implementation is also short for monetary policy. Besides, it is nearly zero. However, it is longer for fiscal policy (Dornbusch and Fischer, 1990: 454).

Outside lag also occurs between government's policy action and its influence on the economy. Especially, monetary policy has a substantial outside lag. Monetary policy effects initially interest and then investment. However, firms decide investment plans in advance. This causes a lag that lasts about six months which means that after conducting monetary policy, its effects will be late and this policy will not affect economic activity until six months after it is conducted (Mankiw, 2000: 384). Conversely, fiscal policy has a shorter outside lag. Therefore, using active fiscal policy seems more attractive (Dornbusch and Fischer, 1990: 457).

Chapter 3

History of FDI and Macroeconomic Stability in Turkey

In this part of the study, the short history of FDI in Turkey from the early 19th century will be analyzed. After investigating the general trends of FDI in historical perspective, the stabilization experiences of the country will be reviewed in order to evaluate the performance of FDI inflows and attempts to attract it.

1. History of FDI in Turkish Economy

Here, the history of FDI in Turkish economy will be examined by seperating it to 5 parts: The term before the Turkish Republic, foundation years, 1950-1980, 1980-2003 and after the 2003 year.

1.1 The Term Before the Turkish Republic

Ottoman Empire opened its economy to the international markets with the influence of Western powers in the 1830s.With the 1838 Commercial treaty that signed with Britishs; it became the most liberal country of the 19th century. Its increasing debts since the 1850s, interlaced the Ottoman economy with international capital markets and a significant increase in FDI occured only in the 1880s (Grigoriadis and Kamaras, 2008: 54).

Ottoman Empire has about one and a half century experience in foreign direct invesments. However, it is difficult to say an exact number related with investment amount. One research presents that foreign investments that devolve from Ottoman state to Turkish republic controls 94 institutions inside of national treaty (Misak-ı Milli). Their investment amount was about 63.4 million British pounds in these institutions (Karluk, 2007: 578).

In Ottoman state, foreign direct investments intensified generally on the service sector like banking, insurance and trading; and infrastructure fields like transportation (namely railways), electricity and water. The reason why foreign capital chooses these areas is both profitability of these areas and foreign capital's own structure. Also, the reason why foreign capital didn't invest to the industry sector is foreigners' priority to meet their own market demand at these years (Kepenek and Yentürk, 2000: 11).

Svedberg (2003) cites from Feis (1930) that amount of accumulated foreign investments was 1.200 ml$ in the 1914. 62% of these investments belonged to portfolio investments

that spent to government bonds. At least 20% was consisted of railway investments which were controlled by the foreign investors and 18% is done by private enterprises. Therefore, 20-38% of foreign private investments (except railways) was direct in 1914. Table 10 shows the estimated portfolio-direct composition of foreign private investments in Turkey in 1914, by creditor countries.

Table 10. Amounts and Sources of Foreign Investments in Turkey in 1914
(Millions of Dollars)

	Portfolio Investment	**Direct Investment**	**Total Investment**
Great Britain	116		151
France	463	97	637
Germany	174	143	428
Total	753	240	1216

Source: Feis [1930] in Svedberg, 1978: 774.

French investments focused on land companies, mortgage companies, banks, and on coal, silver and copper mines Germans directed their investments to the port constructions and local public utilities. Britishs invested to the areas like oil production and coal mining (Feis [1930] in Svedberg, 1978: 774).

The main part of the foreign direct investments directed to railways. Its share was about 68% in the total foreign investments. Second important investment field was banking and insurunce. It shows that money trade was very profitable in the Ottoman state (Kepenek and Yentürk, 2000: 11). Table 11 shows the sectoral distribution of foreign investments before the World War 1.

Table 11. Sectoral Distrubution of Foreign Investments in Ottoman Emipre before the World War 1

Investments	Amount	Annual Net Return	Return Ratio
Railways	53.310	1.040	1,95
Electricity,Tramway,Water	5.700	170	2,98
Port and Wharf	4.710	160	3,40
Industry	6.500	560	8,61
Trade	2.660	-	-
Mines	3.580	230	6,42
Bank and Insurunce	8.200	890	10,85
Railway km assurance that state paid	-	420	-
Total	84.660	3.370	3,98
Public Debt (external)	149.480	13.000	8,70
Grand Total	234.140	16.370	6,99

Source: Yerasimos [1975] in Kepenek and Yentürk, 2000: 12.

Banking and insurunce provide the biggest return that is more than 10%. The second most profitable investment was financing of public debts which provide 8.7% return to the foreigners. Annual net return of foreign investment is the indicator of resource transfer to the foreign countries. As it is seen from the table 11, state pays more than 16 million Ottoman liras to the foreigners including public debt (Kepenek and Yentürk, 2000: 11-12).

1.2 Foundation Years of Republic

In the foundations year, an economic congress was organized and it was declared that liberal economic policy would be followed. In 1923, at İzmir Economic Congress, it was said that the new state needs a lot of labor and capital which can be met by foreigners. This means new state's administrators approach possitively to the foreign capital issue. At the same time, they also declareted that the country will not be captive of anyone. In parallel with these speechs, some incentives introduced for foreign capital and seisin of the foreigners was liberalized with a law in January 1924. Also, utilizing from the "1927 law for the encouragement of industry" is thought for foreigners (Kuyucuklu, 1993: 179).

In the first year of the republic, total foreign direct investment amount was 250 million TL. Moreover, active foreign company number was 87 at this time. Most of them had concessions and more than half of them belonged to Frenchs and Britishers. 28 of them was insurance company, 23 of them was trading company, 10 of them was transportation

company, 7 of them was tobacco company and the others was in the other fields (Demircan, 1971: 15).

However, the Great Depression in 1929 caused to decrease foreign investments. Therefore, in the post-war term, to recover the economy and to escape from foreigners harms that met by state, some institutions nationalized. This also caused to foreign capital move away from the country. Also with abolition of cabotage law, moving of foreign capital accelerated. Neverthless, entering of foreign capital realized even if just a bit. However, foreign capital entry was not independent as in the past, it was done by acquisitions of Turkish people. It was detected that foreign capital appeared in 66 of 201 companies that established between 1920-1930. Foreigners share in the total capital was 43%. Their investments intensified in texture, food, cement, electricity and lighting gas sectors (Kepenek and Yentürk, 2000: 41).

1.3 1950-1980

Nationalization policy had conducted until the Second World War and foreign direct investment entry was very low until these years. However, after the end of World War 2, Turkey became member of IMF and World Bank which were established with the American strength. It took Marshall aid and also provided military and fiscal aid from US. In fact, all these behaviours show the Turkey's choice between the term's dominant two opinions which are capitalizm and socializm. With cohoosing capitalism, Turkey also tend to encourage foreign direct investments in the country (Karluk, 2007: 580).

Thus, the first regulation about the foreign capital "Protection of the Value of Turkish Currency" Law No: 13 is enacted in 25.05.1947. This judgement was stating that foreigners should bring their currencies in terms of foreign currency and they should invest their capital to the fields like agriculture, industry, trasportation and tourism. If government observes the foreigners' activities useful in terms of developing the country and increasing the exports; then they can permit to transfer of firms profits' some amount, which is determined by government, to the abroad. Foreign investors consider that this decision is ambigious and depends to the government's appreciation and they consider that this decision is not enough encouragable. Moreover, the most important progress is provided by the laws that enacted in 1950 and later on. In 19.01.1954, the more expander Law No: 6224 for the foreign capital enacted which is the foreign capital incentive law.

This law is prepared by US experts and states that foreign private capital can invest all the sectors that domestic capital can invest. Moreover, this law allows the principal and profit transfer and it simplified the executive formalities (Bulutoğlu, 1970: 155-156).

With this law, foreign companies could enter to the country not only in terms of money but also in terms of machine and its parts, license, patent and brand right. A research shows that 3 of 4 foreign private capital consisted of machine and its parts, and only 17% consisted of money capital at that term (Kepenek and Yentürk, 2000: 101).

Another way of foreign capital entry is opened at 18 March 1954 with the Petrolium Law with the number of 6326. It is also prepared by US experts and aims to utilize from foreigners capital and technology for finding and eject petrolium. This term's data show that depending on the petrolium law, 1.8 million foreign capitals entered to the country between 1954-1965. However, it is difficult to say this amount had been dramatically increased the country's petrolium production (Kepenek and Yentürk, 2000: 101). This law was so concessive to the foreign firms in terms of licensing, management conditions and tax&profit transfer (Bulutoğlu, 1970: 157).

The rate of donations and foreign investments during this period are given in Table 12.

Table 12. Foreign Capital Resources between 1946-1954

	US Economic Aids			**Other Aid Foundations**	**Realized Foreign Private Capital**	**Realization Ratio**
	Debt	*Donation*	*Total*			
1946-48	45,4	-	45,4	5,0	-	70,8
1949	33,8	-	33,8	-	-	
1950	40	31,9	71,9	80,4	-	
1951	-	49,8	49,8	-	3.400	70,8
1952	11,2	58,4	69,6	35,2	2.993	11,1
1953	-	58,6	58,6	20	1.148	6,3
1954	-	78,7	78,7	3,8	2.598	2,4

Source: Kepenek and Yentürk, 2000: 102.

As it seen from the table, in 1946-48, 1949 and 1950 there is no foreign investments. After the encouragement law that enacted in 1954, foreign investments have increased.

After the 1954, foreign capital entry has increased. Soon of 1979, foreign investment amount was 53 million $ and only 2.8 million $ was done before the 1954. Neverthless, FDI entry was not as desired amount. Also, in 1974 and 1979 there was FDI exit from the

country. This shows that legal regulations are not sufficient to attract FDI. Table 13 shows the FDI amount between 1954-1980.

Table 13. Foreign Capital Entry After the 1954 law

Years	Annual (Million $)	Cumulative (Million $)	Years	Annual (Million $)	Cumulative (Million $)
Before 1954	2.8	2.8	1967	9.0	69.4
1954	2.2	5.0	1968	13.9	83.3
1955	1.2	6.2	1969	13.2	96.5
1956	3.4	9.6	1970	9.0	105.5
1957	1.3	10.9	1971	11.7	117.2
1958	1.1	12	1972	12.8	130.0
1959	3.4	15.4	1973	67.3	197.3
1960	1.9	17.3	1974	-7.7	189.6
1961	1.2	18.5	1975	15.1	204.7
1962	4.2	22.7	1976	8.9	213.6
1963	4.5	27.2	1977	9.2	222.8
1964	11.9	39.1	1978	11.7	234.5
1965	11.6	50.7	1979	-6.4	228.1
1966	9.7	60.4	1980	53.0	281.1

Source: DPT [1983] in Erçakar and Karagöl, 2011: 12.

Between 1954 and 1975, 109 foreign companies invested in Turkey, 93 of them invested in manufacturing sector so it has the biggest share in terms of capital amount (86.2%). They intensified in the land transport, electirical machinary-electronics, chemistry and plastics sub-sectors (Yavan and Kara, 2003: 29).

Kepenek and Yentürk (2000) states that in these years, used technology by the foreign firms was primitive so was not effective. Therefore, firms production costs was high and this reverberate to the costumers as high prices. Also, these firms were using imported inputs. This also caused to deteriote trade balances. However, Yavan and Kara (2003) point out that foreign companies that come as from 1950s as directly or with acquisition are generally the main companies or MNCs of the World. While their investments was focused on montage initially, they then became the establishor of some sectors in Turkey and contribute to the country's industry with their investments. For example, in automative sector Fiat (came in 1954), BMC (1964), MAN(1966), Mercedes (1966), Renault (1969); in medicine sector Sandoz (1956), Pfizer (1957), Roche (1958), Bayer (1962); in furniture sector AEG (1964), Siemens (1964), Bosch (1970); in food manufacturing Pepsi (1964), Coca-Cola (1965), and lastly in plastics sector Pirelli (1960) and Goodyear (1961) are lead to Turkish industry's related sectors.

Government aimed to encourage foreign investors with the laws but could not reach its goals because of internal and external reasons. The political instabilities like military coup that country experienced, affected the rate of foreign direct investments. Also petrolium crises effected foreign investment amounts not only in Turkey but also in all over the World.

Some other reasons about why the country could not attract FDI as desired rates since the foundation years are;

- Foreign capital phobia that inherit from capitulations,
- Politic remarks,
- The lack of true model that helps to attract FDI,
- The lack of required information and inadequate foreign relations,
- The structure of economic model that is not flexible for collaboration with foreign capital,
- Inconvenient structure of our financial system,
- Inconsistent approach of private sector to the foreign capital (they both want foreign capital and fear from their activities since they are their competitor),
- Government's inadequate actions. It could not perform its leadership positions,
- The capital law's inadequate, inconsistent and powerless structure (Kılıçbay, 1999: 255-256).

Since FDI entry was not as the desired rate and goverment's policies for decresing country's import dependency, import substitution policy was conducted in these years and most of the investments was done by state resources and state hand like cement, tekstyle and sugar factories, barrages, bridges and electric power stations.

1.4 1980-2003

Although all the regulations that enacted in 1950s, the country could not attract FDI as desired rates. In 24 January 1980, Economic Stability decisions were taken that provide more liberal environment for both citizens and foreigners. With this programme, foreign trade was liberalized, export supported, import barriers shortened and privatizations started. Also, in 25 January 1980, Foreign Capital Departmant was established depending upon premiership. Since 1994, it has operated under the Undersecretariat of Treasury.

Stability decisions affected foreign direct investment amounts. Moreover, number of foreign capital compenies dramatically increased. While there were 78 foreign companies in 1980, it reached to 6511 at the end of 2003. Between 1983 and 1993 FDI entry increased year by year. However, because of the economic environment, FDI entry decreased and could not exhibit a consistent rising till 2003. Between 1980 and 2003, Turkey experieced three economic crises which are April 1994, November 2000 and February 2001. These economic disturbances and also political instabilities affected the foreign capital entry. Between 1980 and 2003, while total authorized FDI was 35 million $, realized FDI was 18 million $. In Table 14, foreign capital entry and number of foreign companies exhibited year by year.

Table 14. FDI Amount after 1980

Years	Authorized FDI (Million $)	Total Amount of Inv. at Investment Certificates	No. Of Foreign Capital Companies	Total Capital of Foreign Capital Companies (Bil. TL)	Realizations (Million $)
1980	97,00	76,87	78	28.390	35
1981	337,51	72,16	109	47.400	141
1982	167,00	218,14	147	100.196	103
1983	102,74	199,22	166	147.109	87
1984	271,36	312,28	235	254.775	162
1985	234,49	1.168,16	408	464.981	158
1986	364,00	3.099,74	619	707.164	170
1987	655,24	3.179,53	836	960.035	239
1988	820,52	5.468,27	1.172	1.597.103	488
1989	1.511,94	9.507,35	1.525	4.847.832	855
1990	1.861,16	18.249,28	1.856	7.943.775	1.005
1991	1.967,26	15.893,98	2.123	13.101.036	1.041
1992	1.819,96	17.976,36	2.330	23.441.214	1.242
1993	2.063,39	70.136,27	2.554	36.737.050	1.016
1994	1.477,61	37.202,36	2.830	62.449.964	830
1995	2.938,32	328.447,82	3.161	113.013.790	1.127
1996	3.835,97	1.250.652,13	3.582	235.971.182	964
1997	1.678,21	624.461,10	4.068	458.968.459	1.032
1998	1.646,44	1.016.653,54	4.533	823.560.554	976
1999	1.699,57	1.599.520,36	4.950	1.446.503	817
2000	3.447,42	7.883.004,85	5.328	3.063.464	1.719
2001	2.725,28	2.568.750,00	5.841	6.184.411	3.288
2002	2.242,92	1.535.599,00	6.280	10.092.737	590
Total	33.965,31	16.989.848,77	-	-	18.085

Source: www.ekonomi.gov.tr

In these years, when Turkey's FDI share is compared with the World, it will be seen that Turkey attracted only 0.03 % of total World FDI in 1980. This ratio raised 0.33% in 1990 but it then decreased as from mid of 1990s, and it was 0.07% in 1999 and 2000. Its share in developing countries was 0.21% in 1980, 0.77 in 1995 and 0.68% in 2002. Furthermore, as seen, in these years the lion's share belongs to developed countries, Turkey was the 40th ranks in the begining of 1990s in the world in terms of attracting FDI, but it regreesed to the 50th rank in 2000. Also, the reason of high realized amount of FDI in 2001 is the bidding of a GSM operator in this year. In spite of regional advantages and realized regulations, desired amount of FDI could not be attracted to the country. Table 15 shows the FDI amount by the country groups.

Table 15. Amount of FDI between 1980 and 2002 by Country Groups (Millions of Dollars)

Years	World	Developed Countries	Developing Countries	Turkey	Share of Turkey in Total World FDI (%)
1980	54986	46626	8336	18	0.03
1990	208646	171805	36766	684	0.32
1995	335734	216705	114226	885	0.26
1998	690905	489489	190778	940	0.13
1999	1086750	847601	228685	783	0.07
2000	1387953	1129119	249764	982	0.07
2001	817574	590527	215542	3266	0.39
2002	678751	513109	152495	1038	0.15

Source: UNCTAD, Handbook of Statistics, 2004: 272.

Between 1980 and 2003, the most authorized sector was manufacturing sector. While its share was 53%, services' share was 44%, agriculture's share was 1.8% and mining's share was 1.3% in total authorized FDI.

Sectoral distrubition of FDI as of 2003 (before the FDI law No.4875) is given in Table 6. As seen from the table, an important part of foreign firms operating in service sector whose share is 49.5% in total foreign capital. Banking and other financial services has an important share in service sector foreign investments with 10.56%. Moreover manufacturing sector is the second sector that has biggest share in total foreign capital and the biggest share in total foreign manufacturing investments belongs to other chemical products with 7.59%.

Table 16. Sectoral Distribution of Foreign Capital Companies in 2003 (Million TL)

Sector	No. Of firms	Present Foreign Capital	% in Total Foreign Capital	Total Capital of the Companies	% of foreign capital in total capital
Agriculture	151	278.417.122	%3,63	294.158.826	%94,65
Mining	101	37.919.647	%0.49	47.354.929	%80,08
Manufacturing	1.667	3.182.618.272	%41,52	5.411.113.189	%58,82
Energy	51	367.096.783	%4,79	392.363.428	%93,56
Services	4.541	3.799.698.315	%49,57	6.460.294.924	%58,82
GRAND TOTAL	6.511	7.665.750.139	%100,00	12.605.285.296	%60,81

Source: www.ekonomi.gov.tr

When breakdown of foreign capital companies operating in Turkey as of 2003 is examined, it will be seen that Europinan Union (EU) countries have the biggest share in total foreign capital with about 69%. Other OECD countires' share was %19.8 in total foreign capital. Moreover, Middle East Countries' share was 2.43%. On the basis of country, 3 countries that invested the most are Netherlands (with % 27.5 ratio in total foreign capital), Germany (13.6%) and United Kingdom (8.25 %).

1.5 2003-2014

After the 2001 economic crisis, country's shady economic and political environment affected foreign investors' decisions and there was sharp decreasing in FDI rate. With the 2002 election, single party government established. Moreover, this new administration was decided to conduct more liberal policies. They were giving importance to become the membership of the Europian Union (EU) and started the negotiation process with EU in 2003. By accelerating privatization operations, new administration intended to increase FDI inflow to the country.

In 5 June 2003, Foreign Direct Investments Law (No. 4875) enacted. Its aims are encouraging foreign direct investments, protecting foreign investors' rights, following international standarts in the description of investment&investor, transfering allowance& confirming system to the informing system, and regulating policies to increase foreign direct investments (Official Gazette, 2003). With this law, all types of permits issued by General Directorate of Foreign Investment are abolished.

Some features of FDI law No: 4875 is presented as; (YASED, 2008)

• All former FDI related screening and approval procedures have been abandoned for a business set up (company or branch) and share transfers. Foreign investors will no longer be required to obtain prior approvals for these transactions, except for some critical sectors. The conditions for a business set up and a share transfer will be the same as for comparable local investors.

• Pre approval requirements for certain transactions-capital increase, change of field of activity, etc- of foreign investment companies have also been eliminated. Foreign capital companies will follow the same procedures as local companies to realize these transactions.

• Registration of license, know-how, royalty, technical assistance agreements to the General Directorate of Foreign Investment will no longer be required.

• The minimum capital requirement of USD 50,000 per each foreign shareholder has been abolished.

• Foreign investors will be able to form a partnership in Turkey. In the old regime, foreign investors were only allowed to form a joint stock company or a limited company. Now, any form of company included in the Turkish Commercial Code is acceptable for foreign investment.

• Valuations of international credit agencies as well as courts or competent authorities of the investor's country will be accepted as valid in the determination of the share value for marketable securities that are contributed as capital in-kind.

With the enacting of FDI law No. 4875, FDI entry and number of companies with foreign capital established has increased. While FDI entry could not surpass $1 billion in 1990s, it catched a rising trend especially after 2004. Table 17 shows the FDI amount and Turkey's share in the World and developing countries.

Table 17. Turkey's FDI Amount and its Rank in the World

Years	FDI Amount (Million $)	Turkey's share in the developing countries (%)	Turkey's share in the World (%)	Turkey's rank in the world
2003	1.752	0.8	0.3	53
2004	2.885	0.9	0.4	38
2005	10.029	2.8	1.0	23
2006	19.918	4.2	1.4	17
2007	21.873	3.3	1.1	25
2008	19.504	2.5	1.1	20
2009	8.585	1.4	0.7	30
2010	9.086	1.4	0.7	29
2011	16.136	2.0	1.0	26
2012	13.283	1.6	1.0	33
2013	12.357	1.7	0.9	39
2014	12.143	-	-	-

Source: Ministry of Economy (2013), Ministry of Economy (2015), Undersecretariat of Treasury (2008), YASED (2013)

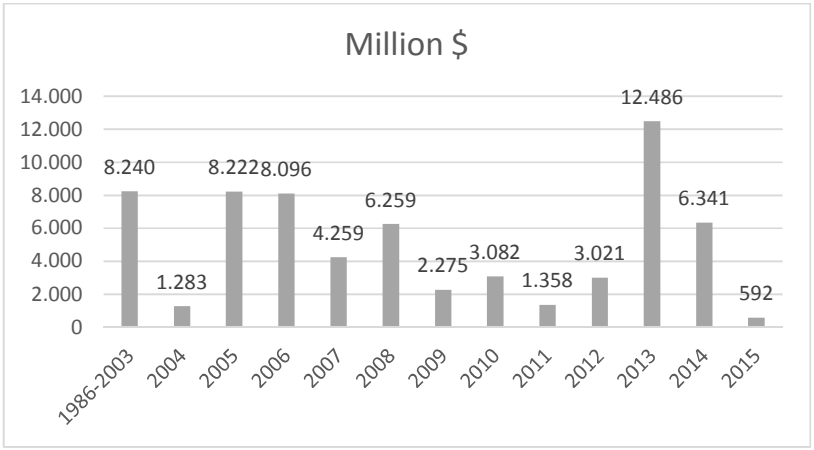
After the new law No.4875, FDI entry had increased and in 3 years the country attracted more foreign companies than previous 48 years total foreign company rate. In 2006, Turkey rised to 17th rank in attracting FDI in the world. Until 2008 global financial crisis the number of new MNCs increased year by year. Also, the biggest part of these companies was doing greenfield investments which create more job possibilities. Also, significant amount of mergers and acquisitions occured. In 2006, Vodafone purchased Telsim for 4.7 billion $. Furthermore, Denizbank was purchased by a Belgium Bank and Finansbank was purchased by a Greek Bank. However, with the effects of global financial crisis FDI entry decreased. Last statistics show that Turkey attracted 12.3 billion $ FDI in 2013 and it is in the 39th rank in the World. Also in 2014, it attracted 12.1 billion $ FDI and 4019 new foreign companies established in total.

Table 18. The Number of MNCs with regard to Their Establishment as of Years

Years	Greenfield	Acquisitions	Branch	Total
1954-2002 (Cumulative)	4.221	871	202	5.294
2003	800	198	31	1.029
2004	1.440	446	62	1.948
2005	2.081	478	54	2.613
2006	2.473	633	63	3.169
2007	2.913	655	61	3.629
2008	2.695	638	64	3.397
2009	2.181	550	66	2.797
2010	2.658	522	81	3.261
2011	3.620	632	94	4.346
2012	3.614	575	82	4.271
2013	3.484	210	87	3.781
2014	3.770	186	63	4.019
Grand Total	34.263	6.297	968	41.528

Source: Undersecretariat of Treasury, 2008: 7; Ministry of Economy, 2015: 7

The increasing amount of FDI also stems from the privatization policies. After 2003, privatization has been accelerated and big amount of block sales realized. While block sales were 399 million $ in 2004, it raised to 7 billion $ in 2005 and 2006. Their payments were realized by installments. The most important privatization operation is done by Oger telecomunication company which purchased Turk Telecom's 55% share with 6.5 billion $ in 2005. Graph 3 shows the amount of privatization operations year by year.



Graph 3. Privatization implementations by years

Source: Constructed by the author depending on the Republic of Turkey Prime Ministry Privatization Administration's datas

Also between 1986 and 2015, most of the privatization (48%) realized as asset sales. The rest of it consists of block sales with 33%, initial public offering with 15%, İstanbul stock Exchange with 2% and transfer of rights with 2%.

Another reason of raising FDI after the 2003 is a change which is done by Central Bank in 2004. Since this year, real property investments have been counted as foreign direct investments (Çetinkaya, 2007: 540).

2. Sectoral Distribution of FDI

Table 19 exhibits the sectoral distribution of FDI. As seen, investments in service sector are bigger than manufacturing sector. This is not good for a developing country. Because developing countries need more manufacturing investments since it provides more job possibilities and contributes more to the country's economic growth and development.

Table 19. Sectoral Distribution of FDI after 2003

Sectors	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Agriculture, Forestry and Fishing	1	6	7	6	5	41	48	81	32	43	47	61
Mining and Quarrying	14	75	40	122	341	152	89	136	146	213	242	449
Manufacturing	448	214	788	1.868	4.199	3.931	1.640	924	3.597	4.343	2.207	2.891
Manufacture of Food Products, Beverages and Tobacco	249	78	68	609	758	1.252	219	124	650	2.201	400	557
Manufacture of Textiles and Textile Products	8	14	183	26	233	189	78	94	148	376	60	139
Manufacture of Chemicals and Chemical Products	9	39	174	602	1.103	200	336	120	348	579	272	495
Manufacture of Machienery and Equipment	17	8	13	54	47	226	220	64	76	32	5	4
Manufacture of Computers, Electronic-Electrical and Optical Equipment	4	2	13	53	98	236	59	177	464	143	607	918
Manufacture of Transport Equipment	145	35	106	63	65	77	224	38	93	121	97	124
Manufacturing n.e.c	14	38	227	461	1.895	1.751	504	307	1.818	891	766	654
Electricity,Gas and Water	86	69	4	112	555	1.068	2.158	1.827	4.295	924	2.370	1.326
Construction	8	23	80	222	260	331	209	310	301	1.427	178	232
Wholeshale and Retail Trade	92	103	68	1.167	181	2.084	389	435	709	221	377	1.165
Accomodation and Food Service Activities	4	1	42	23	26	24	55	113	122	16	59	20
Transportation, Information and Storage	2	639	3.285	6.700	1.119	170	230	183	222	130	300	136
Financial Service Activities	51	69	4.018	6.956	11409	6.069	817	1.621	5.883	2.084	3.415	1.535
Real Estate Activities	6	3	29	99	905	656	210	241	300	173	128	227
Human Health and Social Work Activities	23	53	74	265	178	149	105	112	232	546	106	200
Other social and personal service activities	10	36	103	105	12	58	316	273	298	639	437	457
Total	745	1.291	8.538	17.645	19.190	14.733	6.266	6.256	16.137	10.759	9.866	8.699

Source: Undersecretariat of Treasury, 2008: 17; Undersecretariat of Treasury, 2010: 14; Ministry of Economy, 2015: 14.

According to tables, financial intermediaries, wholeshale and retail trade are the main service sectors that foreign investors choose. The reason why they focus on especially these sectors is the profitability of these sectors. With the 2008 global financial crisis, foreign investments that not only to the these sectors but also to the all sectors had been

decreased. Moreover, after 2010, the gap between foreign investments in industrial sector and service sector dramatically closed.

3. FDI by Countries

Table 20 shows the foreign capital's origins year by year. Since years, the biggest amount of FDI has been done by European countries. The main reason of why they choose Turkey to invest can be the geographical nearness of the countries. By 2014, their share is about 45% in total FDI amount. Moreover, Germany, Netherlands and United Kingdom have the biggest shares in the European Countries in terms of company number and investment amount.

Table 20. Breakdown of Foreign Capital Companies Operating in Turkey According to Regions (Million $)

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Europe	1.027	5.006	14.489	12.601	11.051	4.942	4.737	11.495	7.303	5.272	5.512
Other Europian Countries	6	1.646	85	373	291	306	202	1.093	622	1.128	1.054
Asia	60	1.756	1.927	1.405	2.361	673	928	2.055	2.337	2.899	1.766
Near and Middle East Countries	54	1.678	1.910	608	2.199	361	473	1.558	1.593	2.286	1.231
Other Asian Countries	6	78	17	797	162	312	455	497	744	613	535
Other Countries	97	127	1.138	4.758	1.030	345	389	1.494	497	567	367

Source: Undersecretariat of Treasury , 2008: 18; Undersecretariat of Treasury , 2010: 14;Ministry of Economy, 2015: 15

Yet another geographical near countries namely near and Middle East countries' company amounts has increased year by year. Number of companies that belongs to Iran and Azarbaycan are highest in terms of cumulative. However, as seen at Table 20 and table 21, while the most company belongs to near and Middle East countries (1922 company), the most investment amount was done by European countries (5.5 million dolar) in 2014. This stems from these foreign companys' scale. While European companies have more capital and make big amount of investments, near and Middle East companies have less capital and make fewer amounts of investments.

Table 21. Breakdown of Foreign Capital Companies Operating in Turkey According to Regions (Number)

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Europe	991	1.513	1.926	2.027	1.770	1.408	1.400	1.758	1.537	1.355	1.142
Other Europian Countries	262	311	356	471	528	319	401	447	422	346	296
Near and Middle East Countries	347	375	396	492	564	601	918	1.431	1.646	1.372	1.922
Other Asian Countries	145	159	163	271	229	222	262	335	305	318	273
Other Countries	173	193	234	269	246	247	280	375	361	390	386
Total	1.918	2.551	3.075	3.530	3.337	2.797	3.261	4.346	4.271	3.781	4.019

Source: Undersecretariat of Treasury , 2010 : 18; Ministry of Economy, 2015: 18

Table 22 shows the foreign companies distribution according to founding capital. As seen, from 4019 company that established in 2014, only 164 company's capital is higher than $500.000. Also, although number of new near and middle east companies increased in 2014, most of these companies' capital is less than $50.000. This is also another issue: the quality of the capital. Developing countries have to attract high capital foreign companies rather than low capital ones to sustain their economic growth and development.

Table 22. Distribution of foreign companies according to capital size (2013-2014)

	< $50.000		**$50.000-200.000**		**$200.000-500.000**		**>$500.000**	
	2013	**2014**	**2013**	**2014**	**2013**	**2014**	**2013**	**2014**
European Countries	879	882	291	117	74	57	111	86
Other European Countries	224	239	91	30	21	10	10	17
Near and Middle East Countries	698	1.336	540	439	71	108	63	39
Other Asian Countries	173	198	93	44	20	18	32	13
Other Countries	254	301	92	55	16	21	28	9
Total	2.228	2.956	1.107	685	202	214	244	164

Source: Ministry of Economy, 2015: 7

4. FDI Performance of Turkey from a Comparative Perspective

The contribution of FDI to the countries' employment, growth and development causes a competition between host countries especially the developing ones. As it mentioned,

Turkey is the 11th rank in the developing countries in terms of attracting FDI by 2013. Since it has sustainable economic growth, pretty big market and good location; it has to compel first steps for attracting FDI. Also 10 reasons to invest in Turkey can be ranged as,

- Succesful Economy: Turkey is the 16th largest economy in the world and 6th largest economy compared with the EU in 2013. Its GDP is USD 800 billion in 2014 and it is an institutionalized economy fueled by USD 144 billion of FDI in the last decade. It has a stable economic growth with an average annual real GDP growth rate of 4.7 percent between 2002 and 2014. Also, it has a dynamic private sector with USD 158 billion worth of exports.

- Population: It has 77.7 million population and half of it under the age of 30. Moreover they are dynamic, well-educated and multi-cultural population.

- Qualified and Competitive Labor Force: Over 29.2 million young, well-educated and approximately 610,000 students graduate annually from over 183 universities. There is increasing labor productivity in the country.

- Liberal and Reformist Investment Climate: Turkey is the second biggest reformer among OECD countries in terms of its restrictions on FDI since 1997. Moreover, it has a business-friendly environment with average of 6 days to set up a company, while the average in OECD members is more than 11 days.It has highly competitve investment conditions, strong industrial and service culture and equally treats to all investors.

- Infrastructure: Turkey has New and highly developed technological infrastructure in transportation, telecommunications and energy and it has well-developed and low-cost sea transport facilities. Moreover, it has Railway transport advantage to Central and Eastern Europe and well-established transportation routes and direct delivery mechanism to most of the EU countries.

- Centrally Located: Turkey is a natural bridge between both East-West and North-South axes, thus creating an efficient and cost-effective outlet to major markets. It provides easy access to 1.5 billion customers in Europe, Eurasia, the Middle East and North Africa.

- Energy Coridor and Terminal of Europe: Turkey is an important energy terminal and corridor in Europe connecting the East and the West. It is Located at a close proximity of more than 70 percent of the world's proven primary energy reserves, while the largest energy consumer, which is Europe, is located right to the west of Turkey, thus making the country a linchpin in energy transit and an energy terminal in the region.
- Low Taxes and Incentives: Turkey provides Tax benefits and incentives in Technology Development Zones, Industrial Zones and Free Zones, including total or partial exemption from Corporate Income Tax, a grant on employer's social security share, as well as land allocation. Moreover it has Incentives for strategic investments, large-scale investments and regional investments. Its corporate Income Tax reduced from 33 percent to 20 percent. Also, it has R&D and Innovation Support Law.
- Customs Union with the EU Since 1996: It is the member of customs Union since 1996 and has Free Trade Agreements (FTA) with 20 countries. It sustains Accession negotiations with the EU.
- Large Domestic Market:It has a 39.9 million broadband internet subscribers, 71.9 million mobile phone subscribers, 57 million credit card users, 166,5 million airline passengers and 35.9 million international tourist arrivals in 2014 (ISPAT, 2015).

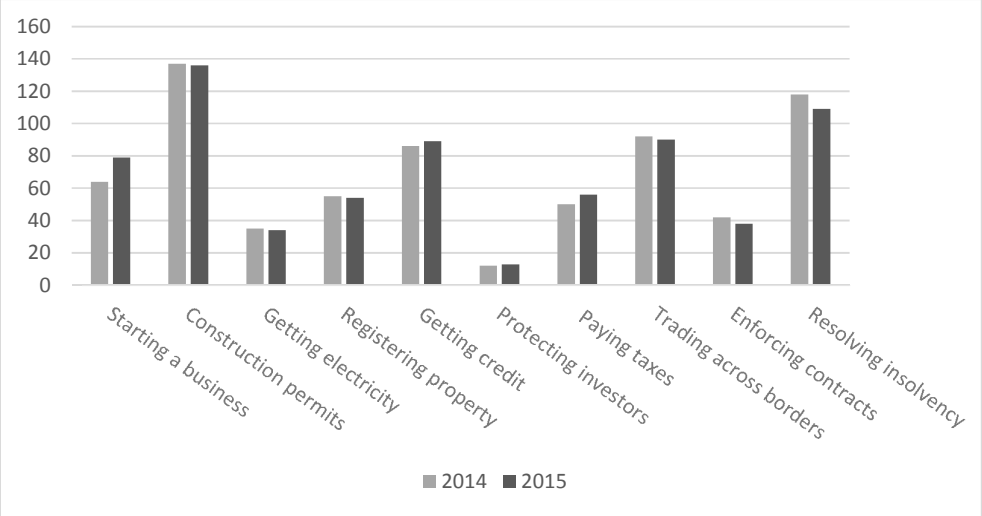
Developing countries' common point is their encouragements in the fields of research and gate. Also, their qualified labor structure attracts the foreign investors. China, India, Ireland, Taiwan, Singapour, Brazil and Malaysia are among of these countries.

Doing business index that is prepared by World Bank and International Finance Cooperation provides comparative information about the countries. This index is prepared with depending on 10 topics. Avarage of them forms the country's rank in doing business index. These topics are;

- Starting a business
- Dealing with construction permits

- Getting electricity
- Registering property
- Getting credit
- Protecting investors
- Paying taxes
- Trading across borders
- Enforcing contracts
- Resolving insolvency

If Turkey's position is compared with other countries in tems of easiness of doing business, it will be seen that Turkey is in the 55th rank in the World by 2013. It is in mid of the rank in some fields and end of the rank in some fields. In terms of starting a business, it is in 79th rank which means procedures of founding a firm is not easy as in the other countries. Also, it is in 136th rank in terms of constructing permits. Graph 4 shows Turkey's rank in 10 topics.



Graph 4. Turkey's Rank in Easy of Doing Business Index's Topics

Source: www.doingbusiness.org

To attract more FDI Turkey has to provide recruitments in these peak fields. Only with this way, it can reach its 2023 economic goals.

Also there is another index "Global Competitiveness Index" that is published by World Economic Forum (WEF) yearly. This index measures the microeconomic and

macroeconomic foundations of national competitiveness and it is useful for prioritizing policy reforms since it allows each country to identify strength and weaknesses of its competitiveness environment. Also it provides brokering between strategic public-private collaborations (WEF, 2014). According to this index, Turkey is in the 45th rank with 4.46 score in the World.

Table 23. Turkey's Performance with respect to Global Competitiveness Report

	Rank(out of 144)	Score (1-7)
GCI 2014-2015	45	4.5
GCI 2013–2014 (out of 148)	44	4.5
GCI 2012–2013 (out of 144)	43	4.5
GCI 2011–2012 (out of 142)	59	4.3
Basic requirements (35.5%)	**56**	**4.8**
Institutions	64	3.9
Infrastructure	51	4.6
Macroeconomic environment	58	4.8
Health and primary education	69	5.8
Efficiency enhancers (50.0%)	**45**	**4.4**
Higher education and training	50	4.7
Goods market efficiency	43	4.6
Labor market efficiency	131	3.5
Financial market development	58	4.2
Technological readiness	55	4.3
Market size	16	5.3
Innovation and sophistication factors (14.5%)	**51**	**3.9**
Business sophistication	50	4.3
Innovation	56	3.4

Source: WEF, The Global Competitiveness Report 2014-2015

As seen in Table 23, Turkey is not even in first 50 ranks in most of the important categories. It is in the 58th rank in macroeconomic environment category with 4.8 point. Since one of the important indicators to invest in a country for foreign investors is macroeconomic environment, Turkey's competition power decreases across other countires. Also, it is in 56th rank in innovation with 3.4 point. In terms of availability of scientists and engineers it is in 59th rank. This also stems from the quality of education. It is in the 98th rank in quality of math and science education. This shows the lack of well educated people in the country. Furthermore, especially labor market seems pretty ineffective. To attract more FDI, the country has to give importance infrastructure, education, research&development and innovation. Countries that attract more amount of

FDI succeeded these ones. Also, in WEF report (2014), the first 3 problematic factors for doing business listed as inefficient government bureaucracy, policy instability and inadequately educated workforce. Tax rates also seem as a problem for foreign investors.

Reliabilty of these indexes can be argued. However, the reality is that Turkey has a big potential for attracting FDI. It's big domestic market, location that is near to growing markets and connectivity with neighbour countries in terms of religion, language, and culture require attracting more amount of FDI. With the regulations in the lack fields, this aim can be realized.

5. Macroeconomic Stability in Turkey

When looked from the historical perspective, it will be seen that countrys' economies are not always stable, there are short run fluctuations and long run direction changes in the economies. The reasons of macroeconomic instabilities are the progresses that realized in world economy, political instabilities that realized in the home country, wrong macroeconomic policies and structural problems in the country's economy (Karluk et al, 2010:249).

In turkey, 5 main stability programs conducted 1958 stability decisions, 1970 stability decisions, 1980 stability decisions, 1994 stability decisions and 2001 stability decisions. In this part, structure of these stability decisions and its historical progress in Turkey will be shortly presented and variables that show fiscal and monetary stability will be examined.

5.1 4 August 1958 Stabilization Decisions

Infact, first stabilization decision was taken in 1946 with the develuation of the Turkish currency. After this date, more comprehensive stabilization program conducted at 1958. After the Second World War there were positive progresses in the World trade. This also reflected to Turkish economy and its growing rate reached to 7-8% between 1950-1954. However, after 1954, some disturbances started in the economy. Agricultural production decreased at these years because of the climatological conditions. Also, foreign exchange reserves decreased and the positive effect of the Korean War ended. These caused decreases in production and national income (Boratav, 2004: 77-78).

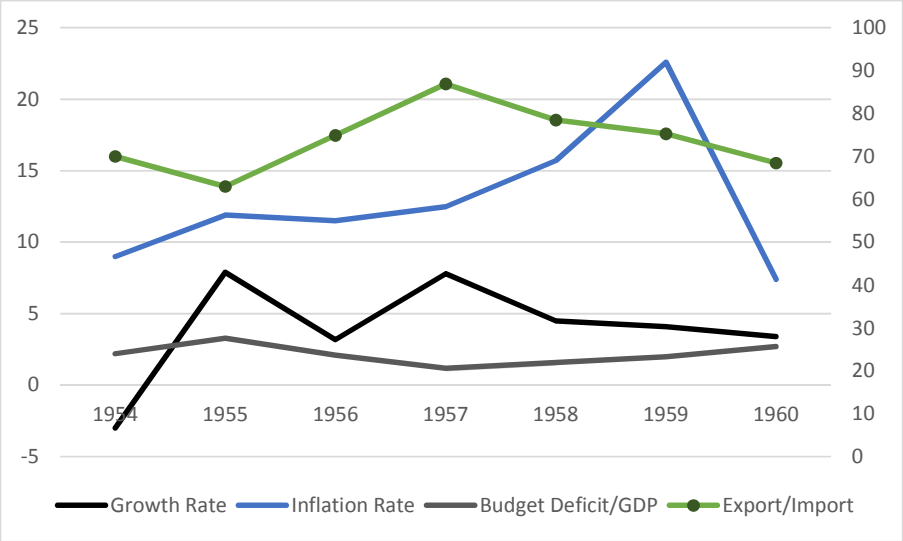
Also the country's increasing debts constituted a big problem. IMF reports say that Turkey purchased IMF funds for a total of $20 million between 1953-1954. Also, in 1955, Turkey was the only country which exceeded its quota. In 1955, Turkey received $35 million. It was compelled to repay these debts as of early 1956 and demanded requested of repayments (Evrensel, 2004: 11).

The rapid increasing in prices, bad plans in investments, decreases in foreign aid and credits caused to introduce 4 August stabilization decisions (Boratav, 1989: 77-78). These decisions include;

- Devaluation of Turkish currency
- Liberalization of import
- Restriction in government expenditures and Money supply
- Increase in price and production of SOEs (Kepenek and Yentürk, 2000: 122)

After the develuation decision, dolar exchange rate rised to 9 TL from 2.8 TL and in exchange purchase transactions, it was decided that 6.22 TL tax should be paid in return for $1 (Karluk et al, 2010: 251). With the introduction of this program, $350 million credit was provided and the $600 million foreign debt was postponed (Demircan and Ener, 2004 :92). These stabilization decisions were IMF type precautions that includes orthodox monetary and fiscal policies (Parasız: 1998: 121).

Graph 5 shows the behavior of macro economic variables after the 1958 stabilization decisions.



Graph 5. Behaviour of some macro economic variables between 1954-1960

Source: DPT, TURKSTAT (Turkish Statistical Institute) in Karluk et al, 2010: 251

As seen from the graph, after the stability decisions, there is no significant improvement in econmomic growth. Moreover, inflation rised to 22.6% in 1959, then it decreased to %7.4 in 1960. Budget Debt/GDP ratio also rised because of the increasing government expenditure. Lastly, Export/Import ratio did not meet expectations. Because of the liberalization of import regulation, import had increased. The increasing of export was not as much as import increase. This also caused to increase current account deficit. Therefore, develuation of the currency did not contribute to decrease foreign trade deficit.

5.2 10 August 1970 Stabilization Decisions

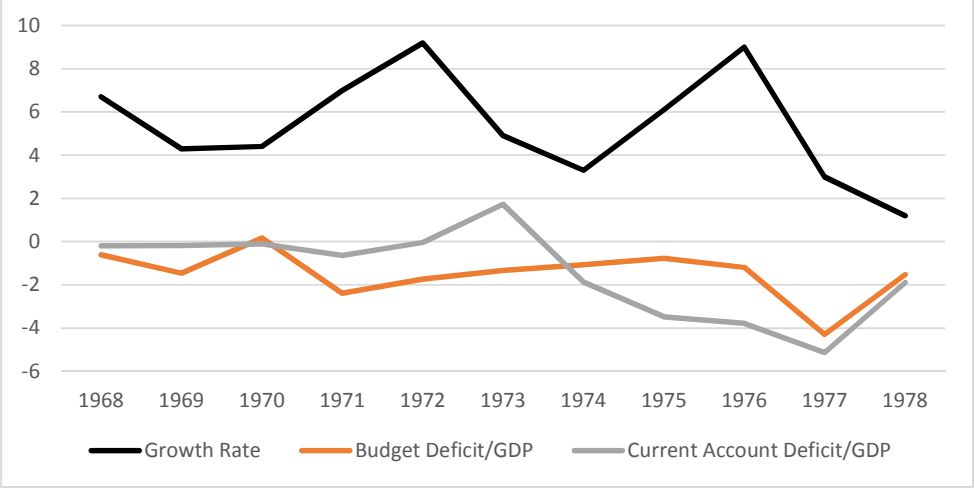
At the end of the 1960s, again new problems occured in the economy. Import substitution strategy did not work and formed an adverse effect that is dramatically increased in import. The increase in export was too less than the increase in import in these years. Therefore, export/import ratio severely decreased. Also Consumer Price Index (CPI) increased in an important amount. Budget deficit also had increased. Depending on all these negative situations in the macroeconomic indicators, government introduced a new stabilization program in 10 August 1970. This program includes following regulations;

- Turkish Currency devaluated in the rate of %66 and $1 was equaled to 15 TL.
- Taxes rised.Wages and salaries was fixed and prices of SOE products increased.

- To decrease the lack of supply, collateral rate was decreased in import, amount restrictions also was decreased (Karluk, 2010: 252).
- Credit interest rates increased (Parasız, 1998: 143).

After these stabilization decisions IMF provided $90 million stand-by credit. Also, because of the increase in interest rate, bank deposits increased. Budget gave 255 million TL excess in 1970 thanks to new tax precautions. Moreover, foreign exchange reserves increased after the stabilization program. Especially, with the devaluation decision Turkish workers who work in foreign countries, send their incomes to the country and this caused to increase foreign exchange reserves (Parasız, 1998: 144-145).

Changes in macro economic variables after these decisions are presented in Graph 6. As seen from the graph, after the stabilization measures growth rate did not exhibit a stable path. There is one significant improvement in 1973: the balance of payments has a positive number first time at that time. Its reasons are the increasing worker foreign exchange incomes, provided new credits from IMF, increase in export in the field of raw material&manufactured goods and short-term external debts (Karluk et al, 2010: 252).

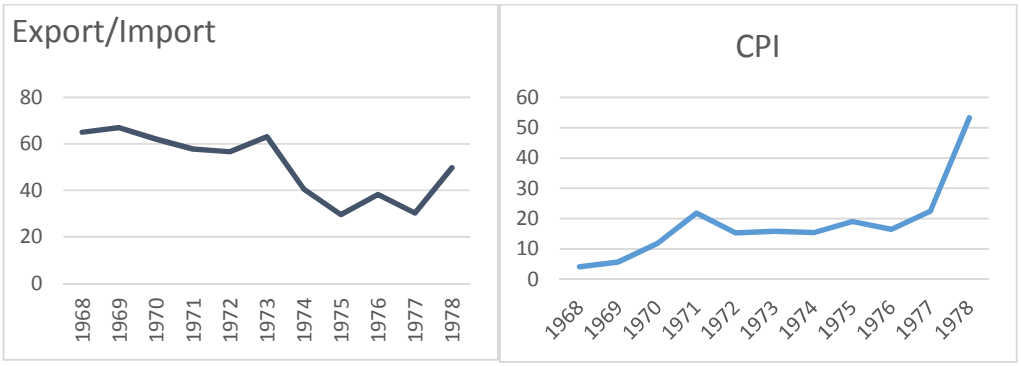


Graph 6. Some Macroeconomic Indicators after the 1970 Stabilization Decisions

Source: TURKSTAT in Karluk et al, 2010: 253

After the stabilization program, inflation rate hang on 15% for a while than it peaked to 53% in 1978. Export/import ratio also decreased especially between 1975 and 1977. These negative developments' main reason is the petrolium crises that started in 1974.

Following graphs depict these developments in export/import ratio and consumer prices fort he period 1968-1978.



Graph 7. Some Macroeconomic Indicators after the 1970 Stabilization Decisions

Source: TURKSTAT

Second petrolium crisis occured in 1978 and heavily increased petrolium prices. It negatively affected the economy from many sides. This increase in petrolium price caused to raise the share of petrolium import in total import. It almost reached 50% of total import in 1980. Export/import ratio decreased to 30%. This rise in import caused the lack of foreign currency. Moreover, short matured foreign debts increased. To overcome these problems, petrolium import restricted. Since petrolium is the row material in the many production areas, this restriction caused to decrease capasity utilization ratio. In addition to these economic problems, political problems also occured in these years. With the the Cyprus Peace Operation expenditures increased. Also after the operation, US had conducted embargo to the country. This entire bad environment caused to decrease the economy's production and competition power. In 1978, inflation increased to 53%, foreign debts increased to $4.8 billion and growth rate decreased to 1.2% (Yazıcıoğlu, 2014: 256-257).

To escape from this recession new remedies searched. To solve the foreign resource need, some interviews were done with IMF. At the end of these interviews, 2 stabilization program introduced at the end of 1978 and 1979. However, these programs could not been conducted exactly bacause of the political instabilities (Yazıcıoğlu, 2014: 257).

5.3 24 January 1980 Stabilization Decisions

In 1980, many political and economical changes occured. In this year, military coup realized and adminisrators of the country changed and in 24 January 1980, a new stabilization program introduced.

This stabilization program is different than other programs from some aspects. Other stabilization programs aim short run targets like escape from debt and inflation problem but this program aims long run targets at the same time. With this program, some changes aimed in the structure of the economy and industrialization strategy. When it is introduced, it is decided to conduct the program decidedly in the long run (Şahin, 1997: 172).

The main thought of this program is that let down the government intervention to the economy thus put into action the free market economy. It is aimed to realize macro and micro equilibrium with the price mechanism and more active private sector that takes state's place. To realize this aim, interventions to the goods and service market should be removed. With 24 January 1980 decisons and other decisions that introduced after this date, progresses realized towards this aim (Şahin, 1997: 173). Also, the main difference of this stabilization program than other programs is that with this stabilization program import substitution industrialization strategy was droped and export oriented industrialization strategy has been followed (Yazıcıoğlu, 2014: 257)

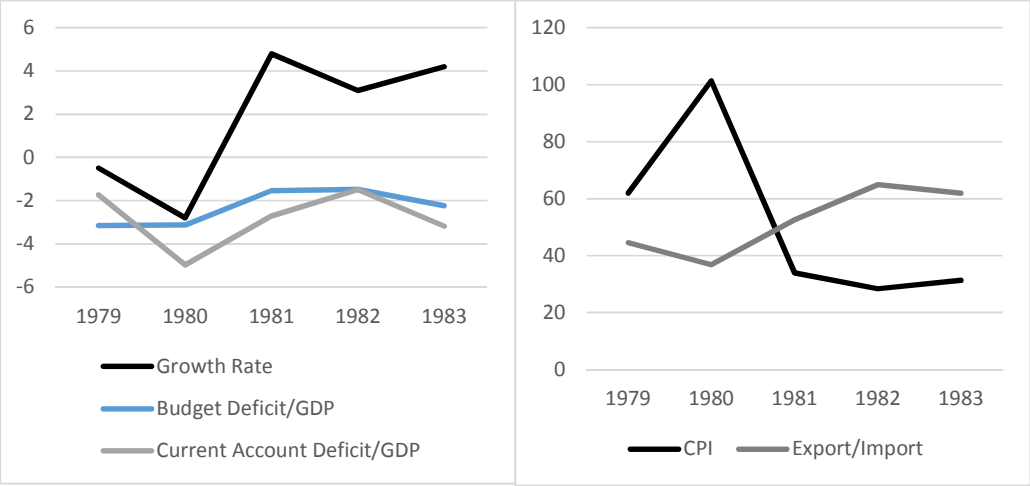
Decisions that taken in 24 January 1980 and following dates can be ranged as;

- To decrease the government intervention to the economy some precautions was decided. Removing tobacco monopoly, revoking the expropriation decision of the mines and starting the privatization of State Owned Enterprises (SOC) are among of these precautions. Also, price determining and controlling comitee was removed. To realize the price competition in the market, import liberalized. Also some regulations realized for interest rate and exchange rate determination.
- Other some precautions were liberalization of foreign trade and encouraging of FDI. Also exchange buy&sell transactions liberalized and prohibitions and controls over exchange market was gradually removed. Thus, the law of protecting the value of Turkish Lira" liberalized. Moreover, with stabilization

decisions, devaluation was realized and while $1 equals to 47.1 TL, its value decreased and $1 equaled to 70 TL.

- Some pracautions also aimed liberalization of export-import regimes. With this way, the economy can be globalized and competition in the domestic market can be improved. It was aimed to decrease costs thanks to increasing competition and increase quality of the products. In export, government auditing dramatically removed and wide incentives was provided.
- Incentives in foreign indirect investment conducted.
- One of the other purposes of this stabilization program is the liberalization of interest rates. Namely, determination of interest rate was wanted to given to the free market. However, this aim could not be realized because of the banks monopoly structure and organic ties between banks and holdings.
- Another aim of this stabilization program is removing the government intervention on prices and giving determination of prices place to free market. To put into practice this purpose, determination of SOE products prices' have given to the SOE itself. Also, minimum price and support purchases were decreased in agriculture sector. This decision and some payment problems caused to shrink agriculture sector's share in income formation. Then, government again revised the agricultural products supporting policy.
- After 1984, union rights again were given but because of the 1982 constitution, unions facilities could not be effective as past. Also real wages decreased especially after 1994 with accelerating of inflation (Şahin, 1997: 173-175).

In 1983 elections, Turgut Özal became the prime minister of the country. This provided to conduct stabilization decisions without deduction. Thanks to this program, growth rate increased in the country and the biggest share in this growth belongs to production increase that is realized by industry sector (about 10% increase) (Yazıcıoğlu, 2014:259). In Graph 8, some macro economic variables' behaviours are shown after the 1980 stabilization measures.



Graph 8. Some Macroeconomic Indicators after the 1980 Stabilization Decisions

Source: TURKSTAT

If effects of stability decisions are examined, it will be seen that while growth rate was -2.8 in 1980, it dramatically increased and reached 4.8% in 1981. Also, budget deficit/ GDP ratio exhibit a little bit recovery after the stabilty decisions but it again increased after 1983 because of the forthcoming elections. Alike, Current Account Deficit/GDP ratio exhibits recovery till 1983 thanks to increased intensives for export, industrialization strategy and develuation. Then it distorted too. Inflation rate also decreased from 3 digit numbers to the 2 digit numbers. While it was 101.4% in 1980, it decreased to 31.4% in 1983. Export/Import ratio also displays recovery after the stability decisions.

There are some critisms to the 24 January stabilization program. Since, it aims low level of wages, it causes brain migration of quality labor force. Since low level of wages decreases workers' working desires, it decreases the efficiency of labor and negatively affects the production costs. Moreover, this policy causes to decrease aggregate demand, and excess supply occurs. If this excess supply can not be exported, production and employment decreases. Also, high interest rate conclusion of the program increases the cost of investment and business capital. This leads less capital intensive and less technologic production. Therefore, it is dangerous in terms of industrialization goal (Kepenek and Yentürk, 2000: 201-202).

One of the important actors of these years was the bankers. With the liberalization in interest rates, banks and bankers offer their own interest rates and a competition occured between them. This interest competiton could not be sustained for a long time and bankers started to go bankrupt. Also in 1982, Hisarbank went bankrupt thus, financial crisis started. To prevent panic in the economy, Central Bank provided the required liquidity to the banks which are in same situaion. Also, in 1993, it again regulated the deposit interest rates and put into effect a ceiling for interest rates. Then, monetary authorities interfered to 5 banks and announced their bankruptcy (Parasız, 1998: 209). These and other economic problems caused to introduce a new stabilization program in 1994.

5.4 5 April 1994 Stabilization Decisions

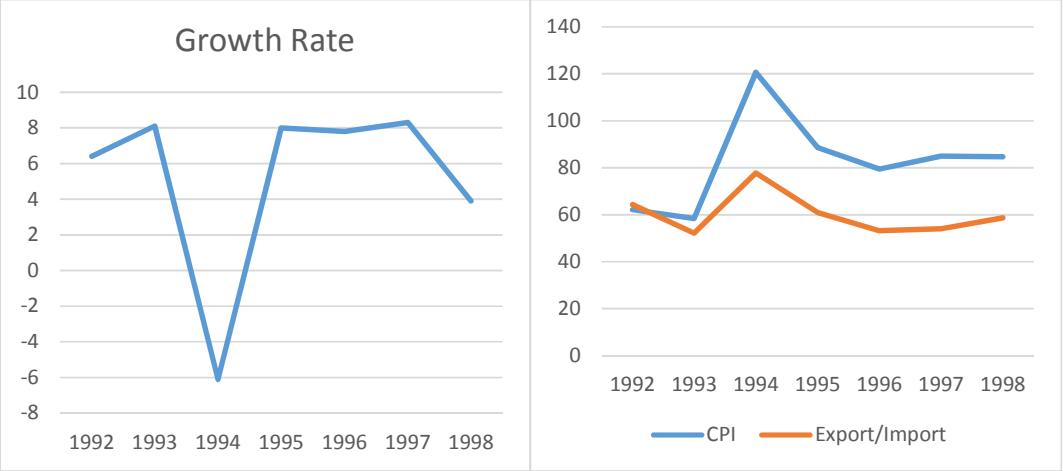
Along with increasing public debt; instabilities in prices, capital market, goods market, exchange market, labor market, foreign trade and growth rate caused an unhealty economic environment. Thus, need for a new stabilization program occured and in 5 April 1994, a new stabilization program introduced.

Short run goal of the program was providing the stability in foreign exchange market and current account. Regulations that was done with the program are;

- Decrease in government expenditures and increase in government revenues aimed. To success this, new employment in public sector was stoped, increase in salaries and wages was delimitated, tax rates increased, some extra taxes conducted and SOE product prices were raised.
- Guaranty for deposits increased to 150 million TL from 50 million TL and it was completely guaranteed as of 6 May 1994. The use of short run advance payment of Treasury from Central Bank was restricted. To increase the sovereignty of Central Bank new precautions was issued.
- To solve the structural problems; re regulatin of SEC's structure, effectively implementation of privatization policies, social security reform, re-regulation of agricultural incentives policy are decided (Karluk et al, 2010: 256-257).

The reasons of the crises were increasing public debt, SOE's loses, excess employment, inefficient working and increase in consumption. To escape from the crisis, government conducted contractionary fiscal and income increasing policies. It was a little bit succesful

in terms of public debt. However, it could not be succesful to decrease the interest rates. Also, one of the other aims of the government was increasing the privatization. It also could not be succesful in this topic. Then, government prepared a privatization law no: 4046, and it entried into force in 27 November 1994. exchange rate dramatically increased in these years. Increasing rate was 59.7% in 1993, 170.7% in 1994 and 54% in 1995. Thus, 5 April decisions could not provide stability in the Exchange rate (Demir, 1997: 191). In Graph 9, the path of some economic variables after the 5 April Stability decisions is shown.

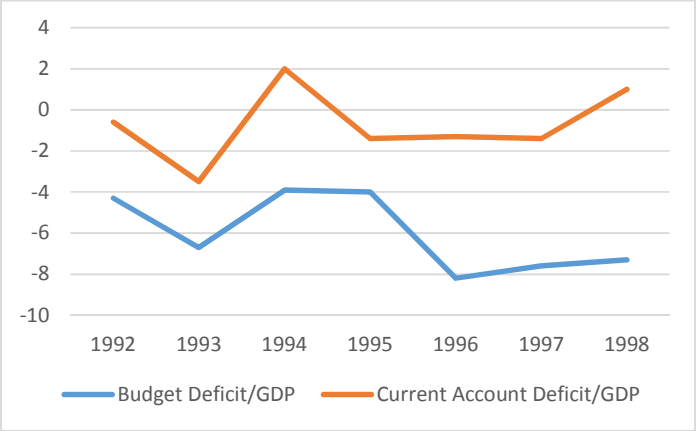


Graph 9. Some Macro Economic Variables after the 5 April 1994 Stabilization Decisions

Source: TURKSTAT

As seen from the graph, while economy contracted 6.1% in 1994, it expanded 8% in 1995. Till 1998, it sustains a good performance. Moreover, while CPI was 120.7% in 1994, it decreased to 88% in 1995 and it was 84.7% in 1998.

Export/import ratio that decreased to 52% in 1994, increased to 77.8% in 1994. Its reason is not the 5 April 1994 decisions. Its reason is the appreciation of the foreign currency. When exchange rate quickly increased, import decreased and export increased first. However, since inflation could not be controlled, positive effect of exchange rate vanished and export/import ratio decreased to 61.5% in 1995 (Demir, 1997: 192). In Graph 10, some other macro economic variables' reactions to the 5 April decisions are shown.



Graph 10. Some Macro Economic Variables after the 5 April 1994 Stabilization Decisions

Source: TURKSTAT

As seen from the graph, Current Account/ GDP ratio followed a stable path after 1994 decisions and then it increased in 1998 to 1%. Budget deficit also decreased thanks to contractionary fiscal policies. However, because of the forthcoming elections, it again increased.

Interest rate exhibited a damaging performance in these years. While real interest rate was 19.8% in 1994, it increased to 33.7% in 1996. Increasing interest rates raised the domestic borrowing. Because of the high interest rates, tax revenues' 95.3% was expanded to domestic borrowing's capital sum and interest payments in 1997. Also 1997 Asian Crisis affected the Turkish economy later on. Foreign investors withdrawed their capital and hot money leaved from the country as it realized in many developing countries. This was the messenger of a new crisis. In 1999, government levied to 5 banks. These banks' loans and losses imposed a burden for the government. In 1 January 2000, government announced a new programme to decrease high inflation. It gave positive results in the first half of the year. Thanks to monetary and exchange rate policies, interest rates decreased. Also growth rate increased to 6.2% but its reason was the increase in the domestic demand. Portfolio investments were also the main source of the growth. However, government could not conduct privatization policies as required rates. Then World Bank stopped to give decided $700 million credit. Earthquakes that occured in 17 August, and 12 November 1999 bringed new costs to the economy about $11 billion ("Dünya'nın Tanıklığında Türkiye Ekonomisi", 2010: 217-262).

These bad economic environment and political contentions taked the country leaded to a new crisis in November 2000. In 1 December 2000, overnight repo interest rate increased to 1700%. Foreign exchange reserves of the Central Bank decreased. Then, the news related with the aggrement that is done with IMF ease the markets. However, still economic balances did not occupy. The political tension in the country caused a new crise in February 2001. At the same time, it caused to transfer to the *Transition to the Strong Economy Program* (TSEP) ("Dünya'nın Tanıklığında Türkiye Ekonomisi", 2010: 217-262). The difference between November 2000 and February 2001 crises is that the November 2000 crisis was a crisis of the private banking sector whereas the February 2001 crisis stemmed from the state owned banking sector (Öniş, 2003: 13).

5.5 14 April-15 May 2001 Transition to the Strong Economy Program (TSEP)

On-going problems in the economy, transleted to an economic crisis in 2001 and administrators were obligated to take urgent and radical precautions. Turkey already had signed a stand by aggreement with IMF in 2001 but neverthless a new crisis occured in the economy. Then government presented a new programme that is supported by IMF. Main goals of this programme were to decrese the public debt and to provide healtier structure to the banking sector with restoring it (Ersel, 2012: 14). This program suggests 15 legal regulations in 4 main field ;

- Restructuring of fiscal sector
  -Providing healtier structure to the banks and financial system
  -Sustaining the guaranty application for bank deposits

- Providing complete information about state and reinforcement the public finance
  -Regulations related with duty losses: Contunioning to decrease SOE's losses
  - Expropriation Law
  -Borrowing law: With this law, TBMM will be informed in every 3 months about borrowing and guarantying information and borrowing management report will be presented to the TBMM.
  - Public procurement law: With this law, its aimed to reach more competitor and more effective Procurement system
  -Closing budget and non-budget funds

- Increasing competition and efficiency in the economy

-Sugar Law: It is aimed to provide stabilty in the market with issuing regulations in the field of sugar production, quotation and marketing.

-Tobacco Law

-Natural Gas Law

-Privatization of Turk Telecom

-Civil Aviation Law

- Reinforcement the social solidarity

  -Employment Security Law

  -Economic and Social Council Law (CBRT, 2015).

According to TSI data, during the 2002 crisis year, GNP in real terms has declined by 5.7%. This also reverberated to the public and per capita income decreased from $4.129 to $3.019. With the TSEP, growth rate increased to 6.2% in 2002 and avarage growth rate was 5.3% between 2002 and 2014. Also per capita income increased to $3.492 in 2002 and reached $10.518 in 2014. Recovery in inflation also occured and inflation rates declined to one digit numbers first time in 2004 May. Furthermore, budget deficit decreased thanks to sustined fiscal discipline. After the stabilization program, export has also been increased and reached $169 billion in 2014. Because of the country's dependent structure, to produce more, the country need to import more. Therefore, import has also been increased and it reached $232 billion in 2014. This gap between export and import caused to increase current account deficit year by year and it reached to $45 billion in 2014.

Graph 11. Economic growth Rate between 1999 and 2014

Source: TURKSTAT

The world and Turkey's experiences show that the most important factors for the economies are sustainable foreign&fiscal equilibrium and permanent macro economic stability&growth. Since stability and structural adjustment efforts generally depended on government expenditures and restrictions on import rather than increasing tax revenues and export; desired stability was short run in the past. Therefore, this precautions caused inadequate growth rates, social instabilities and they decreased investment tendency. Under these circumtances, to provide the growth, borrowing should be increased.This means that increasing growth rate depends on increasing debt. This gradually sensitizes and weakens the economic balances (Falay, 2000: 3) Before the Transition to Strong Economy Program Turkey's situation was exactly like this. However, as it is understood from the economic data (here as seen from Graph 11), with the resolutely implementation of the Transition to Strong Economy Program, the stability profile of the country has considerably changed.

In 2008, a global financial crisis started with the collapse of mortgage market in the US. This crisis affected both many developed and developing countries including Turkey. According to TURKSTAT data, after the 2008 crisis; GNP in real terms declined by 4.8%, unemployment rate rised to 13.1%, domestic debt stock increased and export volume declined by 22.6%.

The reason why export is heavily affected from this crisis is that, 72% of the export was being performed to the Europe and US before the crisis. With the crisis, the lack of demand that occured in these countries, highly affected Turkey's export and production. Because of the recession in these countries, real income decreased and then these countries' import demand decresed. Thus, Turkey's export rate decreased. With the effect of 2008 global crisis, world trade declined by 12% and demand shrinking occured (Hepaktan [2010] in Göçer, 2012: 23). Turkey also affected from this recession and could not export its products. Thereon, factories took shutdown position and dismissed their workers. This caused to decrease domestic demand, and increased dismissions so the crisis deeply felt (Göçer, 2012: 23).

Central Bank conducted some regulations againist the 2008 global financial crisis. It decreased the borrowing interest rates interms of both TL and foreign currency. Also, it decreased the reserve requirements ratio in terms of both TL and foreign currency. Thus,

it reduced the cost of borrowing and increased the credit demand (Kutlar and Gündoğan, 2013: 276).

Another policy that implemented by the policymakers is the Keynesian expansionary tax policy.With decreasing the VAT (Value Added Tax) and PCT (Private Consumption Tax), prices of the some goods are decreased so it is aimed to increase demand to these goods.Yılmaz (2013) observed in her working that the VAT and PCT cuts that are implemented in the manufacturing industry, food, textiles,furniture manufacturing, motor vehicles, computer and electronic equipment have yielded the positive results while it has no positive effect on construction sector. Also the positive effects of this tax cut can be seen in the Central Bank's cost of living indices for wage earners.

After the implemented policies, recovery in the economy occured and growth rate realized as 9.2% in 2010. In comparison to European and other developing countries, Turkey recovered more quickly. Also, decreased export has increased and reached $157 billion by the end of 2014. Unemployment rate that climbed to 13.1% in 2009, has decreased and it is 9.9 % in 2014 (TURKSTAT, 2015).

Chapter 4

Testing the FDI-Macroeconomic Stability Relationship

1. Model

1.1 Determinants for FDI in the Theoretical Literature

There are a series of theoretical approaches related with the modeling of FDI in the economics literature. These models are generally grouped under two main headline: Micro models and macro models. Microeconomic models centered on firm specific properties that affect the firm's resolution process. On the other hand, macroeconomic models focus on country specific properties to explain the inward and transnational FDI. Recently, in the literature, the distribution of FDI among countries is studied, depending on the motives that direct the firms to do foreign investments. Among these approaches, FDI is distributed as resource seeking, market seeking, strategic asset seeking and efficiency seeking. This study is related to macroeconomic models in terms of the topic. Related with this model, a general evaluation will be done in the following part.

The first approach trying to explain the firms behavior that exists in the imperfect market conditions (namely about the oligopoly and monopoly market structure) is asserted by Hymer (1976). Foreign firms that intend FDI, must have a specific advantage in an explicit topic (like advanced technology) to compete with domestic firms that have location advantage. FDI will contribute to provide the equilibrium in the divided markets but it will be temporary and after reinstating the equilibrium it will disappear. This disequilibrium realizes generally in the factor markets (especially in the labor markets). In this case, there will be flow of FDI from high labor cost countries to low labor cost countries. Consequently, labor cost is an important determinant for FDI.

The internalization approach that is asserted by Buckley and Casson (1976) states that with the improving of economies, the complex informatics that is formed by system, is transferred internationally via FDI (Trevino and Daniels, 1995). Since forming such an information brings some costs, and willing of saving from time and these costs; international investments occurs. The main factor that cause to emerge of multinational companies is the internationalization of national companies with the economic improvement. According to this approach, the level of possessed information and the

degree of specialization is two main factors that determine FDI which will enter to an imperfect market.

According to product life cycle hypothesis that is brought up by Vernon (1966), firms decide FDI in the specific stage of their products (Moosa, 2002: 38). This approach is mooted with respect to industrial goods that is produced in manufacturing industry. The new products production or initial production is realized as locally depending on the scale economies, the easy access possibilities and effective communication opportunities in the developed countries. Therefore, at first with the exporting, a customer base is constituted. This process is generally end up with overseas production. The maturity stage takes place when the production methods completely standardized and markets are saturated. According to this approach; market size, cost of production and openness of market are important determinants for FDI.

Smilarly, eclectic approach looks for an answer of this question: Why a firm wants to invest in a foreign country rather than exporting or licensing its products? According to Dunnig (1998), a firm has to have some advantages to invest in a foreign country: ownership, location and internationalization advantages. With league of these 3 conditions together, eclectic theory or OLI model occurs. “Ownership advantages” stems from having some intangible assests (the access possibilities to raw material, having an advanced technology or having a comperative advantage across from same firms). “Location advantage” includes the difference between advantages in the home and host countries that is occurred in case of increasing the production in the home or in a foreign country. Accordingly, producing in some countries can provide some advantages in some fields like : domestic market size, accessibility to resources, relative inflation levels and public incentives. Lastly, for a firm, internationalization advantages stems from the difference between expanding with forming a MNC and licensing its products. Eclectic approach concludes that market size, inflation levels, public incentives and possibilities to access resources are the main determinants for FDI.

To better explain the distribution of FDI, a newness take part in the literature. It is asking that which factors incite the firms to invest in a foreign country. According to this

approach, there are 4 types of foreign direct investments: Resource seeking, market seeking, strategic asset seeking and efficiency seeking (Narula and Dunnig, 2000: 8). Therefore, this approach express that the determinants for FDI should be argued in this context. For example, resource seeking FDIs are related with the finding natural resources. Accordingly, if low cost unskilled lobor, skilled labor and qualified infrastructure are determinant for FDI, this foreign investment is resource seeking FDI. Moreover, if the resource abundance exists in a country; in this country, the main part of FDIs will direct to the primary sector that includes agriculture, forestry, fishery and mining. Here, the main important point is that FDIs front to the resource abundant less developed countries (Moolman et al, 2006: 3).

The aim of market seeking FDI is serving to the domestic market. Namely, the products are produced and sold in the host country. Therefore, demand conditions in the host country affect this type of investments. Market size that affets the domestic demand and income level are some factors that determine market seeking FDI. Also, host country's production costs and inflation level are important determinant for this type of FDI (Asiedu, 2002: 111).

In strategic asset seeking FDI, MNCs hope to develop projects using the skills and knowledge in host countries. This type of FDI is more common in the more wealthy developed countries (Welde, 2002: 12).

Lastly, the aim of efficiency seeking FDI is minimizing the international level production factors' costs. This type of investments aims to decrease costs with using market failures (like tax differences) or via product diversification. This type of FDI is affected by efficiency level, skilled labour, and existing infrastructure's physical and technological conditions (Hawkins et al, 2001).

According to macroeconomic models, amount of FDI that a country attracts depends on the country specific factors. Market size, factor costs, fiscal incentives, investment climate, political and economic stability, openness to trade and quality of existing infrastructure are inside of these specific factors. While in some studies that are based on

this approach, inflation looks like an important determinant for FDI; some other studies revealed that inflation is not an important determinant for FDI. Therefore, at least in theoretical terms it is an unresolved problem whether inflation has an effect on the inward FDIs or not, so there is need to search this topic in terms of empirical side.

1.2 Empirical Literature

There is a marked increase in the studies searching that which factors affect the foreign capital flows to the both developed and developing countries. These factors are classified in various ways according to aim of the study. According to the first method from these classification methods, there is a change in structure of determinants of FDI as a result of globalization. Therefore, these factors should be classified into traditional factors and non-traditional factors. Yet another approach is focused on production and suggesting that determinants of FDI should be classified as supply side and demand side factors (Nunnekamp, 2002: 6). A more widely accepted approach states that two factors that affect FDI should be distinguished from each other.These factors are external or push factors and domestic or pull factors. Push factors express the overall economic conditions as globally and it reflects the opportunity cost of investment in the host country (as foreign interest rates and global economic stability). On the other hand, attractive factors are related with the host country's institutional environment and socioeconomic circumstances (as market size, political stability and infrastructure quality) (Ahmed et al, 2005: 5). Although, some of these factors overlap with each other in different classifications, it should be keep in mind that these approachs are trying to classify variables that are in quite wide category related with macroeconomic, institutional and economic policy variables.

To observe the determinants of FDI and to exhibit the attractive and deterrent country's features, cross-country regression method is used in most of the studies. However, it is known that determinants of FDI are country specific features, policies and regions. Therefore, there is no certain consensus about the determinants of FDI especially about the developing countries.

However, common factors that is observed in this studies are economic growth, lobor amount and quality, market size, openess to trade, infrastructure, foreign exchange rate,

international interest rates, host country's macroeconomic policies and public incentives. These factors importance rank changes from country to country also it changes in a country over time. Although there are wide range of studies related with developing countries, studies for Turkey is on a limited scale. Since the aim of the study is examining the result of empirical studies related with developing countries, wide literature review will not be done. In this topic, Ahmed et al (2005) and Narayanamurthy et al (2010) has prominent studies with wide range of literature review.

The one of the first studies that examines the determinants of FDI emprically and on a country basis belongs to Schoeman (2000) who examines the effects of fiscal policies on FDI in South Africa. According to this study's results, both of two examined fiscal policy variables (Budget deficit/GDP ratio that represents fiscal discipline and tax burden on foreign investor) has negative effect on inward FDI. According to these results, researchers point out that structural transformation should be cared by administrators and tax burden on foreign investors should be decreased.

Fedderke and Romm (2006) examined the determinants of FDI in developing countries between 1960-1997. They reached that political stability, property rights, market size, openess to trade, labor cost and corporation tax rate are efficient factors to attract FDI. Moreover, they suggested some policies like decreasing political risks, incentiving economic growth, keeping the wage increasings at modest level and increasing the openess to trade.

A smilar study is done by Moolman et al (2006). They examined the macroeconomic relationship between FDI and production capasity in developing countries between 1970-2003. In this study, before examining the FDI's effects on production capasity, reseachers first examined the supply side factors that affect FDI. Results show that market size, openess to trade, infrastructure and nominal exchange rate have importance to attract FDI to a country.

Rusike (2007) actualized relatively wider range of study for South Africa between 1975-2005. He searched the tendency of inward FDI and the factors that affect these investments level. According to researcher; growth rate, labor cost, market size, openess

to trade, financial development, exchange rates and international interest rates have efffects on FDI. Also, in this research, long run and short run diversification is done and it is pointed out that financial development, market size, openess to trade and Exchange rate determine FDI in the long run.

In relatively more nearby study is done by Kiat (2010). The effect of exchange rate flexibilty on FDI is examined and followed macroeconomic policies are handled in terms of exchange rate. According to this study's results, although exchange rate flexibilty is one of the main determinants for FDI, developing countries' adminstrators don't take adequate precautions. Therefore, according to author, during the examined term, there is recession in flow of FDI.

Batmaz and Tunca (2005) examined the long run relationship between FDI and macroeconomic variables for Turkey. Their results show that while there is a positive relationship between inward FDI and GDP, infrastructure investments and foreign trade ratio; there is a negative relationship between inward FDI and exchange rate, wages and interest rates.

It will be useful to mention the studies that shows the effect of inflation in developing countries to the flow of FDI that will be done to the developing countries. Before taking hand the topics on a individual basis, the common side of these studies should be emphasized. In these studies, increasing inflation is handled as a factor that decreases real return of investments and it is evaluated as a deterrent factor for investors. Inherently, this situaiton ends up with low level of FDI. Narayanamurthy et al (2010), Elijah (2006), Ahmed et al (2005), Onyeiwu ve Sherstha (2004), Nonnemberg and Mendoca (2004), Rgoff and Reinhart (2002) and Fuat and Ekrem (2002) have same opinions and results. On the other hand, there are other empirical studies that shows the ineffectiveness of inflation on FDI. Although Wijeweera and Mounter (2008), Moosa and Cardak (2006), Hisao and Hisao (2006) used inflation in their model as a determinant for FDI, they could not get statistically significant results and concluded that inflation has no effect on FDI.
In an economy that use inflation targeting monetray policy regime, inflation should be evaluated as an local or pull factor for FDI. Because, inflation should be accepted as an

indicator of domestic macroeconomic conditions. There are a lot of empirical evidence that exhibit the benefits of inflation targeting regime. This regime decreases the political uncertainty and forms more clear, more predictable macroeconomic environment. Thus, investor can infer from central bank's policy announcements and can plan his/her investment accordingly (Hodge, 2006). Such a macroeconomic environment positively effects the foreign investments. Mishkin and Hebbel (2007) and Waglom (2003) support this opinion as theoretically and emprically with their studies.

According to economic policy theory, although inflation targeting regime has macroeconomic benefits, it has some disadvantages. In terms of our topic, there is need to examine the difference between the countries that conducts inflation targeting regime and don't conduct it. In this topic, one research that is conducted to developing countries showed that there is no statistical discrepancy in main macroeconomic variables including FDI, between the countries that conduct this regime and don't conduct this regime (Ball and Sheridan, 2005: 250). Therefore, these authors concluded that inflation targeting regime can not be a long run policy. In another research that realized recently, it is pointed out that conducting this regime in developing countries brings a cost in the form of low level of growth rates (Brito and Bystedt, 2010: 4). According to authors, low and flexible economic growth rates make a disincentive effect on inward FDI since it worses expectations about efficiency and profitability. Ultimately, a decrese in inward FDI to the developing countries occurs.

As mentioned studies show, while inflation is considered as a determinant factor for FDI in many studies; in some studies results show that inflation does not rank in these factors as statistically. Especially, studies that consider developing countries, it is an unresolved issue that whether inflation is a determinant factor for FDI or not. Inherently, the solution of this problem should be based on the empirical base. On the other hand, the macroeconomic benefits of inflation targeting regime is not universaly accepted. Alongside of these benefits, existency of costs is a reality. Therefore, in the next phase of this part of the study, the question that whether there is a relationship between inflation and FDI in the long run will be searched. In Turkey, as a country that has applied inflation targeting regime, searching this problem and searching the causality connections will enable to offer suggestions to the policymakers.

2. Data

As it is mentioned before, the purpose of this study is searching the theoretical relationship between FDI and macroeconomic stability for Turkey in the long run. From this point of view, to represent the macroeconomic stability, 2 variables that are related with FDI will be handled. The first of these is inflation rate that represents economic stability in the real sector and the second one is real exchange rate that represents stability in the financial sector. As it is done in previous studies, in this study, inward FDI to the country will be handled as the ratio of net FDI to GDP (Moolman et al, 2006; Rusike, 2007; Kiat, 2010). Similarly, inflation rate will be represented with the rate of change in the Consumer Price Index and real exchange rate will be represented with CPI based real effective exchange rate.

On the other hand, some other variables should be included as a control-transmission variables that are used in the emprical literature. Therefore, from examined empirical studies "market size" and "openess to trade" is selected for Turkey as a main control variables and included to the model. Furthermore, it is thought that as a transmission variable, including the rapid financial growth in Turkey that realized after 2001 crisis, is suitable (Rusike, 2007). Here, market size will be represented with real GDP and openess to trade will be represented with the ratio of foreign trade volume (export + import) to GDP. For the financial development, alternative representative variables can be used.

In this study, using the ratio of private sector domestic credit volume to GDP is determined, since by Central Bank, recently this ratio is indicated as a main factor that forms inflationary pressure. Thus, financial development that accepted as both effective on inflation rate and attractive factor for FDI, is included to the model as a control-transmission-variable. Since the apriori information about these variables' causality direction is not haved, a VAR model should be formed to represent the relationship between these variables. In the developed VAR model, rank of the variables is as follow:

- Foreign direct investments
- Market size
- Openess to trade
- Financial development

- Real Exchange rate
- Prices

As it seen, while real exchange rate and prices that are accepted as the most exogeneous variables, are at the end of rank; FDI that is the most endogeneous variable, is top of the rank. This ranking named as Cholesky decomposition and it sholud be used in the VAR model's prediciton and other tests' process. Accordingly, formed VAR model can be written as:

$$x = VAR\,(FDI\,, Y\,, OPEN\,\,, FDEV\,\,, RFX\,\,, P)$$

In this notation;

FDI: Net inward foreign direct investments to Turkey
Y: Real GDP
OPEN: Openess to trade
FDEV: Financial development
RFX: Real exchange rate
P: Consumer price ındex

In the next stage of this study, variables which are expressed with capital letters mean level series; variables which are expressed with lower case letters mean logarithmic level series. Inherently, variables that included to the model as ratio are level series (like openness to trade ratio).

To reach the above mentioned variables' data, Central Bank of the Republic of Turkey' electronic data distribution system is used as data base. Estimation term is between 2003: January and 2015: April. Monthly based data are used. Therefore, there are 147 observations. With the estimation of the model, short run responses can also be obtained againist the economic stability shocks. Indexes that based on different base years, are degraded to one base year with respect to rate of exchange. To do this, back extension of the series' method is used and base year difference is abolished. Representating the above listed variables with below time series will be suitable.

FDI : To represent the FDI, the ratio of net inward FDI/GDP

Y : To represent the market size, real GDP

OPEN : To represent the openess to trade, the ratio of sum of export and import to GDP

FDEV : To represent the financial development, the ratio of private sector domestic credit volume to GDP

RFX : To represent stability in financial markets, consumer price index based real exchange rate index

P : To represent economic stability, consumer price index

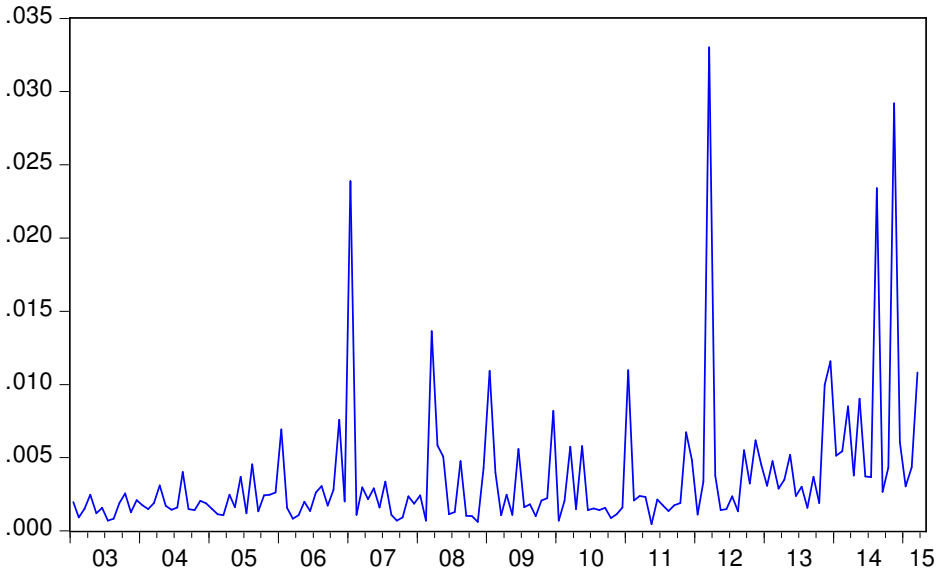
From these variables, real and nominal GDP variables are not observable in monthly basis. Monthly data, regarding to these time series, are handled under cover of quarterly data, by using the quadratic function. Definitely, when evaluating the results of the model, this data derivation method should be taken into account. For these variables' time series, summary descriptive statistics are presented in Table 20.

Table 20. Descriptive Statistics of the Time Series

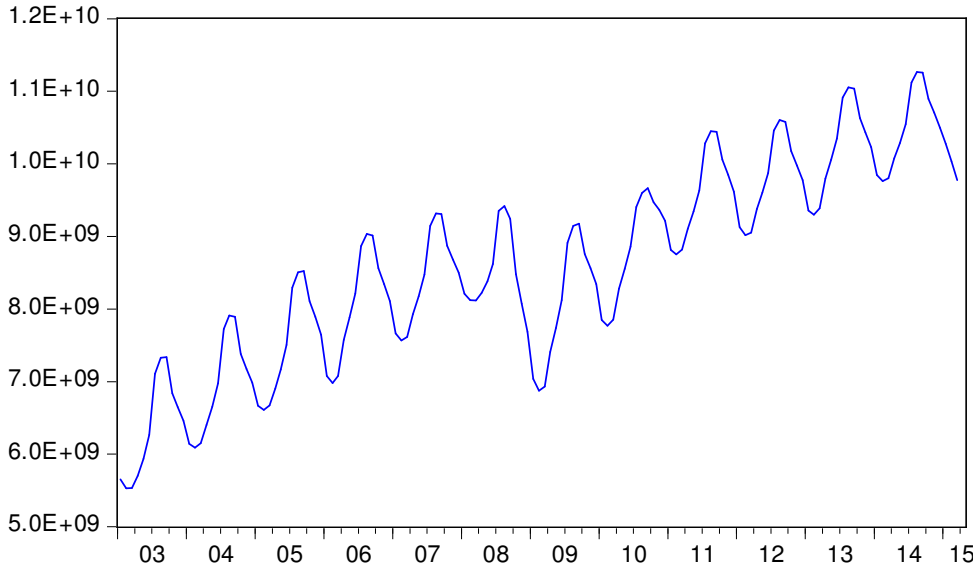
	FDI	Y	OPEN	FDEV	RFX	P
Mean	0.003665	8.60E+09	0.442395	0.004013	164.8706	658660.2
Median	0.002141	8.62E+09	0.448289	0.003749	166.8000	644593.2
Maximum	0.033027	1.13E+10	0.559279	0.008501	194.1000	1021226.
Minimum	0.000461	5.53E+09	0.323424	0.000990	119.2000	379193.6
Std. Dev.	0.004717	1.40E+09	0.055632	0.002046	15.29770	183412.2
Skewness	3.957080	-0.170165	-0.055074	0.349775	-0.507102	0.269711
Kurtosis	21.12359	2.257508	2.225317	2.051232	3.233194	1.910664
Jarque-Bera	2395.479	4.086104	3.750136	8.510884	6.633311	9.050477
Probability	0.000000	0.129632	0.153345	0.014187	0.036274	0.010832
Sum	0.538702	1.26E+12	65.03209	0.589859	24235.98	96823054
Sum Sq. Dev.	0.003248	2.85E+20	0.451856	0.000611	34166.87	4.91E+12
Observations	147	147	147	147	147	147

For these time series that summary statistics are given above, since the used data are monthly data, seasonal component should be searched. With conducting the most widely used Tramo-Seats method, time series that includes seasonal component are observed and deseasonalized. These series are P, Y, FDEV and RFX. These converted time series'

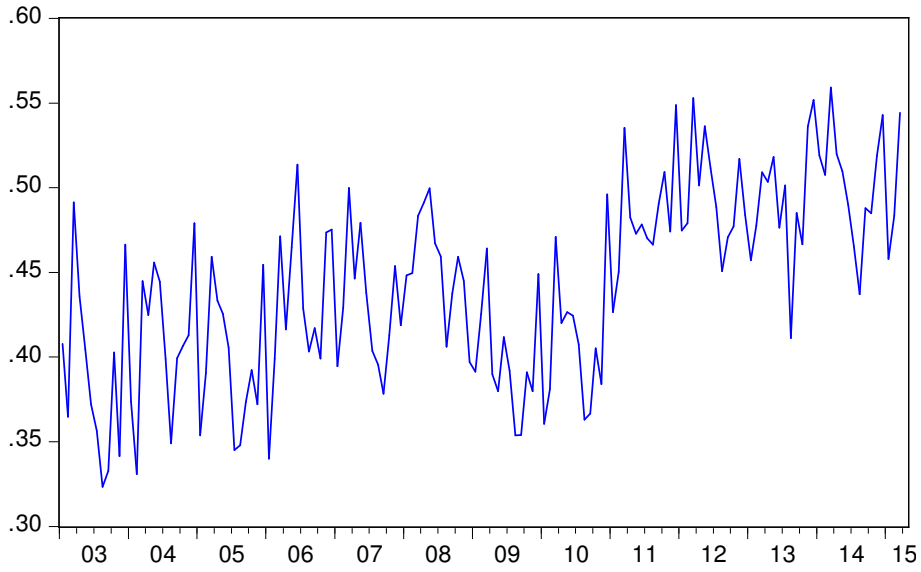
natural logarithm is taken except FDI. Then, obtained time series are used in the estimation of above model. Data regarding to these series can be seen from below graphs.



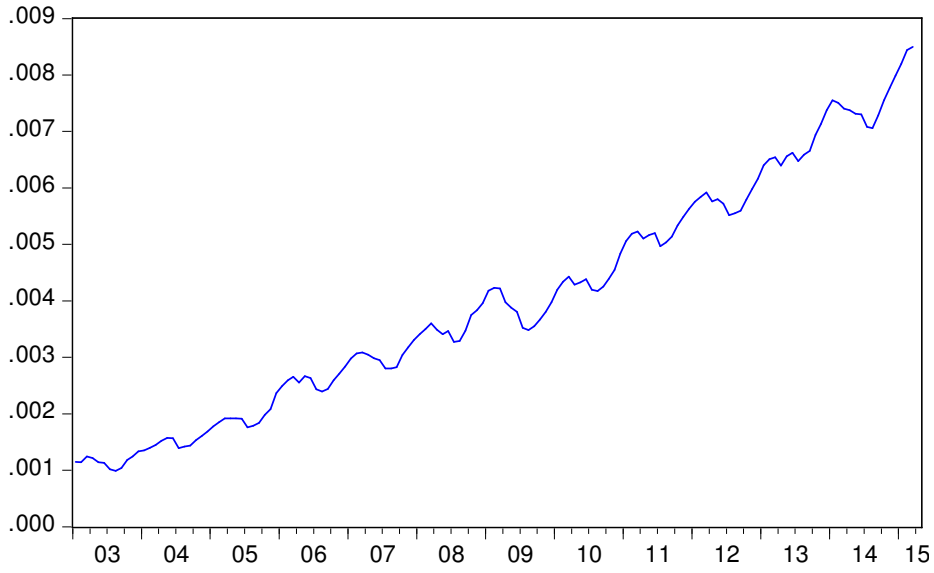
Graph 12. FDI/GDP



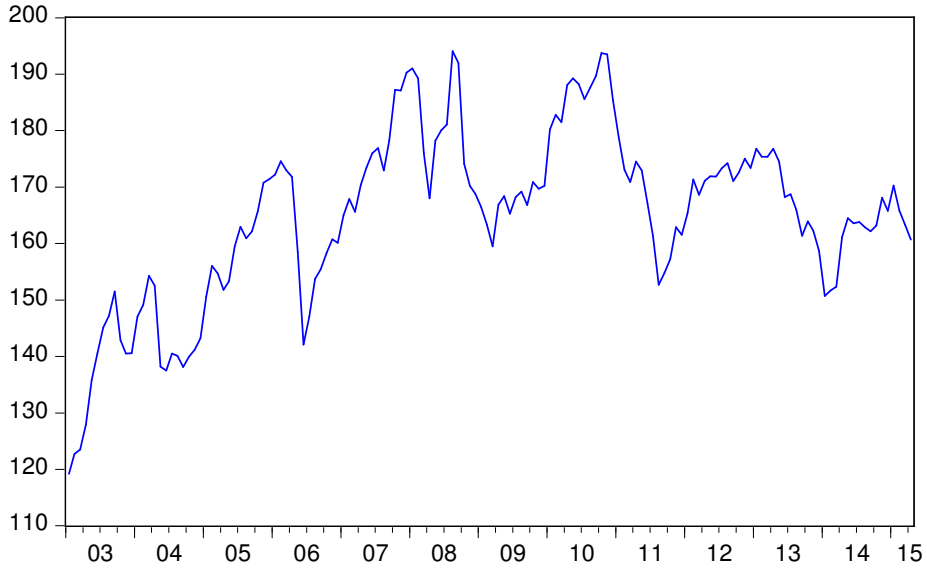
Graph 13. Real GDP



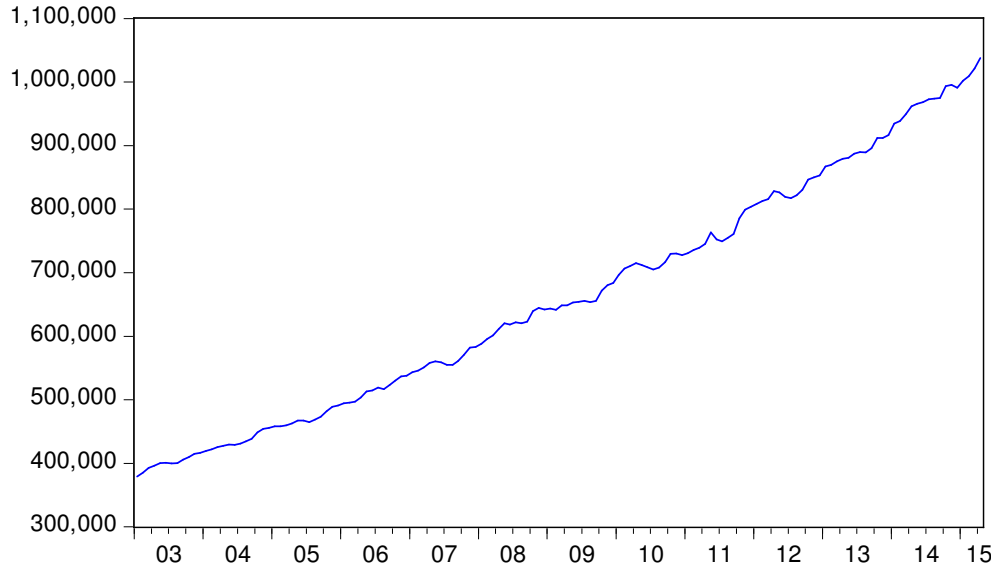
Graph 14. (Export+Import)/ GDP



Graph 15. Private Sector Credit Volume/ GDP



Graph 16. CPI Based Real Effective Exchange Rate



Graph 17. Consumer Price Index

To predict the model, VAR or VECM model will be used so giving some informations about these methods will be useful. Since using the VAR or VECM model depends on the results of the cointegration test results, first cointegration test will be handled and then VAR method will be explained.

3. Method

3.1 Cointegration Analyses

According to cointegration analyses that searches whether the nonstationary time series in level moves together in the long run or not; if nonstationary series are cointegrated, taking the difference of these variables is not a proper method in terms of statistical properties. Since the variables have a trend that provides comovement, taking the difference of them abolishes this joint trend. Correspondingly, in the analyses that is done in the cointegrated series' level, (series that moves together in the long run) spurious regression is beside the point. Engel-Granger two step cointegration test that is asserted by Engel – Granger (1987) and other cointegration tests that are improved by Johansen – Juselius (1990) require to provide stationary in case of taking the differences (in same level) of nonstationary time series. Although Engel – Granger method is easily conductable, if there is more than 2 variables, it does not give robust results since cointegrated relationship increases with the increasing variable number. Namely, in case of doing normalizing in different numbers, results can change. Therefore, Johansen-Juselius method seems as more consistent and more predictable method.

In the Johansen-Juselius multiple cointegrating method, firstly following linear atuoregressive model is handled:

$$X_t = \pi_1 X_{t-1} + \pi_2 X_{t-2} + \ldots + \pi_k X_{t-k} + \mu + \xi_t \qquad (1)$$

In case of taking the first difference of non-stationary X variable, undermentioned error correction process is obtained:

$$\Delta X_t = \Gamma_1 \Delta X_{t-1} + \Gamma_2 \Delta X_{t-2} + \ldots + \Gamma_{k-1} \Delta X_{t-k+1} + \pi X_{t-k} + \mu + \xi_t \qquad (2)$$

In the above equation variables are defined as:

$$\Gamma_i = -I + \pi_1 + \pi_2 + \ldots + \pi_i$$

$$\pi_t = I + \pi_1 + \pi_2 + \ldots \pi_i$$

Here, X_t variable represents the *(p×1)* dimensional vector that is related with the first degree integrated I(1) variables, ξ_t represents error term and Γ_i represents parameters matrix that is *(p×p)* dimensional. Partaking π coefficients in the equlibrium is a (p×p) dimensional matrix same with Γi that gives information about the variables' long run relations. Rank of π matrix express the number of linearly independent and stationary linear components of variables. If the rank of matrix is exact, this means that all variables are stationary that partaking in Xt. If the rank of matrix is equal to zero, X_t transform to a vector autoregressive model in the form of first degree differences. This situation means that there is no long run relationship between the variables in the model. In terms of *Rank(π),* if *r<p,* there are r number of linear combination between X_t variables which are stationary or cointegrated. In this case π matrix can be written as;

$$\pi = \alpha \times \beta'$$

Here α and β matrixes are (*p*×*r*) dimensional matrixes and their ranks are (*r*). While α includes error correction parameters, β is conitegrated vectors matrix. Although X_t is first degree cointegrated, namely *I(1),* $\beta' X_t$ is stationary. If the rank of π matrix is equal or bigger than 1, there is at least 1 cointegrated vector so there is long run relationship between the variables. Inherently, in the multiple cointegration analyses, finding at least 1 cointegrated vector is expected. In case of finding this cointegrated vector, H_0 hypothesis that refers there is no cointegration, is rejected. Johansen-Juselius (1990) asserts two different statistical tests to find the cointegrated vector number namely rank of π matrix. This tests are Trace test and Eigenvalue test. They are calculated via equations indicated below:

$$\lambda_{trace} = -T \sum_{i=r+1}^{p} \ln(1 - \lambda_i) \tag{3}$$

$$\lambda_{\max} = -T.\ln(1 - \lambda_{r+1}) \tag{4}$$

The results that are obtained from these tests are compared with the table critical values that are suggested by Johansen-Juselius. Critical values of Johansen test has 3 parts that depends on the how the linear trend and seasonal dummy varible added to predicted

model. In the first one, constant term is added to model without any constraint. In the second one, again constant term is added to model but it is constrainted as for cointegrated vectors. In third one, constant term is not added to model.

3.2 Vector Autoregressive (VAR) and Vector Error Correction (VECM) Models

According to Granger (1988), if there is a cointegrated vector between variables, there should be at least one-way causality between these variables. In this case, doing the causality analyses with vector error correction model (VECM) is more suitable. This model is used to make discrimination between long-run equilbrium and short run dynamics that are among variables. The advantage of this model is that it can use the data's short run and long run information without forming a spirious relations between dependent and independent variables. Error correction model can be shown as:

$$\Delta X_i = \alpha + \sum_{i=1}^{m} \beta_i \Delta X_{t-i} + \sum_{i=1}^{n} \gamma_i \Delta Y_{t-i} + \sum_{i=1}^{p} \psi_i \Delta Z_{t-i} + \lambda EC_{t-1} + \xi_t \quad (5)$$

Here λ parameter is the error correction parameter that compels the variables to converge the equilibrium level in the long run. If this parameter is statistically significant, there is deviation from the equilbrium. The speed of adjustment is determined according to parameter's size. In the long run, to converge to the equlibrium level, parameter should be negative and significant. Although error correction parameter is negative, if it is not statistically significant; in this case, significancy of dynamics between the variables cannot be sufficiently represented. If the coefficient is positive, in case of a deviation from long run equilbrium level, reaching to equilbrium again will not be possible. Here, while ΔY and ΔZ variables represent the effect of short run deviations in ΔX, EC_{t-1} express the lagged one period value of the error correction term that is obtained from cointegration equation. β_i, γ_i and ψ_i parameters are short run parameters that shows the effect on dependent variable. If F statistic that express overall significance of the model or t statistic of error crorrection coefficient is significant, this indicates the causality.

If there is not any cointegration between the variables, X_t variable is expressed with vector autoregressive (VAR) model. VAR model can be written in equation form as:

$$Y_t = \alpha_1 + \sum_{i=1}^{m} \alpha_2 Y_{t-i} + \sum_{j=1}^{n} \alpha_3 X_{t-j} + \xi_{1t}$$
$$X_t = \beta_1 + \sum_{i=1}^{p} \beta_2 Y_{t-i} + \sum_{j=1}^{q} \beta_3 X_{t-j} + \xi_{2t} \quad (6)$$

With this notation, it looks alike system of simultaneous equations. In system of simultaneous equations, while some variables are explained by other variables in the model; some variables are only explanatory variables. Such this explanatory variables' values are determined before.

However, Sims (1980) asserts that , if there is really a simultaneity between the variables, a discrimination must not be done between endogenous and exogeneous variables. From this point of view, VAR models are asserted. In the VAR model, all variables are endogeneous. With this feature, VAR models are different than system of simultaneous equations. According to Pagan (1987), time series should be stationary for VAR model. However, to provide the stationary, taking the difference of series can cause information loss. Sims (1980) and Doan (1992) point out that the aim of VAR analyses is not parameter prediction, its aim is determining the relationship between variables and even in case of existence of unit root differences should be taken.

The most important feature of this method is that with the VAR analyses, unanticipated shocks of variables on error correction terms arised. Impulse response functions shows that what would be the other variables' impulse in case of conducting 1 standard deviation shock to the variables in the system. Correspondingly, whether the the most effective variable can be used as a policy tool or not is asserted. Also, with the variance decomposition method, the degrees at which the variables affect each other is obtained.

4. Prediction Results

The first stage to conduct the VAR or VECM model is testing the cointegration. Cointegration test starts with the determining characteristics of time series. Therefore, in this part, firstly the used time series' unit root properties will be examined and then estimated results of the model will be presented behind the cointegration analyses.

4.1 Unit Root Analyses

To obtain the signifant relationships between variables used in the econometric models, series should be stationary. Stationary means constant mean, constant variance and dependency of covariance not the examined time, but to the difference between two time value. Existincy of economic variables are related with the imposed shocks. The effects of these shocks on variables can be temporary that abolishes in a few terms, or they can be permanent that last long time. Used series may have trend or seasonal fluctuations with regard to characteristics of the shocks. Series that have trend or seasonal fluctuation are not stationary. Dickey-Fuller (ADF) test that is improved by Dickey and Fuller is mostly used method to test the stationarity of series. In this study, models with constant & trend and with constant-without trend are handled.

$$\begin{aligned} \Delta Y_t &= \alpha_0 + \alpha_1 Y_{t-1} + \sum_{i=1}^{k} \beta_i \Delta Y_{t-i} + \xi_t \\ \Delta Y_t &= \alpha_0 + \delta(trend) + \alpha_1 Y_{t-1} + \sum_{i=1}^{k} \beta_i \Delta Y_{t-i} + \xi_t \end{aligned} \tag{7}$$

In the above equation, Y represents the variable that subject to stationarity test, Δ represents the first degree difference operator and ξ represents the error term. For the ADF unit root test, 2 hypothesis formed:

$$\begin{aligned} H_0 &: \alpha_1 = 0 \\ H_1 &: \alpha_1 < 0 \end{aligned}$$

Rejecting H_0 means Y is stationary. Since ADF test is sensitive to the trend using, existency of unit root is confirmed by a second test. According to this second test that named as Phillips-Peron, to contol the high degree correlation in the time series, a non-parametric method should be used. In the literatüre, PP unit root test is seen as a complementary test to ADF rather than an alternative test.

It is expressed that PP test is more effective to catch the structural breaks. In PP test there is adoptation estimator rather than determining the Newey West optimal lag length. Therefore, in PP test, lagged value of the dependent varible that enough to eliminate

autocorrelation is not added. Instead of it, coeffient is adjusted so below equation is used in PP test and with using the same hypothesis tests, existency of unit root is tested.

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \xi_t \qquad (8)$$
$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \delta(Trend) + \xi_t$$

The results of conducted ADF and PP unit root tests are presented in Table 24. Both of conducted tests prove that time series in the model are not stationary in their logaritmic level except the CPI (p). As it is mentioned before, price index is included to model as logaritmic level.

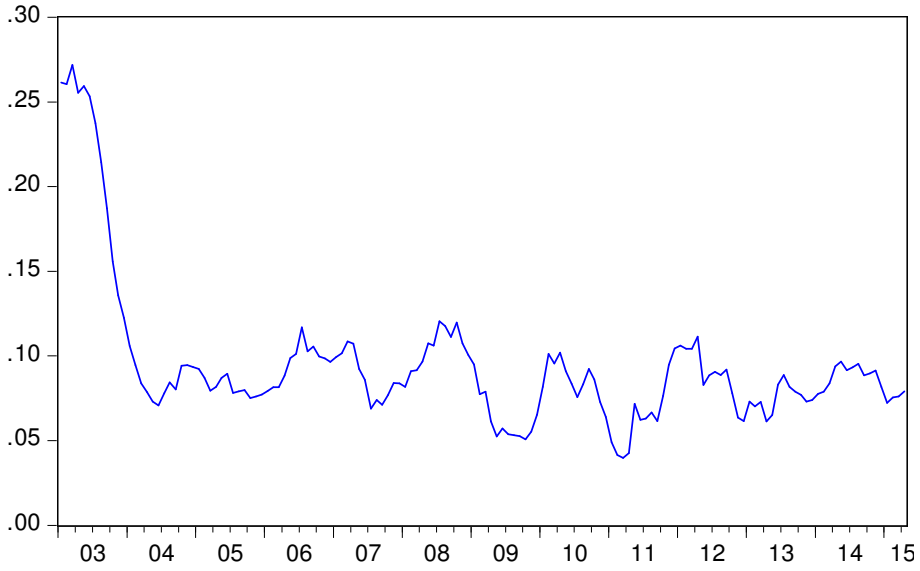
Table 24. Results of the Unit Root Tests

	ADF Test			**PP Test**		
Variable	Lag	Test Statistic	Mariginal Significance	Band	Test Statistic	Mariginal Significance
fdi	1	1,561*	0,805	9	1,383*	0,863
Δ(*fdi*)	0	3,075	0,030	13	2,732	0,071
y	3	1,145	0,697	10	0,297	0,922
Δ(*y*)	2	2,262	0,023	9	9,448	0,001
open	0	0,931	0,776	3	0,923	0,779
Δ(*open*)	0	13,336	0,001	3	13,340	0,001
fdev	0	1,880	0,341	25	1,421	0,571
Δ(*fdev*)	2	10,753	0,001	46	25,295	0,001
rfx	0	1,750	0,404	3	1,750	0,404
Δ(*rfx*)	3	6,763	0,001	2	12,831	0,001
p	6	2,166	0,220	8	9,686	0,001
Δ(*p*)	1	15,423	0,001	28	73,666	0,001

* indicates trend inclusion

According to Table 24, all time series that are not stationary in their level become stationary in their first differences. Both ADF and PP tests verified these situation. Special exception of this case is CPI *(p)* variable that added to represent price level. While ADF test shows that this time series is not stationary at level but it becomes stationary in its first difference, PP test requires to reach stationarity in its level. Because, PP test includes only first degree of lagged dependent variable to the model. When time series graph of related variable is examined , it will be seen that after the January 2001 crisis, a sharp decrease in inflation rate occured. Because of this, general level of prices deviates from its general trend. In Graph 18, this situation can be seen more clearly. When estimation

year is shifted one year as 2004:January – 2015: April, probablity ratio of PP test becomes 0.35 which reqires to reject H_0 hypotheses. Namely, it says related time series is not stationary. Therefore, this variable will be accepted as nonstationary in level, it provides stationary in case of taking the first difference. Accordingly, while all time series that represent the variables in the model are not stationary in level, they become stationary in their first differences. This shows that related time series are I(0) in level and I(1) in their first differences. With more technique expression, all time series in the model are first degree integrated.



Graph 18. The progress of annual inflation rate

4.2 Cointegration Analyses

As mentioned before, if at least 1 linear combination is stationary among nonstationary time series (if there is at least 1 cointegrated vector), related time series comove in the long run to the common equlibrium level. To test the existency of cointegrated vector, trace test and maximum eigenvalue test are used. Table 25 and Table 26 show the results of these tests.

Table 25. Trace Test Results for Cointegration

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.496267	166.9854	95.75366	0.0000
At most 1	0.237504	69.61466	69.81889	0.0519
At most 2	0.108885	31.11013	47.85613	0.6606
At most 3	0.059648	14.74013	29.79707	0.7966
At most 4	0.039804	6.007051	15.49471	0.6947
At most 5	0.001684	0.239389	3.841466	0.6246

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Table 26. Maximum Eigenvalue test results for Cointegration Test

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.496267	97.37072	40.07757	0.0000
At most 1 *	0.237504	38.50453	33.87687	0.0130
At most 2	0.108885	16.37000	27.58434	0.6342
At most 3	0.059648	8.733079	21.13162	0.8534
At most 4	0.039804	5.767662	14.26460	0.6432
At most 5	0.001684	0.239389	3.841466	0.6246

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

While there is 1 cointegrated vector between the time series that are not stationary in level, for the Trace test, there is 2 cointegrated vectors for the maximum eigenvalue test. Unrestricted and normalised cointegration coefficients are presented in Table 27.

Table 27. Unrestricted Cointegration Coefficients

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
92.41709	26.66940	-31.87935	-1905.667	-14.43916	5.538717
-606.1382	4.566349	-1.187575	2377.626	4.232188	-15.93464
-160.1949	-0.857830	26.80698	-3292.821	-17.32792	22.84884
45.86134	7.006949	27.80110	640.7147	9.323430	-13.96928
-18.27374	0.248532	-14.11361	1651.023	1.809119	-13.73270
54.87053	4.422556	-11.24269	3603.150	-0.219017	-25.38372

In this case, using the VECM model is proper method for related time series. However, since in VECM model, impulse-response function's standart error bands cannot be calculated as techniqually, supporting this model with Granger causality test will be proper. Because, the existency of cointegrated vector or vectors requires at least one direction causality between related variables.

4.3 Granger Causality Analyses

As it is mentioned before, if there is a cointegrated vector between variables, there should be at least one direction causality between these variables. One of the most common test to search this causality is Granger causality test. Conducting this test requires to estimate below equations that includes 2 variables like X and Y in which a theoretical causality connection can be realized between them.

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \beta_i X_{t-i} + \sum_{i=1}^{n} \alpha_i Y_{t-i} + \xi_t$$

$$X_t = \beta_0 + \sum_{i=1}^{n} \alpha_i Y_{t-i} + \sum_{i=1}^{n} \beta_i X_{t-i} + \xi_t$$

For the tested relationship, for example to test the causality relationship from X variable to Y variable below hypothesis are tested:

$H_0 : \sum \beta_i = 0$ (there is no causality from X to Y)

$H_1 : \sum \beta_i \neq 0$ (there is causality from X to Y)

In first step to find the residual sum of squares, unrestricted form is estimated and obtained residual sum of squares $\left(\sum_{r=1}^{n} \xi_{t-r} \right)$ are named as $RSS_{ur.}$

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \beta_i X_{t-i} + \sum_{i=1}^{n} \alpha_i Y_{t-i} + \xi_t$$

In second step, restricted form is estimated as equation in this way:

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \alpha_i Y_{t-i} + \xi_t$$

Also, residual sum of squares $\left(\sum_{r=1}^{n} \xi_{t-r} \right)$ that obtained from this estimation is $RSS_{r..}$ Required F-statistics to test the above mentioned hypothesis is calculated with this way;

$$F \frac{\frac{RSS_r - RSS_{ur}}{m}}{\frac{RSS_{ur}}{n-k}}$$

In the above formula; RSS_r represents the restricted residual sum of squares, RSS_{ur} represents the unrestricted residual sum of square, m represents the excluded lagged variable number, n represents sample and k represents the parameter number which in the unrestricted equilibrium form. Degree of freedom is determined as (m, n-k) in the calculated F test. In the H_0 hypothesis; X does not cause Y hypothesis is tested. In this case, rejecting H_0 means the acceptence of alternative hypothesis which states that there is causality from X variable to Y variable. On the other hand, acceptence of H_0 hypothesis means there is no causality relationship between two variables. Same test is conducted for from Y to X causality relationship. With this way, existency and direction of causality relationship are determined between variables.

As it is seen, if there is a causality relation, this relation can be one-direction (from X to Y or from Y to X), or two-direction (from X to Y and from Y to X). When lag length is determined in these tests, Schwartz Information Criteria is used and obtained causality test results are given in Table 28.

Table 28. Granger Causality Test – F Values Matrix

	fdi	*y*	*open*	*fdev*	*rfx*	*p*
fdi	--	0,996 (0,422)	5,923 (0,000)	3,242 (0,008)	0,728 (0,603)	6,029 (0,000)
y	1,853 (0,105)	--	1,239 (0,239)	1,493 (0,195)	1,272 (0,278)	2,574 (0,029)
open	2,678 (0,024)	3,642 (0,004)	--	5,374 (0,000)	0,503 (0,774)	7,490 (0,000)
fdev	6,504 (0,000)	0,734 (0,598)	1,687 (0,140)	--	0,680 (0,639)	2,508 (0,032)
rfx	4,802 (0,000)	1,935 (0,091)	5,887 (0,000)	1,845 (0,107)	--	2,427 (0,038)
p	6,488 (0,000)	1,062 (0,384)	4,804 (0,000)	3,044 (0,011)	0,877 (0,480)	--

Not: In all squares, values that are below related F values in the paranthesis means the probability ratio

In the reading of the causality tests, zero hypothese that states variable in the column does not cause variable in the row is tested. Results show that in all the variables there is at least one direction causality in the 10% significance level. This results support the decision that VECM model should be used. Therefore, in the below part, results of the VECM model is presented.

4.4 VECM Estimation Results

Since VAR or VECM models produce wide range of results, it is difficult to interprete them with estimated coefficients. Therefore, to interprete the VAR model's results, generally impulse-response functions that are the graphical presentations of variables' responses to the shocks, are used. According to cointegration analyses results, that tested above part, there is at least 1 and at most 2 cointegrated vectors. Therefore, VECM model is estimated seperately regarding to these 2 criterias. Since there is not a big difference between results, with the idea that the model that have less cointegrated vector represents the equilibrium system better, the model that have 1 cointegrated vector is preferred in this study. In estimation of the VECM model, to determine the lag lenghth, Shwartz Information Criteria is used to provide completeness with previous tests. When monthly datas are considered, lag length is determined as 12 months. In the light of these explanations, summarized equlibrium related with estimated VECM model can be seen below;

$$\begin{array}{lcccccc} fdi = & 6{,}679 + 0{,}216(y) + 0{,}300(open) + 2{,}503(fdev) - 0{,}098(rfx) - 0{,}206(p) + 0{,}002(tr) \\ & (0{,}025) & (0{,}059) & (0{,}343) & (0{,}028) & (0{,}107) & (0{,}001) \\ & [8{,}510] & [5{,}090] & [7{,}297] & [3{,}572] & [1{,}923] & [1{,}998] \end{array}$$

Under the estimated equilibrium coefficients, there are values between paranthesis showing standart error values and values between square brackets showing the t-statistics. As it is seen, all of the estimated coefficients are statistically significant in the 1% significance level. In the interpretation of coefficients, elasticity interpretation is not possible in comparison with traditional regression equations since cointegrated vectors show the equilibrium path that shows the long-run relations rather than short-run relations. Therefore, instead of interpreting the equilibriums that are predicted with VAR or VECM method, it will be more suitable interpreting the impulse-response and variance decomposition functions.

Impulse-response functions reflect the effect of 1 standart deviation shock which in one of the random disturbance term to the present and future value of the endogeneous variables. In the VAR anaylses, impulse-response functions have a big role on the determining the dynamic interaction and symetric relation between variables. The most effective variable on a macroeconomic indicator is finded with variance decomposition. Moreover, whether this finded most effective variable can be used as a policy tool or not is determined with impulse-response functions. Inside of standart VAR model, the most used method to get the impulse-response coefficients is Cholesky decomposition. Using with this decomposition, disturbances are orthogonized and obtained variance-covariance matrix rendered to diagonal shape. Since changing the rank of variables causes a big variations in the impulse-response functions, attention should be paid to this point.

Furthermore, since impulse-responses are the non-linear function of VAR model, their real value can not be calculated. However, the real values of impulse-response functions exist in a confidence interval with a specific probability. Therefore, analytic methods that are used for calculating the impulse-response functions coefficients' confidence interval are ctiricized. In this topic, Monte Carlo and Bootstrap methods are oftenly used. However, in the VECM models, it is impossible to calculate said standart errors. Therefore, there will be no meaning of drawed standart error bands. Because of this reason, there is no standart error bands in the below impulse-response functions.

Effects of ± 1 standart deviation shocks that occured in the model's stability variables which are inflation and real exchange rate on the model's other variables, provides information about these variables effects on FDI. Figure 19 shows the impulse-response function for a shock in inflation and Figure 20 shows the impulse response function for a shock in real exchange rate.

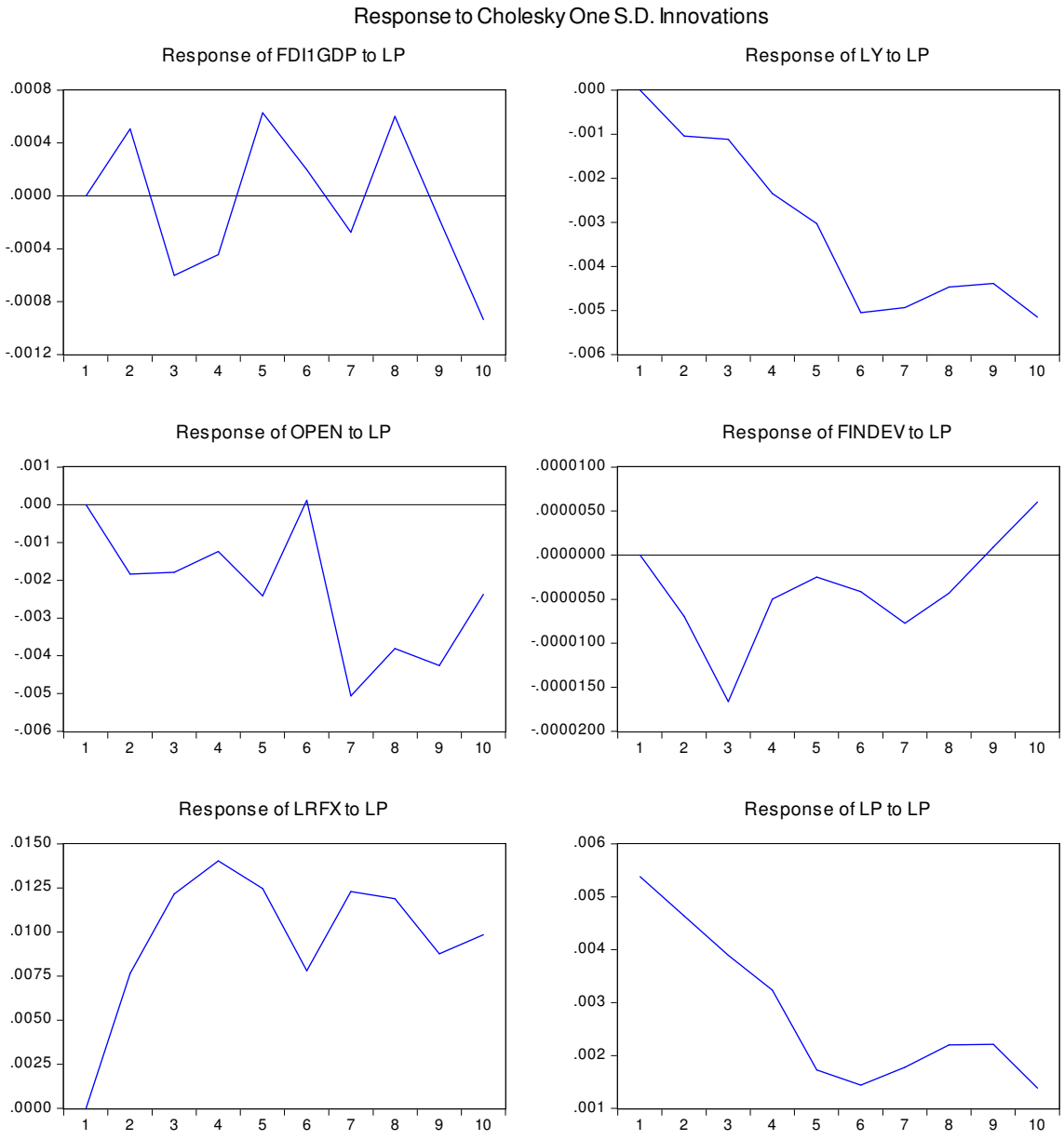


Figure 19. Responses of Other Variables to the Inflation Shock.

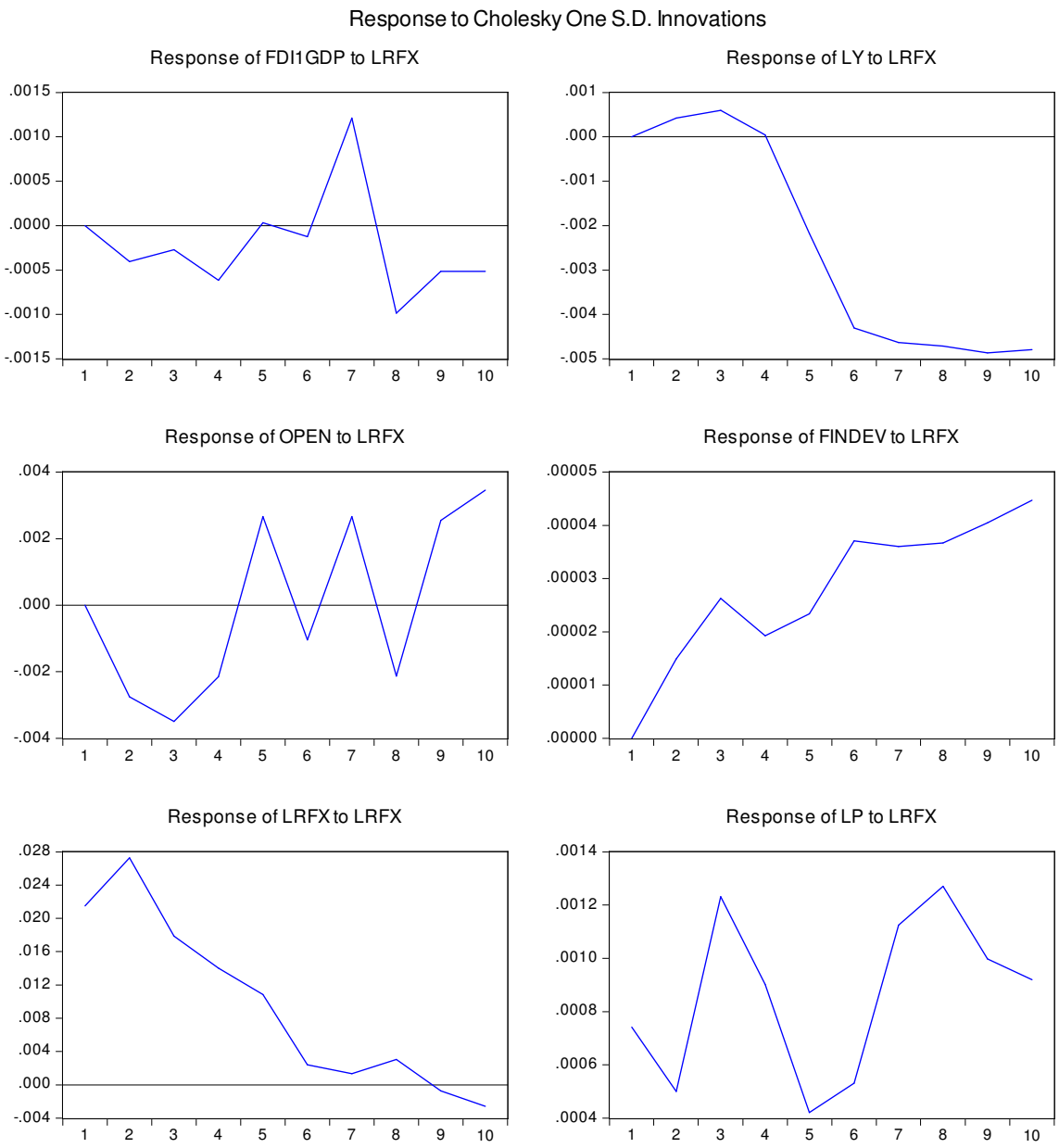


Figure 20. Responses of Other Variables to the Real Exchange Rate Shock

Effects of a positive shock that occured in CPI on the other variables show that economic instability has negative effects on FDI in Turkey. According to graphs that are ranked as in the VECM model, a positive inflation shock has a negative effect on FDI. Inflation shock cause instability in net inward FDI and stationary in the series failed. Also, the most remarkable point of the analyses is that this instability progressively deepens so it is permanent. This case is same with mentioned theoretical expectations. Therefore,

according to results that obtained from Turkish case, fluctuations in inflation rate which represents the economic stability in the model, causes a negative and permanent effect on FDI.

According to Figure 20, effects of a positive shock that occured in real exchange rate (that represents the stability in financial markets) to the other variables gives certain results: FDI that comes to Turkey is effected negatively from financial instability. Fluctuations in the domestic currency value againist foreign currency value causes a certain recession in inward FDI and this negative effect is permanent. This result that is parelell to other studies that based on interest rate, proves that a country which wants to attract more FDI has to financial stability. According to impulse-response functions, that are examined above, economic stabilty is an effective fact on FDI. Instabilities that are observed in real and financial markets affect the inward FDI negatively. Decreasing the fluctuations in inflation and providing the stability in financial variables has positive effect on FDI amount.

4.5 Variance Decomposition Functions

Variance decomposition has importance since it gives information about the dynamic interactions between variables. Also it gives information about how much amount of proportional change's stemmed from variables itself and how much amount stemmed from other variables in the system thus, whether variables are exogeneous or endogeneous can be determined. Variance decomposition seperates the change in a one of endogeneous variable as individually shocks that affects all endogeneous variables. Thus, variance decomposition informs about the system's dynamic structure. The purpose of the variance decomposition is revealing the each random shocks' and future prediction's effects to the error variance. Prediction's error variance can be expressed as each of variables' contributions to the error variance for h length term. Then each of variance that obtained with such this way are proportioned to total variance and relative weight is finded as percentage. Interpreting the results that obtained from variance decomposition is important. With thinking a model as mentioned before, X can be accepted as exogeneous if a shock in ξ_t does not affect the X's estimation error variance regardless of estimation period since X moves as independent from Y. On the contrary, if a shock in ξ_t completely

or dramatically affects X's prediction variance, X is accepted as an endogeneous variable. In variance decomposition the rank of the variables also affect the results. In Table 29-34, obtained variance decomposition values are given for each variable and for one year terms.

Table 29. Variance Decomposition for FDI

Variance Decomposition of FDI1GDP:							
Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	0.004033	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.004281	94.78804	0.935758	1.287098	0.687858	0.897850	1.403401
3	0.004479	91.95269	1.329945	1.637252	0.803699	1.192351	3.084061
4	0.004653	85.25531	1.241873	2.734115	4.154562	2.851378	3.762766
5	0.004716	83.18918	1.394610	2.661299	4.538205	2.780247	5.436462
6	0.004825	83.21541	1.568322	2.765415	4.362256	2.723253	5.365348
7	0.005079	76.82654	1.654168	4.245083	3.998633	8.143306	5.132273
8	0.005380	70.63924	1.569597	7.061597	4.286038	10.62019	5.823332
9	0.005732	64.81529	2.881089	6.436571	10.47224	10.17117	5.223637
10	0.005867	62.09503	2.773096	7.100574	10.02368	10.47862	7.529002
11	0.005931	61.20697	2.748592	6.947355	10.26923	10.25233	8.575521
12	0.005951	60.79559	2.877415	6.904219	10.41084	10.49363	8.518308

Table 30. Variance Decomposition for Real Income

Variance Decomposition of LY:							
Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	0.007793	0.224271	99.77573	0.000000	0.000000	0.000000	0.000000
2	0.015456	2.539167	96.92661	0.004787	0.001345	0.073759	0.454334
3	0.024709	5.422115	94.06604	0.042638	0.001193	0.086592	0.381420
4	0.030320	7.166930	91.89173	0.031607	0.002648	0.057723	0.849361
5	0.035097	8.015350	90.14364	0.028618	0.009709	0.426147	1.376533
6	0.039297	7.455141	88.14365	0.041192	0.068343	1.542195	2.749479
7	0.042512	7.056336	86.27652	0.108859	0.356352	2.504446	3.697485
8	0.044937	6.322012	84.96043	0.386929	0.692681	3.340142	4.297806
9	0.046849	5.923855	83.58877	0.774009	0.729759	4.152840	4.830762
10	0.048986	5.584482	82.47993	0.872451	0.783746	4.755128	5.524262
11	0.051273	5.097336	82.23819	0.815008	1.004556	4.947396	5.897516
12	0.053939	4.736368	81.50637	0.776972	1.830009	5.154754	5.995525

Table 31. Variance Decomposition for Openess to Trade

Variance Decomposition of OPEN:

Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	0.024024	5.137851	1.663241	93.19891	0.000000	0.000000	0.000000
2	0.025200	9.653959	2.332248	86.28560	0.002370	1.198442	0.527377
3	0.026664	12.70888	2.577177	79.26664	1.747506	2.780176	0.919621
4	0.028222	14.60800	8.468640	71.27631	1.570258	3.063093	1.013694
5	0.029255	15.32979	11.14129	66.43357	1.795999	3.679201	1.620139
6	0.030331	15.20457	14.09999	63.67565	1.968529	3.542328	1.508937
7	0.032537	16.34692	12.61199	58.39986	5.163346	3.748892	3.728981
8	0.033518	18.44978	12.21384	55.04750	5.546060	3.936137	4.806677
9	0.035300	18.22804	14.95903	50.86873	6.085717	4.068932	5.789554
10	0.037075	17.00157	17.99043	48.63793	6.155474	4.555721	5.658876
11	0.038739	18.70964	19.47337	44.61197	5.875869	4.563686	6.765463
12	0.040148	18.23260	21.06971	41.55215	7.876035	4.290600	6.978903

Table 32. Variance Decomposition for Financial Development

Variance Decomposition of FINDEV:

Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	5.46E-05	0.341486	11.68013	1.300721	86.67766	0.000000	0.000000
2	7.50E-05	0.237742	12.90174	1.459405	80.60410	3.936312	0.860703
3	0.000100	0.166507	10.82960	5.032403	71.72815	9.028098	3.215247
4	0.000129	0.199495	6.580840	9.526904	73.87565	7.713970	2.103145
5	0.000160	0.844144	4.410852	17.77465	68.39206	7.181693	1.396605
6	0.000193	0.858474	3.237837	20.28370	65.97936	8.635767	1.004860
7	0.000220	0.687503	2.662125	23.04407	63.43426	9.280846	0.891192
8	0.000240	0.585670	2.755679	25.11727	60.65350	10.10809	0.779789
9	0.000258	0.518906	3.339431	25.85981	58.36300	11.24031	0.678546
10	0.000273	0.543225	3.707264	26.27090	56.12424	12.70070	0.653668
11	0.000286	0.496646	3.839781	27.30654	53.91683	13.70768	0.732518
12	0.000299	0.588667	3.937101	27.25465	52.02544	15.36009	0.834058

Table 33. Variance Decomposition for Real Exchange Rate

Variance Decomposition of LRFX:

Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	0.023091	0.791563	3.357632	8.925211	0.012374	86.91322	0.000000
2	0.037631	0.622156	4.009452	5.989952	0.013946	85.23101	4.133486
3	0.044144	1.142526	4.284383	5.155543	0.511214	78.31266	10.59368
4	0.048664	1.402722	4.021196	4.364993	0.445191	72.73817	17.02773
5	0.051658	1.641625	3.672633	3.905892	0.864284	68.97512	20.94044
6	0.052894	2.524275	3.509533	3.728196	2.100565	65.99497	22.14246
7	0.056834	5.175026	4.289004	3.445239	6.011133	57.21822	23.86138
8	0.062430	9.871300	7.170854	4.247779	7.649494	47.66168	23.39889
9	0.066000	12.20245	9.132813	4.061901	9.248968	42.65660	22.69726
10	0.070170	15.10078	10.42817	3.623297	10.92751	37.87273	22.04751
11	0.074218	17.01822	11.43775	4.308520	12.33134	34.28038	20.62378
12	0.077365	17.14169	11.93378	6.401630	13.60209	31.78174	19.13907

Table 34. Variance Decomposition for General Prices Level

Variance Decomposition of LP:

Period	S.E.	FDI1GDP	LY	OPEN	FINDEV	LRFX	LP
1	0.005922	10.91012	0.056078	2.331067	2.521636	1.569810	82.61129
2	0.008460	18.14200	0.048694	5.370320	4.773688	1.119419	70.54588
3	0.010379	21.25672	1.041263	5.134769	9.476666	2.152244	60.93834
4	0.012050	23.02073	0.971774	5.046359	16.39022	2.156233	52.41468
5	0.012721	23.04075	0.912883	6.709924	18.41974	2.044460	48.87224
6	0.013197	22.28787	0.878948	8.952947	19.21932	2.061526	46.59939
7	0.014068	21.04387	0.781594	10.73990	22.37946	2.453732	42.60143
8	0.014877	20.19977	0.715301	12.68661	23.19241	2.923722	40.28219
9	0.015660	20.15460	0.720382	12.90882	24.82474	3.044510	38.34695
10	0.016414	19.93950	0.673910	13.12108	27.56048	3.085396	35.61963
11	0.016918	18.84682	0.762951	14.16614	28.97130	3.363845	33.88895
12	0.017382	18.27691	0.819099	15.91295	28.91190	3.627414	32.45173

Cholesky Ordering: FDI1GDP LY OPEN FINDEV LRFX LP

According to presented tables, main source of all variables' variances are their own shocks. Accordingly, the main 2 source of variance in the FDI are real exchange rate with about 10.49% and inflation with about 8.52% in the 12th month. Financial development with 10% , openess to trade with 7% and market size with 3% follow these 2 variables. When inflation rate and real exchange rate are handled together, they explain the FDI variance's 20%. This case supports the results of impulse-response functions.

4.6 Diagnostic Tests for the VECM Model

Testing the statistical significancy of estimated VECM model and testing the obtained results in terms of violating the econometric assumptions are required process in the estimation of such these models. These tests are diagnostic tests that search like this questions: whether correct lag structure for VECM model is used or not, whether the residuals include autocorrelation or not and whether the residuals have normal distribution or not. In this part, results of these tests will be interpreted. Fort that purpose, residuals that obtained from VECM model is visually presented.

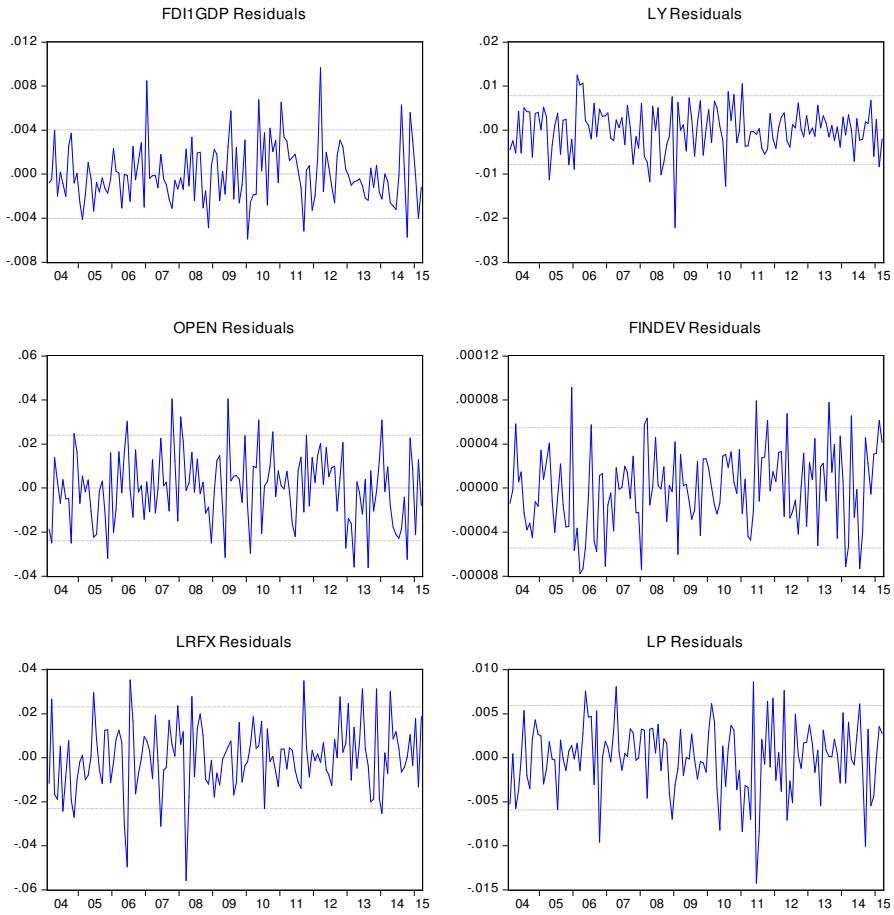


Figure 21. Residuals of VECM model

In Figure 21, it is seen that to examine the residual terms for each variable, residuals that produced by model are located generally in standart error bands. For only residuals that are related with FDI, residuals acutely deviates from standart error bands for the especially 2008-2012 period. This case stems from the before mentioned 2 reasons: the inclusion of FDI to the model as proportioned to GDP and the deriving method for monthly GDP. Although this case brings up a structural slipping problem, the topic is out of this study from this side.

As it is refered above, the first test that should be conducted in this stage is related with the question that whether the lag structure of the VECM model is appropriately determined or not. The used test for this purpose is distribution of autoregressive roots. Figure 22 summarizes the test results and it is seen that autoregressive roots are in the

unit circle. This situation means that used 12 months lag length in the model produces appropriate results.

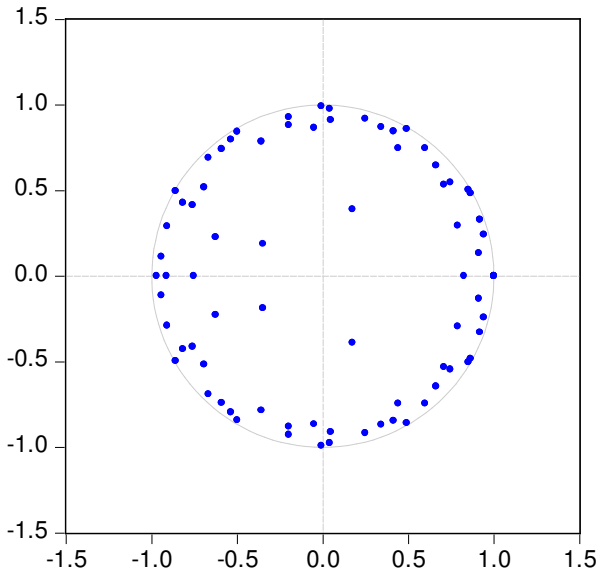


Figure 22. Distribution of the Autoregressive Roots

One of the other important tests for VECM estimation results investigate that whether the obtained residuals include autocorrelation or not. If there is an autocorrelation problem, this means obtained results are widely biased. Due to this importance, 2 type test method is applied for obtained residuals and existency of the problem is tested. First used method is correlograms that shows the forward and backward correlations of residuals each other. If obtained autocorrelation functions from this test overflow from standart error bands, this means that the results of the model are biased. Figure 23 shows the forward and backward autocorrelation functions of residuals that obtained for each variable. To obtain the correlograms, 12 month lag length is used same with the lag legnth that is used in model's estimation.

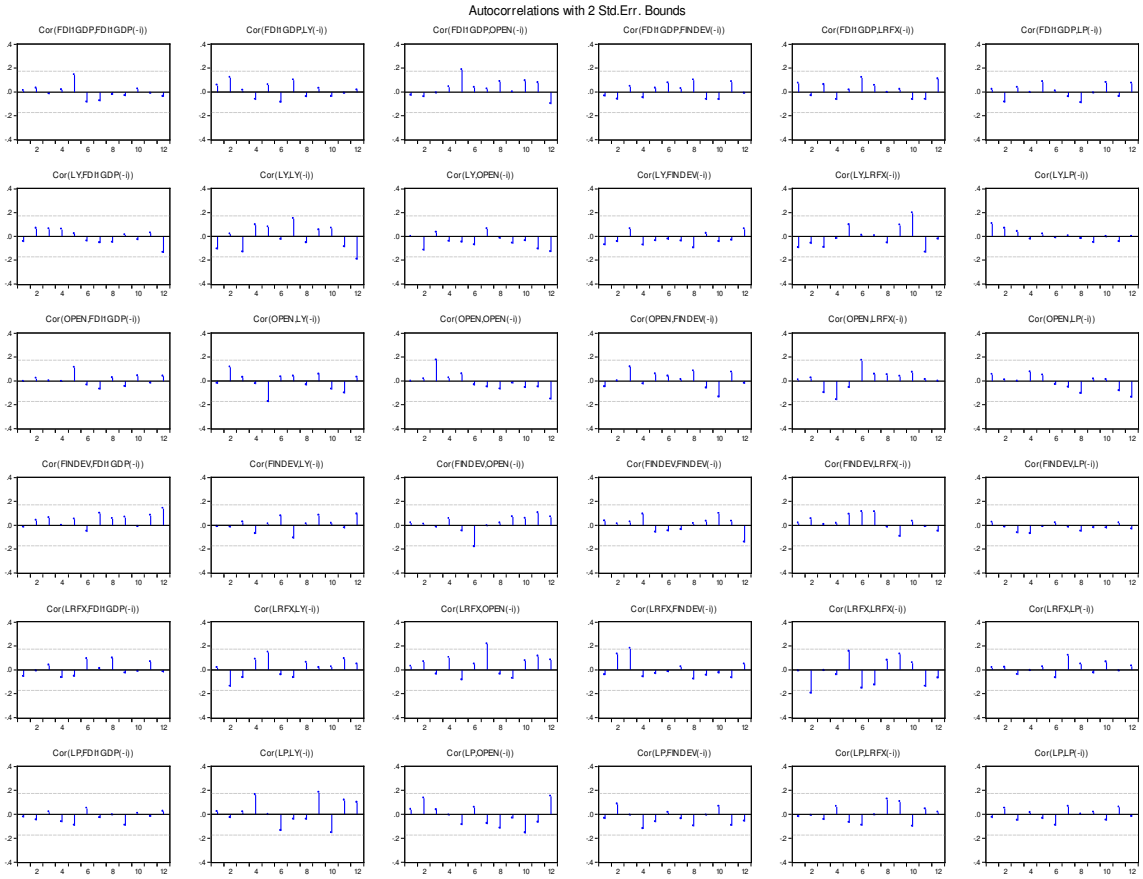


Figure 23. Residual Correlograms

In the correlograms, bands that are showed with dashed lines are standart error bands. As long as autocorrelation function of residuals are in these bands, this conclusion is obtained: there is no autocorrelation problem in the residuals. In the above graph, there is no autocorrelation function that violates this conclusion.

The second autocorrelation test that is conducted due to its importance is the Portmanteau test. To conduct this test lag length should be at least 1 term longer than the lag length that used in the model. Therefore, in the estimations of which results are given below, 13 months lag length is prefered.

Table 35. Portmanteau Test for Residuals

VEC Residual Portmanteau Tests for Autocorrelations
Null Hypothesis: no residual autocorrelations up to lag h
Date: 06/25/15 Time: 00:03
Sample: 2003M01 2015M04
Included observations: 134

Lags	Q-Stat	Prob.	Adj Q-Stat	Prob.	df
1	10.14663	NA*	10.22292	NA*	NA*
2	34.72784	NA*	35.17657	NA*	NA*
3	55.74867	NA*	56.67879	NA*	NA*
4	78.64247	NA*	80.27702	NA*	NA*
5	106.6239	NA*	109.3430	NA*	NA*
6	134.9702	NA*	139.0180	NA*	NA*
7	159.8867	NA*	165.3079	NA*	NA*
8	182.6884	NA*	189.5573	NA*	NA*
9	203.0288	NA*	211.3622	NA*	NA*
10	233.5154	NA*	244.3074	NA*	NA*
11	255.4496	NA*	268.2032	NA*	NA*
12	285.8580	NA*	301.6026	NA*	NA*
13	315.8125	0.0000	334.7754	0.0000	62

*The test is valid only for lags larger than the VAR lag order.
df is degrees of freedom for (approximate) chi-square distribution

According to Table 35, there is no autocorrelaiton problem as from 13th lag length. This case rises the stastical reliability of the estimation results. It should be emphasized that both the results of correlogram tests and portmenteau test prove that there is no autocorrelation problem in the model's residuals.

In this stage, the last test to conduct is multivariate normal distribution test that is related with the residual's normal distribution. With this way, whether obtained residuals from the model include white-noise or not can be understood. Conducted multivariate Lutkepohl normality test results can be seen at the Table 36. According to first 2 joint test results that express kurtosis and skewness, obtained residuals from the model exhibit normal distribution. However, it should be indicated that obtained kurtosis test result that has chi-square distribution is statistically significant only in 3% significance level. Jarqua-Bera test that is related with multivariate normal distribution, is in the end of the list and it shows that except kurtosis and skewness, residuals have generally normal distribution. According to summarized test results, residuals that produced by estimated model do not include white-noise and the assumption that residuals have normal distribution is statistically verified.

Table 36. Normality Tests for Residuals

VEC Residual Normality Tests
Orthogonalization: Cholesky (Lutkepohl)
Null Hypothesis: residuals are multivariate normal
Date: 06/25/15 Time: 00:14
Sample: 2003M01 2015M04
Included observations: 134

Component	Skewness	Chi-sq	df	Prob.
1	0.794907	14.11191	1	0.0002
2	-0.643498	9.248011	1	0.0024
3	0.071080	0.112836	1	0.7369
4	-0.038085	0.032394	1	0.8572
5	-0.085167	0.161992	1	0.6873
6	-0.213502	1.018026	1	0.3130
Joint		24.68517	6	0.0004

Component	Kurtosis	Chi-sq	df	Prob.
1	4.228497	8.426394	1	0.0037
2	4.789877	17.88711	1	0.0000
3	2.904994	0.050395	1	0.8224
4	2.689180	0.539401	1	0.4627
5	3.892137	4.443819	1	0.0350
6	3.224413	0.281184	1	0.5959
Joint		31.62830	6	0.0291

Component	Jarque-Bera	df	Prob.
1	22.53830	2	0.0000
2	27.13512	2	0.0000
3	0.163231	2	0.9216
4	0.571796	2	0.7513
5	4.605811	2	0.1000
6	1.299210	2	0.5223
Joint	56.31347	12	0.0000

All the conducted tests show that improved VECM model has no problem in the traditional statistical significance levels. This strengthens the significance of obtained estimation results and correspondingly economic assestments. Therefore, it can be clearly expressed that used variables, estimation method, obtained results and overall of the model are statistically significant. Thus, obtained result's evaluations are consistent in terms of economic theory.

Conclusion

FDI that provides significant benefits to the host country is an important resource especially for developing countries which have low level of savings. Since these countries' saving rates are low, their investment amount is also low. Therefore, they want to meet their capital needs with foreign capital. However, the question is that how can they attract FDI to their countries and what is the thing that pushes a MNC to invest in a foreign country? To attract more amount of FDI, determinants of it should be known.

In the literature, market perfection theories claim that the reason of foreign direct capital flows are firm's profit-seeking behaviour and the risk factor. Imperfect market theories asserted later on. Hymer (1976) based FDI on the difference of production costs especially labor cost in the countries. Buckley and Casson (1976) also pointed out cost differences as a reason of foreign direct capital flows. Vernon (1966) asserts that market size, cost of production and openness of market are important determinants of FDI. Dunning (1998) claimed that a firm has to have some advantages to invest in a foreign country those are ownership advantages, location advantages and internationalization advantages. Dunning's this "eclectic approach" concludes that market size, inflation level, puplic incentives and possibilities to access resources are the main determinants of FDI. In the related studies that are done after these approaches, pointed out determinants are host country's market size, input costs, openess to trade, quality of infrastructure, growth rate, inflation rates, public incentives, and macroeconomic and political stability.

In Turkey, first important regulation related with FDI is done at 1954. However, from 1954 to 1980, there was not a significant FDI entry to the country. After the 1980 liberalization decisions, alhough a little bit increase occured in inward FDI, amounts were so low compared with other developing countries. While Turkey's FDI was less than $1 billion between 1990-2001, it exceeded $21 billion 2007 and last data show that it decreased to $12.1 billion in 2014. As this study indicates the positive relationship between FDI and macroeconomic stability, the reason of the increase in inward FDI after the 2001 crise depends on the country's strong macroeconomic performance. Also provided political stability play a crucial role in this increasing.

In this study, the long run relationship between FDI and macroeconomic stability is examined for the monthly period from 2003: January to 2015: April for Turkey. Obtained results show that there is a negative relationship between FDI and macroeconomic instability. Fluctuations in inflation and real echange rate negatively and permanently affect the inward FDI.

Here, remarkable issue is that although FDI amount has increased since 2001, rank of the country in the world is not at desired place. As pointed out, Turkey as a country which has sustainable growth, large domestic market, dynamic private sector, liberal and secure investment environment, good location near to Europe and growing MENA market and connectivity with neighbour countries in terms of religion, language, and culture; has to attract more amount of FDI. In the international studies, especially starting a business and construction permits are seen as troubled issues for Turkey. Therefore, providing recoveries in these fields can contribute to increase inward FDI flows. Also, minimizing the fluctuations in price level and real exchange rate that forms a better macroeconomic environment will be effective to increase inward FDI amount.

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