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AN EXAMINATION OF THE EFFECT OF MONETARY EXPANSION POLICIES IMPLEMENTED BY FOUR LARGE CENTRAL BANKS AFTER THE 2008 GLOBAL FINANCIAL CRISIS AND THE COVID-19 CRISIS ON DEVELOPING COUNTRIES ON THE EXAMPLE OF TURKEY

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This project has been read by me and it has been decided that it is sufficient in terms of scope and quality to obtain a Master's Degree in Economics and Finance in terms of scope and quality.

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It has been confirmed that this project has been written in accordance with all standards set by MEF University Institute of Social Sciences.

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ACADEMIC HONESTY PLEDGE

I declare that all information contained in this study is collected and presented in accordance with academic norms and ethical principles, and that all information and documents that are not original in the study are referenced in accordance with the citation standards, within the framework required by the rules and principles.

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ABSTRACT

AN EXAMINATION OF THE EFFECT OF MONETARY EXPANSION POLICIES IMPLEMENTED BY FOUR LARGE CENTRAL BANKS AFTER THE 2008 GLOBAL FINANCIAL CRISIS AND THE COVID-19 CRISIS ON DEVELOPING COUNTRIES ON THE EXAMPLE OF TURKEY

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After 1980, financial markets took a share due to globalization trends in the world. In literature, many studies exist which show us that the financial crisis and financial globalizations started to appear more often than it did in the past. The market's mood is reflected in the data when risks and incalculability increase in financial markets. Financial liberalization and the removal or significant reduction of inspections have increased the fragility of markets. A number of decisions were made and interfered with by many authorities after the financial crisis which was felt all around the world for a long time. Before the 2008 economic crisis price stability was a focus for central banks. However, the importance of financial stability came into prominence after the crisis.

The negative effects of Covid-19 crisis, which was not originated from economic reasons at the same time, which created a supply and demand shock, were seen fast. Like in every crisis politicians interfered in order to reduce the effects of the crisis. The connection between the 2008 global financial crisis and Covid-19 crisis is the need to increase declining total demand. By the reason of reduced economic activity on a global scale, monetary and fiscal policies and inventions that increase economic activity have been involved. The concept of globalizations has multifaceted effects on developing countries. By the entering of funds into enhanced market economies, it helps developing countries to meet the need for financing that will provide economic growth and development, while reducing production and increasing dependence on external financing. With financial globalization direction and momentum of the movement of fund is changing according to countries' macroeconomic appearance. Particularly development and decisions taken in countries like the United States and England, which have the right comment on world trade, have influenced all around the world. The policies implemented by these countries in times of crisis are closely followed by economic actors.

In this study FED (Federal Reserve Bank), ECB (European Central Bank), BOJ (Bank of Japan), BOE (Bank of England), monetary easing policies implemented by central bank after the global crisis in 2008 and the Covid-19 crisis were examined and how developing countries are affected by these crisis and policies are discussed and the example of Turkey was examined.

Keywords: Global financial crisis, Central Bank, Monetary Policy, Monetary Expansion

ÖZ

2008 KÜRESEL FİNANSAL KRİZİ VE COVİD-19 KRİZİ ARDINDAN DÖRT BÜYÜK MERKEZ BANKASI TARAFINDAN UYGULANAN PARA GENİŞLEME POLİTİKALARININ GELİŞMEKTE OLAN ÜLKELERE ETKİSİNİN TÜRKİYE ÖRNEĞİ ÜZERİNDEN İNCELENMESİ

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1980 sonrası dünya üzerinde artan küreselleşme eğilimlerinden finansal piyasalarda payını almıştır. Litaratürde finansal küreselleşme ile finansal krizlerin daha sık görülmeye başladığını ortaya koyan çalışmalar mevcuttur. Finansal piyasalarda belirsizlik ve riskler arttığında piyasanın ruh hali verilere yansımaktadır. Finansal serbestleşme ile sermayenin üzerindeki denetimlerin kaldırılması veya önemli ölçüde azaltılması piyasaların kırılganlığını artırmıştır. Tüm dünya üzerinde etkileri uzun süre hissedilen küresel finansal kriz sonrası para politikası otoriteleri tarafından birtakım kararlar alınmış ve finansal piyasalara müdahale edilmiştir. 2008 Finansal kriz öncesi merkez bankaları için fiyat istikrarı odak noktası halindeydi. Ancak kriz sonrası finansal istikrarın önemi ön plana çıkmıştır.

Ekonomik bir nedenden kaynaklanmayan ve hem arz hem talep şoku yaratmış olan 2019 Covid krizinin negatif etkileri finans piyasalarında hızlı bir şekilde görülmüştür. Her krizde olduğu gibi politika yapıcılar tarafından etkileri azaltmak adına müdahalelerde bulunulmuştur.

2008 yılı küresel finansal krizi ve COVID-19 krizinin ortak noktası önemli ölçüde azalan toplam talebin artırılması ihtiyacıdır. Küresel ölçekte ekonomik aktivitenin azalması nedeniyle para ve maliye politikaları ile ekonomik aktiviteyi artırıcı müdahaleler söz konusu olmuştur.

Küreselleşme kavramını gelişmekte olan ülkelere çok yönlü etkileri söz konusudur. Sermayelerin yükselen piyasa ekonomilerine girişi ile gelişmekte olan ülkelerin büyüme ve kalkınma sağlayacak finansman ihtiyacını karşılamasına yardımcı olurken üretimi azaltmakta dış finansmana olan bağımlılığı artırmaktadır. Finansal küreselleşme ile birlikte uluslarası sermayenin hareketinin yönü ve hızı ülkelerin makroekonomik görünümüne göre değişim göstermektedir. Özellikle dünya ticaretinde söz sahibi olan Amerika, İngiltere gibi ülkelerde yaşanan gelişmeler ve alınan kararlar tüm dünya üzerinde etkili olmaktadır. Kriz dönemlerinde bu ülkelerin uyguladıkları politikalar ekonomik aktörler tarafından yakın takip edilmektedir.

Bu çalışmada; FED (Federal Reserve Bank), ECB (Europan Central Bank), BOJ (Bank Of Japan) ve BOE (Bank Of England) Merkez Bankaları tarafından 2008 yılında yaşanan küresel finans krizi ve 2019 Covid krizi sonrası uygulanan parasal genişleme politikaları incelenmiş olup, gelişmekte olan ülkelerin bu krizlerden ve uygulanan politikalardan nasıl etkilendiğine değinilmiş ve Türkiye örneği incelenmiştir.

Anahtar kelimeler: Küresel Finansal Kriz, Merkez Bankası, Para Politikası, Parasal Genişleme

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Sakine Gülşah Özbey

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LIST OF ABREVIATIONS

BOE:	BANK OF ENGLAND
BOJ:	BANK OF JAPAN
CBRT:	CENTRAL BANK OF THE REPUBLIC OF TURKEY
CDS:	CREDIT DEFAULT SWAP
DIBS:	GOVERNMENT DOMESTIC DEBT
ECB:	EUROPEAN CENTRAL BANK
EME:	EMERGING MARKET ECONOMIES
EPFR:	EMERGING PORTFOLIO FUND RESEARCH
FED:	FEDERAL RESERVE BANK
FDI:	FOREIGN DIRECT INVESTMENT
GDP:	GROSS DOMESTIC PRODUCT
IIF:	THE INSTITUTE OF INTERNATIONAL FINANCE
IMF:	INTERNATİONAL MONETARY FUND
OECD:	ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT
MPC:	MONETARY POLICY COMMITTEE
PEPP:	PANDEMIC EMERGENCY ACQUISITION PROGRAM
PPK:	MONETARY POLICY DECISION
SBB:	STRATEGY AND BUDGET DEPARTMENT
UK:	UNITED KINGDOM
UNCTAD:	UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
US:	UNITED STATES
QE:	QUANTITATIVE EASING
TL	TURKISH LIRA
FC	FOREIGN CURRENCY
FX	FOREIGN EXCHANGE

1. INTRODUCTION

Central Banks intervene in the economy with various monetary policies. Most prevalent option is interest rates. However, when traditional policy tools are insufficient, untraditional tools like monetary expansion and negative interest rate implementation are used. Monetary expansion has come to the fore with interest rates which were reduced to zero level after the 2008 crisis did not implement the pending wish. Some central banks, such as the Federal Reserve, use Quantitative Easing (i.e. QE) as a monetary policy strategy. During the financial crisis, central banks purchase securities to stimulate economic activity and keep credit flowing. By using QE, central banks try to “attempt to reduce interest rates, increase the supply of money and drive more lending to consumers and businesses” (Jackson and Curry, 2021)**.**

It is an untraditional policy tool and it is used particularly in times of crisis, when uncertainty increases. In monetary expansion, liquid is injected into the market and economic activity is revived by reducing the cost of borrowing. In the first chapter of this study, after the 2008 economic crisis monetary expansion policy which was implemented by four major central banks FED (Federal Reserve Bank), ECB (European Central Bank), BOJ (Bank of Japan), BOE (Bank of England) and the effects on developing countries were examined. In the second chapter of this study, the effects of the 2008 crisis and the policies implemented by the four major central banks after the crisis on the Turkish economy are evaluated. In the third chapter, the Covid-19 crisis and after the Covid-19 crisis monetary expansion policies were implemented by four major central banks moreover the effects on developing countries were discussed. In the fourth chapter, effects of developed countries on the example of Turkey from developing countries the effects of monetary expansion policies were analyzed.

2. MONETARY POLICIES APPLIED AFTER THE GLOBAL CRISIS

2.1. Monetary Easing Policies Implemented By The Four Major Central Banks After The 2008 Global Crisis

The credit crisis, which began with the collapse of the housing market in the United States in 2007, turned into a liquidity crisis that spread all around the world and caused the 2008 economic crisis. The crisis that began in the summer of 2007 caused heavy losses on the balance sheets of many financial establishments and led to the bankruptcy of many, it is believed that the reason is the bubble of estate and credit. Owing to the loss of confidence, not only developed countries but also developing countries have been affected by various problems, and the global economy has tended to shrink significantly after many years, hence this crisis should not be considered only a financial crisis, it should be considered both a financial crisis and a real sector crisis. (Kaderli and Küçükkaya, 2021: 94).

Primarily, in order to reduce the effects of global crisis, interest rates were granted a discount according to traditional monetary policy, nevertheless, by the reason of these precautions were not as effective as hoped, central banks have leant to the quantitative expansion policy (Quantitative Easing [QE]). In this period substantial amount of liquidity was provided into markets by using non-traditional monetary policy. At the same time the process was supported by various purchasing policies. During this period FED has been prominent thanks to its policies (Emirkadı, 2017: 468).

The post-crisis measures taken by the central banks of developed countries, which play a role in the world economy, can generally be classified under the topics in the table:

Table 2.1. Central Bank Measures in Response to Crisis

	FED	ECB	BOJ	BOE
Lowering policy rates to very low levels	X	DE FACTO	X	X
Increasing liqiuidty provision to financial institutions	X	X	X	X
Intervening directly in wider segments of the financial market	X	X	X	X
Purchasing long-term government bonds	X		X	X
Supporting specific institutions	X		X	X

Source: Minegishi, M. and Cournède, B. (2010). Monetary Polıcy Responses To The Crısıs And Exit Strategies: 8.

After the global finance crisis, monetary expansion policies implemented by the four major central banks were entered in the table:

Table 2.2. Monetary Expansion Policies Implemented By The Four Major Central Banks, Conception of QE

	Name to Given Program	Presumed Monetary Transmission Channel
BOE	Quantitative Easing	Increase in money supply
BOJ (10/2010-3/2013)	Asset Purchase Program	Portfolio rebalance effect
BOJ (4/2013-…)	Quantitative and Qualitative Easing	Increase in money supply/ Portfolio rebalance effect, lowering term and risk premiums; lowerin real rates by raising public's inflatione expectations
ECB	Expanded Asset Purchase Program	Put downward pressure on the term structure of interest rates
FED	Large-Scale Asset Purchase Program	Portfolio rebalance effect, Put downward pressure on yields/ reduce term premium

Source: Sheard, P. (2021). Quantitative Easing – Explaining It and Dispelling the Myths.

Since QE works by making large-scale asset purchases, the FED has begun purchasing longer-maturity treasuries and commercial bonds. Here is how Jackson and Curry (2021) explained that the act of buying assets in the open market (mostly) improves the economy:

1. Fed buys assets: The FED can create bank reserves on its balance sheet to make money appear out of thin air (i.e. money printing). With QE, the central bank uses new bank reserves to purchase long-term Treasuries in the open market from major financial institutions (primary dealers).
2. New money enters the economy: As a result of these transactions, financial institutions have more cash in their accounts, which they can hold, lend out to consumers or companies, or use to buy other assets.
3. Liquidity in the financial system increases: The infusion of money into the economy aims to prevent problems in the financial system, such as a credit crunch, when available loans decrease or the criteria to borrow money drastically increase. Thanks to this the financial markets operate as normal.
4. Interest rates decline further: With the FED buying billions worth of Treasury bonds and other fixed income assets, the prices of bonds move higher (greater demand from the FED) and yields go lower (bondholders earn less). Lower interest rates make it cheaper to borrow money, encouraging consumers and businesses to take out loans for big-ticket items that could help spur economic activity.
5. Investors change their asset allocations: Investors are more likely to invest in higher-returning assets, such as stocks, given the now-lower returns on fixed income assets. As a result of QE, the overall stock market could see stronger gains and the confidence in the economy grows. The FED has reassured markets and the broader economy thanks to QE. Businesses and consumers may be more likely to borrow money, invest in the stock market, hire more employees and spend more Money that all of which helps to stimulate the economy (Jackson and Curry, 2021).

2.1.1. Monetary Expansion Policies Implemented by the Federal Reserve Bank

FED, purchased exchequer paper and derivate products based on Mortgage in exchange for 800 billion dollar in money from banks at the time when it implemented the QE1 programme in December 2008-July 2010 in exchange for a total of 800 billion dollar in money from banks exchequer paper and derivate products that based on Mortgage. In addition to purchasing, it also reduced the interest rate to zero level to create credits in demand in the market. However, the QE1 Programme could not give the desired result and demand could not be enhanced enough. On the other hand, FED implemented the new monetary expansion programme named QE2 in November 2010-July 2011. In this period FED purchased exchequer paper in Exchange 600 billion dollar in money like in QE1. In the QE2 programme, FED took long-term papers from banks then saved banks from long-term commitments. In addition to this, monetary support to QE1 made of market liquidity extended. Thus it is believed that the QE2 programme was more successful than the QE1 programme (Eğilmez, 2015). FED gave a start to implement Operation Twist which was 400 billion dollar in the amount of money in September. They tried to save banks by purchasing long-term bonds and products that were based on Mortgage from banks in exchange for money. Operation Twist was used for the first time in 1961 for short-term exchequer papers to transform into long-term ones and provide fund to financiers by this way. Operation Twist is similar to the QE programme with this feature. FED has succeeded (Eğilmez, 2015).

In September 2012, FED started to implement QE3 and it announced FED was going to purchase exchequer paper in the 85 billion amount of money while it was holding to buy derivative products based on Mortgage, in the 40 billion dollar amount of money. FED has made three unusual important statements for the central bank for the first time with this implementation:

1. Interest will be stabilized to zero level by 2015.
2. By purchasing paper, the money giving operation continues until employment gets better.
3. Working is an obligation for keeping the economy alive and it will not be allowed to shrink.

By these explainings, FED aims to build up trust between consumer, financier and finance institution and tries to make expectations in a positive direction (Eğilmez, 2015).

In January 2013, FED introduced the QE4 programme while the QE3 programme was still in place and announced that it would continue to receive long-term exchequer papers in the 85 billion dollar amount of money. In a statement with the new implementation, they announced that the implementation will continue until one of the two conditions occurs:

1. Unemployment rate falls below 6.5%
2. Inflation rate aboves 2.5%

With the unemployment rate falling below 6.5%, in May 2013, the FED announced that it would gradually remove QE4 from practice and gradually cut its bond purchasing in accordance with the statement. By October 2014, the QE+ programme and bond purchases had ended (Eğilmez, 2015).

The Fed, UK, European and Japan central banks have implemented monetary easing policies since the crisis in 2008. With this crisis, the FED has been trying to increase lending volume and offer liquidity to banks by buying bonds to deter households from saving, while at the same time reducing interest rates to zero level. The FED's first round of monetary easing policy (QE1) began in December 2008 under Chairman Ben Bernanke. It followed two more rounds (QE2 and QE3) until it suspended asset purchases in December 2014. In January 2013, QE4 was activated and received 85 billion USD per month (Karacaer Ulusoy, 2020). This practice has also been terminated when one of the conditions mentioned above is implemented.

2.1.2. Monetary Expansion Policies Implemented By The Bank Of England

The Bank of England started to focus on additional policies since they realized that the policy rate, which was reduced to 0.5% with the decision taken on March 5, 2009, was not enough to reach the 2% inflation target. Therefore, it has been announced that a broad asset purchase program, which mainly consisting of UK government bonds and financed with central bank money, will be launched. The aim by doing this was that reach the inflation target by increasing nominal expenditures by injecting liquidity into the economy on a large scale. The process that started in March 2009 continued until January 2010. A total of £200 billion was purchased during this period, these asset purchases amounting to more than ten percent of UK GDP (Steven and Konstantinos, 2012)

The "qualitative" expansion policy started to be implemented in February 2009 after 10 days of correspondence between the Treasury and the Bank of England in January 2009. The Asset Purchasing Facility initially purchased unsecured corporate commercial papers financed by the issuance of treasury bills. The Monetary Policy Committee (MPC) announced on 5 March 2009 that it had decided to implement the quantitative easing policy (QE) after the exchange of views between the Treasury and the Bank of England between February and March 2009. The first step of this polic was to purchase £75bn of assets financed by broadening the monetary base by the Bank of England. The Asset Purchasing Facility was expanded by including corporate bonds and by buying corporate debt. However, the majority of purchases consisted of UK government bonds with remaining maturities of more than 3 years. The Bank of England shelved both the target and limit system for banks' reserve assets in order to make the monetary expansion policy more easily applicable. It was committed to pay the official 0.5% interest rate for all reserve assets. Thanks to the increased monetary policy meetings asset purchase targets were met step by step. The target, which was announced as £125 billion on 7 May 2009, was increased to 175 billion pounds at the meeting on 6 August and reached the level of 200 billion pounds on 5 November. The monetary expansion policy was shelved to be brought to the agenda again at the end of 2011 (Breedon, Chadha and Waters, 2012: 280).

2.1.3. Monetary Expansion Policies Implemented By The Bank Of Japan

After the global financial crisis began to be felt, the BOJ took action to ensure financial stability. In October 2010, the BOJ implemented its comprehensive monetary easing policy. The measures included a program to purchase government bonds and private assets:

1. The BOJ has shown that it will effectively intervene in the healthy functioning of the financial environment with low interest rates and monetary policy

decisions that provide ample resources to the financial markets in accordance with the demand. The Policy Committee unanimously cast a vote such as keeping the unsecured overnight calls rate around 0.1 percent for money market transactions and taking temporary measures regarding money market transactions. To address the extreme contraction in financial markets, the Bank introduced various interim measures towards the end of 2008, including those that were extraordinary for the central bank, such as the direct purchase of corporate bonds. It has adopted the approach of adapting the changes in the financial markets to the money market transactions in the most appropriate way in order to ensure financial market stability and facilitate corporate finance in the following periods.

2. Decisions that ensure financial market stability and provide funding by facilitating corporate finance will be valid until the end of March 2010 and will be repealed thereafter. From April 2010 onward, the Bank will be ready to provide ample liquidity mainly through funds-supplying operations against pooled collateral, which accept a wider range of collateral. (2) Outright purchases of CP and corporate bonds Outright purchases of CP and corporate bonds will expire at the end of 2009 as scheduled, given that issuing conditions in the CP and corporate bond markets have been improving markedly and thus the purpose of the purchases to restore market functioning has been achieved.
3. Expansion measures in the appropriate coverage range; The growth in the range of corporate debt and asset-backed commercial paper eligible has a significant share in providing corporate finance. For this reason, it was decided to remain in force until the end of 2010.
4. Complementary deposit facility; It has been decided by the Bank of Japan to keep the complementary deposit facility in effect for a while in order to provide funds to meet the liquidity needs in the financial markets and to carry out the money market transactions in a healthy manner (Bank of Japan, 2009).

2.1.4. Monetary Expansion Polıcıes Implemented By The European Central Bank

The ECB has decided to expand its existing asset purchase program as an 18-month program, with the amount of purchases also set at about 1.140 billion euros (about 1.3 trillion USD). Mario Draghi's, who is the present of European Central Bank, statement on this issue highlights some important details:

1. Asset purchases will include bonds, asset-backed securities and covered bonds issued on cash flows of public sector or mortgage debt. The bonds to be purchased will be bonds of Euro zone governments, institutions established in the region and international companies established in the region.
2. Starting from March 2015, the programme will run until the end of September 2016, with monthly purchases totalling €60 billion.
3. The aim of the program will be to achieve the goal of price stability.
4. The ECB will buy no bonds from any country in amounts that exceed 3 in 1 of that country's total debt stock.
5. The public bonds that the ECB will receive under this program will be selected from those with a maturity of between 2 years and 30 years (decipher, 2015) decipherment of the ECB's public bonds will be selected from those with a maturity period of between 2 years and 30 years.

2.2. Reflections Of The Monetary Expansıon Policies Implemented By Developed Countries After The 2008 Global Financial Crisis On Developing Economies

In order to increase growth and development, many developing countries have lifted restrictions on capital in order to increase the trend of financial liberalization and the expansion of external financing opportunities set out by Mc Kinnon and Shaw. Over time, markets also began to be affected positively or negatively by external factors.

As a first reaction after the 2008 global financial crisis, markets were intervened with the interest rate, a traditional monetary policy tool, and major central banks began to implement a zero interest policy. Since developing countries have higher interest rates due to financing needs, there has been decidedly significant capital inflows from developed countries, especially between 2008 and 2011. The financial crisis, which began in developed countries, expanded its sphere of influence from mid-November

2008 and began to affect developing countries as well. As a result, there was significant depreciation in the stock markets of many developing countries, there was a depreciation in local money, and risk premiums in National Bonds and commercial bonds increased. With these developments, foreign capital flows and bank borrowing to these countries have decreased significantly (Erdönmez, 2009).

The most important factor in the flow of funds to developing countries' economies is that it offers relatively higher interest rates. Developing countries implement a high interest rate policy due to dependence on external financing.

The implementation of expansionary monetary policies of developed countries and the uncontrolled movement of capital towards these countries can threaten financial stability in developing countries. A study of previous conditions found that intensive capital inflows also lead to various financial and macroeconomic risks, such as overvaluation of the local currency of developing countries, volatility in financial markets, an increase in the current account deficit, and uncontrolled credit expansion (Barlas and Kaya, 2013).

As a result of the global contraction in portfolio flows and credit opportunities, developing countries that maintained a cautious/moderate monetary policy until the end of 2008 began to quickly reduce interest rates in December of the same year. In October, interest rates in developing countries, including Turkey, were decidedly higher than in developed countries, so they did not approach zero as in developed countries (Emirkadi, 2017: 469).

Ideas about the abundance of liquidity after the 2008 global financial crisis have been mentioned in many studies in the literature. The extraordinary monetary expansion in developed economies has caused global liquidity to continue to flow into developing economies of international portfolio mutual funds. Monetary policy changes in developed economies are transmitted to developing economies through monetary policy responses of central banks to developing economies (Gou) and changes in international capital flows. The ripple effects depend on the macroeconomic fundamentals of developing countries and the amount and composition of portfolio mutual funds that have already poured into them (Yalap, 2021: 13-14).

The 2008 financial crisis have important effects on both developed and developing countries. According to Cengiz and Karacan's (2015), the cirisis significantly reduced growth in developed countries. This situation not only disrupted the positive conditions that have been going on since 2003 but also lead to a decrease in capital inflows to developing countries. Net capital inflows, which declined to $675 billion in 2009 when the impact of the crisis continued, increased by about 40% in 2010s and returned to the level of 2007s before the global financial crisis broke out. This level was maintained in 2011 and 2012 with little change (Cengiz and Karacan, 2015: 329). The table undered shows the net total capital operations for developing countries bu region.

Table 2.3. Net Total Capital Operations For Developing Countries By Region (Billion Dollars)

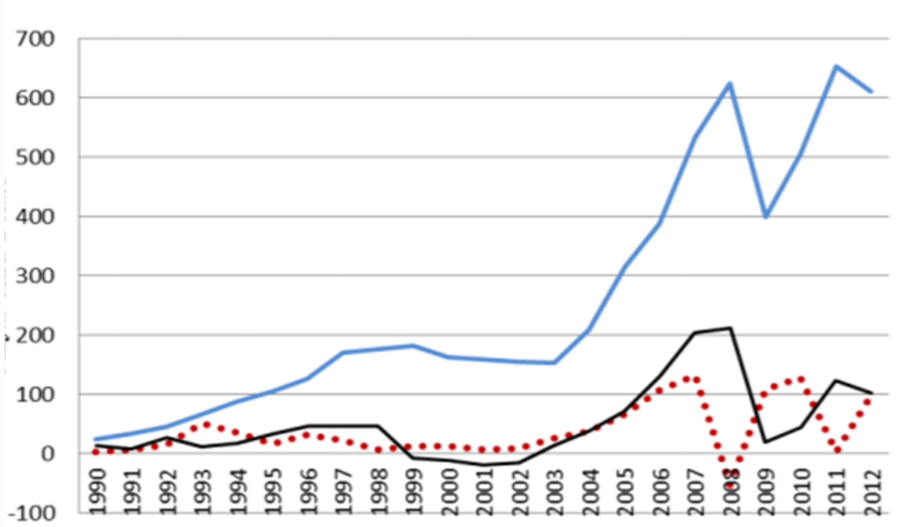
	2005	2006	2007	2008	2009	2010	2011	2012
E. Asia & Pasific	209,0	238,6	301,6	211,7	235,3	447,1	449,4	485,8
EU & C. Asia	135,3	248,9	424,1	313,0	104,0	172,8	200,1	112,7
L. America	93,8	68,7	208,3	181,9	173,7	318,6	302,9	312,2
M. East & N. Afr.	19,4	14,5	29,6	21,0	29,2	26,2	15,8	32,7
S. Asia	28,7	77,1	116,3	64,8	86,2	111,678,2	78,2	96,1
Sub-S. Afr.	33,6	38,7	53,4	42,6	46,4	53,4	60,3	73,6
Net total cap. entrence	519,7	686,5	1113,2	617	674,9	1129,7	1106,6	1121,6

Source: Cengiz and Karacan, 2015 as cited in World Bank, 2004: 4; World Bank, 2012: 5; World Bank, 2013: 32-44; World Bank, 2014: 6-18.

Cengiz and Karacan (2015: 331) states that capital flows to developing countries after the global financial crisis of the components of the end-and had suddenly increased again in 2009 and 2010 until 2012, followed by a fluctuating course.

It is shown the components of net capital movements to developing countries in the table under:

Figure 2.1. Components Of Net Capital Movements To Developing Countries



Source: Cengiz and Karacan, 2015, as cited in World Bank, 1999: 24; 2004: 4, 78, 91; 2012: 3; 2014: 6.

The variables of net capital movements towards developing countries are as follows:

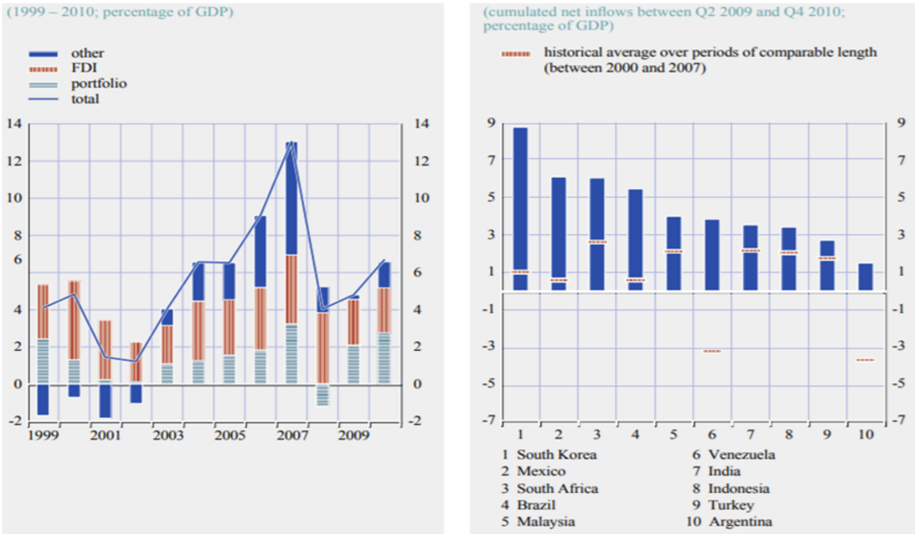
Net Foreign Direct Investment

Net Portfolio Investment

Banks and Other Private Banks

According to the examination of the capital flow towards developing countries, it is seen that it fell sharply in 2008, stabilized in 2009 and recovered in 2010. As the table below shows that along with this fluctuation, the difference in the composition of capital flows is striking. The most important components of the portfolio were banking flows and foreign direct investments in 2007. However, this situation changed after the onset of the crisis. A rapid contraction was observed in FDI and banking flows in 2008 and 2009, and portfolio investments started to increase sharply after the outflows in 2008. It has been seen that portfolio investments constitute a large part of the total international capital flows when it comes to 2010 (ECB, 2011: 127).

Figure 2.2. Total Private Capital and Net Portfolio Inflows



Source: ECB, 2011: 128, as cited in IMF, 2021.

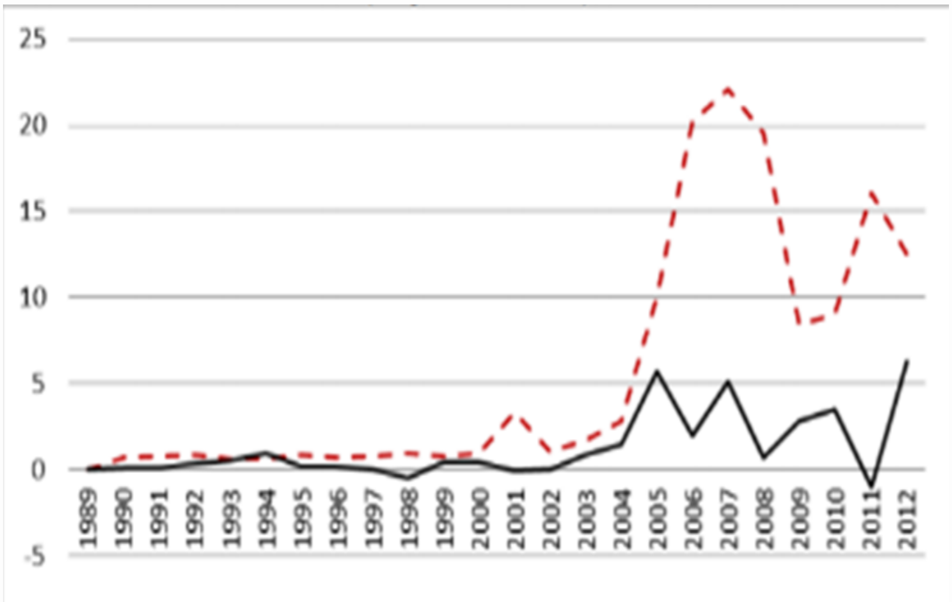
3. EFFECTS OF THE GLOBAL CRISIS AND MONETARY EXPANSION POLICIES OF DEVELOPED COUNTRIES ON THE TURKISH ECONOMY

According to the existing studies, the global crisis has affected the world economies and our country in basically two areas and continues to take:

First: Cash flows and credit volumes in financial markets have shrunk dramatically.
Second: There has been a significant slowdown in growth and a recession. As a natural result, the budget deficit has increased, foreign trade volumes have narrowed, unemployment has tended to increase, and social problems have become severe, aggravating (Bedirhanoğlu Balaban, 2009: 1).

Since 2005, foreign direct funds inflows to Turkey have increased. This has now accelerated with the emergence of the global crisis in 2008. Net portfolio investments, which followed a more volatile course, tended to increase again after the crisis in 2002. The Turkish economy has remained vulnerable to sudden changes in investor sentiment due to a large current account deficit. As a result, portfolio investments were significantly affected by global upheavals, first in 2006 and then in 2008 and 2011 (Cengiz and Karacan, 2015: 334). The table below shows that the components of net foreign direct investment and portfolio investments directed to Turkey between 1989-2012.

Figure 3.1. Net Foreign Direct Investment And Portfolio Investments in Turkey (USD Billion)



Source: Cengiz and Karacan 2015: 336, as cited in World Bank, 2014: 158.

The variables of Net Foreign Direct Investment and Portfolio Investments directed to Turkey between 1989-2012 are as follows:

- - - - - - - **Net Direct Foreigner Capital Investment**

———— **Net Portfolio Investment**

4. MONETARY POLICIES APPLIED AFTER THE COVID CRISIS

4.1. 2020 Monetary Expansion Policies Implemented By Developed Countries After The Covid-19 Crisis

Financial and capital markets have been significantly affected by the Covid-19 pandemic. The Dow Jones Industrial Index has dropped more than a thousand points for the third time in its history, alongside sharp declines in Russian, Asian, European and US markets. The decline in European and Asian stock markets was followed by the Russian stock market. The negative impact of the Covid-19 pandemic on the global economy has reduced corporate profits, causing the dollar, which is seen as a safe haven, to rise. Following this, Asian stocks began May 2021 with a drop, Japan's Nikkei 225 index fell 2.3% to 19,730.41 points. The S&P / ASX 200 Index was down 3.9% at 5,308.90. In the current process, a decrease in risk initiatives in global markets has caused a sell-off in stocks (Mesch et., 2020: 310).

According to IMF, there are three important features that distinguish the Covid-19 economic crisis from other crises:

1. Quarantines and restrictions imposed during the fight against a disease that endangers human lives have revealed far more production losses than losses in global crises. Therefore, the economic and financial shock experienced after the crisis is quite large.
2. Uncertainty about the duration and intensity of the shock caused by the continued fight against the pandemic continues, just as in a war or political crisis.
3. In normal circumstances, economic administrations take swift action to revive the economy, while anti-epidemic measures under current conditions make it difficult to create corrective policies for the economy (Şenol, 2020: 91-92).

When we search for the implements in this process, first of all, it is clear that foremost United States Central Bank as a FED and many central banks reduced the interest rate to provide cheap financing. Many countries including Turkey, USA, Canada, England, Japan, New Zealand and South Korea reduced interest rates and stabilized it. Second, central banks provide September liquidity by open transaction. Third, many central banks achieved the currencies which they needed by using exchange. In conclusion, central banks started to use the programmes they used to do before. Concordantly, they have implemented a number of broad-based programmes, including risky asset purchases. At the beginning of this process, the IMF announced that it will provide credit support to countries that will have problems with a resource capacity of $1 trillion (Şenol, 2020: 99-100).

Even though the central banks tried to calm the financial markets until the end of March 2020, all financial institutions, especially firms, were moving to increase their cash assets. Additionally, investors continued selling all bonds, including government bonds, in their hands. As investors started to sell all securities in order to increase the amount of cash they hold in their portfolios, stock and bond values depreciated simultaneously in March 2020. This situation was opposite to the the financial market fluctuations experienced before. (Yalap, 2021: 58).

According to the OECD (2020), policymakers have begun to use a variety of fiscal and monetary policy tools to combat financial shocks from the Covid-19 crisis. While the effects of easing in monetary policy came to the forefront, asset purchases were made in proportion to the economic power of each country, and financial incentives and credit guarantees began to be offered (OECD, 2020)**.**

4.1.1. Monetary Expansion Policies Implemented By The Federal Reserve

Since Covid-19 pandemic has caused heavy economic costs on the economy, the Federal Reserve (FED) implemented various policies to counter the effects of the crisis in order to promote economic and financial stability. These policies aimed at stimulating economic activity with low interest rates and providing liquidity that met the funding needs of companies. The FED, which lowered interest rates in March 2020 in order to increase interest-sensitive expenditures, lowered short-term interest rates to a range of 0% to 0.25%. Moreover, the scope of incentives for large-scale purchases of Treasury securities and mortgage-backed securities has expanded. The liquidity of the financial system has been increased with these purchases. The FED used this policy tool called "quantitative easing" (QE) during the 2008 global financial crisis.

However, purchases in 2020 were more than those that were made at that time. When the purchases made by the bank are analyzed, it is seen that securities purchases of more than 1 trillion dollars are seen in April 2020 alone (Lebonte, 2021).

4.1.2 Monetary Expansion Policies Implemented By The Bank Of England

The Bank of England reduced interest rates by 50 basis points to 0.25 per cent. Moreover, it has increased the amount of its quantitative easing programme after March 2020. Additionally, it has announced that it will purchase £450bn of Government bonds and £10bn of corporate bonds by November 2020. By the end of 2021, the bank will have £875bn of Government bonds and £20bn of corporate bonds. Owning a bond means 40% of the UK GDP. This is much more than the scope of the quantitative easing program envisaged in 2009 by the Bank (House of Lords, 2021: 3).

4.1.3. Monetary Expansion Policies Implemented By The European Central Bank

During this process, the European Central Bank (ECB) announced that it would increase its asset purchases by 120 billion Euros to 360 billion Euros by the end of 2020. Subsequently, the public and private sectors increased additional asset purchases to October 750 billion Euros under the Pandemic Emergency Acquisition Program (PEPP) programme. The European Commission adopted a recovery package of 750 billion Euros on 27 May 2020. In June 2021, it decided to increase PEPP by 600 billion Euros to 1 trillion 350 billion Euros (Şenol, 2020: 104, as cited in Bloomberght, 2020.). It seems that the ECB has not made a change in its policy interest rate of-0.5 (Şenol, 2020: 104).

4.1.4 Monetary Expansion Policies Implemented By The Bank Of Japan

Japan, one of the IMF's largest financial backers, accepted a 117.1 trillion Yen for emergency economic package on April 27, 2020 as a part of the fight against COVID-19. In addition, Japan announced that the IMF will give the IMF US $ 100 million to increase the resources it will provide to poor countries to fight Covid-19.
Japan Central Bank (BOJ) announced that it would purchase securities on March 16, 2020 in order to support financial markets. The BOJ made no changes to the policy

interest rate, which was at-0.1. Support has been provided by expanding the volumes of unsecured loans provided to businesses (Şenol, 2020: 106).
On 16/03/2020, Japan Central Bank promised to purchase risky assets such as investment funds, as its double price worth annual 12 trillion Yen which was approximately 112,55 billion USD. On 27/04/2020 The BOJ made a commitment to purchase unlimited bond in the 80 trillion amount of Yen and announced that it would triple the maximum amount of corporate bonds and commercial paper he bought to 20 trillion Yen (about US $ 186 billion) (Rebucci, Hartley and Jimenes, 2020).

Central banks have implemented many monetary practices to provide liquidity to the economies as in the 2008 global financial crisis. Since the Covid crisis and the financial panic that started with it was different from other crises, some financial actors approached the decisions with questioning. During the previous financial crisis, central banks made various interventions to banks with risky assets. On the other hand, in these days, because of the economic uncertainty after the pandemic, central banks are trying to balance the financial market and prevent possible large-scale corporate bankruptcies. (Yalap, 2021: 54).

Looking at the capital movements, portfolio flows to developing countries increased rapidly in November 2020, according to the data of the IMF. A total of $ 76.5 billion was entered into these countries in November. Of this, $36.7 billion was in fixed income securities and $39.8 billion was in equities. Portfolio output from developing countries reached $90 billion in March 2020, and then gradually inflows began. In November, 54.6% of portfolio flows were followed by Asia, 24.8% by Latin America, and 10.7% by emerging European markets. During the March-June period, when portfolio outputs (stock+ all SGMK) were closed, according to CBRT data, Turkey experienced it intensely. Then it lost some momentum. January- October total portfolio output was $12.4 billion. This trend was reversed in November (Dünya, 2021).

4.2. Reflections Of The Monetary Expansion Policies Implemented By Developed Countries After The Covid

For developing countries, the most serious disadvantage during the economic crisis is the outflow of capital. Economic actors who aim to achieve high returns usually acquire financial assets from developing countries. When the crisis becomes a financial panic, the domestic currency of the country in question is abandoned and the demand for foreign currency, such as Dollars, Euros, which have the power of reserve money increases. As a result, the value of the domestic currency falled. After the 2008-09 global crisis, capital outflow in developing countries was seen to affect developed countries along with globalization. The FED and ECB have prevented capital requirements from increasing with their practices during this period. In addition, they have reduced the negative impact of the process with their emergency packages and swap channels (Arslan and Bayar, October 2020: 94-95).

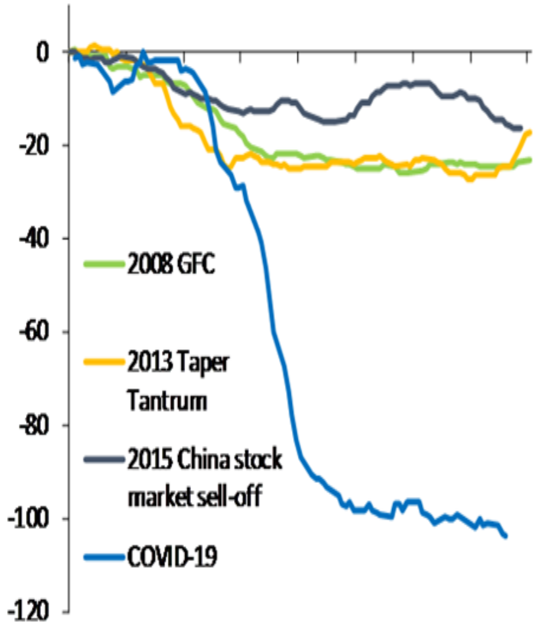
Developing countries are more vulnerable to global shocks and structural causes of the global shock has been investigated in the title as related to the reason (Arslan and Bayar, 2020): Raw materials which are effective in determining the sources of growth in developing countries, mainly exports (due to foreign demand shock), which provides foreign currency inflow of workers' remittances, foreign exchange and related services, the reduction of which is a source of tourism, commercial access to the financial markets and the fall in the price of goods is difficult and costly. For example, in this process, Brent crude oil prices fell by 63% along with declining global demand. In addition, overall prices (industrial metals, precious metals [excluding gold], agriculture and livestock) also fell by 37% (Arslan and Bayar, 2020, as cited in UNCTAD, 2020). Public health, lack of capacity, funding, and distribution of financial resources for the provision of a low field, the presence of weak governance to manage existing shocks, labor informality (unemployment insurance, paid vacation, the lack of a stable income, insufficient savings) are seen as related causes such as structural elements (Arslan and Bayar, 2020, as cited in Leyza and Pennings, 2020).

The Covid-19 outbreak caused significant capital outflows from developing countries due to the selling of portfolio assets by foreign investors. The scale and speed of outflows was nearly four times greater than in the 2008 financial crisis (OECD, 2020).

Following the Covid-19 pandemic, developing countries with high external vacancies, such as Argentina, Brazil, Mexico, South Africa and Turkey, were negatively affected by falls in commodity prices and sudden and high demand in the tourism sector (World Bank, 2020). According to the Şenol (2020: 87), With increasing uncertainty and risk perception, the transition from national currencies to reserve currencies has accelerated. During the epidemic, foreign capital outflows from developing countries occurred. By March 2020, more than $100 billion in portfolio investment flows were released from emerging markets. This figure is more than three times the amount realized during the same period of the 2008 global crisis (Şenol, 2020: 87).

Portfolio investments importantly reflected the panic atmosphere caused by the pandemic in the global economy. After the crisis, large outflows were experienced in portfolio investments in countries with low economic strength. In these times of uncertainty, international investors either increase their cash reserves or invest in safer harbors by withdrawing from countries with developed capital. During the Covid-19 crisis, the scale and speed of capital flows and outflows was striking. The Institute of International Finance (IIF) estimates more than approximately US$100 billion outflows from EME's between January and May 2020. Capital flows have stagnated faster and more sharply than in many crisis periods in recent years, including the 2008 Global Financial Crisis, 2013 Taper Tantrum, and 2015 China Crisis. Central banks of countries had to intervene in the foreign exchange market. In order to improve the field of capital flows, some measures were taken, such as the relaxation of the rules on entries. Considering the practices of developing country economies; measures such as differentiated required reserves, liquidity ratios and FX derivative limits stand out. (OECD, 2020). The table below shows the portfolio flows to emes today toward past episodes:

Figure 4.1. Portfolio Flows To Emes Today vs. Past Episodes (Bln USD)



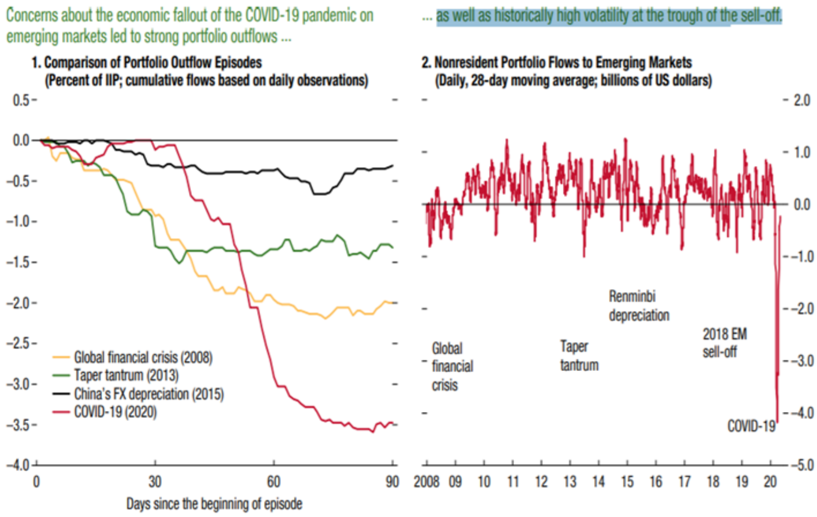
Source: Fortun, J. (2020). Daily Capital Flows Tracker.

* EME= Emerging market economy

The COVID-19 pandemic has led to important portfolio outflows from emerging and frontier markets. After a strong maintenance of portfolio flows to emerging markets through early 2020, driven by increased optimism about economic recovery amid easing trade tensions, total portfolio flows reversed dramatically in March, with more than $100 billion in outflows (or 3½ percent of asset holdings) since January 21, led initially by equity outflows. The volatility of nonresident flows to equity and local currency bond markets during the trough of the sell-off reached unprecedented levels, despite policy rate cuts and measures to support economic activity (International Monetary Fund, 2020: 47-48).

The table below shows that how concerns about the economic fallout of the pandemic on emerging markets led to strong portfolia flows:

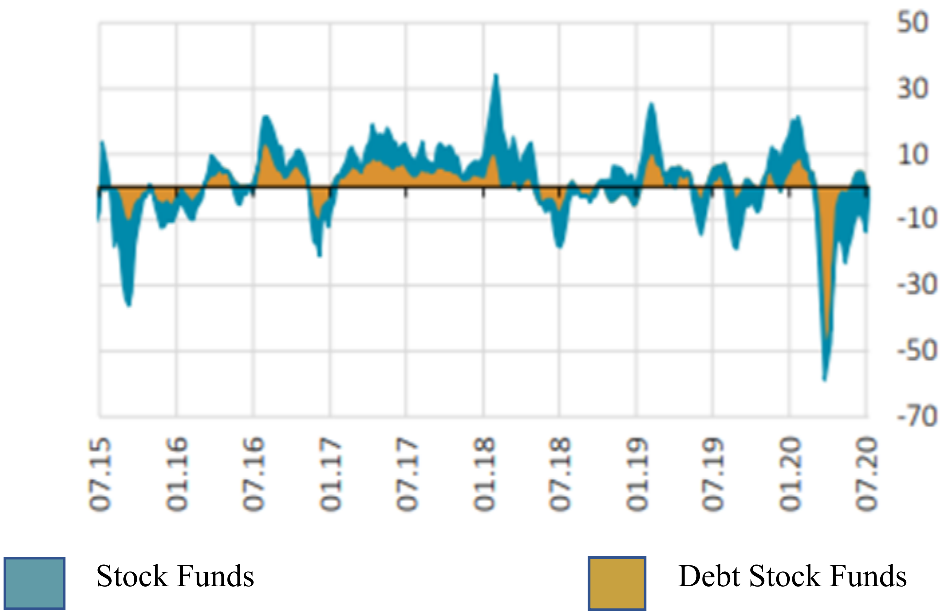
Figure 4.2. Portfolio Flows



Source: IMF, 2020.

In portfolio flows to developing countries, the high output observed in the first quarter after the outbreak continued to increase in the second quarter of the year. As of the first week of July, outflows from developing countries' portfolios reached us $109.2 billion during the year. As the figure below shows, in the second quarter, emerging market outflows accounted for almost all of the total outflows (CBRT 2021: 14-15).

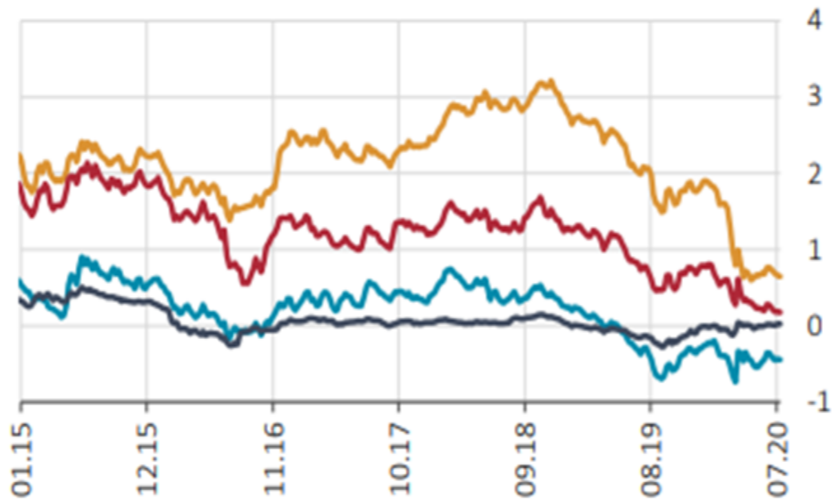
Figure 4.3. Weekly Fund Flows To Developing Countries



Source: CBRT, 2021, as cited in EPFR, 2021.

During the period, there was one of the highest portfolio outflows ever from developing countries. Portfolio outputs were observed in all regions except Europe. The highest output occurred in Asian countries, especially China, as in the previous period, while a very large part of the output was from stock markets, unlike in the previous period. According to the chart below, as of the first half of July, it is observed that outflows from other regions other than Latin American countries slowed in stock markets, while outflows from debt stock markets decreased in all regions. (Table 2.4.1). In this slowdown, the measures taken by the central banks of developed countries in a row and the normalization process in post-epidemic economies are thought to be effective (CBRT, 2021: 14-15). The table below shows the percentage change in 10-year bond yields of developed countries:

Figure 4.4. 10 Year Term Bond Yields (%)



Source: CBRT, 2021, as cited in Bloomberg, 2021.

The variables of the percentage change in 10-year bond yields of developed countries are as follows:

Germany **Japan**

England **USA**

Despite the positive trend in the global economic outlook and world trade after this process, a drastic recovery in global capital flows is not expected in the short and medium term. As a result of Risk assessments, international organizations express that they expect a nervous and conservative outlook on capital flows for YPE. However, it is assumed that capital flows will be primarily denominated in debt instruments. According to IIF data, debt securities are the determinant of the relative increase observed in the first quarter of 2021. But stock inflows (excluding China) also return to positive, albeit limited. Portfolio flows are expected to be negatively affected by the increase in long-term inflation expectations in the United States, regardless of the country's risk profiles (SBB, 2021).

5. REFLECTIONS OF THE COVID CRISIS AND THE MONETARY EXPANSION POLICIES IMPLEMENTED BY DEVELOPED COUNTRIES AFTER THE CRISIS ON THE TURKISH ECONOMY

The figure below shows an increase in portfolio outflows and exchange rate volatility in developing countries in 2020, when global risk appetite remains very volatile.

Figure 5.1. Portfolio Movements in Turkey And Developing Countries.

Source: CBRT, 2021, as cited in EPFR, 2021.

The variables of the percentage change in 10-year bond yields of developed countries are as follows:

 Turkey

 Developing Countries

Normalization steps taken by countries in the third quarter of 2020 and expectations that developed and developing countries will continue their expanding monetary and fiscal positions have increased global risk appetite. However, portfolio outflows from Turkey continued in the third quarter of the year due to country-specific elements. In this aspect, Turkey deviated negatively from other developing countries. The imbalance of the Turkish lira markedly in early August, then fluctuated and diverged negatively from other currencies of developing countries (CBRT, 2020).

From November 2020, the CBRT has made it clear that it will prioritize the fall in inflation in its emphasis on price stability and monetary policy decisions, and has implemented strong monetary tightening. As a result, both portfolio inflows to Turkey have resumed and the imbalance of the Turkish lira has declined. As can be seen from the chart below, this change in monetary policy practices and communication had positive repercussions on the risk premium: The country's risk premium declined and, in particular, a significant decrease in long-term bond yields was noted (CBRT, 2020). The figure below shows the change in risk premium in Turkey and developing countries in 2020:

Figure 5.2. The Change Of Risk Premium in Turkey And Developing Countries

Five year term CDS, Base Point,31 December 2019=0

Source: CBRT, 2021, as cited in Bloomberg, 2021.

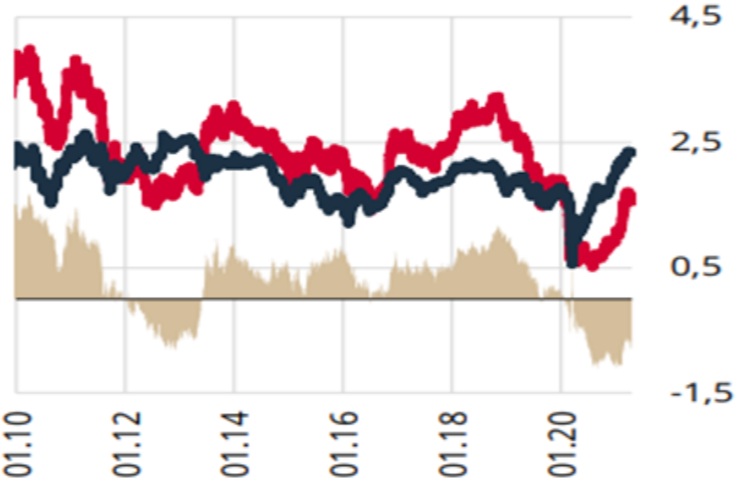
The variables of the the change in risk premium in Turkey and developing countries in 2020 are as follows:

 Turkey

 Average of Developing Countries, which are Brazil, South Africa, Indonesia, Colombia, Mexico, Russia)

The increase in long-term bond yields in developed countries also negatively affected portfolio inflows to developing countries: since February, portfolio movements have returned to the exit direction. The main reason for the increase in long-term bond yields is the improvement in the growth outlook and, accordingly, increased inflation expectations. However, the uncertainty caused by the epidemic has led to an increase in the maturity premium and a rise in long-term returns in real terms. This trend is clearly observed in the US economy, which has the most positive growth outlook. While economic activity has been recovering, the negative real interest rates in developed countries have caused global liquidity to turn to developing countries since the autumn months of 2020. But the rapid rise in developed country yields has disrupted this trend. Thus, with the onset of the epidemic, all portfolio investments coming out of developing countries have returned, and the markets of these countries have started to see outflows and fluctuations again. According to CBRT data, starting in February, only Chinese stock markets entered, while borrowing stock markets and other country stock markets saw an exit (graphic 4.3 and graphic4.4). Due to the global excess of liquidity and high uncertainty associated with the epidemic, developments in developed countries' economies in the future may cause fluctuations in the financial markets of developing countries. (CBRT, 2021). The figure below shows the trend observed in US 10-year bond yields between 2010-2020:

Figure 5.3. 10 Year Term Bund Yields Of USA



Source: CBRT, 2021, as cited in Bloomberg, 2021.

The variables of the the trend observed in US 10-year bond yields between 2010-2020 are as follows:

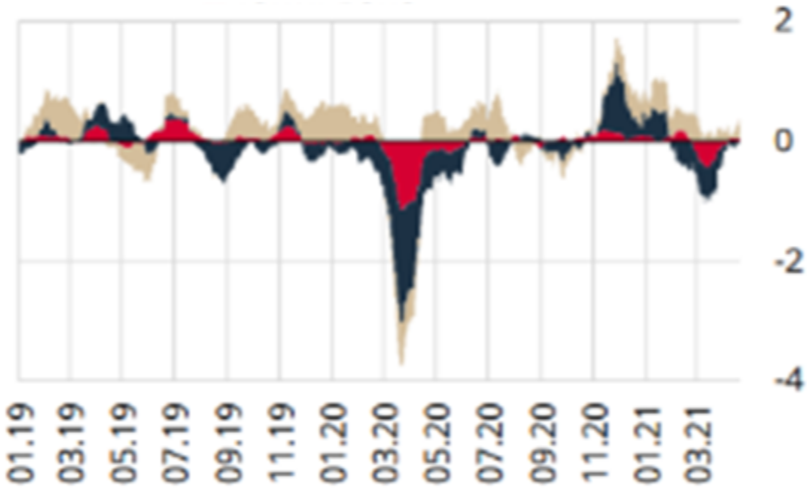
 Usa 10 Year Term Bund Yield

 Usa 10 Year Term Reel Bund Yield

Usa 10 Year Term Inflatıon Compensation

The figure below indicates the portfolio flow to developing countries between 2019-2021:

Figure. 5.4. Portfolio Flows To Developing Countries



Source: CBRT, 2021, as cited in IIF, 2021.

The variables of the the portfolio flow to developing countries between 2019-2021 are as follows:

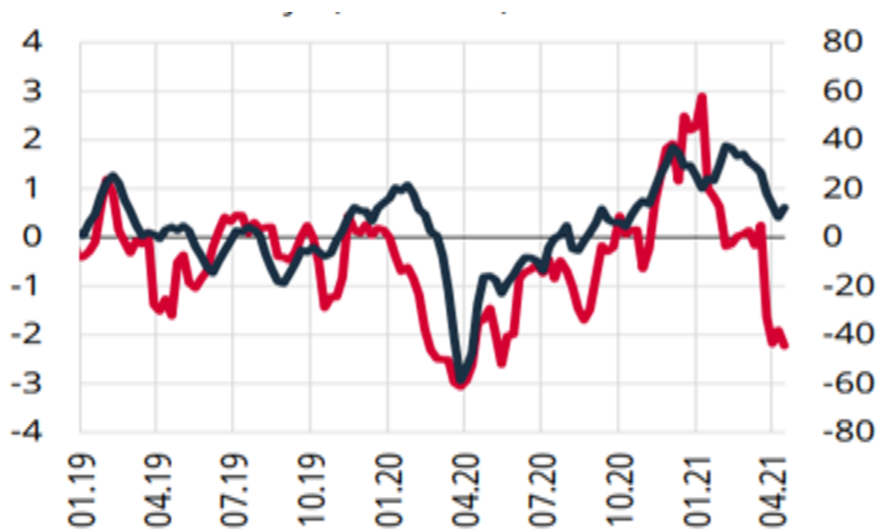
Securıtıes Bond (China)

Bond

Securıtıes Bond (Excludıng China)

In the three weeks following the CBRT's January 2021 Inflation Report, the improvement in financial indicators continued. In the process, the Turkish lira gained in value, while the country's risk premium fell below 300 basis points. In the current period, strong capital outflows were observed with a fluctuation in global risk appetite, as well as a deterioration in risk perceptions specific to Turkey. Global risk appetite, which followed a positive course after the election in the United States, began to deteriorate with February, due to the uncertainty created by inflation expectations. As the details of the new fiscal stimulus package expected after the election became clear, US bond yields rose rapidly and global risk appetite reversed. The move in bond markets has also caused a rapid deterioration in perception of developing countries in anticipation that the Fed will move to monetary tightening earlier than predicted. As a result of these developments, outflows from developing country assets became apparent, while the sale of Turkish lira assets was higher. The ongoing times the Fed's policy-makers to highlight the downside risks to inflation and growth outlook of the members of the year until the end of 2022 and the Fed policy stance that they do not expect us due to a change in bond markets due to the perception of risk has improved. In parallel, there has been an improvement in developing country assets and risk premiums. Despite emerging country financial indicators that showed a horizontal outlook in March as the global panic mood subsided, Turkish lira-denominated assets entered a new wave of sales due to perceptions of uncertainty about the monetary policy outlook at home. In the week following the March PPK decision, while the perception of foreign investors regarding Turkey deteriorated rapidly, there was a strong portfolio outflow from the DIBS and stock markets (Figure 4.5). The two weeks passed until April, when uncertainty about the monetary policy outlook was high, portfolio outflows reached a total of US $ 2.4 billion, including US $ 1.25 billion in bond markets and US $ 1.18 billion in stock markets. Taking into account the outflows realized in the Swap channel, the total portfolio outflows reached US $ 6.8 billion. Due to the deterioration in Risk perception, the country's risk premium indicator CDS also increased by more than 150 basis points, reaching 475 basis points (Figure 4.6). After the rapid depreciation observed in the Turkish lira, the thaw in FX deposits accelerated and the most significant decline occurred in recent years. Developing countries' currencies followed a horizontal course after a deterioration in global risk appetite, while the Turkish lira depreciated highly due to rapid portfolio outflows (Figure 4.7). After that, the FX deposit stock declined by about US $ 9 billion in the week of March 22 (Figure 4.8). Despite the sharp decline in the FC deposit stock during this period, the decrease in the FC deposit share in the total deposits of domestic residents was limited due to the increase in the exchange rate. But despite the fact that the exchange rate remained relatively horizontal in the following weeks, it was observed that the settlement of FC deposits did not continue (CBRT, 2021). The figure below shows the portfolio movement in Turkey and developing countries between 2019-2021:

Figure 5.5. Portfolio Movement in Turkey And Developing Countries (USD)



Source: EPR, 2021; CBRT, 2021.

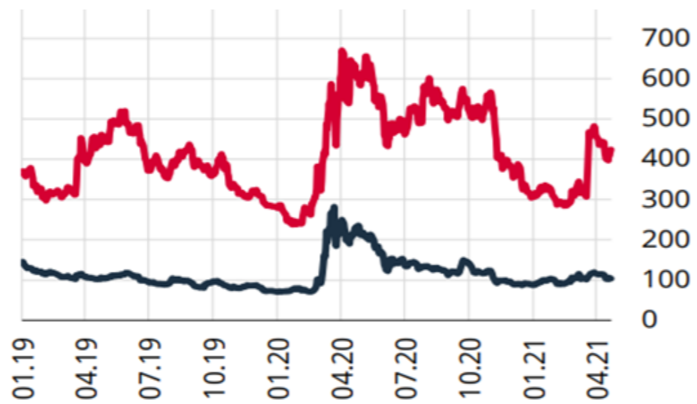
The variables of the portfolio movement in Turkey and developing countries between 2019-2021 are as follows:

Turkey

Developing Countries

The figure below shows the risk premium change in Turkey and developing countries between 2019-2021:

Figure 5.6. Risk Premium of Turkey and Developing Countries



Source: CBRT, 2021, as cited in Bloomberg, 2021.

The variables of the risk premium change in Turkey and developing countries between 2019-2021 are as follows:

Turkey

Developıng Countries, which are Brazil, South Africa, Indonesia, Colombia, Mexico, Russia.

The figure below shows the value of USD against TL and emerging market currencies between 2020-2021:

Figure 5.7. The Value Of The USD Against The TL And Developing Country Currencies

Source: CBRT, 2021, as cited in Bloomberg, 2021.

The variables of the value of USD against TL and emerging market currencies between 2020-2021 are as follows:

Turkey

Developıng Countrıes which are Brazil, South Africa, Indonesia, Colombia, Mexico, Russia.

The figure below shows the change of foreign currency deposits between 2020-2021:

Figure 5.8. FC Deposits Of Domestic Residents (Bıllıon Dollars)

Source: CBRT, 2021.

The variables of the change of foreign currency deposits between 2020-2021 are as follows:

FC Portion Wıth Peg

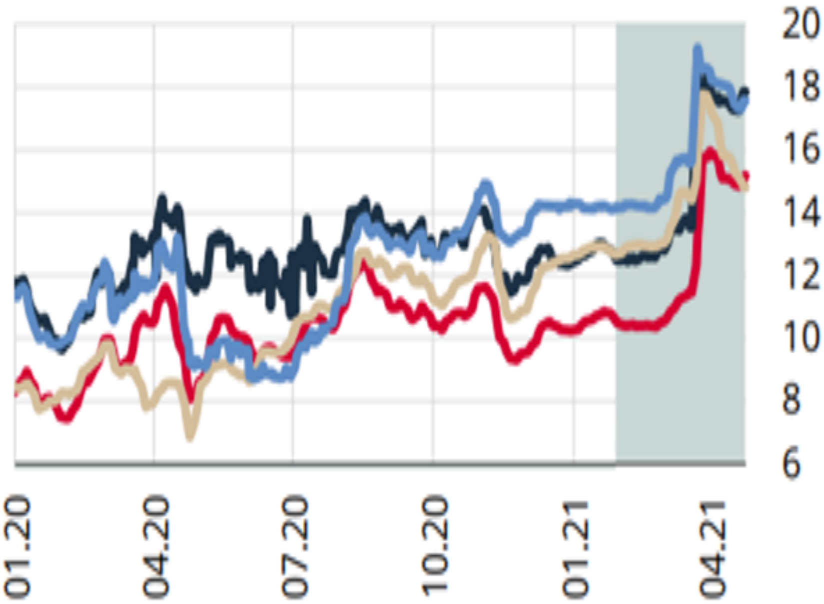
FC Deposıt

FC Portion (%)

After a deterioration in global risk appetite and domestic developments, portfolio outflows caused bond yields to rise sharply. Bond yields, which moved horizontally at the beginning of the reporting period, rose due to a deterioration in global risk appetite. After the calm of the global panic, risks caused by domestic developments came to the fore and severe losses in nominal bond prices were experienced. As can be seen from the chart below, it is observed that the increase in nominal bond interest rates during this period, when real yields changed Limited, was caused by inflation compensation (graphic4.9). Bond interest rates increased over all maturities, while losses on long-term bonds that are higher in the dibs portfolio of foreign residents were greater due to the impact of portfolio outflows, accordingly, the yield curve took a horizontal view (graphic 4.10). After the volatility in domestic markets, the CBRT communication and the April PPK decision, which maintained a tight stance in its continuation, partially improved market pricing. (CBRT, 2021).

The figure below shows the change trend of long term government debt securities between 2020-2021:

Figure 5.9. Long-Term Government Debt Securities Returns and Inflationnation Compensation



Source: TCMB, 2021, as cited in Bloombeg, 2021.

The variables of the the change trend of long term government debt securities between 2020-2021 are as follows:

2 Year Inflatıon Compensaton Enflation

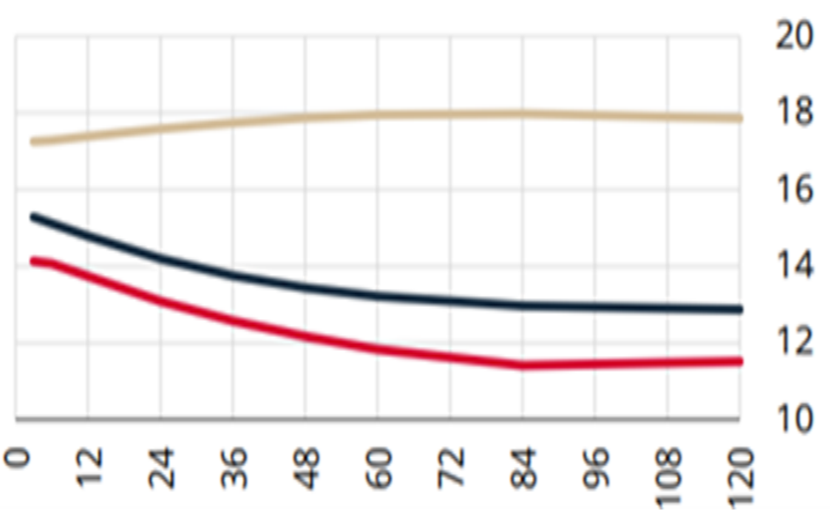
2 Year Bund Yield

10 Year Inflation Compensation

10 Year Bund Yield

The figure below shows the change of state debt securities yield:

Figure 5.10. Government Debt Securities Yield (Monthly)



Source: TCMB, 2021, as cited in Bloombeg, 2021.

The variables of the change of state debt securities yield are as follows:

26.04.2021

22.01.2021

19.11.2020

6. CONCLUSION

When the 2008 global financial crisis and the 2020 covid crisis occurred, the consensus was that economic activity should continue due to declining demand on a global scale. International capital inflows to emerging market economies increased dramatically with the unconventional monetary policy tools such as monetary expansion and negative interest rates implemented by developed countries after the global crisis. There are different views on the effectiveness of monetary easing policies implemented after both crises discussed in the study. The most important signal from these experiences is quantitative expansion.

The effectiveness of quantitative easing depends on the natural degree of financial disruptions in the market and its ability to signal future policy interest rates. Quantitative expansion of temporary use as a tool to stimulate demand, heterogeneous households, restrictions on bank loans, borrowing and financial restrictions on the ability of households is supported by the habitat preference of market participants. If these conditions seem to exist in an economy, it suggests that quantitative easing would be an effective measure to stimulate demand by changing inflation or interest rate expectations. Therefore, in order to study the empirical effectiveness of quantitative expansion, it is important to consider the existences (or not) of these differences in economics (Yalap, 2021: 29, Clouse et. al., 2003: 43-44).

After the 2008 global financial crisis, there are two important factors behind the direction of capital flows to developing countries. Due to the abundance of liquidity created by long-term monetary easing and the need for external financing, these countries apply relatively high interest rates. Another important aspect, as well as the fact that capital inflows have increased significantly, is that capital has mainly been made in the form of portfolio investments. The 2008 global financial crisis due to the abundance of liquidity created by monetary expansion policies, including Turkey, were found to increase significantly in capital inflows to many developing countries.
COVID-19 pandemic has triggered a global economic crisis which has not been seen before. Coordinator framework has been put to the test for the first time, and has been proven substantially successful, as the global banking system entered the crisis with high capital and liquidity. As a result of these policy actions, since the 2008 crisis the

macro-financial returns have taken place quite often. Capital flows to emerging markets have started to recover itself, and many economies regained market (IMF, 2020).

Due to the abundance of liquidity caused by monetary expansion, developing countries have received their share according to their economic performances. Turkey is a country that is struggling with structural problems such as the current account deficit from an economic point of view and is struggling to achieve political stability due to its geographical location. But it is becoming an attractive country thanks to its high growth potential and relatively high interest rates. In the reviews, portfolio outflows from developing countries were experienced after the Covid crisis, while outflows from Turkey were significantly reduced in foreign exchange reserves and harsher losses due to country-specific developments such as excessive depreciation of the Turkish lira. Although there is no significant increase in the reflection of liquidity injected by policies as capital inflows to developing countries due to the continued uncertainty created by the Covid crisis, there will be a sharper recovery towards the end of 2021 as a result of developments and decisions taken by developing countries. Turkey's share of increasing risk appetite of international capital and turning to developing countries will be proportional to economic growth and stability.

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