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Performance Assessment In Banking Sector Through Analitical Hierarchy Process: The Case Of Public Banks, Private Commercial Banks And Participation Banks

Recep Tekçam¹

Abstract

In banking sector, where there is a severe competition, stakeholders of the banks (investors, customers, employees, partners, regulatory institutions etc.) pay great attention to performance of the bank when they choose to put their money. Accordingly, it is important to assess performance of the banks and to determine the criteria that may improve the performance of these institutions.

In this study, performance analysis has been made with reference to financial statements of the years between 2009/12–2013/12 belonging to the public, private commercial (first four private commercial banks according size of assets ranking) and participation banks operating in Turkey; as well as some financial ratios from those statements. With the aim of assessing performance of the banks, Analytical Hierarchy Process approach has been used. Multivariate discriminant analysis model and discriminant function created by Altman have also been used for performance assessment. According to the results of the study, it has been concluded that that Vakıflar Bankası among the public banks; Akbank among the pri-

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vate commercial banks; and Kuveyt Türk among the participation banks have the highest performance compared to their competitors.

Keywords: *Analytical hierarchy process, performance assessment, public banks, participation banks; commercial banks*

I. Introduction

Banking sector, which acts as a mediator by transferring surplus funds to the ones in need of funds, is an integral part of Turkey's economy as well as financial bodies. Considering the previous financial crises, it has been seen that crisis originating from or impacting this sector were deeply felt, yet it was easier to overcome the crisis through the period when banking sector is strong. This situation is an evidence for the significance of banking sector for Turkey's economy. Savers, who entrust their surplus funds to the banks; partners of the banks as the other stakeholders of the banks; stock market investors; customers receiving loans from banks; national or foreign credit institutions; and regulatory institutions such as BDDK, and Central Bank want to be informed about financial performance analysis of the banks to see their financial structure.

For a reliable performance assessment of a decision making-unit containing multiple input-outputs such as banking system, all the criteria must be analyzed at once and within the same system. Yet, all the criteria are not transformed into a common unit. Therefore, in this phase, while there is the possibility to disintegrate the problem and to analyze it in the form of sub-systems; AHP method, which is a multiple purpose and multiple criterion decision making method, is capable of putting different emphasis on different criterion on the subject and allowing to use financial criteria, and is also capable of showing interactions between various factors, should be devised (Bıtırak, 2010).

Considering the studies focused on the performance analysis of the banking sector, it has been seen that different methods are devised; and many studies were conducted on the application of AHP to the banking sector. Using AHP method (Saaty, 1994; Millet and Saaty, 2000; Hafeez et al, 2002), an Analytical Hierarchy Performance Model for assessing the

performance of the banks has been developed. Bitirak and Çetin made a profitability analysis through AHP method for the financial performance assessment of the banks (2010), using the financial ratio of private commercial banks and participation banks between 2005 and 2007.

Albayrak and Erkut suggested a bank performance analysis model (2005) by AHP method by using financial and nonfinancial (service quality and customer satisfaction) instruments together. Seçme et al. (2009) have evaluated the performance of five different banks in Turkish banking sector based on financial and nonfinancial data (data from 2007) used AHP and TOPSIS methods together. Dinçer and Görener (2011) have grouped the public, private and foreign-invested banks in Turkey, and analyzed their financial performance between the years 2002-2008 by using AHP and VIKOR method. Dinçer and Hacıoğlu (2013) assessed customer satisfaction performance of the banks, which have shares in Turkish stock market, with reference to various criteria by using AHP and VIKOR methods. Ustasüleyman (2009) has assessed the service performance of the banks by using AHP and TOPSIS methods and by defining the factors determining the service quality in commercial banks. Ta and Har (2000) have conducted a study about the satisfaction of the bank customers based on non-financial data in order to show that AHP can be applied when making a decision about the selection of the bank. İç and Yurdakul (2000) have created a scoring model by using AHP method for assessing qualitative and quantitative factors all together including subjective creditworthiness of the companies, state of the sector they operate in and their credit collaterals.

In this study, based on Analytical Hierarchy Performance model, performance analysis has been made with reference to financial statements of the years between 2009/12-2013/12 belonging to the public, private commercial (first four private commercial banks according to the size of assets ranking), and participation banks operating in Turkey; and with reference to some financial ratios from those statements. The aim of this study is to analyze criteria to find out which criteria is decisive in financial performance of the banks and to define the banks with highest performance within three banking categories.

II. Methodology

In this study, considering three banking categories (public banks, private commercial banks and participation banks), performance of the banks from three categories in four years period between 2009-2013 were compared by using AHP method. First of all, public banks, participation banks and the first four private commercial banks according to the size of their assets ranking (between the years 2009 and 2013) operating in Turkey were defined. These banks made subject to the performance assessment in this study are as follows; public banks are Halk Bank, Vakıflar Bank, and Ziraat Bank; participation banks so called katılım bankaları are Albaraka Türk, Bank Asya, Kuveyt Türk and Türkiye Finans Katılım Bank; and private commercial banks are Akbank, Garanti Bankası, İş Bankası and Yapı ve Kredi Bank, respectively.

Financial data and financial ratio obtained from these financial data are usually used to assess the performance of the banks. In the present study, year-end financial data of the banks between the years 2009-2013 were used (Annex 1,2,3) and the related data were obtained from websites of Turkish Association of Banks (TBB) and Turkish Association of Participation Banks (TKBB) and banks. For each bank, cumulative average of financial data belonging to four years between 2009 and 2013 was estimated and used. Financial ratio levels were defined and performance assessment has been made by using Multivariate discriminant analysis model and discriminant function created by Altman with the aim of assessing performance of the banks based on Analytical Hierarchy Process (AHP).

Financial ratios (performance criteria) used in the performance assessment of the banks and minor rates (sub criteria) are shown on Table 1.

Table 1: Performance Criteria and Sub Criteria

Performance Criteria	Ratios (sub criteria)
Capital Adequacy (SY)	S1: Equity / (credit + market + Operation Risk Amount)
	S2: Equity / Total Assets
	S3: (Equity - Fixed Assets) / Total Assets
	S4: Equity / Total Deposits
Asset Quality (AK)	A1: Total Loans / Total Assets
	A2: (Total Loans – Non-Performing Loans Net) / Total Loans
	A3: Special Provisions / Non-Performing Loans
	A4: (Total Assets-Fixed Assets) / Total Assets
Liquidity (L)	L1: Liquid Assets / Total Assets
	L2: Liquid Assets / Short-Term Liabilities
Profitability (K)	K1: Net Profit / Total Assets
	K2: Net Profit / Shareholders' Equity
Income-Expenditure Structure (GG)	G1: Net Interest Income / Total Assets
	G2: Net Interest Income / Total Loans
	G3: Non-Interest Income / Total Operating Income

Note: For participation banks, profit sharing income – income other than profit sharing was used instead of interest- non-interest income.

2.1. Analytical Hierarchy (AHP) Approach

A very qualified analytical decision making technique Analytical Hierarchy Process was invented by T. Saaty in 1980s; and objective and subjective decision criteria can be compared with this method and a ranking is obtained as result of a weighting based on different decision making criteria. AHP offers a technique which can be easily applied particularly to problems involving subjective decision elements (Timor, 2011). AHP is a method which shows relations between main target, criteria, minor criteria, and alternatives and allows modelling of those elements in a hierarchical structure. In this method, considering the priorities of the group or individuals, qualitative and quantitative variables can be assessed all together. In case of the decision problems involving multiple assessment

criteria, criteria weights are estimated and decision is made using those weights in order to define the contribution of criteria to the purpose.

In AHP technique, first all factors decisive in decision making process are defined; and considering those factors, a hierarchical structure containing purpose, criteria, and minor criteria is formed. Upon forming hierarchical structure, paired comparison of the criteria is made by using paired comparison scale, which was developed by Saaty (Saaty, 1994), and is given in the table below (Table 2) to obtain the paired comparison matrix.

Table 2: Bilateral Comparison Scale

Severity	Definition	description
1	Equally important,	Both activities contribute to the aim equally.
3	Moderately important	As a result of experience and evaluation one activity slightly is more preferred than the other.
5	Strongly important	As a result of experience and evaluation one activity is much more preferred than the other.
7	Very strongly important	One activity is strongly preferred to the other.
9	Extremely important	One activity is extremely preferred to the other.
2, 4, 6, 8	Intermediate values	If irresolute to make an assessment, a value between the two values is given

After obtaining paired comparison matrix, normalized matrix value is obtained by dividing elements belonging to each column by the total value of column. Priority vector is obtained by taking average of the values specified on each line of the matrix normalized in a way that sum of columns is equal to “1” (Timor, 2011). This vector shows the significance level of criteria. In AHP approach, Consistency Rate (CR) needs to be estimated in order to be able to define whether comparisons made related with criteria are consistent or not. As a matter of fact that CR value estimated to be less than 0.10 shows that the comparison is consistent. On the other hand, as a matter of fact that CR value estimated to be

higher than 0.10 indicates that either paired comparison is inconsistent or there is an estimation mistake. In this case, comparisons should be revised (Saaty, 2001). CR value is obtained by dividing Consistency Index (CI) by Random Index (RI) value. Random index value based on the number of criteria are shown in Table 3 (Saaty,1994).

$$CR = CI / RI$$

$$CI = (\lambda \max - n)/(n - 1)$$

Table 3: Random Index Values

n	1	2	3	4	5	6	7	8	9	10
RI	0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

In order to estimate $\lambda \max$; priority vector should be multiplied by first comparison matrix, and All Priorities Matrix is estimated. Obtained matrix elements are divided by priorities vector elements. Average of obtained values is $\lambda \max$ (Timor, 2011).

Instead of making separate ratio comparisons by using financial ratio of the banks, analyzing ratio in a multivariate framework has a greater statistical and practical significance (Altman, 1968). In performance assessment performed by using financial ratio, discriminant analysis as a multivariate statistical technique can be used in order to compare establishments grouped according to numerous financial ratio and to define which financial ratio differentiates the groups (Cinser, 2008). Multivariate discriminant analysis technique is usually used in problems involving qualitative expression of dependent variable (Altman, 1968). In the approach of analytical hierarchical process, discriminant function created by Altman using multivariate discriminant analysis model is applied.

$$(Z = V1X1 + V2X2 + \dots + VnXn)$$

In the formula, “V1, V2,...Vn” means discriminant coefficients, and “X1, X2,...Xn” means independent variables. In discriminant function created by Altman, there are five independent and one dependent variant (Altman, 1968). In our analysis, dependent variable represents performance score and independent variables represent ratio groups obtained from financial statements of the companies.

$$Z = V1SY + V2AK + V3K + V4L + V5GG$$

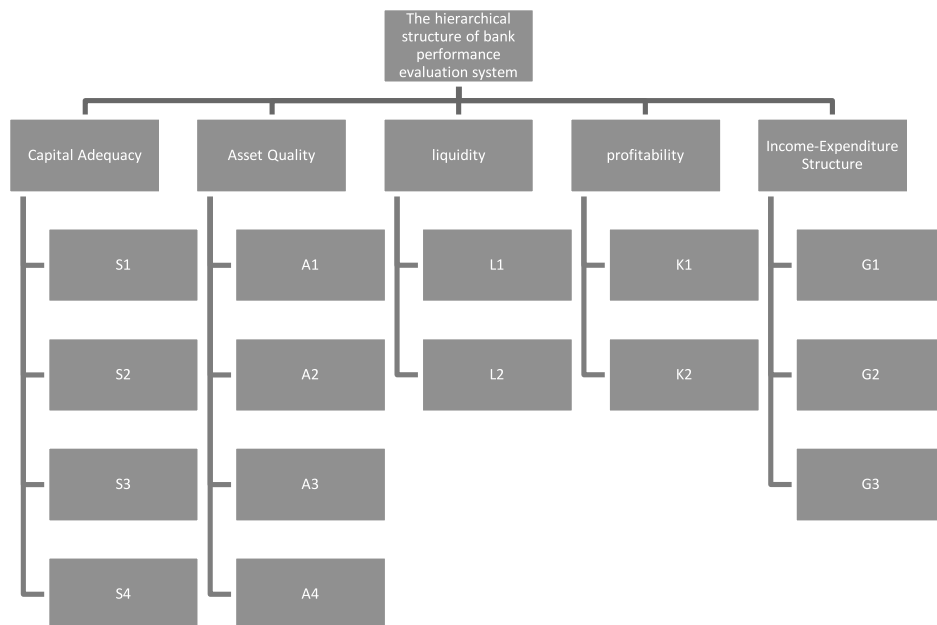
In the function used in our studies; dependent variable Z shows performance score of the banks. Independent Variables: SY represents Capital Adequacy Rates, AK represents Asset Quality Rates, L represents Liquidity Rates, K represents Profitability Rates and GG represents Income and Expense Rates, respectively. When defining coefficients of the independent variables included in the model, Analytical Hierarchy Process has been used. In addition, relative priorities of the financial ratios were also estimated by using the same methodology (Bitrak, 2010).

2.2. Forming Hierarchical Structure

Hierarchical structure is an organized and hierarchical description of decision problem. This structure including purpose, criteria, sub criteria and options, forms the basis of AHP method. Hierarchical structure for the present problem has been formed using performance criteria and minor criteria presented in Table 1, and it is shown on Figure 1.

Aim and the first level of the hierarchy is the assessment and comparison of the performance of banks which realize fund transfer from segments with fund surplus to segments with funding gap (Albayrak, 2005). In the second level of the hierarchy, there is performance criteria of capital adequacy, assets quality, liquidity, profitability, and income-and expense structure. In the third level, there are minor criteria standing for those performance criteria. In the fourth level of the hierarchy, there are bank groups to be assessed based on those criteria.

Figure 1. The hierarchical structure of bank performance evaluation system



2.3. Defining Weights and Priority Rankings of the Criteria

The aim of solving problem with AHP approach is forming a comparison matrix as a first step after forming hierarchical structure indicating criteria and minor criteria and obtaining priority vector using that matrix created. Decimal form of matrix obtained by paired comparison of performance criteria (capital adequacy, assets quality, liquidity, profitability and income–expense level) rates is given in Table 4.

Comparisons made for the elements in the above mentioned comparison matrix can be explained as follows (Timor, 2011):

- Paired comparisons are performed for the elements on each line and column.
- First of all, considering the element on the line, result obtained from comparison of that element with each of the column elements are recorded as intracellular value.

- Result of each element's comparison with itself is equal to 1. Therefore, all the elements on the diagonal are equal to 1.
- Elements falling below the diagonal is estimated through dividing elements above the diagonal by 1.

When making paired comparisons, assessments have been made by using paired comparison scale (Table- 2) recommended for AHP. When making assessments, how much a criteria can contribute to bank performance, relative to the criteria which it is compared to, is considered as the main target.

Normalized matrix values are obtained through dividing elements from each column on comparison matrix by total value of the column; and priority vector is obtained by taking average of the values on each line of normalized matrix.

Table 4: Bilateral Comparison Matrix for Performance Criteria

	SY	AK	L	K	GG	Priority Vector
SY	1.00	3.00	5.00	6.00	7.00	0.50
AK	0.33	1.00	3.00	4.00	5.00	0.25
L	0.20	0.33	1.00	2.00	3.00	0.12
K	0.17	0.25	0.50	1.00	2.00	0.08
GG	0.14	0.20	0.33	0.50	1.00	0.05

Considering the data given in Table 4, it is clear that criteria with the most weight among 5 performance criteria is capital adequacy criteria (0.50). Capital adequacy criteria is followed by assets quality (0.25), liquidity (0.2), profitability (0.08) and income-expense structure (0.05), respectively.

Consistency Ratio (CR) has been estimated in order to define whether paired comparisons given in Table 4 and the obtained priority vector are consistent with each other.

The formula below has been used in estimation of consistency ratio.

$$CR = CI / RI$$

$$CI = (\lambda_{max} - n) / (n - 1)$$

Random index value (RI) is given in Table 3. λ max needs to be estimated in order to find out consistency index (CI).

Biggest value between the eigenvalues of a square matrix is shown as λ max (Timor, 2011). In order to estimate λ max; overall priorities matrix is estimated through multiplying priorities vector by first comparison matrix; and the matrix elements obtained are divided by priorities vector elements (Table 5). Then, λ max is estimated by taking average of values found. As a result, the average value of the least significant column "T.Ö.M./Ö.V." in table 5, has been found as 5.14 (λ max).

Table 5: Calculation of Consistency Rate

	SY	AK	L	K	GG	Overall Priorities Matrix	T.Ö.M./ Ö.V.
SY	0.50	0.76	0.59	0.45	0.34	2.66	5.29
AK	0.17	0.25	0.36	0.30	0.25	1.33	5.23
L	0.10	0.08	0.12	0.15	0.15	0.60	5.07
K	0.08	0.06	0.06	0.08	0.10	0.38	5.03
GG	0.07	0.05	0.04	0.04	0.05	0.25	5.07

As Consistency Index is $(CI) = (\lambda_{max} - n) / (n - 1)$ it is found as CI: 0.034.

Random index value for five dimensional matrix is 1.12 according to the Table 3;

Consistency Ratio is found as $(CR) = CI / RI = 0.034/1.12 = 0.03$. Since this value is below 10%, paired comparison matrix is considered as consistent in itself.

2.4. Defining Weights, and Order of Importance of Minor Criteria

After defining weights and order of importance regarding major criteria, also the weights and order of importance of minor criteria need to be defined. As an example, below a comparison matrix has been created

by making paired comparisons for four minor criteria (S1, S2, S3 and S4) under Capital adequacy major criteria (SY), and then priority vector has been found after related matrix is normalized. The minor criteria that has priority in terms of capital adequacy criteria with the most weight in bank performance comparison is shown in Table 6.

Table 6: Binary Comparison Matrix for Capital Adequacy Criteria

SY	S1	S2	S3	S4	Priority Vector
S1	1.00	5.00	3.00	6.00	0.56
S2	0.20	1.00	0.33	2.00	0.11
S3	0.33	3.00	1.00	4.00	0.26
S4	0.17	0.50	0.25	1.00	0.07

In terms of SY, S1 “Equities / (credit + market + amount subject to op. risk)” criteria with 0.56 value is the factor with the most priority as a performance indicator when compared to other criteria in SY group. For the other four criteria (assets quality, liquidity, profitability and income-expense structure), same processes were repeated according to the method formed by Saaty and prioritization of minor criteria is enabled.

In terms of AK major criteria, A2 minor criteria with the value of 0.54; in terms of L criteria, L2 criteria with the value of 0.83; in terms of K criteria, K2 criteria with the value of 0.75; and in terms of GG criteria, GG3 criteria with the value of 0.63 are found to be criteria with priority.

2.5. Estimation of Performance Scores

In the study, some financial data obtained from financial statements of the public banks (Annex 1), private commercial banks (Annex 2) and participation banks (Annex 3) between the years 2009-2013 have been used. Financial rates obtained based on that financial data are given in Table 7.

Table 7: Financial Ratios of Public Banks, Private Commercial Banks and Participation Banks

	Public Banks			Private Commercial Banks				Participation Banks			
	Ziraat Bankası	Halk Bankası	Vakıflar Bankası	Akbank	Garanti Bankası	İş Bankası	YKB	Albaraka	Bank Asya	Kuveyt Türk	Türkiye Finans
S1	0168	0.151	0.144	0.178	0.173	0.156	0.158	0.136	0.136	0.153	0.147
S2	0.091	0.103	0.105	0.134	0.150	0.120	0.121	0.094	0.111	0.096	0.114
S3	0.076	0.075	0.080	0.121	0.117	0.065	0.071	0.067	0.065	0.065	0.098
S4	0.124	0.141	0.165	0.234	0.222	0.197	0.208	0.125	0.155	0.142	0.172
A1	0.456	0.609	0.638	0.548	0.689	0.586	0.630	0.714	0.752	0.661	0.725
A2	0.993	0.995	0.997	0.999	0.996	0.998	0.989	0.997	0.978	0.996	0.992
A3	0.656	0.825	0.939	0.948	0.813	0.900	0.672	0.894	0.540	0.838	0.708
A4	0.985	0.971	0.975	0.987	0.968	0.946	0.950	0.973	0.954	0.969	0.983
L1	0.360	0.213	0.282	0.385	0.421	0.280	0.230	0.214	0.183	0.284	0.231
L2	0.522	0.360	0.512	0.717	0.626	0.484	0.431	0.424	0.354	0.713	0.403
K1	0.017	0.023	0.013	0.019	0.024	0.018	0.019	0.015	0.010	0.013	0.016
K2	0.190	0.221	0.128	0.142	0.158	0.149	0.161	0.159	0.095	0.135	0.137
G1	0.037	0.039	0.036	0.034	0.041	0.032	0.034	0.037	0.038	0.035	0.041
G2	0.081	0.064	0.056	0.061	0.060	0.055	0.054	0.052	0.051	0.054	0.056
G3	0.188	0.296	0.295	0.337	0.366	0.399	0.398	0.309	0.381	0.326	0.275

In the estimation of second level criteria, same procedures followed for the first level are used. For instance, after finding V1, V2, V3 and V4, which are the discriminant coefficients of independent variables S1, S2, S3, S4; Capital Adequacy (SY) has been found by putting in the formula $SY = V1S1 + V2S2 + V3S3 + V4S4$ (Bitirak, 2010). In this formula, ratio belonging to banks shown in Table 7 were also used for S1, S2, S3 and S4 data. Same operation has been repeated separately for AK, L, K and GG major criteria groups.

$$Z = V1SY + V2AK + V3K + V4L + V5GG$$

For instance for Ziraat Bank;

$$SY \text{ criteria; } (0.56*0.168)+(0.11*0.091)+(0.26*0.076)+(0.07*0.124)= 0.13$$

$$AK \text{ criteria; } (0.07*0.456)+(0.54*0.993)+ (0.24*0.656)+ (0.15*0.985) = 0.87$$

L criteria; $(0.17 * 0.360) + (0.83 * 0.522) = 0.49$

K criteria; $(0.25 * 0.017) + (0.75 * 0.190) = 0.15$

GG criteria; $(0.11 * 0.037) + (0.26 * 0.081) + (0.63 * 0.188) = 0.14$

Thereof, the performance score is found as : $(0.50 * 0.13) + (0.25 * 0.87) + (0.12 * 0.49) + (0.08 * 0.15) + (0.05 * 0.14) = 0.37$

Operations performed for Ziraat Bank have been repeated for other banks and performance scores of the banks were found (Table 8).

Table 8: Performance Score

	Row	Bank	Performance Score
Public Banks	1	Vakıflar Bankası	0.38
	2	Ziraat Bankası	0.37
	3	Halk Bankası	0.36
Private Commercial Banks	1	Akbank	0.42
	2	Garanti Bankası	0.40
	3	İş Bankası	0.38
	4	YKB	0.36
Participation Banks	1	Kuveyt Türk	0.39
	2	Albaraka	0.36
	3	Türkiye Finans	0.36
	4	Bank Asya	0.33

According to AHP approach used with the aim of comparing performance of the banks between 2010-2013, the highest performance scores were found to be in Vakıflar Bankası among public banks; Akbank among private commercial banks and Kuveyt Türk among participation banks, respectively.

Conclusion

Considering the results of the study, it is evident that the criterion of capital adequacy comes first and it is the most significant one among all performance criteria. We argue that for a healthy functioning of banking sector in the midst of a global crisis, injecting capital to some banks and

taking various measures by countries and monetary authorities, particularly BASEL regulations, regarding capital adequacy of the banks are consistent with the conclusion of the study; and these results indicate the significance of capital adequacy for banking sector. Among the minor criteria of capital adequacy criteria, (S1) Equities / (Credit+ Market + Amount Subject to Op. Risk) criterion is found to be most significant criterion in terms of banking performance compared to other criteria. Considering the performance scores obtained as a result of the analysis made in order to define the banks among the bank categories with the highest performance during a four years period between 2009-2013, banks with the highest performance scores are found to be Vakıflar Bankası among public banks (0.38); Akbank among private commercial banks (0.42); and Kuveyt Türk among participation banks (0.39), respectively.

Annexes

Annex 1: Financial data used in the study of public banks for the period 2009-2013 (thousand TL)

	Ziraat Bankası	Halk Bank	Vakıflar Bankası
Equities	15,542,377	10,638,351	10,597,846
Capital Adequacy Standard Rate	16.76	15.08	14.39
Total Assets	170,559,640	103,072,797	100,805,615
Fixed Assets	2,568,523	2,945,353	2,551,626
Total Loan	77,836,970	62,813,755	64,263,877
Non-Performing Loan	1,548,276	1,907,818	2,669,746
Special Provisions	-1,015,891	-1,573,308	-2,506,088
Non-Performing Loan (Net)	532,385	334,510	163,659
Liquid Assets	61,447,919	21,905,300	28,424,507
Short term liabilities	117,773,483	60,871,047	55,500,917
General Deposit	124,891,151	75,439,762	64,353,899
Net Profit for the Period	2,948,445	2,350,395	1,357,386
Net Interest Income	6,309,236	3,992,333	3,624,483
Total Operating Revenue	7,767,529	5,674,221	5,142,162
Non-Interest Incomes	1,458,293	1,681,888	1,517,680

Annex 2: Financial data used in the study of private commercial banks for the period 2009-2013 (Thousand TL)

	Akbank	Garanti Bankası	İş Bankası	YKB
Equities	19,592,813	19,486,393	20,308,333	14,047,219
Capital Adequacy Standard Rate	17.79	17.26	15.58	15.78
Total Assets	146,581,327	156,923,643	169,852,371	115,985,161
Fixed Assets	1,866,454	4,210,847	9,213,644	5,757,274
Total Loan	80,383,385	89,784,126	99,568,873	73,050,754
Non-Performing Loan	1,333,524	2,030,925	2,163,617	2,506,021
Special Provisions	-1,263,886	-1,651,732	-1,947,609	-1,685,158
Non-Performing Loan (Net)	69,638	379,193	216,008	820,863
Liquid Assets	56,468,788	54,899,897	47,602,788	26,652,142
Short term liabilities	78,714,462	87,717,129	98,437,856	61,892,550
General Deposit	83,840,628	87,789,300	103,232,873	67,648,371
Net Profit for the Period	2,785,740	3,072,923	3,030,842	2,258,556
Net Interest Income	4,910,974	5,379,563	5,431,756	3,916,488
Total Operating Revenue	7,401,780	8,486,751	9,038,828	6,504,835
Non-Interest Incomes	2,490,806	3,107,188	3,607,073	2,588,348

Annex 3: Financial Data Used in the Study of Participation Banks for the period 2009-2013 (Thousand TL)

	Albaraka	Bank Asya	Kuveyt Türk	Türkiye Finans
Equities	1,143,122	2,234,828	1,670,187	1,916,825
Capital Adequacy Standard Rate	13.63	13.63	15.32	14.72
Total Assets	12,102,848	20,219,622	17,348,050	16,740,837
Fixed Assets	330,566	928,238	543,771	276,600
Total Loan	8,645,422	15,209,775	11,462,639	12,133,306
Non-Performing Loan	216,251	717,498	277,696	322,168
Special Provisions	-193,375	-387,758	-232,775	-228,221
Non-Performing Loan (Net)	22,876	329,740	44,922	93,947
Liquid Assets	2,586,008	3,709,951	4,919,814	3,869,182
Short term liabilities	6,092,165	10,473,318	6,902,944	9,596,320
General Deposit	9,169,392	14,454,262	11,771,386	11,119,579
Net Profit for the Period	181,861	211,762	226,297	262,492
Net Interest Income	453,220	770,586	615,815	678,409
Total Operating Revenue	656,326	1,244,587	913,956	935,881
Non-Interest Incomes	203,106	474,001	298,141	257,472

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The Role of the Central Bank in Promoting Sustainable Growth: Perspectives on the Implementation of Flexible ITF in Indonesia¹

Solikin M. Juhro²

Abstract

The global financial crisis of 2008–09 (GFC) and the deep accompanying recession created an overarching structural condition of a global and domestic demand shortage. Since then, from a broader policy perspective, there has been a growing call for a revival of the subdued role of the central bank in promoting sustainable economic growth. This paper shows that, in the midst of global uncertainty, the policy configuration to maintain sustainable economic growth should be aimed to simultaneously strike the internal and external balance. This implies that domestic policy cannot abandon export promotion strategies, while building up the domestic demand side of

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The author would like to acknowledge with sincere thanks Dr.Perry Warjiyo, Deputy Governor of Bank Indonesia, for his valuable thoughts on policy mix that became a source of considerable inspiration in the exploration of this paper. The author also gratefully acknowledges excellent research assistance from Idham of Bank Indonesia’s Economic Research Group. The views expressed in this paper are solely of the author’s and do not necessarily represent views of Bank Indonesia.

the economy. The role of the central bank, therefore, should be directed to integrate monetary and financial system stability frameworks. The paper also shows that the post-GFC monetary policy framework enhancement in Indonesia is characterized by the Flexible Inflation Targeting Framework (ITF). In this regard, the policy framework continues to adhere to an inflation target as the overriding objective of monetary policy. The main characteristics of ITF will remain; however, Bank Indonesia must also consider a number of other factors, including financial sector stability as well as the dynamics of capital flows and exchange rates. The feasibility of the framework should be in line with the empirical findings of this paper and provide a firm justification that, in a broader sense, a monetary policy framework aimed at achieving price stability is relevant for the Indonesian economy. By adopting ITF-based monetary policy, Bank Indonesia has sufficient policy space to absorb a certain degree of negative impacts of a crisis, thus preserving economic growth. To this point, strengthening policy coordination between Bank Indonesia and the Government in order to advance structural reform is sufficient to drive sustainable growth in the medium-long term.

Keywords: *Monetary policy, Instrument mix, Inflation Targeting Framework (ITF), Flexible ITF, Bank Indonesia.*

JEL: *E44, E52, E58, E63.*

I. Introduction

Prior to the global financial crisis of 2008-09 (GFC), a financial crisis that emerged in 2008, initially caused by subprime mortgage crisis in US and then widespread to financial sector globally, global development policy strategy was dominated by the paradigm of export-led growth. That paradigm was part of a consensus among economists concerning the benefits of economic openness. Meanwhile, on the monetary policy front, many central banks have adopted monetary policy strategy with a final objective of price stability, known as the inflation targeting framework (ITF). The

ITF adopted since the 1990's is an alternative to pre-existing policy strategies, namely monetary aggregate targeting or exchange rate targeting. The GFC and the deep accompanying recession created an overarching structural condition of a global demand shortage. Since then, from a broader policy perspective, there has been a growing call for a revival of the subdued role of the central bank in promoting sustainable economic growth. Given the necessity to build fundamental strength in the post-crisis period, the directive to reinforce the basis for sustainable economic growth has become stronger in many countries.

The rationales underlying that directive are quite essential given a number of factors. First, learning from the history of economic crises occurring over past decades reveals the basic concept that the crises had major underlying causes originating from real economic problems; they were not just the result of changes in financial sector behavior. Therefore, the scope of the central bank's policies should be integrated to strengthen real sector development. Second, the roots of future economic problems facing central banks will be extremely complicated. There is a tendency that the central bank's role is no longer perceived as identical to the monetary authority, whose responsibility is conventionally led by monetary management; rather, the central bank should take part also in strategic roles beyond monetary boundaries. Third, in the evolution of central bank towards the modern era, there are always conflicts between the central bank's role in safeguarding economic stability (stabilizing role) and promoting economic growth (developmental role). Yet, there is strong empirical evidence that the central bank should not fully abandon its developmental role.

Given these profound rationales, many agree that the overarching goal of monetary policy should continue to be achieving price stability or low inflation. However, the problem is that, when confronted by the post-GFC challenges, standard ITF cannot be applied effectively. As an example, under the standard ITF, the interest rate is used as the sole monetary policy instrument, which subsequently affects aggregate demand and the output gap, with inflation expectations anchored towards the inflation target. However, in an open economy, raising the interest rate is frequently ineffective because of the subsequent surge in capital inflows that add liquidity into the economy. Without sterilization, the additional liquidity will drive up inflation and trigger an asset bubble, which will affect finan-

cial system stability. At that point, it could be noted that, while the crisis taught us that monetary policy should remain focused on price stability as the primary goal (Mishkin, 2011), nascent consensus seems to indicate that achieving price stability is insufficient to guarantee macroeconomic stability overall because macroeconomic instability frequently stems from instability in the financial sector, even when inflation is maintained at a low level (Bean, et al, 2010).

These policy perspectives and empirical facts trigger additional complications to the implementation of ITF-based monetary policy in the context of a small open economy, such as that of Indonesia. As is the case in many emerging countries, the orientation of Indonesian monetary policy in the midst of high global uncertainty is tactically directed not only towards controlling inflation, but also managing the exchange rate in line with macroeconomic fundamentals, through active and measurable interventions on the foreign exchange market. In addition, the monetary policy regime simultaneously manages international reserves at safe levels. This condition has a logical consequence whereby exchange rate dynamics are not completely influenced by market forces but also by domestic monetary policy (Juhro, 2010).

A preliminary assessment provides strong evidence that there is a tendency for monetary policy strategy to move away from that which is hypothesized by the monetary policy trilemma. Referring to the trilemma index³ developed by Aizenman et al. (2008), it can be seen that, over the past 15 years, there is a shifting in the behavior of monetary policy trilemma in Indonesia. It seems that exchange rate stability and monetary policy autonomy could be maintained along with financial market integration/openness, so that there is no such a clear trade-off among the three indicators. The table shows that along with the high degree of integration between Indonesian financial markets and global financial markets and improving domestic monetary policy autonomy, exchange rate developments have tended to be more stable (Table 1).

3 The metrics for measuring the degree of exchange rate flexibility, monetary autonomy, and capital account openness, while taking into account the development of international reserve accumulation.

Table 1. Indonesia Monetary Policy Trilemma Index

Trilemma Index	1997 – 2000 1997-98 Crisis	2001 – 2005 Trend of ITF	2006 – 2008 ITF Pre-GFC	2009 – 2013 GFC–Post-GFC
Exchange rate stability	0.11	0.27	0.25	0.28
Monetary policy autonomy	0.45	0.30	0.50	0.57
Financial market integration	0.74	0.69	0.69	0.71

This paper aims to address three issues. First, what are the best central bank policy strategies to promote sustainable economic growth? From an Indonesian economic perspective, it will focus mainly on the relevance of Bank Indonesia policy strategy to rebalance the sources of economic growth in order to maintain sustainable economic development in the medium-long term. Second, does the assessment suggest a need for changes in the design of post-GFC ITF-based monetary policy in the context of a small open economy? It will explore basic rational arguments for Bank Indonesia to formulate the optimal strategy to transform the ‘impossible trinity’ into a ‘possible trinity’. Third, what is the implication of a preferred monetary policy framework on stability and growth? It will seek justification on whether the implementation of ITF-based monetary policy harms output growth or not.

This paper shows that, in the midst of global uncertainty, the policy configuration to maintain sustainable economic growth should be aimed to simultaneously strike an internal and external balance. Referring to a number of prominent sustainable growth model recalibrations, this implies that domestic policy cannot abandon export promotion strategies, while building up the domestic demand side of the economy. The role of the central bank, therefore, should be directed to integrate monetary and financial system stability frameworks. The paper also shows that the post-GFC monetary policy framework enhancement in Indonesia is characterized by the flexible ITF. In this regard, the policy framework continues to adhere to an inflation target as the overriding objective of monetary policy. The main characteristics of ITF will remain; however, Bank Indonesia must also consider a number of other factors, including financial sector stability as well as the dynamics of capital flows and exchange rates.

Finally, the paper shows that stylized facts on the stability-growth nexus firmly reflect a notable feature of Indonesian monetary policy in the

midst of a crisis, namely the gradual disinflationary policy in support of sustainable economic growth. To support the analysis, the author employs a univariate exponential generalized autoregressive conditional heteroskedasticity (E-GARCH) method and a rolling regression on the New Keynesian Phillips Curve (NKPC) for quarterly observations ranging since 1990s to the present day. As expected, empirical findings in this paper provide a firm justification that, in a broader sense, a monetary policy framework aimed at achieving price stability is relevant for Indonesian economy.

The following section presents current state of the Indonesia economy, especially stylized facts on the stability-growth nexus and major policy challenges to maintain sustainable economic growth. The third section provides policy strategy to promote sustainable growth, focusing on the role of the central bank under a new sustainable growth model and theoretical and empirical review of feasibility of flexible ITF, which leads to the integration of monetary and financial system stability frameworks. This section also presents the monetary regime shifting in Indonesia, as a result of framework enhancement under unconventional wisdom of monetary policy over the crisis periods, from a standard ITF to a flexible ITF.⁴ The fourth section explores recent salient empirical findings on the implications of ITF-based monetary policy on stability and growth. The last section concludes this paper.

II. Stability and Growth Potential: Indonesia Case

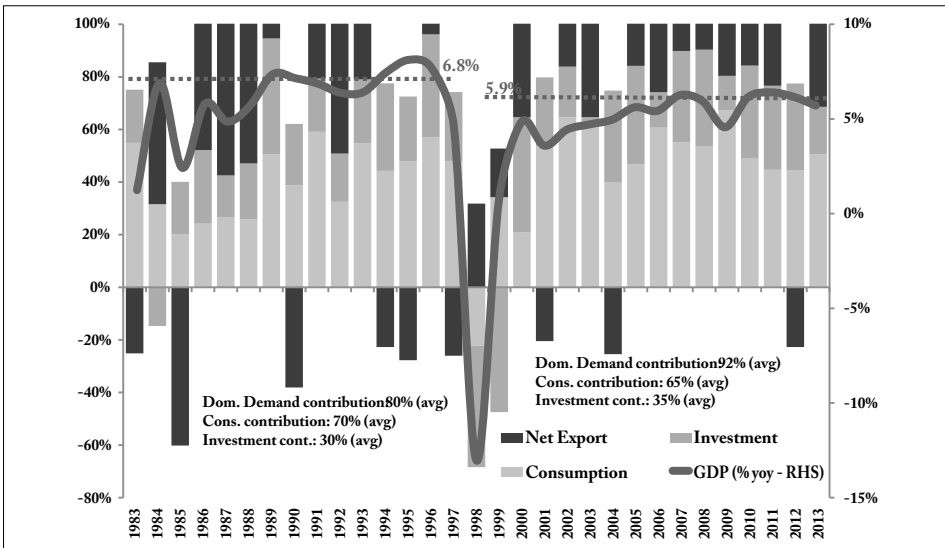
The past few years have brought Indonesia many economic surprises and challenges. Even today the global economy remains beset by substantial risks and uncertainties. However, despite this backdrop of strong headwinds from abroad, the Indonesian economy has emerged, not only with its economic standing intact, but with its standing strengthened. Vigorous economic progress has been made achievable on the back of fundamental strengths attributable to wide-ranging economic reforms since the Asian financial crisis of 1997-98, including the monetary, fiscal, banking and real sectors. These fundamental strengths afforded Indonesia a strong footing

4 In many literatures, a 'flexible' ITF term suggests that the central bank should not focus solely on inflation gap. Rather, the central bank should also pay attention to the output gap, and financial stability. See Walsh (2008) and Svensson (1999).

when the GFC touched Asian shores in 2008-09. Indonesia also avoided the downward spiral of sovereign debt crisis that is threatening Europe much better than its Asian peers.

Such notable progress has, no doubt, had a positive impact on domestic economic resilience. Despite the fragile global economy, the Indonesian economy continues to demonstrate considerable resilience with an average of 6.0 percent in the last five years (2010-13). Indonesia’s resilience arose amidst a sharp fall in exports as a result of pressures from the global economic slowdown. The leading source of Indonesian economic growth has been strong domestic demand growth with an increasing role from an average of 80 percent prior to the Asian financial crisis of 1997-98 to 90 percent in the post-crisis period (Figure 1).⁵ In 2014 GDP of Indonesia at current price is about Rp 10,500 trillions, in which consumption amounts to Rp 7,000 trillions, investment amounts to Rp 3,400 trillions, while export and import is about Rp 2,500 trillions and Rp 2,600 trillions, respectively.

Figure 1. GDP Growth and its Determinants

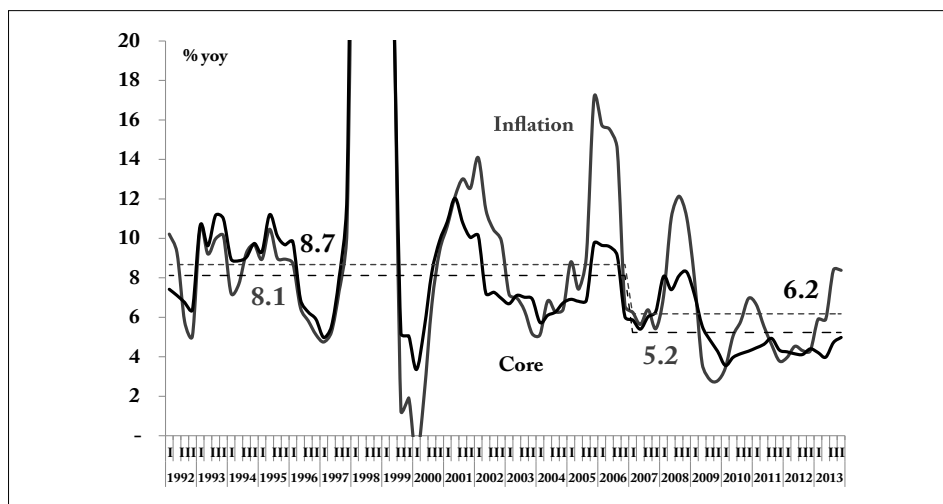


Source: Bank Indonesia, Indonesia Financial Statistics

5 While strong private consumption is the major impetus of domestic demand growth, investment also plays a more substantial role in supporting economic growth. The continued strength of private consumption is the result of rising consumer confidence and a steady level of public purchasing power. Other key factors of buoyant investment growth include expansive private consumption and a climate conducive to invest.

It was a special case indeed, when the episode of robust growth did not occur with rising inflation. Despite robust economic growth, however, Indonesia experienced relatively low and stable inflation. Moreover, Indonesia has convincingly entered an era of structurally lower inflation. Inflation has reached a single digit due to improving ITF policy credibility since its adoption in 2005, as reflected by the declining trend of core inflation notably from an average of 8.1 percent during the pre-ITF period to 5.2 percent in the ITF period (Figure 2). The contributing fundamental factors to this downward trend include inflation expectations that were kept subdued and adequate supply-side capacity in response to demand. This showed that inflation moderation has been structural in nature because potential growth has risen and the output gap remains negative in spite of rising investment to GDP.

Figure 2. Headline and Core Inflation

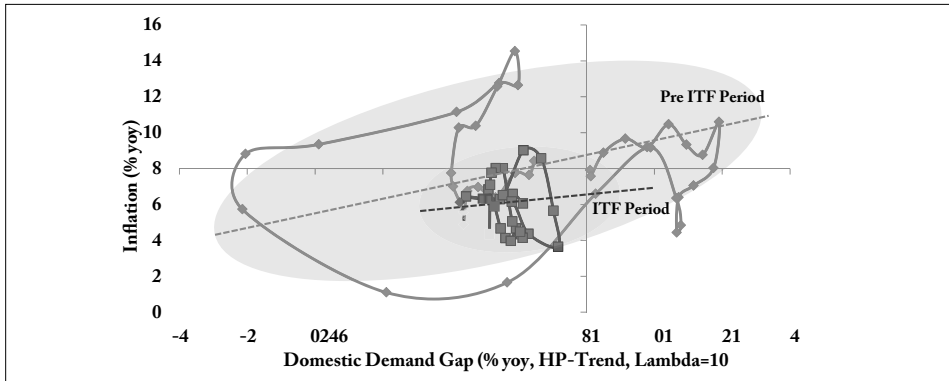


Source: Bank Indonesia, Indonesia Financial Statistics

It is interesting to note an indication of a shift in the degree of the stability-growth nexus during the ITF period. The nexus appears to have weakened, reflected by an apparent flattening of the Phillips Curve (slope), especially during the post-GFC period (Figure 3).⁶

⁶ Simply indicated from a trend line of a scatter chart (inflation against output growth). A more detailed and rigorous assessment on the Phillips Curve will be provided in section four.

Figure 3. Inflation and GDP Growth Nexus



Source: Bank Indonesia, Indonesia Financial Statistics, processed.

This phenomenon may imply that inflation is less responsive to domestic demand. Rather, it is relatively more affected by a supply response, such as a temporary cost-push shock related to the exchange rate, commodity price movements or weather anomalies. Another factor contributing to the flattening of the Phillips Curve is policy credibility gained by Bank Indonesia in terms of controlling inflation. One important thing that should be noted is the success of policy coordination between Bank Indonesia and the Government in controlling inflation over the last decade.⁷

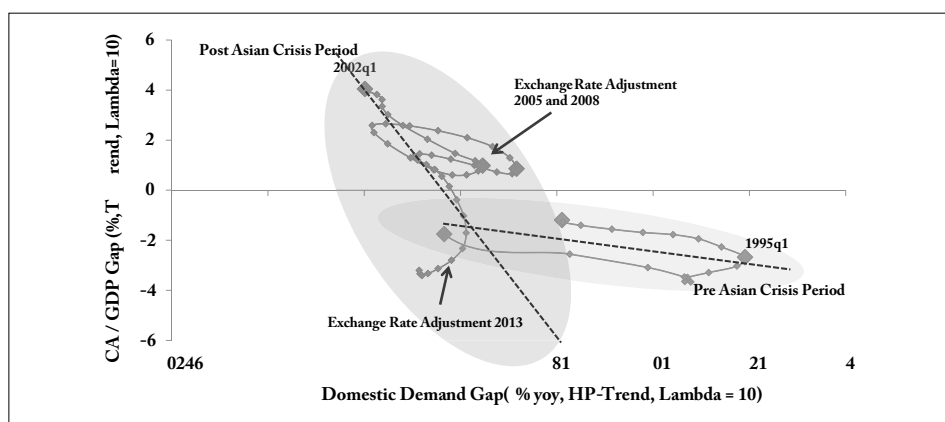
Nevertheless, the success story of ITF cannot be concluded yet, as several empirical questions remain unanswered, in particular relating to economic capacity to grow sustainably in the medium-long term. Moderating global demand, reflected in slower export growth, paired with rebalancing sources of growth towards domestic demand has led to a widening current account (CA) deficit. Having experienced a surplus during the period after the Asian financial crisis of 1997-98, since the last quarter

⁷ Policy coordination efforts consisting of routine coordination meetings between Bank Indonesia and the Government to discuss recent economic developments as well as Bank Indonesia participation in cabinet meetings chaired by the President of the Republic of Indonesia to share BI's views towards macroeconomic and monetary developments, specifically pertaining to achieving the inflation target must be continued. In addition, enhanced coordination with the government is required that is duly authorized to decide on specific matters pertaining to inflationary issues encountered in the field through the National Inflation Task Force (Tim Pengendalian Inflasi/TPI) established in 2005 and the Regional Inflation Task Force (Tim Pengendalian Inflasi Daerah/TPID), which was initiated in 2008. Since its establishment, the number of TPID reached around 400, spread across 33 provinces in Indonesia.

of 2011 the CA balance has recorded a deficit, mainly owing to decreasing export growth amidst considerably stronger import growth driven by higher investment rather than consumption. The flagging economies of major trading partners, such as Europe, China, Japan and India, potentially hamper the rate of recovery in export growth.

In line with external performance that has failed to meet expectations, structural weaknesses in the Indonesian economy have also pushed CA deficit problems that require serious attention. Figure 4 shows a pre and post-Asian financial crisis comparative assessment of the relationship between the trend of the growth rate of real domestic demand (% yoy) and the trend of the CA balance (% GDP). The slope summarizing the relationship between the two has shifted. Specifically, the adverse impact of an accelerated growth rate of real domestic demand on the outturns of the CA balance was less pronounced during the pre-Asian financial crisis of 1997-98 vis-à-vis the post-Asian financial crisis era. In the post-GFC era, the slope summarizing the relationship between domestic demand and the current account has steepened even more. More importantly, however, exchange rate adjustment since 2013 has been less potent than the previous two episodes of large depreciation in 2005 and 2008 in securing a positive outturn in the CA (Figure 4).

Figure 4. CA Balance and Domestic Demand Growth



Source: Bank Indonesia, Indonesia Financial Statistics, processed.

The above observations further suggest the presence of “balance of payments constrained growth” in Indonesia. In this case, any effort to accelerate domestic demand, thus economic growth, is constrained by a widening CA deficit. The problem of a stubborn CA deficit could potentially hamper macroeconomic balance and economic growth sustainability in the medium term. This, in turn, leads to the issue of economic efficiency and competitiveness, which in many facets is structural in nature as opposed to cyclical.

Meanwhile, another challenge in the financial sector relates to financing sources for development, which still lack long-term funds. Sources of financing through bank credit generally account for less than 40 percent, while sources of financing through bond and stock markets are very limited, or even relatively underdeveloped compared to peer countries in the region (Table 2). The capacity and liquidity of the corporate bond market are also low, while the level of participation of pension funds or insurance with long-term lenders is also still limited. It cannot be denied that this lack of financial deepening could potentially weaken economic growth potential in the medium term.

Table 2. Indicators of Financial Deepening

Rp Bn	Banking Credit		Government Bond		Central Bank Certificate		Stock	
	Level	% of GDP	Level	% of GDP	Level	% of GDP	Level	% of GDP
1990	95,704	0.5						
1995	234,611	51.6	–	–	–	–	–	–
2000	269,000	19.4	–	–	–	–	–	–
2004	555,236	24.2	402,099	17.5	102,731	4.5	398,897	17.4
2005	698,695	25.2	399,839	14.4	72,237	2.6	468,220	16.9
2006	796,767	23.9	418,751	12.5	207,400	6.2	711,682	21.3
2007	1,004,178	25.4	477,750	12.1	267,710	6.8	1,191,782	30.2
2008	1,313,873	26.5	525,690	10.6	166,714	3.4	657,705	13.3
2009	1,446,808	25.8	581,750	10.4	255,520	4.6	1,151,357	20.5
2010	1,783,601	27.7	641,220	9.9	200,110	3.1	1,885,801	29.3
2011	2,223,685	30.0	723,620	9.8	119,780	1.6	2,091,205	28.2
2012	2,738,054	33.3	820,260	10.0	78,870	1.0	2,284,731	27.8
2013	3,322,683	36.6	995,250	11.0	91,390	1.0	2,525,005	27.8
2014	3,707,916	35.2	1,061,698	10.1	88,899	0.8	2,891,739	27.4

Source: Bank Indonesia, Indonesia Financial Statistics

III. Policy Strategy To Promote Sustainable Growth Under Flexible Itf

3.1. The Role of the Central Bank in a New Sustainable Growth Model

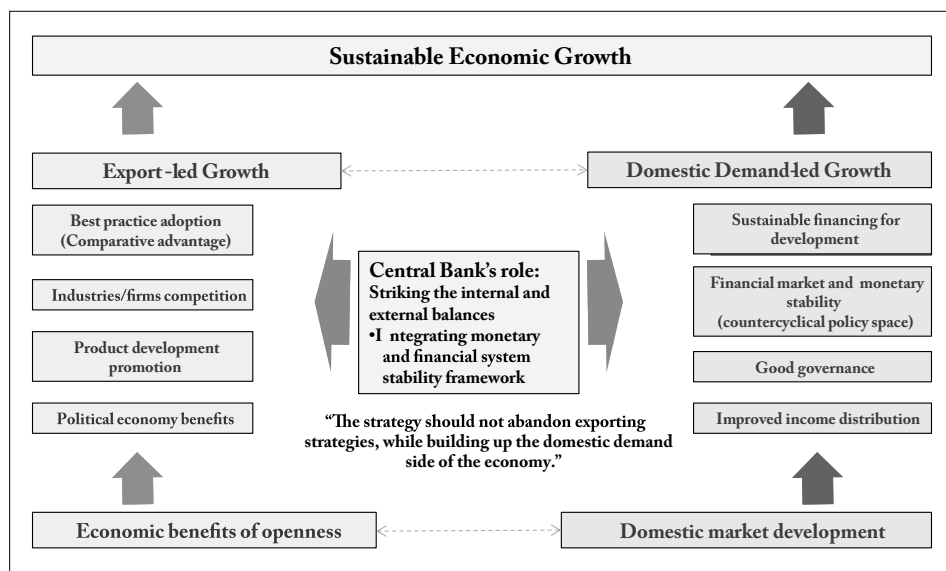
As noted earlier, the post-GFC policy paradigm was colored by a growing call for a revival of the subdued role of the central bank in promoting sustainable economic growth. Central bankers are confronted by the need to abandon conventional wisdom and develop alternative policy frameworks based on a new model of sustainable growth. Recent studies posed a prominent recalibration of thoughts, which has facilitated discussions on the determination of optimal sustainable growth strategy, not only viewed from a broader perspective, such as Coats (2011) and Watts and Botsch (2010) but also focused on macroeconomic policy perspectives, as per Palley (2011) and Felipe and Lim (2005).

From a macroeconomic policy perspective, where central banks play a pivotal role in the context of demand management policy, an interesting discussion leads to the choice of a preferred paradigm; whether the old paradigm of export-led growth or a new paradigm of domestic demand-led growth? Palley (2011), for instance, certainly acknowledges that in order to grasp the benefits of economic development, developing countries need to export. However, it is argued that the global trading system must be made the servant of domestic development and that domestic development must not be forgone for the sake of international competitive advantage. In this regard, domestic demand growth should rest on four pillars, namely: (i) improved income distribution, (ii) good governance, (iii) financial stability, and (iv) a fairly priced supply of development finance. And the policies needed to put these pillars in place are (i) labor and democratic rights; (ii) financial reforms; and (iii) a combination of debt relief, increased foreign aid, and increased development assistance through the expansion of special drawing rights.

What is the strategic role of central bank? To answer this question, we need to consider two aspects that form the basis of policy strategy formulation, namely policy configuration and policy implementation. Based on emerging market countries' experiences, it is believed that one could not differentiate clearly where the sources of economic growth come from. Empirical evidence in some Asian countries also shows that successful and

sustained growth requires growth in both domestic demand and net exports (Felipe and Lim, 2005). In conjunction with these salient facts, the development strategy should not abandon export strategies, while building up the domestic demand side of the economy. In this regard, the central bank policy configuration needs to strike the internal and external balances properly (Figure 5).

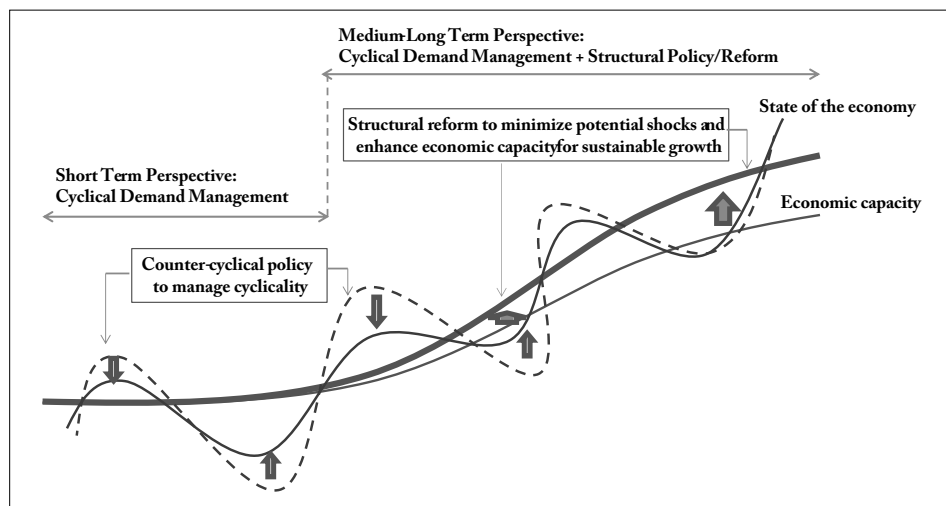
Figure 5. Key Strategies under the Sustainable Growth Model



Source: Palley (2011) and Juhro (2012)

In addition, policy implementation should be differentiated into two perspectives, namely the short-term and medium-long term. According to the short-term perspective, policy strategy should be geared towards managing the economic cycle on the demand side through countercyclical policies (for example monetary and macroprudential policies). Meanwhile, in the medium-to-long term perspective, policy strategy should also be directed to minimize potential economic shocks that may arise and simultaneously increase the capacity of the economy to achieve sustainable economic growth. This can be achieved through the advancement of structural reforms, in both the real and financial sectors.

Figure 6. Short Term and Medium-long Term Policy Strategies for Sustainable Growth



Considering the above aspects, from a central bank policy perspective it could be argued that the aforementioned policy strategies can feasibly be achieved by integrating the monetary and financial system stability frameworks.⁸ The preferred strategy to integrate monetary and financial system stability frameworks is generally in line with the basic spirit of many central bank mandates, especially in the post-GFC period. For instance, Bank Indonesia’s mission is “to achieve and maintain price stability and contribute to safeguarding financial system stability; in order to promote sustainable economic development”.⁹ According to the mission, there are two interlinked-frameworks to promote sustainable economic growth, namely monetary stability framework and financial stability framework.

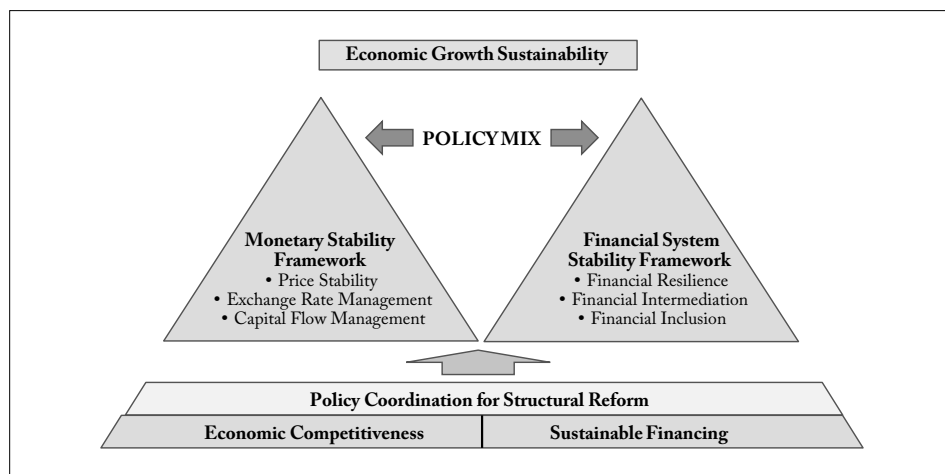
8 It should be noted that, in practice most central banks generally perform a function in the payment system area. In this case, payment system stability (including instruments, volume of transactions, institution and infrastructure) will be pursued in order to work in a safe and efficient manner able to withstand internal and external shocks that will support monetary and financial system stability. Seeing the strategic role of the payment system, its institutional set up can be considered as one specific wing, separate from monetary and financial stability. Conceptually, however, the payment system is generally regarded as an important part of supporting monetary and financial system stability. In this paper, given the payment system function in Bank Indonesia, which is still in the early stage of development, especially in terms of system and framework, the payment system function is considered already inherent in monetary and financial system stability.

9 As per the proposed draft to the House of Representatives of the Republic of Indonesia.

Under the monetary stability framework, the policy strategy aims to: (i) achieve price stability; (ii) stabilize exchange rate movements in line with its fundamental value; and (iii) manage capital flow dynamics to support macroeconomic stability. Congruent with the monetary stability framework, the financial stability framework aims to achieve a broader sense of financial system stability, namely (i) strengthening financial system resilience (e.g. managing inter-connectedness); (ii) balancing financial intermediation (e.g. managing pro-cyclicality); and (iii) promoting financial inclusion.¹⁰

It is argued that, by integrating the two frameworks, monetary stability and financial stability, the central bank can feasibly achieve sustainable economic growth. In this regard, monetary and macroprudential policy should be mixed and directed to manage external balance while providing support to domestic economic development. From a short-term policy perspective, this argument is believed to be valid. Therefore, to ensure sufficient conditions for sustainable economic growth in the medium-long term, integrated policy coordination between the central bank and the government is essential to advance structural reforms, such as improving domestic competitiveness and sustainable sources of financing for development.

Figure 7. Policy Framework to Promote Sustainable Growth



Source: Bank Indonesia

10 There are ongoing discussions on the issue, including formulation of the future Bank Indonesia policy framework. For example, see Warjiyo and Juhro (2012) and Warjiyo (2013).

3.2. Stabilization Trade-Off and the Feasibility of Flexible ITF

ITF, which was originally implemented as an ‘art of central banking’ by strengthening the institutional framework of monetary policy to support expectation management and policy credibility (Bernanke et al., 1999), gradually began to be considered through the foundation development of macroeconomic theory. Although a lot of literature has taken into account the existence of ITF since the 1990s,¹¹ theoretical substance ITF, including the flexibility of its implementation, was observed much earlier by Kydland and Prescott (1977) and Barro and Gordon (1983). It was shown that with pre-commitment, a central bank can credibly achieve an inflation rate at the desired level and according to public expectations with minimal losses. On the contrary, with discretion, changing public expectations in line with the central bank’s ‘inconsistency’, will cause inflation bias. In this case, inflation is a product of certain considerations that arise as a result of policy authorities’ desire to promote economic growth. This condition also shows that basically there is a trade-off between credibility versus flexibility in the sense that with the flexibility to pursue the output stabilization, policy credibility to control inflation would be disturbed.

In the model of Barro-Gordon (1983), which is also the basis for the development of the model by Rogoff (1985), the development output (y) is formulated based on the supply curve specification ala “Lucas”:

$$y_t = a(\pi_t - \pi_t^e) + \varepsilon_t \quad \dots (1)$$

where π is inflation, π_t^e is inflation expectations, and ε_t is iid shocks with average zero and variance σ_ε^2 . a is a parameter that reflects the influence of misperception on the output formation. Expectations are believed to be formed prior to the existence of shocks and before policymakers determine π_t . The objective function is policymakers

$$L_t = \pi_t^2 + b(y_t - y^*)^2 \quad \dots (2)$$

where, $b > 0$ and natural level of output, $y^* > 0$. Substituted (1) into (2) gives:

$$L_t = \pi_t^2 + b(a(\pi_t - \pi_t^e) + \varepsilon_t - y^*)^2 \quad \dots (2')$$

11 See for example, Rotemberg and Woodford (1997), Svensson, (1997), Clarida et al. (1999), Goodfriend and King (1997).

Assuming that , first order condition provides solutions:

$$E_{t-1}(\pi_t) = aby^* > 0 \quad \dots (3)$$

$$\pi_t = aby^* - \frac{ab}{1+a^2b} \varepsilon_t \quad \dots (4)$$

$$y_t = \frac{1}{1+a^2b} \varepsilon_t \quad \dots (5)$$

Policy rule (4), which also represents the expected augmented Phillips Curve, contains a component known as the inflation bias aby^* and stabilization component $(ab / (1 + a^2b)) \varepsilon$. The solution shows that the characteristic of expected augmented Phillips Curve would lead to optimal inflation which is greater than zero because it is influenced by inflation expectations (in general), which are also greater than zero. In fact, if inflation expectations are equal to zero, optimal inflation will still be greater than zero because the parameters of social costs and economic capacity (b and y^*) as well as deviation from the inflation target (a).

From equations (3) – (5) can be obtained unconditional moments:

$$E(\pi_t) = aby^* \Rightarrow \frac{\partial E(\pi_t)}{\partial b} > 0 \quad \dots (6)$$

$$E(y_t) = 0 \quad \dots (7)$$

$$\text{var}(\pi_t) = \frac{ab}{1+a^2b}^2 \Rightarrow \frac{\partial \text{var}(\pi_t)}{\partial b} > 0 \quad \dots (8)$$

$$\text{var}(y_t) = \frac{1}{1+a^2b}^2 \Rightarrow \frac{\partial \text{var}(y_t)}{\partial b} < 0 \quad \dots (9)$$

From these results it can be concluded that discretionary monetary policy will lead to higher inflation without pushing output to exceed the natural rate, otherwise known as stagflation. In addition, there is a stabilization trade-off, where the smaller weight output stabilization (b) - the more credible a policy, inflation is low and stable, but is accompanied by output volatility. Conversely, if the parameter b is greater, the volatility of output is low, but at the expense of the average and volatility of inflation increases.

Stabilization trade-off issues that arise and empirical findings

about the effect of ITF on the economy basically show that ITF possesses limitations. In a condition where an economy is facing large supply shocks, ITF will not work well to reduce output volatility. For example, in the event of a fall in productivity growth (negative supply shocks) that leads to an increase in input costs and a decrease in output production, monetary tightening measures by the central bank to control inflation will further reduce real output (Henderson and McKibbin, 1993). In such a situation, ITF will enlarge the output loss and escalate risk in an economy. Such conditions lead to the notion that a central bank could switch monetary policy strategy from ITF to Nominal GDP Targeting (NGT). With this strategy, the central bank may consider the increase in inflationary pressures and a decrease in real GDP, so that monetary policy could be implemented not too tightly, or even looser, when the expected decline in real GDP is larger than the expected decline in inflation expectations.

The concept of Flexible ITF (F-ITF), therefore, has a pivotal issue with NGT, where the potential decline in output is also taken into consideration when the central bank responds to the increase in inflation. With ambiguity between the theoretical aspects and actual regimes, F-ITF can be seen as an intermediate stage between pure ITF and NGT. In its developmental stage, the F-ITF is not only seen as a narrow stabilization trade-off strategy to manage inflation or output developments, which implies a change in policy credibility. However, it should be seen in terms of the possibility of implementing the policy mix strategy of the central bank in response to substantial shocks or changes in an economy, such as in the event of a financial crisis. The policy mix strategy is essential along with criticisms of ITF implementation considering the global economy has not fully recovered from the problems of the GFC.

The GFC taught a lesson that maintaining low inflation is insufficient to achieve the objectives of macroeconomic stability. Therefore, the key measure to manage macroeconomic stability not only depends on the success of controlling internal and external imbalances, such as inflation and the balance of payments, but also imbalances in the financial sector, such as excessive credit growth, asset price bubbles and the cycle of risk-taking behavior as the financial sector is highly susceptible to changes in market perception. In other words, the central bank is required to be more

flexible, beyond common belief, in responding to uncertainties that arise in an economy.

The implementation of F-ITF has at least three fundamental consequences on the behavior or preferences of central bank monetary policy, namely:

- In the short-term, especially during the period of recovery after the crisis, a monetary policy preference that favors economic growth rather than price stability could be possible, confirming the notion that achieving the ultimate goal of price stability does not necessarily mean that the central bank ignores altogether efforts to boost economic growth. On the contrary, in the short term, monetary policy can be directed, through certain calculations, to spur the process of economic recovery, while in the long-term perspective, price stability should be maintained in order to promote sustainable economic growth.
- There is a major consideration on the pivotal role of financial sector developments. This implies that a healthy macroeconomic management should also consider financial system stability as the foundation to realize a sustainable macroeconomic environment. Within this policy perspective, the format of central bank policy should integrate the frameworks of monetary and financial system stability
- The basic format of monetary policy in emerging markets should be set to make price stability the key element underlying the monetary policy response. From a tactical level, however, with emerging market economies characterized by undergoing general structural changes and macroeconomic fluctuations, an appropriate formula of monetary policy response should accommodate an element of flexibility; which is translated into a quality coordination between the central bank and the government.

It can be concluded that according to the F-ITF format, the substance of stability can be described in a broader consideration, not only the inflation-output growth trade-off in the short term but also financial system developments. As indicated, under F-ITF, the achievement of price stability is only necessary, not sufficient. To be sufficient, a regulatory framework in the financial sector should support the successful imple-

mentation of F-ITF (macroprudential policy framework). It consequently addresses one of the unfulfilled preconditions of successful ITF implementation, namely a healthy and efficient financial system. In this regard, macroprudential policy instruments are utilized to manage procyclicality and expedite monetary policy transmission.

In general, the feasibility of F-ITF should be in line with empirical findings from numerous studies providing firm justification that, in a broader sense, a monetary policy framework aimed at achieving price stability is relevant for a small open emerging economy with significant supply shocks. By adopting ITF-based monetary policy, the central bank has sufficient policy space to absorb a certain degree of negative crisis impacts, thus preserving economic growth.

Mishkin and Schmidt-Hebbel (2001) is a good reference as a success story of ITF implementation since 1990, which can also be found in many previous empirical studies. The successes of ITF summarized by Mishkin and Schmidt-Hebbel are as follows. First, ITF can help countries to lower inflation, although not in underdeveloped countries that do not implement ITF. Second, ITF can help lower and steer inflation expectations in the face of shocks to inflation. Third, ITF can help to lower output volatility in countries that implement it to a level approaching the performance of developed countries that do not apply the regime. A recent study by Daboussi (2014) investigated the effect of ITF on economic performance over the period of 1980-2012 in 53 developing countries, suggesting that the choice of ITF is beneficial for developing economies, consistent with past studies. The results for average inflation and inflation volatility are in favor of ITF. Countries that have adopted ITF have experienced significant economic growth volatility, which shows the challenge of monetary policy to confront the effect of shocks in the economy. However, in total, the results suggest that the effect of inflation targeting in developing economies will contribute effectively to achieve sound economic performance.

While the claims of the benefits of inflation targeting are sometimes disputed in empirical studies, McKibbin and Wang (2014) examine the economic performance of inflation targeting countries during the 2007-2012 global downturn compared to those without this policy. The baseline results show that inflation targeting works better than not target-

ing inflation for developed countries during downturns. The three metrics of inflation, GDP growth, and the unemployment rate show that developed countries with an inflation targeting policy are more insulated from the recessionary effects of the financial crisis compared to those who do not have the policy.¹² Meanwhile, the results for the inflation targeting emerging countries could not be more different to the results for the developed countries. This paper complements and extends much of the previous work on emerging countries finding that inflation targeting reduces inflation and inflation volatility compared to the non-inflation targeting counterparts.

3.3. Indonesia Monetary and Financial Stability Frameworks under Flexible ITF

1. Under ITF-based monetary policy, which was formally adopted in July 2005, the main priority of Bank Indonesia is to build credibility through the following actions (Juhro and Goeltom, 2015).
2. Bank Indonesia takes extensive steps to communicate the policy framework to the public through seminars and round-table discussions with bankers, academics, government officials, Bank Indonesia regional office officials and the media.
3. Communication is reinforced by quarterly policy announcements in order to establish consistency, a key prerequisite communicating inflation targeting policy. Success in building credibility will ensue only if the policy is clearly and consistently implemented in line with deviations of expected inflation from the target.
4. Decision-making processes within Bank Indonesia are strengthened as required by forward-looking strategy to determine monetary policy responses for achieving the inflation target. Overall macroeconomic conditions, the inflation forecast and monetary policy responses are assessed at each quarterly board meeting as the basis for deciding the BI Rate to attain the inflation target.
5. Regular press releases and press conferences are held to announce the decisions of the board meeting. These are supplemented with a

12 For developed countries, the effectiveness of inflation targeting during downturns is an important result, and in contrast to the many papers who find that inflation targeting does not make much difference to outcomes in normally functioning markets.

quarterly Monetary Policy Report presenting an overall assessment of macroeconomic, inflation and monetary conditions; the inflation forecast and the monetary policy responses necessary to keep inflation on track with the target.

6. Policy coordination with the fiscal authorities is being strengthened. The magnitude of influence from hikes in administered prices on inflation means that inflationary pressures can potentially be mitigated through regular consultation on proper timing for adjustments in administered prices.

Implementation of monetary policy is ultimately balanced between flexibility on one hand and credibility and transparency on the other. Within these bounds, some discretion will be required in order to address Indonesia's short-term problems. However, excessive flexibility – which could, for example, give rise to unclear changes in policy decisions – would undermine the credibility and policies of the central bank. Therefore, it can only be expected that consistent commitment and determined implementation will be essential to the realization of a more credible ITF.

Despite progress having been made since the crisis, the economy is still burdened by various constraints and problems. The main challenges confronting the Indonesian economy are maintaining stability amid rising global uncertainty and reducing unemployment and poverty through accelerated growth. In this regard, the challenge in monetary policy is to contain rising inflationary pressures without impeding economic growth. The question is whether or not a monetary policy framework aimed at achieving price stability, e.g. ITF, is still relevant. The answer is a resounding “Yes”.¹³

Although Bank Indonesia still sees ITF as a reliable monetary policy strategy for Indonesia, it needs to be enhanced by refining future ITF implementation strategy. There are two rationales underlying such enhancement. First, evaluations of ITF implementation in Indonesia have

13 Theoretically, an ITF policy framework oriented toward achieving low inflation and implemented with greater transparency is surely still relevant when the objective of monetary policy is to achieve price stability. Mishkin (2011), who holistically evaluated nine principles of monetary policy, including ITF, which had become a kind of consensus prior to the crisis, concluded “none of the lessons from the financial crisis in any way undermines the nine basic principles of the science of monetary policy”.

evidenced the need for a number of adjustments and refinements to ITF, which have been undertaken in line with conventional wisdom on monetary policy. In this case, there is justification for the need to implement a less rigid ITF (Flexible ITF) as an ideal format for the Indonesian economy (Juhro et al., 2009). Second, Indonesian economic performance during the GFC inspired confidence as to the aptness of ITF as a reliable monetary policy strategy for Indonesia. However, given the dynamics and complexity of the challenges faced, the framework requires further enhancements.

There are five principles of enhancement under unconventional wisdom of Flexible ITF:¹⁴

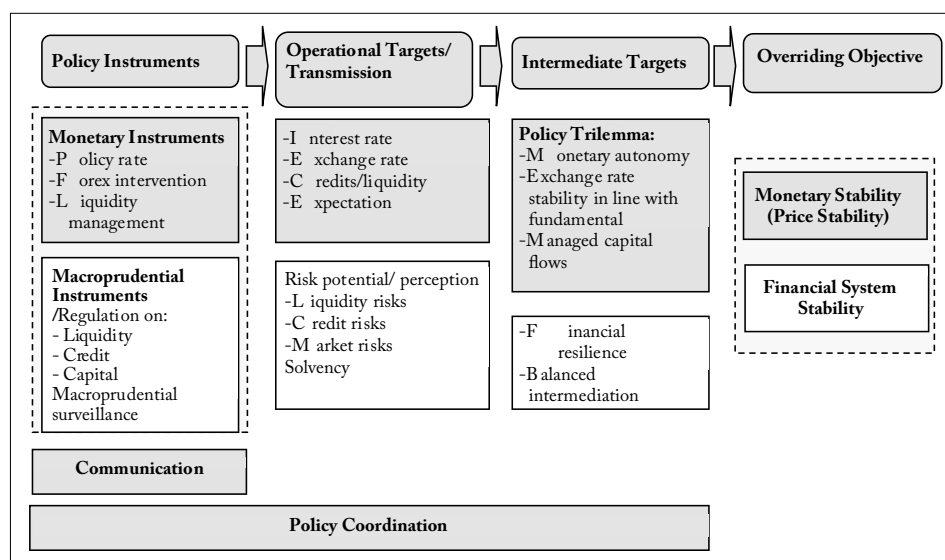
- a. Continuing the adherence of policy framework to an inflation target as the overriding objective of monetary policy. The main characteristics of ITF will remain; e.g. preemptive, independent, transparent and accountable policy implementation.
- b. Integrating monetary and macroprudential policy. Appropriate monetary and macroprudential policy integration is required in order to buttress monetary and financial system stability.
- c. Managing the dynamics of capital flows and exchange rates. In supporting macroeconomic stability, coordinated implementation of a policy instrument mix must ultimately be part of an important strategy for optimally managing the monetary policy trilemma.
- d. Strengthening policy communication strategy as part of the tool chest of policy instruments. Policy communication is no longer practiced purely for the sake of transparency and accountability; it is now regarded as a valuable monetary policy instrument.
- e. Strengthening Bank Indonesia and government policy coordination. Policy coordination is crucial, given that inflation stemming from the supply side creates most inflation volatility.

14 It was shown that the post-GFC monetary policy framework in Indonesia is, in general, characterised by 'enhanced' or flexible ITF. According to flexible ITF, the monetary policy framework continues to adhere to an inflation target as the overriding objective. The main characteristics of ITF remain, namely that the inflation target is announced publicly and that monetary policy is forward-looking, transparent and clearly accountable. However, ITF is implemented in a more flexible manner, in the sense that Bank Indonesia must not only look at the inflation target merely in terms of policy formulation but also consider a number of other factors, including financial sector stability

Therefore, under Flexible ITF, feasibility in policy mix implementation can be achieved through, amongst others, additional macroprudential instruments in addition to monetary instruments, which should reinforce one another. While monetary instruments will be utilized to influence monetary variables, such as interest rate, exchange rate, credit and expectations, macroprudential instruments will be utilized mainly to manage risk potential or perceptions on financial markets. In connection with measures for averting potential policy conflicts, it is important to prioritize policy objectives by setting price stability (inflation) as the overriding objective.

Enhancement of the monetary framework under flexible ITF, by means of a monetary and macroprudential policy instrument mix, is described below (Figure 8).

Figure 8. Monetary and Macroprudential Policy Mix Framework under Flexible ITF



Source: Bank Indonesia

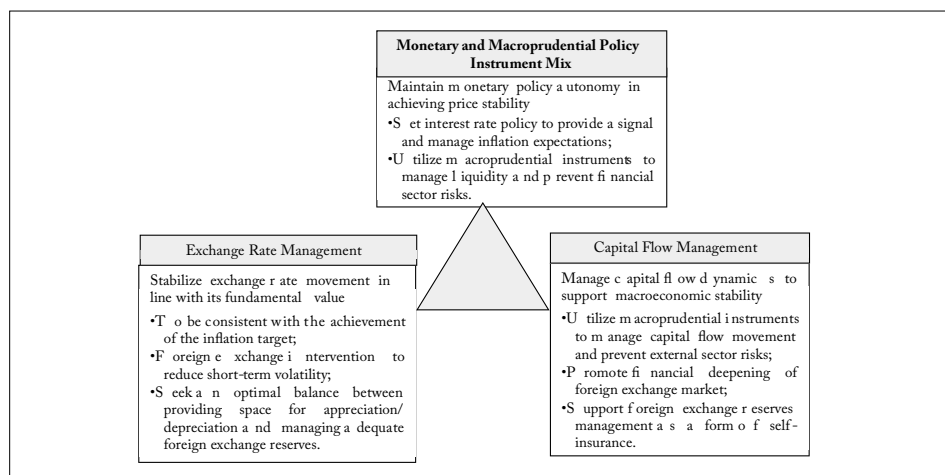
i. Trilemma Management under Monetary Stability Framework

Amidst widespread global uncertainty, the primary goal of monetary policy is to strike the right balance between mitigating the downward risks in domestic economic growth arising from the global economic downturn

while ensuring stability in the medium-long term. This remains a challenge as heightened uncertainty regarding near-term global economic prospects and loose monetary policies as well as unresolved fiscal and banking-sector problems in the developed world are likely to keep international capital flows volatile in a two-way direction. Meanwhile, greater domestic economic integration with the global economy, coupled with intense foreign capital flows and exchange rate dynamics, has increased the complexity of monetary management. To confront these issues, the choice of monetary policy strategy has become how to transform the impossible trinity into a possible trinity. The concept of a possible trinity can be expressed as an intermediate solution that avoids volatile swings in the exchange rate, controls excessive short-term capital inflows and reinforces independent monetary policy (Palley, 2009).

In this regard, for the case of Indonesia, to manage the monetary stability framework is indeed to manage the monetary policy trilemma, namely achieving the three intermediate goals of: (i) maintaining monetary policy autonomy in achieving price stability by utilizing a monetary and macroprudential policy (instrument) mix; (ii) stabilizing exchange rate movements in line with its fundamental value by employing exchange rate management; and (iii) managing capital flow dynamics to support macroeconomic stability by implementing capital flow management.

Figure 9. Monetary Policy Trilemma Management



Source: Bank Indonesia

Monetary policy complexity stemming from the interest rate can partially be resolved by quantitatively applying tighter monetary policy by raising the reserve requirement. In addition, macroprudential policy aims to avoid financial risks, such as asset bubbles and excessive credit growth, which could trigger potential financial system instability. This type of macroprudential policy is effective if banks can intermediate the capital flows. Nevertheless, if the capital flows emanate directly from unregulated sectors, such as direct loans from the private sector, measures to control capital inflows are another option, for example by limiting private loans.

In terms of the exchange rate, the rupiah should be managed to remain flexible and not only to provide space to appreciate/depreciate but also avoid being misaligned with economic fundamentals as this will endanger macroeconomic stability. Consequently, Bank Indonesia's presence is required on the foreign exchange market to ensure that the rupiah does not deviate with excessive volatility. Of course, this option is no longer available if the rupiah becomes overvalued. Simultaneously, efforts to accumulate foreign exchange reserves are vital as a form of self-insurance considering that short-term capital flows are particularly vulnerable to the risk of sudden reversal.

Regarding capital flows, by continuing to adhere to a free foreign exchange regime, macroprudential measures also consist of policy options designed to reduce excessive short-term capital flows, which could potentially lead to financial risks from the external side. Such measures have been introduced by Bank Indonesia through regulations that require investors to hold SBI (Bank Indonesia Certificates) for a minimum period of six months. This policy has helped diversify foreign portfolio capital flows and extend the duration of SBI, which consequently promoted financial market deepening, especially the foreign exchange market.

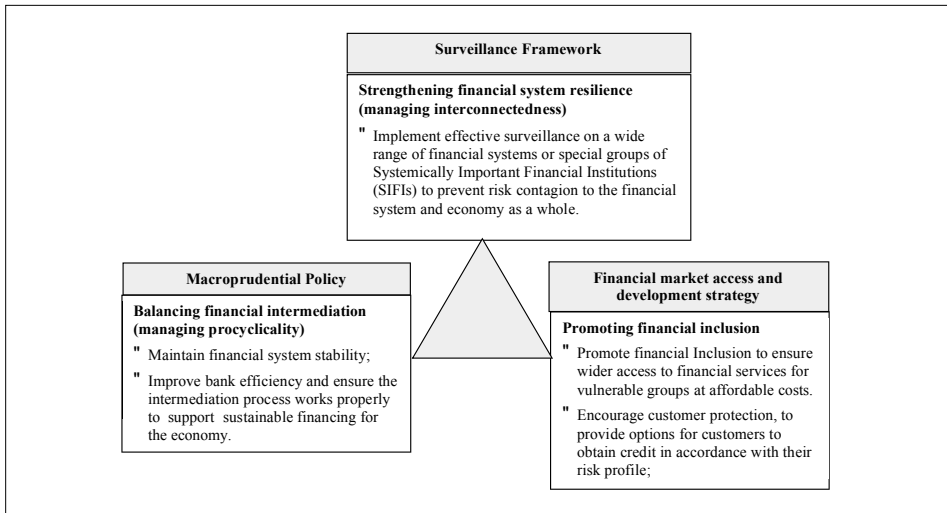
The coordinated implementation of a policy instrument mix is ultimately part of an important strategy to manage the monetary policy trilemma in the current climate blighted by ubiquitous uncertainty. Coordination is critical, not only to address sources of external and internal imbalances, but also to optimally manage the impact of monetary policy, while avoiding overkill and mutual exclusivity. Within that policy perspective, the achievement of macroeconomic stability is not only tied to mon-

etary stability (price stability) but also to financial system stability. Therefore, central bank policy formulation should simultaneously evaluate the strategic role of monetary policy and the financial system.

ii. Financial Stability Framework

In line with the monetary stability framework, the aim of the financial stability framework is to achieve a broader sense of financial system stability, namely (i) strengthening financial system resilience (managing inter-connectedness) by utilizing a sound surveillance framework; (ii) balancing financial intermediation (managing procyclicality) by utilizing macroprudential policy instruments; and (iii) promoting financial inclusion strategy by ensuring broad financial market access and development.

Figure 10. Financial System Stability Framework



Source: Bank Indonesia

Apart from serving as an anchor for macroeconomic stability, Bank Indonesia continues to promote financial sector competitiveness, especially the banking sector. Bank Indonesia will continue to pay particular attention to policies that facilitate the banking system in adjusting to a competitive environment, while ensuring continued systemic soundness, promoting efficient risk management and ensuring a desirable role as effective

financial intermediaries.

The banking industry must continue to be encouraged to improve its resilience, efficiency and role in intermediation. Broadening public access to affordable banking services through financial inclusion is part of strengthening the intermediation function. The financial inclusion program must be implemented through the supply and demand sides. From the supply side, expanding access to affordable banking services and making banking products available that meet the needs of low-income are imperative. In this regard, going forward, Bank Indonesia will continue to broaden access to banking services by way of non-conventional measures through the use of information technology, telecommunications and agent cooperation, otherwise known as branchless banking or mobile payments. Through this strategy, banking services will reach every strata of society without the physical presence of a brick-and-mortar branch office. In Indonesia, there is ample room to further boost banking efficiency (efficiency space). On the flip side of the coin, however, this also creates policy space to reduce the cost of doing business. Moreover, by broadening public access to financial services, financial institutions' role as effective financial intermediaries can be ensured to promote inclusive growth.¹⁵

iii. Strengthening Policy Coordination to Advance Structural Reforms

The Asian financial crisis of 1997-98 taught us that macroeconomic stability offers no guarantee of sustainable economic performance, as long as economic infrastructure is fraught with weaknesses. Therefore, the authorities in Indonesia must strengthen policy coordination and apply an integrated macroeconomic strategy. Amongst others, the main thrust of the strategy is to strengthen domestic policy through improved monetary and financial stability, with the support of integrated structural reforms. Despite considerable debate on the immediate causes of the Asian financial crisis of 1997-98, there is broad consensus that the crisis was exacerbated by a number of structural weaknesses that developed in the economy long before the crisis hit. Unless those weaknesses are overcome, the prospect of

15 In Indonesia, there is a case to be made for a structural rise in financial intermediation given that the credit-to-GDP ratio, at around 36%, is relatively low compared to Asian peers.

a sustainable recovery will remain in jeopardy.

Therefore, Bank Indonesia should strengthen policy coordination with the Government to accelerate structural reforms. The acceleration of structural reforms should focus on several leading issues, including strengthening the capability of the manufacturing industry to improve economic competitiveness and expanding the financial base for sustainable development through financial market deepening. From a financial perspective, in line with its authority, Bank Indonesia will continue to strengthen policy strategy to deepen the financial markets through a number of measures aimed at improving financial market liquidity and efficiency, while promoting resilience and maintaining prudential principles.

Financial market deepening is a shared responsibility and should be undertaken through coordination between Bank Indonesia as the financial market authority, the Financial Services Authority (Otoritas Jasa Keuangan/OJK) as the capital market authority, the Ministry of Finance as the fiscal authority, financial market participants as well as other stakeholders. In addition, Bank Indonesia, in cooperation with related financial authorities, will complement policy strategy to deepen the financial markets with financial inclusion programs to expand access to finance for the unbanked and underbanked. From the standpoint of Bank Indonesia, financial system inclusiveness will reinforce the foundations of national financial stability through the diversification of risk. From a broader perspective, financial system inclusiveness will also open up access for the poor to formal economic activities and will further create greater space for the implementation of economic policies in order to gradually improve social welfare and sustainable economic growth.

IV. Implication Of Itf-Based Monetary Policy On Stability And Growth

By observing the development of several key macro indicators over the past decade, the ITF-based monetary policy framework in Indonesia was shown to work well. Nevertheless, the core policy issue cannot yet be concluded unless we assess the impact of ITF on the dynamics of price stability and economic growth as well. As many have already opined, Bank Indonesia's commitment to price stability in the post-crisis period has been challenged by the need to preserve growth momentum. This is not an easy

task because combating inflationary pressures has become increasingly complex due to the nature of inflation in Indonesia, which is often characterized by supply rather than demand shocks. Another challenge is public expectations, which tend to be backward looking in nature and contribute to keep inflation stubbornly high in Indonesia and difficult to reduce.

This section explores empirical exercises to answer the proposed questions: (i) can ITF-based monetary policy reduce the variability of inflation and economic growth; (ii) can ITF-based monetary policy increase policy credibility in reshaping inflation expectations; and (iii) does the GFC affect the role of output under ITF? Using quarterly observations ranging from the 1990s to the present day, the estimation employs a univariate exponential generalized autoregressive conditional heteroskedasticity (E-GARCH) method and a rolling regression on the New Keynesian Phillips Curve (NKPC).

i. Variability of Inflation and Economic Growth

From Figure 2 and Figure 3 of the first section, it can be seen that during the past two decades, the behavior of inflation in Indonesia is described by a unique characteristic where inflation lingers at a fairly high level. After the Asian financial crisis of 1997-98, average headline inflation (excluding crisis figures) still remained at around 8.7 percent. Even after excluding the influence of transitory shocks, the conclusion about high inflation in Indonesia remains unchanged, as reflected by average core inflation of 8.2 percent. However, after the implementation of ITF, headline and core inflation tended to decline to around 6.2 percent and 5.2 percent respectively. Meanwhile, we also see a positive outlook in terms of economic growth after the implementation of ITF, whereby growth is relatively high, posting a figure of around 6.0 percent on average compared to the 6.4 percent average growth during the pre-ITF period (excluding crisis figures).

In this section, we try to find an empirical comparison of the variability (volatility), e.g. conditional standard deviation, of inflation and economic growth using univariate E-GARCH(1,1) method following Nelson (1991) with a mean equation as follows:

$$X_t = \alpha + \beta X_{t-1} + u_t$$

$$u_t | \Omega_t \sim iid N(0, h_t)$$

$$\log(h_t) = \gamma + \zeta_1 \left| \frac{u_{t-1}}{\sqrt{h_{t-1}}} \right| + \xi_1 \frac{u_{t-1}}{\sqrt{h_{t-1}}} + \delta_1 \log(h_{t-1})$$

, where X_t is the related variable, i.e. core inflation and GDP growth.¹⁶

Here we use quarterly data of core inflation (Core_inf) and GDP growth (Growth) of Indonesia from 1991 to 2013.

The estimation result is shown in Table 3 and 4. The first part of the tables shows the estimation result of mean equation, and the second part shows the estimation result of variance equation, whereas the last part is diagnostic test. The result suggests that the E-GARCH(1,1) model is representative in explaining the variability of core inflation and GDP growth. Their adjusted R-squared are high enough and the ARCH LM test shows just a little evidence of remaining ARCH effects.

Table 3. Estimation Result – Core Inflation

Dependent Variable: Core Inflation (CORE_INF)	
Independent Variable	Coefficient
Mean Equation	
C5	.15***
AR(1) 0	.89***
Variance Equation	
C(3)	-0.04
C(4)	0.22
C(5)	-0.75*
C(6)	0.92***
Diagnostic Test	
T-Dist. DOF2	.18***
Adjusted R-Squared0	.76
ARCH LM Test	0.88

¹⁶ Parameter are forced to be positive. Allows for an asymmetric effect to positive and negative shocks.

Table 4. Estimation Result – GDP Growth

Dependent Variable: GDP Growth (GROWTH)	
Independent Variable	Coefficient
Mean Equation	
C5	.73***
AR(1)	0.76***
Variance Equation	
C(3)	-0.61***
C(4)	0.84***
C(5)	-0.20
C(6)0	.94***
Diagnostic Test	
T-Dist. DOF4	.77
Adjusted R-Squared0	.77
ARCH LM Test	0.75

The result shows that both core inflation and economic growth are more stable during the ITF period. We see also that the variability of core inflation follows a declining trend during the ITF period to almost half that of the pre-ITF number, posting an average conditional standard deviation of around 1.7 percent (Figure 11). Headline and administered prices variability are also lower in the ITF period compared to the pre-ITF period. Similarly, the result shows that economic growth variability declines during the ITF period to almost one-third that of the pre-ITF number, with an average of 0.7 percent (Figure 12).

Figure 11. Conditional Standard Inflation Deviation

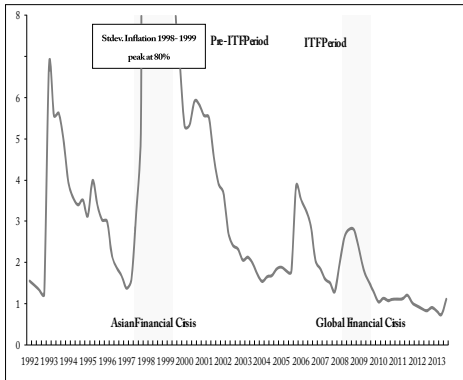
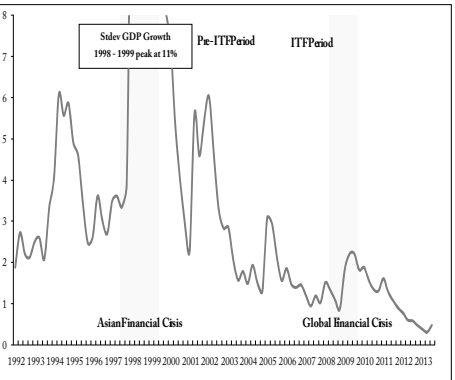


Figure 12. Conditional of Core Deviation of GDP Growth



It seems that in relative terms, the average decline in output variability is higher than that of core inflation variability. These results imply that in general, the implementation of ITF in Indonesia pays sufficient attention to output stabilization. As indicated earlier, under ITF, there is sufficient flexibility allowing Bank Indonesia to make use of the short-run trade-offs between output and inflation. With those policy and practical perspectives, medium-term price stability can be maintained while still allowing some degree of short-run inflation variability, thus providing space for lower output variability.

ii. Inflation Expectation Formation and the Role of Output

Although inflation in Indonesia is still relatively high, its persistence has declined since the Asian financial crisis of 1997-98. Lower inflation persistence is usually associated with less reliance on the past inflation (backward-looking behavior) in the pricing mechanism and more forward-looking price-setting behavior. This behavior could be hypothesized as an improvement in terms of Bank Indonesia's credibility in guiding market expectations in line with BI's inflation target. Here we test the hypothesis using a simple empirical method of rolling regressions (24-quarter window) on the NKPC of a small open economy (Gali, 2008):

$$\pi_t = (1 - \alpha)\pi_{t-1} + \alpha\pi_{t+1} + \beta Ygap_{t-1} + \gamma Zgap_{t-1}$$

where π_t is the inflation rate (yoy), π_{t-1} and π_{t+1} are the lag and lead of inflation (respectively), $Ygap_{t-1}$ (t-1) is the output gap lagged by one quarter and $Zgap_t$ is the real exchange rate gap. Using this method, the coefficient alpha is designed to capture the changes in weight distribution between the backward-looking and forward-looking behavior of inflation over time.

The results show that there is an increasing trend in the value of alpha, starting from slightly below 0.2 at the beginning period to around

0.5 at the end (Figure 13).¹⁷ This significantly indicated that there is a shift towards more forward-looking price setting behavior.¹⁸ The finding is also in line with other observations on a similar subject, namely, Alamsyah (2008) using the NKPC model found that inflation persistence after the Asian financial crisis of 1997-98 is declining, and Harmanta (2009), using the Kalman Filter approach, found that Bank Indonesia's credibility has improved since implementation of ITF.

The argument that Bank Indonesia gains policy credibility is supported by a recent assessment showing that since ITF implementation, Bank Indonesia's monetary policy predictability has been quite good amidst serious policy transmission impairments. The study shows that the portion of financial market participants correctly predicting the monetary policy stance was around 80 percent. This level is comparable with that of other Asian countries implementing ITF, which vary from around 70 percent to 85 percent. Another observation also suggests that the existence of the BI Rate is sufficiently credible as an anchor of future inflation expectations. Changes to the BI Rate have a positive impact on changes in inflation expectations (Juhro and Goeltom, 2012).

In addition to inflation expectation formation, estimation on the NKPC reveals interesting findings on the role of output (Figure 14). The earlier indication of a flattening Phillips Curve is empirically justified, namely that inflation is less responsive to domestic demand, and rather, it is relatively more affected by a supply response, such as temporary cost-push shocks related to the exchange rate, commodity price movements or weather anomalies. While the role of output in determining inflation increased in the early stage of ITF (especially during the GFC), it has declined in the post-GFC period. This finding also strongly supports the

17 The challenges in which growth momentum and employment sometimes are at risk mean that Bank Indonesia will face scrutiny for the consistency and credibility of its policies. This is a reasonable view. Before the Asian financial crisis of 1997-98, the monetary policy response in Indonesia tended to be biased towards a discretionary approach. This manifested in an unclear pattern of policy responses using base money as the operational target. As a result, disinflationary policy failed to gain credibility and therefore proved ineffective in building forward-looking public expectations. This contributed to keeping inflation in Indonesia stubbornly high and difficult to reduce.

18 Earlier studies by Bank Indonesia confirmed the importance or predominant role of adaptive expectations in the behavior of economic actors. In this case, adaptive behavior was reflected in a relatively large number of economic actors using actual or last period inflation as the main determinant of their inflation expectations.

previously mentioned argument that by adopting ITF, Bank Indonesia has sufficient policy space or more flexibility to absorb a certain degree of negative crisis impacts.

Figure 13. NKPC’s Forward-Looking Parameter

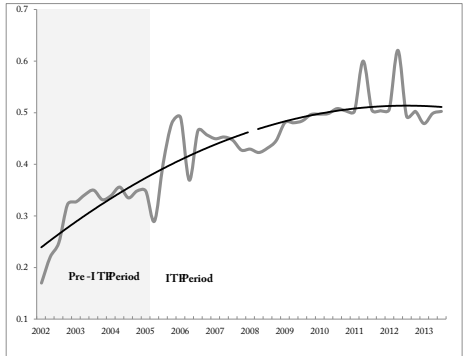
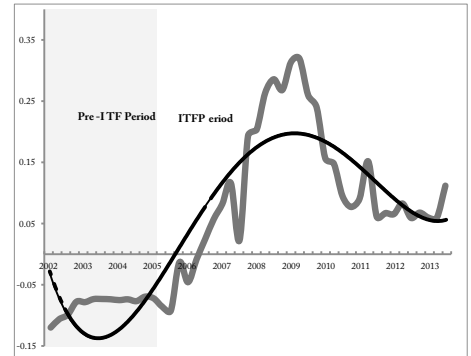


Figure 14. NKPC’s Output Gap Parameter



V. Conclusion

This paper provides a significant contribution on the discussion of post-GFC central bank policy strategies in the context of a small open economy. It generally addresses the best central bank policy strategies to promote sustainable economic growth and specifically provides a firm justification on a positive implication of ITF-based monetary policy on inflation and output growth. The paper shows that in the midst of global economic uncertainty, the policy configuration to maintain sustainable economic growth should be aimed to strike an internal and external balance. Under a sustainable growth model, this policy configuration implies that policymaking cannot abandon export promotion strategies, while building up the domestic demand side of the economy. In this case, the role of central bank policy strategy should be directed to integrate monetary and financial system stability frameworks. While a monetary and macroprudential policy mix is necessary given the multiple challenges facing the economy, structural policies are sufficient to address medium-long term issues. At the operational level, policy responses in the monetary, financial and real sectors should be implemented properly by considering their mag-

nitude, timing and sequencing. Consequently, strengthening policy coordination amongst policy authorities is essential.

The paper also shows that post-GFC monetary policy framework enhancements in Indonesia are, in general, characterized by flexible ITF. In this regard, the policy framework continues to adhere to an inflation target as the overriding objective of monetary policy. The main characteristics of ITF will remain, namely that the inflation target is announced publicly and that monetary policy is forward-looking, transparent and clearly accountable. However, ITF implementation is more flexible, implying that Bank Indonesia must not only look at the inflation target merely in terms of policy formulation, but also consider a number of other factors, including financial sector stability as well as the dynamics of capital flows and the exchange rate.

Such enhancements imply that the coordinated implementation of a policy instrument mix is ultimately part of an important strategy to optimally manage the monetary policy trilemma in the current climate blighted by widespread uncertainty. A transformation in the framework will consequently have a number of significant implications on the institutional mandate of Bank Indonesia. The paradigm that monetary policy requires the support of macroprudential policy has the consequence of being unable to separate monetary policy from macroprudential policy in order to ensure effective implementation. To that end, strengthening policy coordination between Bank Indonesia, the Government, and other related policy authorities to maintain monetary and financial system stability is indispensable.

Last but not least, stylized facts concerning the stability-growth nexus show a notable feature of Indonesian monetary policy in the midst of crises, namely gradual disinflationary policy in support of sustainable economic growth. This is consistent with a major empirical finding of this paper, namely that by adopting ITF-based monetary policy, Bank Indonesia has sufficient policy space to absorb a certain degree of negative crisis impacts, thus preserving economic growth. This finding, amongst others, provides a firm justification that, in a broader sense, a monetary policy framework aimed at achieving price stability is relevant for the Indonesian economy. To this point, strengthening policy coordination between Bank

Indonesia and the Government in order to advance structural reform is sufficient to drive sustainable growth in the medium–long term.

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Comparative Analysis of Profit Shares and Interest Rates

Musa GÜN¹

Abstract

Within this study, profit shares and interest rates that were paid for various terms in Turkish Liras (TL), American Dollar (USD) and European Currency (Euro) by traditional and participation banks in Turkey, between January 2002 and May 2015 are comparatively analyzed. In order to find out differences between mentioned banks, t-test is used for empirical analyses.

As a result of these analyses it is found that profit share means in TL which traditional banks paid to their depositors are higher than the interest rates that are paid by participation banks. It is observed that so called difference is statistically significant. However; it is determined that participation banks distributes higher profit shares to the participation accounts in USD and Euro than deposit accounts' interest rates but no statistically significant difference was observed.

Keywords: *Interest Free Banking, Participation Banking, Profit Shares, Deposit Interest Rates, Behavioral Finance.*

Jel Classification : *G02, G14, G20, G21*

I. Introduction

Petro-dollars that accumulated in Gulf Countries which are rich in petrol, because of the increase in petrol costs during 1970s, are the main

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financial reason for the incidence of Islamic Banking which is accepted as Participation Banking in our country. Earnings are aimed to be determined by the banks which will be run in Islamic rules, instead of the banks which are run according to the conventional interest system. As a result of the studies done by Islamic Scholars, first interest free bank Islamic Participation Bank which gathers and distributed funds according to the profit and loss participation basis and whose one of the co- founders is Turkey, was founded in December 7th, 1973.

Interest Free banking was started to be found in Turkey well into 1980s. It was aimed to increase foreign currency inflow and export, to control inflation, have economic expansion and to have stronger economic structure as a result of stable economic decisions. In consequence of these decisions, studies for Islamic Banking in order to bring the interest free savings of investors from Gulf Countries were started.²

The development of Interest Free Banking in our country is affected by the idea of gaining inactive mattress savings of the individuals who do not want to deal with interest because of their religious precisions in to the economy in along with the economical needs.

In this context, legal aspects of Special Finance Foundations which are run according to the interest free basis, are formed with the 15 December 1983 dated and 83/7506 numbered executive order. In 2005, with the 5411 numbered Banking Law Special Finance Foundations name was turned in to Participation Banks. What is more, with the 07 / 11 / 2006 dated and 26339 numbered "Regulations about Deposit and Participation Funds Subject to Assurance and Insurance Funds Receivable Premiums by Saving Deposits Insurance Funds" that was published in the official gazette, parts of the deposits in Turkish Lira, Foreign currency and precious metal that are up to 100.000 Turkish Liras are taken into the deposit insurance. Thus, deposit insurance in classical banks are started to be performed in participation banks.

5 banks conduct activity in sector by the year of 2015 as a result of Bankrupt (İhlâs Finance Foundation), merger (Association of Turkey Finance Name and Family Finance and Anatolian Finance) , new foundation

2 Interest-free bank, Islamic bank and Participation banks used in study indicate the same thing. Conventional bank, traditional bank, deposit bank, classical bank, commercial bank and interest bearing bank terms are used behalf of each other.

(Ziraat Katılım) (Albaraka Turk Participation Bank Inc., Kuveyt Turk Participation Bank Inc., Türkiye Finans Participation Bank Inc., Bank Asya Participation Bank Inc.. and Ziraat Participation Bank Inc.)

According to the Participation Banks Association of Turkey, share of the participation banks in total banking sector is 6% in gathered funds, 5.4% in used funds, 5.2% for total active magnitude, 4.4 % for net worth magnitude and 3.2 % for net profit.

II. Participation Banks Process and Literature Review

In Interest free system, participation banks gather savings of investors under deposit and transactional accounts by meanings of interest free principals and use these funds in pursuant of profit-loss principals with the methods like profit-loss participation and leasing (Participation Banks Association of Turkey)

Profit share means distributing profit that is gained from capital used in economical activities at rates determined in expiry dates. 80% of the gained profit at the end of term is distributed to account holders according to their participation rates and residual 20% is taken as authority share. In profit share based interest free system, how much will be gained at the end of term is not significant and what is more supported projects can also end with loss.

While earnings are determined according to the productivity of given projects in interest-free system, in interest bearing systems earnings which will be gained at the end of the term from capital is assumed when money is paid in. In other words, there isn't any assurance for a stable earning related to capital or from capital in participation banks. Account holders are a party to the profit and loss which occurs as a result of managing the funds by the institutions. There is a portfolio diversification on the basis of sector and fund users for fund usage (Büyükdenez, 2000).

Participation banks who give banking services in accordance with the Islamic rules, can perform lots of banking services. In respect to this, participation banks are alternatives for traditional banks. In other words participation banks do not perform some transactions which classical banks perform based on interest. In this context participation banks are

institutions that complete traditional banks and gives depth and instrumental variety to the finance sector (Özulucan and Deran, 2009).

There are lots of academic studies where participation and traditional banks are compared. When these studies are worked, it can be seen that each study have its own results. Studies generally consist of comparisons between banks' performances.

However, profit share rates of Islamic banks are nearly equal to the interest rates paid to the accounts in classical banks and it is known that these issue is a serious problem for the participation banks (Raphaeli, 2006 and 2009; Foster, 2009; Singh and Gupta, 2013). In scope of this study, the relation between profit shares and interest rates are researched and the difference is examined whether it is statistically significant or not.

Operating in the same sector is shown as a main reason for the closeness between the profit share rates that are paid for accounts in participation banks and interest rates that are paid to the deposit accounts in other banks (Participation Banks Association of Turkey, 2011). Interest and profit rates are determined by the market, so in the markets where competition is seen, profit and interest rates have to be nearly equal as a result of the competition. Under the conditions where profit rates are determined by real market economy, it is not possible to gain profit other than the normal profit that is determined by market. For instance; in case the profit share rates of the participation banks are higher than interest rates of commercial banks, individuals who will use funds will choose other banks instead of participation banks and this will make collected funds inactive. In an opposite situation because of the rates are low, investors who want to evaluate their funds can verge to the other banks and as a result participation banks may face with loss. As a result, competition conditions of the market requires a closeness between profit and interest share rates.

What is more, main difference between participation and other banks is that while interest rates are determined during paying money in the traditional banks, this rate is not determined during paying money in participation banks. In participation banks total funds are evaluated and the gaining is shared.

In the study of Iqbal (2001), where he compared conventional and Islamic banks' profit and liquidity performances in Bahrain, Saudi Arabia,

Jordan, Egypt, United Arab Emirates, Malaysia, Kuwait and Turkey between 1990-1998 years; he found out that Islamic banks are more effective than traditional banks in terms of profit and liquidity performances.

In another study Samad (2004) compared liquidity and profit performances of Islamic and Commercial banks work in Bahrain between 1991-2001 years. As a result, he indicated that there is not an important difference between liquidity and profit performances of Islamic and commercial banks.

According to the study results where commercial and participation banks' performances are compared in United Arab Emirates between 2006-2007 years, it is found that Islamic banks have higher profit and liquidity performance rates than commercial banks (Kader and Asarpota, 2007).

In the study where the differences between performances of Islamic banks and banks performs transactions with interest in Bangladesh between years 2004-2008 were searched; comparisons in terms of liquidity, paying loans and profit were done. Results of the study showed that banks that perform transactions with interest are more effective than interest free banks (Safiullah, 2010).

Ashraf and Rehman (2011) compared the entity structures, liquidity rates, credit risks and profit shares of the interest and conventional banks in Pakistan between years 2007 and 2010. Results of the study showed that classical banks are more effective than Islamic banks. In another study related with Pakistan, Jaffar and Manavri (2011) viewed performances of Islamic and traditional banks between years 2005-2009. Results showed that interest free banks perform better in terms of capital adequacy, liquidity than classical banks whereas classical banks perform better in terms of profitability. What is more, it is found that there isn't any important difference between Islamic and classical banks in terms of entity quality. In a similar manner Usman and Khan (2012), evaluated Islamic and classical banks' performances in Pakistan comparatively. Results of the study points out that interest free banks have higher developmental potential and profitability rates than classical banks. However, classical banks have higher liquidity rates than interest free banks.

Loghod (2010) compared liquidity, profitability and capital structure rates of Islamic and commercial banks function in Saudi Arabia, Ku-

wait, Bahrain, Qatar and Oman. Results of this study during 2000-2005 showed that there is not any statistically significant difference between Islamic and commercial banks' performances. In another study where performances of Islamic and traditional banks active in Gulf Arab States were compared, Siraj and Pillai (2012) searched the term between 2005 and 2010. Analysis results showed that deposit increase rates, liquidity rates and profitability rates of traditional banks are lower than Islamic banks.

In the study where Ryu and others (2012) compared profitability and risk rates of classical and Islamic banks in Malaysia between years 2006-2010, they found out that risk rates of Islamic banks are lower but their profitability rates are higher than conventional banks. On the other hand, it shows that Islamic banks have more stable and steady structure especially during crisis periods.

When we look at the studies related to Turkey;

Alpay and Hassan (2007) compared Islamic and traditional banks' performances with Data Envelopment Analysis. In the analysis, 4 Islamic banks and 49 traditional banks' financial tables between 1990-2000 years were viewed. . Study results showed that while Islamic banks have higher performances, their cost and gaining activities are also in a better position than other banks. In a similar manner, Arslan and Ergeç (2010), in their studies related to 2006 - 2009 years found out that Interest free banks show better performance than other banks.

In the study where the distinction between commercial and Participation banks in terms of their financial characteristics between 2003-2007 years is questioned, Parlakkaya and Çürük (2011), determined that participation banks have higher profitability and risk rates than other banks. On the other hands, it is showed that traditional banks are in better positions in terms of their entity qualities and liquidity values.

Er and Uysal (2012) viewed activity levels of traditional and interest free banks in Turkey between 2005 and 2010 years. Analysis results showed that during the investigation period participation banks were more active than traditional banks.

In the study where financial performances of traditional and interest free banks in Turkey were compared for years 2005-2011 Doğan (2013) measured performances of traditional and interest free banks by using li-

quidity, profitability, load payment and risk rates. Study results where t-test is used in order to determine performance differences showed that interest free banks have higher load payment ability, liquidity and capital efficiency rates and have lower risk rates.

In the study where financial performances of traditional and participation banks in Turkey for 2006 - 2011 years are compared, liquidity, income/outcome, profitability and productivity rates are used. Research results showed that profitability of the traditional banks are relatively higher than participation banks for 2008 - 2011 years. In other ways for 2006 - 2007 years, it is determined that profitability rates gained from investments of traditional banks are lower than participation banks (Ayrıçay and Demir, 2014).

Bilge (2015) tried to explain effects of global economic crisis in 2008 to the banking sector and development of participation banks in World and Turkish Banking sector during this financial crisis. In the study where conventional and interest free banks' performances are compared during this global crisis, it is seen that interest free finance practices are more successful in terms of performance and gainings. Interest free banking sector is more advantaged during crisis periods because risky financial products are forbidden and banking investments in these risky products are forbidden too. During crisis period where banks have serious capital loss and damages, developments in interest free banking is an indicator of this.

Buğan (2015) measured activity performance of Participation and traditional banks in Turkey for 2006 - 2012 years by using data envelopment analysis. According to this study that aimed to determine whether the funds are used more effectively or not in interest free banks than traditional banks, interest free banks have higher management skills and measurement activities. That is to say, participation banks use resources more effectively than traditional banks. What is more, it is seen that traditional banks cannot show enough success in functioning in an appropriate scale and gaining management effectivity especially during crisis terms.

Results of many studies (Viverita and Skully, 2007; Sufian, 2007; Mohamad et al., 2008; Johnes and Pappas, 2009; Bilal et al., 2011) give similar results with the studies above. Common results of the studies with regard to profit share can be summarized as Islamic banks have similar rates of profit shares with the interest rates that conventional banks pay for deposits.

III. Survey Data and Method

This study contains 161 months between January 2002 and May 2015 years. Study data means average interest rates of deposits by banks and profit share rates for participation accounts by participation rates. The rates consist of gross values.

Weighted average interest rates of the banking sector are calculated by relating deposit costs of deposit types on the basis of banks to the interest rates of each deposits on the basis of investor and making them yearly based. On demand and between banks deposits are not included. Data related to banking sector are gathered from Central Bank of Turkish Republic Data Delivery System.

Data about Participation banks were gathered from Participation Banks Association of Turkey (Albaraka Türk, Kuveyt Türk, Türkiye Finans and Bank Asya). Ziraat Participation is not included because of not having data yet. Profit share means of Participation Banks is calculated and used as average profit share distributed by Participation Banks in the study.

Aim of the study and main hypothesis is to find out whether a statistically significant difference between profit share and interest rates of participation and traditional banks that are paid to deposit and profit accounts in Turkish Lira (TL), American Dollars (USD) and European Currency (Euro). Hypothesis can be set like this;

H_0 : There is not any statistically significant difference between interest rates paid by banks and profit shares distributed by Participation banks.

H_1 : There is a statistically significant difference between interest rates paid by banks and profit shares distributed by participation banks.

Significance tests are made in order to test hypothesis. Hypothesis tests are techniques in order to find out if the data have statistically significant importance or statistically significant. T test is the most common method used in hypothesis tests. By doing T test, means of two groups are compared and it is found out that if the difference between groups is coincidental or statistically significant.

While determining whether the difference between two independent groups are statistically important or not, with the help of equation below by using T-test, hypothesis control is done (Sokal and Rohlf 1995, Sheskin 2003, Zar 2010).

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S_T^2 \left(\frac{1}{n_X} + \frac{1}{n_Y} \right)}} \quad (1)$$

S_T^2 value in denominator is the total variance in the equation and calculated as follows;

$$S_T^2 = \frac{(n_X - 1)S_X^2 + (n_Y - 1)S_Y^2}{n_X + n_Y - 2} = \frac{\sum d_X^2 + \sum d_Y^2}{(n_X - 1) + (n_Y - 1)} \quad (2)$$

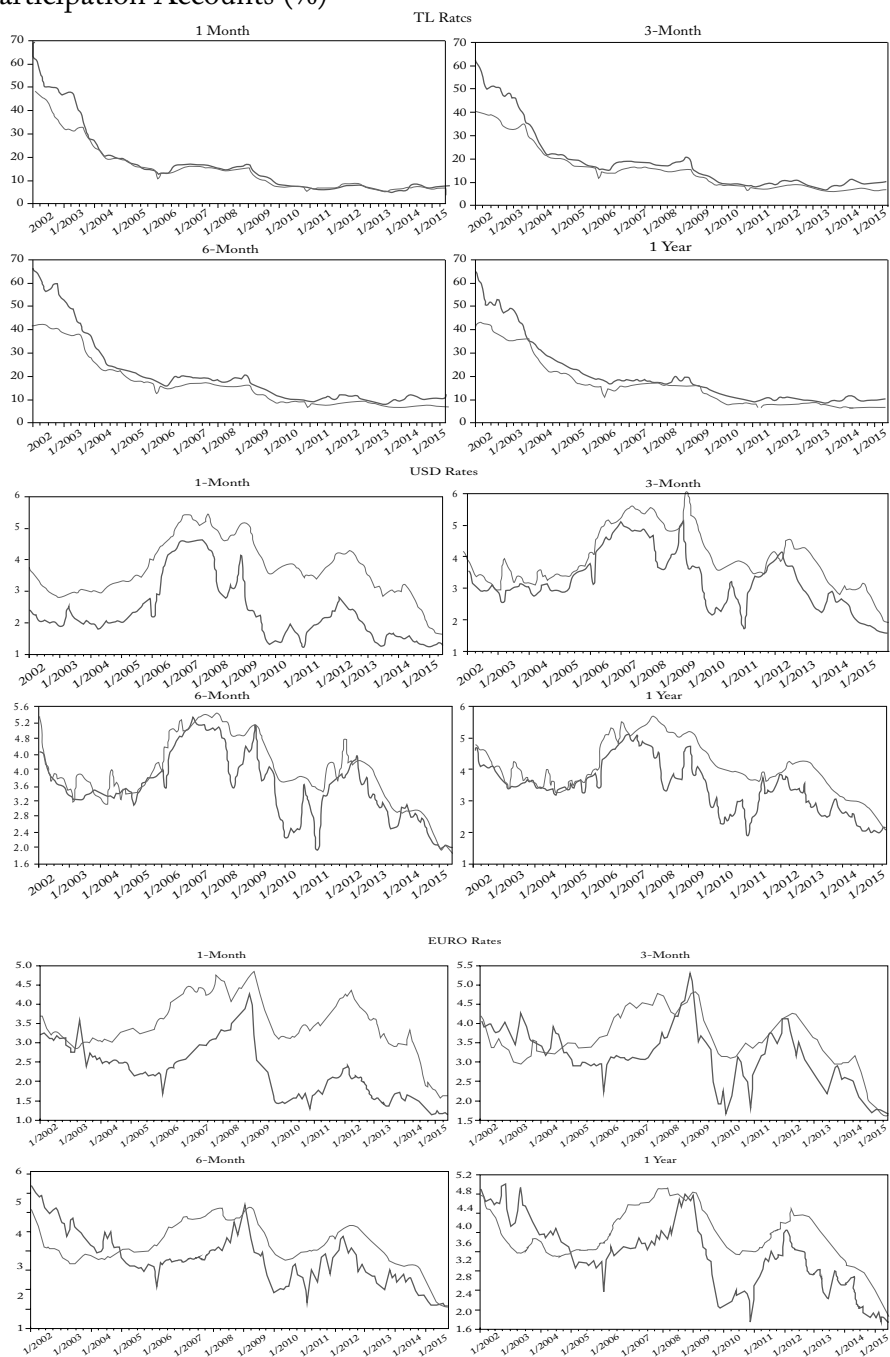
T test is used in order to find out whether the difference between interest paid by banks and profit shares distributed by participation banks is statistically significant or not. Confidence interval is determined as 95 % in the two-tailed hypothesis test. Besides statistical tests, monthly diagrams of profit shares and interest rates are shown and correlations between them were evaluated.

IV. Results

In scope of the study distributed profit share rates of Participation banks and deposit earnings of traditional banks were compared. Firstly, graphs related with these rates and correlations between different term rates are researched. In Graphic 1, average profit share rates and interest rates for 1-month, 3-month, 6-month and yearly terms in TL, USD and Euro are shown.

When the graphic is viewed it is seen that for TL, commercial banks' interest rates which are showed with blue, are higher than participation banks' profit share rates in all terms .However, a totally opposite situation is seen for USD and Euro. What is more, profit share rates have more stable structure than interest rates, while interest rates have more changeable structure.

Graphic 1: Profit Share and Interest Rates That Are Paid To Deposit and Participation Accounts (%)



* Blue lines represent the Commercial Banks rates. Red lines repre-

sent the Participation Banks rates.

Account owner who have funds in Participation banks do not know how much profit or loss they will have from the beginning of term. Loss is possible at the end of term. On the other side, such uncertainty is beside the point for conventional banks. So, account holders in participation banks have higher risk. According to the modern finance theory, having higher risk is explained by higher gaining rate. However, despite the gaining of the account holder related with participating bank is uncertain, the average gaining rates of the investors are lower.

In this context if Modern Portfolio Theory of Markowitz (1952) is have to be summarized;

- Individuals give investment decisions according to only risk and expected gainings. Gainings are measured as average expected gainings of the entities that forms the portfolio, for risks, portfolio gainings' variance is used.
- Individuals' aim is to maximize utility function. All of the investors act rationally.
- Investors' expectations about risk and gainings are homogeneous, that is, investors prefer higher gainings in a significant risk level.
- Investment scopes of individuals are identical
- Capital market is active, hence, information reflects on the prices fast and correctly. Market is always balanced and there isn't any limitation on information flow. In other words, investors can reach up the information simultaneously.

Traditional financial approaches accept investors as individuals who analysis data, aim to have maximum utility level and take over rational behaviors. So, related with the risk of participation banks, investors' gainings must be higher. Traditional models which are not sufficient to explain individuals' rationalization gave its place to a new scientific approach named Behavioral Finance.

Behavioral finance argues that most of the investors use simple methods instead of complex analysis while taking decisions about their investments and because of various reasons they take action without lateral thinking. Investors decide fast, without thinking analytically because of

ambition, sometimes courage, or sometimes environmental factors, social statutes. So, it is a mistake to reduce decisions of investors who saves in Participation banks to risk and gaining dimensions. The preferences of the investors who do not use traditional banks especially because of the religious interest concerns are important explanations in this aspect. In the study where the factors effect preferences of Islamic banks in England (Omer, 1992) showed that because of excessive religious precisions, individuals prefers banks function in accordance with Islamic rules.

Besides the profit - cost comparison, factors like service quality, social suggestions are effective for investors to choose Islamic banks. In study on Malaysia (Marimuthu et al., 2010) it is seen that friend /relative offers and service distribution factors are effective in preferences for Islamic banks.

Results of Lee and Ullah's (2011) study in Pakistan showed main reason behind investors choose Islamic banks is that the function in accordance with the sharia laws.

There are many studies which show interest-free banks are preferred because of religious reasons. (Erol and El-Bdour, 1989; Haron vd.,1994;, Metawa and Almosawi, 1998;, Naser et al.,1999;, Dusuki and Abdullah, 2007; Amin, 2008; Amin et al., 2011; Nawi et al., 2013; Ashraf and Sekhon, 2015)

Studies related to Turkey for preference reasons of Interest-free in other words participation banks shows similar results with the ones done internationally.

In the study where Karakaya and Karamustafa (2004) aimed to determine variables behind bank preferences of investors in Turkey, it is found out that religion is the main factor that effects bank preferences. Other factors are entity image, family and friend suggestions sequentially. In aforementioned study, gaining rates is in the last place. In another study (Okumuş, 2005) it is again seen that Islamic factors are the most important ones in participation bank investors. Giving nearly all the services same with the traditional banks and close attention to the investors are other important factors in preferences of Participation banks.

In the study of participation banks in Turkey, Apil (2009) found out that, closer attention to the investors, participation banks' image and quali-

ty of the services determine preferences for participation banks. Other factors for preferences are religious precisions, family and friend suggestions.

According to the study done by Sarı (2010); reliability, transaction speed, effectivity, bank image, number of branches and locations, having low transaction fees, physical opportunities, knowledge of employees and closer attention to the investors are important reasons in preference of participation banks.

According to the analysis results of 217 participation bank investors in the study where preferences for participation banks in Bolu is researched by Özsoy et al. (2013); service-product quality is the main reason that effect preferences for participation banks. Personnel quality, bank image and trust, religious and social factors are listed as other factors for participation bank preferences.

Study findings where relational marketing practices' effects on investor loyalty is determined; showed that the bank's relational marketing practices have positive and significant effects on investor loyalty , as investors positive evaluation on bank's relational marketing practices increase their loyalty levels increase too (Gümüş, 2014).

When the graphics of Interest rates that are paid to deposit accounts in USD and Euro with different terms and profit share rates that are distributed to profit accounts (Graphic 1), the situation is totally opposite. While classical banks make investors gain more in TL, participation banks provides higher gaining rates for every terms in USD and Euro.

During the interviews with participation banks it is said that USD and Euro fund usage costs are higher than other banks and as a result of this gainings are higher and higher profit shares can be offered to account holders.

For example; For American Dollar, traditional commercial banks pay average 2.40 % interest for a monthly term while participation banks distribute 3.70 % profit share for the same term. It is seen that difference between rates decreases as the terms extends. For a 1-month term this difference is 1.30% while it decreases 0.28 % for 6-month term.

On the other hand, according to the correlational results of deposit interests and profit shares of TL, USD and Euro presented in Table 1, there are higher-up relations for each terms in TL. Correlation coefficients are higher than 0.90.

Table 1: Correlations between Various Deposit Interest and Profit Shares in TL, USD and Euro.

		<u>1 Month</u>	<u>3-Month</u>	<u>6-Month</u>	<u>1 Year</u>
<u>TL</u>	<u>1 Month</u>	<u>0.982</u>			
	<u>3-Month</u>		<u>0.963</u>		
	<u>6-Month</u>			<u>0.945</u>	
	<u>1 Year</u>				<u>0.929</u>
<u>USD</u>	<u>1 Month</u>	<u>0.842</u>			
	<u>3-Month</u>		<u>0.835</u>		
	<u>6-Month</u>			<u>0.731</u>	
	<u>1 Year</u>				<u>0.68</u>
<u>EURO</u>	<u>1 Month</u>	<u>0.608</u>			
	<u>3-Month</u>		<u>0.634</u>		
	<u>6-Month</u>			<u>0.514</u>	
	<u>1 Year</u>				<u>0.616</u>

Correlation analysis is a statistical technique used to find out the level of the relation when there is a linear relation between two variable. Coefficient that show the level of relation between variables named as correlation coefficient and showed with “r”. If correlational coefficient is near to 1 that means the relation is strong, if it is near to 0 then the relation is considered as weak. If variables increase or decrease together then correlation coefficient shows in positive numbers. If correlation coefficient is negative which refers the relation is negative that means while one of the variables is increasing, the other is decreasing (Orhunbilge, 2010).

When we look at the correlation coefficients between interest and profit share rates, the relation is seen positive. This situation is a general result of market conditions. While this relation is stronger in TL deposit and participation accounts, the relation between USD and Euro deposit accounts’ interest rates in traditional banks and profit shares distributed to participation accounts in participation banks are relatively weaker.

T-testing results which is done to show whether the difference between profit shares and interest rates are statistically significant or not is presented in Table 2.

Table 2: T-Test Results of Average Deposit Interest and Profit Share Rates in Various Terms for TL, USD and Euro

			<u>1 Month</u>	<u>3-Month</u>	<u>6-Month</u>	<u>1 Year</u>
<u>Commercial Banks</u>	<u>Mean (%)</u>	<u>TL</u>	<u>17.25</u>	<u>18.24</u>	<u>18.82</u>	<u>18.28</u>
		<u>USD</u>	<u>2.406</u>	<u>3.459</u>	<u>3.589</u>	<u>3.52</u>
		<u>EURO</u>	<u>2.289</u>	<u>3.141</u>	<u>3.219</u>	<u>3.316</u>
	<u>Standard Deviation</u>	<u>TL</u>	<u>13.56</u>	<u>12.81</u>	<u>14.09</u>	<u>13.39</u>
		<u>USD</u>	<u>0.931</u>	<u>0.881</u>	<u>0.851</u>	<u>0.856</u>
		<u>EURO</u>	<u>0.721</u>	<u>0.74</u>	<u>0.824</u>	<u>0.809</u>
<u>Participation Banks</u>	<u>Mean (%)</u>	<u>TL</u>	<u>15.53</u>	<u>15.85</u>	<u>16.83</u>	<u>17.39</u>
		<u>USD</u>	<u>3.705</u>	<u>3.797</u>	<u>3.875</u>	<u>4.012</u>
		<u>EURO</u>	<u>3.488</u>	<u>3.576</u>	<u>3.66</u>	<u>3.786</u>
	<u>Standard Deviation</u>	<u>TL</u>	<u>10.11</u>	<u>9.7</u>	<u>10.65</u>	<u>10.21</u>
		<u>USD</u>	<u>0.866</u>	<u>0.846</u>	<u>0.829</u>	<u>0.77</u>
		<u>EURO</u>	<u>0.708</u>	<u>0.699</u>	<u>0.688</u>	<u>0.627</u>
<u>T-Test for Equality of Means Significance Level (2-tailed)</u>	<u>TL</u>		<u>0.198</u>	<u>0.06</u>	<u>0.154</u>	<u>0.499</u>
		<u>USD</u>	<u>0.000</u>	<u>0.001</u>	<u>0.002</u>	<u>0.000</u>
		<u>EURO</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

Observation number 161, confidence interval 95 %.

In Table 2, besides the difference test results between profit shares and interest rates, average interest - profit share gaining rates of traditional banks which functions with interest for each term and participation banks which functions interest-free and their standard deviations. According to the observation findings for 161 month between January 2002 and May 2015, traditional banks provide higher gaining average than participation banks for TL deposit accounts. Results of T-test that was done to see whether the difference is significant or not, with 95 % confidence interval also showed that this difference is significant. Their significance level is found higher than 5 % by bi-directional analysis. Therefore, hypothesis which suggests there is not any significant difference between paid interest rates by banks and distrib-

uted profit shares by participation banks is rejected.

On the other hand, in all participation accounts for USD and Euro, participation banks provide higher gainings to their account holders. But, testing results showed that there is not any statistically significant difference between USD and Euro gainings.

V. Conclusion

With the increase in share that interest-free banking system take from market, the contribution of the system to economy is developed. Participation banks, by means of their presented interest-free banking instruments, evaluate savings of individuals who deliberate to interest because of their religious believers and as a result of this they mediate for providing important levels of resource to the economy.

Participation banks which function in accordance with the Islamic rules can perform many banking services of classical banks. However, they cannot perform some of the interest based transactions done by traditional banks. Thus, participation banks functions as the entities that completing the banking system and gives depth and variety to the sector.

Besides of the many studies where performances of participation banks and traditional banks are compared, in this study gaining rates provided by the banks to the investors are also evaluated.

In this context in this study that contains January 2012 - May 2015 term, the gaining rates of the classical banks that function with interest system base and the participation banks that function with interest-free base are presented and whether the difference between them is significant or not is tested by using T-test.

As a result of the analysis; it is determined that the profit - loss rates of the participation banks are statistically lower than interest rates of traditional banks for TL. On the other hand, while participation banks give higher gaining averages to the USD and Euro participation accounts than traditional banks, this difference is not found statistically significant.

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Mid-term Review of the Europe 2020 Strategy¹

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Abstract

Employment and unemployment, which has become a common problem of the globalizing World since 1990's, were the leading critical issues of labour market in the EU countries that were deeply affected from the global financial crisis occurred in 2008. The employment and unemployment problems that have become a common concern and interest of the Union have been built on an integrated approach including smart, sustainable and inclusive growth priorities and a business concept compatible with human dignity in 2010 through the Europe 2020 Strategy. The progress of achieving the targets of the Europe 2020 Strategy, which is almost at the end of its 5th year, and the efficiency of its policies requires a mid-term evaluation. This evaluation is considered as an important tool with respect to make a positive contribution towards the achievement of 2020 targets and priorities. In this context, the Europe 2020 Strategy was discussed in terms of its all aspects and then the targets of the strategy was subjected to a mid-term evaluation and ultimately how the development and progress over 5 years is reflected in labour market in the EU countries was analyzed in general.

Keywords: *Europe 2020 Strategy, Europe Employment Strategy*

1 This Article was produced from the thesis study titled "Turkey's Employment Strategy the EU Accession Negotiating Process"

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Introduction

The European Coal and Steel Community was founded by joint initiatives of Germany, France, Italy, Belgium, Luxemburg and Netherland in 1951 and then named as the European Economic Community by the Treaty of Rome of 1957. The Europe Union, which has built its economic, political and monetary union by the Merger Treaty in 1965, the Single European Act in 1987, the Maastricht Treaty (EU Treaty) in 1992, the Amsterdam Treaty in 1997, the Nice Treaty in 2000 and the Treaty of Lisbon in 2007, has expanded seven times since 1973 and reached a supranational structure of 28 countries.

Employment and unemployment, which have become the common problem and policy area of the EU countries, was discussed as an employment strategy at the EU level through the Amsterdam Treaty and the Luxemburg and Lisbon summits. Although the Lisbon Strategy, which is the milestone of the Europe Employment Strategy, and its targets have led to important improvements, the European Council agreed on a new strategy in 17 June 2010 by considering the social-economic problems arising from the enlargement process, the reform needs, new conjuncture resulting from financial crisis and economic crisis and the union's future. Unlike other strategies, the Europe 2020 Strategy targets development through an integrated approach including smart, sustainable and inclusive growth priorities. The strategy, which completed half of the 2020 targets and of which positive and negative developments should be analyzed through a mid-term review, has been built on 3 priorities, 5 main targets and 7 main initiatives for policies on employment and fighting against unemployment. In the Article consisting of three parts, the Europe 2020 Strategy was discussed in terms of its all aspects and then development processes of the member countries were evaluated through monitoring the present situation on the 2020 targets of the strategy that was monitored for more than 5 years and ultimately the labor markets of EU countries developed under the 2020 strategy were analyzed.

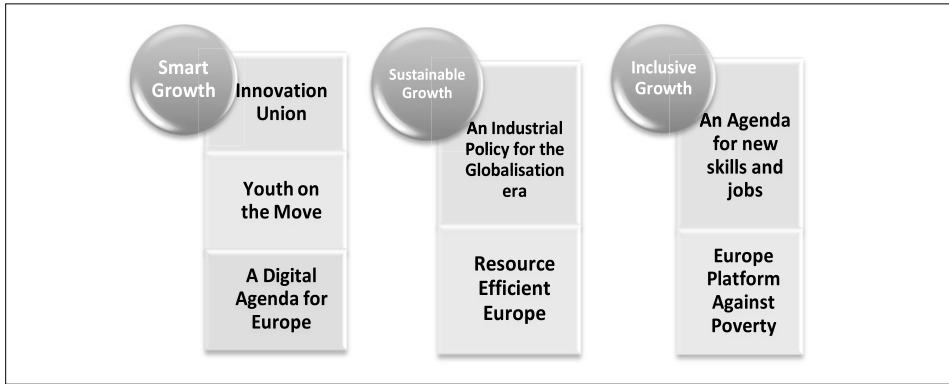
Europe 2020 Strategy

The Europe 2020 strategy document, which targets to overcome the effects of an economic crisis, make structural reforms and return to pre-crisis growth acceleration, and to build a much stronger Europe against the problems to be faced until 2020, includes complementary and supporting 3 priorities, 5 targets and 7 main initiatives to be implemented within this scope. The strategy document presented by Jose Manuel Barroso, the European Commission President, in 3 March 2010 has three priorities as follows: smart, sustainable and inclusive growth (European Commission A, 2010: 3). Considering these three priorities; *Smart Growth*: development of a knowledge and innovation-based economy

- Sustainable Growth: Promoting a more resource efficient, greener and more competitive economy
- Inclusive growth: Fostering a high-employment economy delivering social and territorial cohesion/integration.
- Five targets were set out for 2020 along with the strategic priorities (European Commission A, 2010: 10-11):
- Increasing employment rate of the population aged between 20-64 from 69% to 75%
- Allocating 3% of Gross Domestic Product (GDP) of the EU to Research and Development (R&D) activities
- Achieving “20/20/20” climate and environment targets; reducing carbon dioxide emission by at least 20% compared to 1990 (30% of emissions reduction if the conditions are right), increasing the share of renewable energy in the gross energy consumption to 20% and ensuring 20% energy conservation
- Reducing the rate of early school leaving below 10% and increasing the rate of higher education graduation from 31% to 40% in the age group of 30-34
- Reducing the number of people at risk of poverty by 25% and lifting 20 million people out of poverty within the scope of poverty and social exclusion.

7 initiatives (flagship), which determine the scope of activities, plans and programs of the Europe Union for achieving these 5 targets for 2020 mentioned above and draw the route of the EU, were created. (Murat & Şahin, 2011: 272-273).

Figure 1: Europe 2020 Strategy 3 Priorities and 7 Initiative



- **Innovation Union:** To improve the environment conditions and to facilitate the access to financial resources for research and innovation and to turn the innovative ideas into goods and services in order to ensure sustainable growth and employment.
- **Youth on the move:** To enhance the performance of education and training systems and to facilitate the access of young people to the labour market and to create new job opportunities for youth.
- **A digital agenda for Europe:** To generalize the use of high-speed internet and to facilitate the benefits of the digital single market possibilities for households and companies.
- **An industrial policy for the globalization era:** To create a strong, sustainable and modern industry base capable of competing globally against the negative results of globalization.
- **Resource efficient Europe:** To increase the use of renewable energy, to ensure energy efficiency and conservation, to modernize the transportation sector and to develop policies for an environment-friendly economic growth through effective use of resources.
- **An agenda for new skills and jobs:** To improve lifelong learning and labor skills, to balance labor supply and demand and to improve participation in labor force and labor efficiency by modernizing the labor markets.
- **European platform against poverty:** To ensure social-economic and territorial cohesion within the scope of fighting against poverty and social exclusion and to bring the people experiencing poverty and social exclusion into a more active position in the community.

Mid-Term Evaluation of Smart, Sustainable and Inclusive Growth Targets

According to the data given in Table 1 showing the results obtained and progress made towards the Europe 2020 Targets, it can be seen that employment rate target of 75% of the population aged between 20-64 is still far from being achieved at 69.2% by 2014, also there is a downward tendency until 2014 in comparison with the employment rate of 70% obtained in 2008. On the other hand, there is an increase (+0.7%) in the employment rate of women aged between 20-64 years and a decrease (-2.8%) in the employment rate of men aged between 20-64 years between the years 2008-2014, respectively.

Significant progress was made in the target of allocating 3% of Gross Domestic Product (GDP) to Research and Development (R&D) activities as well as the EU climate and energy targets reached 2.01% by 2014. According to the data of 1990, it was reached 82.1% in the target of reducing greenhouse gas emissions by 20% at 2012. In addition, it was reached 15% in the target of increasing the share of renewable energy in gross energy consumption. In respect with the target of 20% energy efficiency, the primary and secondary energy consumption has reached 11.9% and 12.8% respectively.

Two targets on education were set. While the target of reducing the early school leaving of the population aged between 18-24 years by 10% was 14.6% in 2008, it reached 11.1% by 2014. On the other hand, while the target of increasing the participation of the population aged between 30 and 34 in higher education over %40 was 31.2% in 2008, it reached 37.9% by 2014.

There is an upward trend in the target of lifting at least 20 million people out of the risk of poverty or social exclusion by 2010. While 25% decrease is expected in the target of decreasing the population at risk of poverty or social exclusion, the increases occurring should also be highlighted.

It is seen that 5 strategic targets set out for the European Union were revised on the country basis by taking social-economic conditions and differences of the countries into account.³

3 For detailed information on the countries' 2020 targets set out in the national programs: European Commission, "Europe 2020 Targets", (çevrimiçi) http://ec.europa.eu/europe2020/pdf/annexii_en.pdf, 10.06.2015.

Data on such targets are shown under the titles of employment, research and development, climate change and environment, education, fight against poverty and social exclusion country-by-country.

Table 1: Europe 2020 Targets (2008 - 2014)

		2008	2009	2010	2011	2012	2013	2014	TARGET 2020
Employment	Employment Rate of Population aged 20-64 years (%)	70,3	68,9	68,6	68,6	68,4	68,4	69,2	75,0
	*Employment Rate of Woman aged 20-64 years (%)	62,8	62,3	62,1	62,3	62,4	62,6	63,5	-
	* Employment Rate of Men aged 20-64 years (%)	77,8	75,7	75,1	75,0	74,6	74,3	75,0	-
Research and Development	Share from Gross Domestic Product (% GDP)	1,85	1,94	1,93	1,97	2,01	2,01	-	3
Climate Change and Environment	Green Gas Emission (Index 1990=100)	90,4	83,8	85,7	83,2	82,1	-	-	80
	Renewable energy (in % of gross final energy consumption)	10,5	11,9	12,5	12,9	14,3	15,0	-	20
	Energy Efficiency*								20
	* Primary Energy Consumption (Million Tonne)	1.687	1.593	1.652	1.593	1.584	1.567	-	1.483
	(%)	2,8	8,3	5,7	9,4	10,4	11,9	-	20
	* Final Energy Consumption (Million Tonne)	1.173	1.107	1.158	1.104	1.102	1.105	-	1.086
(%)	3,5	9,2	6,3	11,1	12,1	12,8	-	20	
Education	Early School Leaving in % (population aged 18-24 %)	14,6	14,2	13,9	13,4	12,6	11,9	11,1	<10
	* Rate of early school leaving in women (population age 18-24 %)	12,6	12,3	11,9	11,5	10,8	10,2	9,5	-
	* Rate of early school leaving in men (population 18-24 %)	16,6	16	15,8	15,2	14,4	13,5	12,7	-
	Rate of participation in tertiary education (population aged 30-34 %)	31,2	32,3	33,8	34,8	36	37,1	37,9	≥40
	* Rate of participation in tertiary education in Woman (population aged 30-34 %)	34,4	35,7	37,4	38,7	40,3	41,4	42,3	-
	* Rate of participation in tertiary education in Men (population aged 30-34 %)	28	29	30,3	31	31,8	32,9	33,6	-
Poverty and Social Exclusion	People at Risk of Poverty and Social Exclusion (Million)	116.566	114.560	118.007	121.314	124.060	122.897	-	96,6
	People at Risk of Poverty and Social Exclusion (%)	23,8	23,3	23,7	24,3	24,7	24,5	-	-
	* Persons in households with low work intensity (%)	9,1	9,1	10,2	10,4	10,5	10,8	-	-
	* People at risk of poverty after social transfers (%)	16,6	16,4	16,4	16,8	16,8	16,6	-	-
	* Severely materially deprived people (%)	8,5	8,2	8,4	8,9	9,9	9,6	-	-

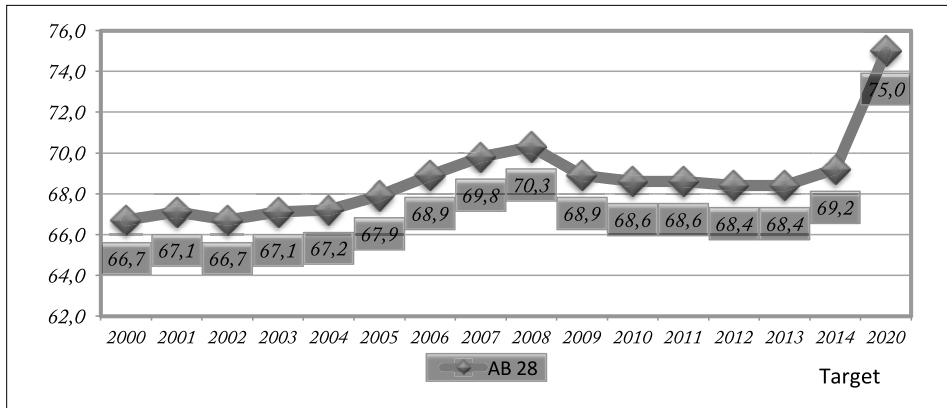
Source: EUROSTAT, “Europe 2020 Headline Indicators”, (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables>, 10.06.2015. It was prepared using these data.

Employment

The European Union has made significant progress in increasing employment rates and reducing unemployment since 2000; however, interruption of this progression has become unavoidable because of the fact that the financial crisis of which effects have been felt progressively since 2008 also has an adverse impact on the employment rates.

Given the data in the Graph 1 showing the progression process for the EU 2020 employment target between the years 2002 and 2014, the employment rate, which was 66.7% in 2000 and reached 70.3% by 2008, has shown a decreasing trend after 2008 and caused moving away from the Europe 2020 employment target. In 2014, it is seen that acceleration has been gained through the employment rate of 69.2% and a positive progress has been made towards achieving the employment target, however it is still far from the target of 5.8% expected to reach.

Graph 1: EU 28 2020 Employment Target and Employment Rates for the Years of 2000-2014, (%)



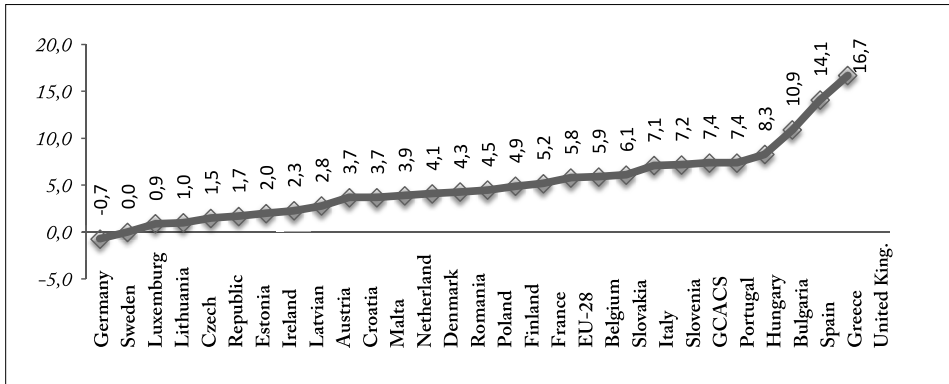
Source: It is prepared using the data presented in Table 2.

While these developments were taking place at EU level, as it is highlighted in Table 2, the EU countries have experienced an increase in employment until 2008; however, moved away from the national employment targets due to the financial crisis occurred in 2008. The employment

target set out as 75% in the age groups of 20-64 in the EU 2020 employment targets may differ in the national reform programs of the member countries. The targets that are set out by taking different social-economic conditions of the countries into account are shown in Table 2 on a country-by-country basis.

According to the data given in Graph 2 showing the progress required for EU countries to meet their own 'employment targets for 2020, it is seen that Germany and Sweden reached their 2020 employment targets by 2014, however Luxemburg (0.9%), Lithuania (1.0%), Czech Republic (1.5%), Estonia (1.7%) and Ireland (2%) are the countries closest to their targets. The countries farthest from their targets are Greece (16.7%), Spain (14.1%), Bulgaria (10.9%), Hungary (8.3%), Portugal (7.4%), GCASC (7.4%), Slovenia (7.2%), Italy (7.1%), Slovakia (6.1%) and Belgium (6.1%), respectively. United Kingdom with an employment rate of 76.2% has no employment target for 2020.

Graph 2: Progress Required for EU Countries to Meet Their 2020 Employment Targets, (2014), (%)



Source: It is prepared using the data in the Table 2.

Although the progress required for the EU countries to meet their employment targets provide some significant implications, this is not a sufficient indicator by itself. These data should be analyzed by considering the countries' employment targets and 2014 employment rates shown in Table 2. For example, some countries aim to reach an employment rate over 75% employment rate targeted at EU level such as Sweden, Denmark and Netherlands (80%), Finland (78%), Germany and Austria (77%), Bulgaria and Estonia (76%), respectively.

According to these data, although they are far from their employment targets, the 2014 employment rates were 75.9% in Denmark, 76.1% in Netherlands, 74.3% in Estonia, 74.2% in Austria, 73.1% in Finland. Among these countries, Bulgaria is remained behind its employment target.

On the other hand, the countries with the 2014 employment rates below 60% are highlighted in Table 2. Of these countries, Greece with an employment target of 70% reached an employment rate of 53.3%, Spain with an employment target of 74% reached an employment rate of 59.9%, Italy with an employment target of 67% reached an employment rate of 59.9% and Croatia with an employment target of 72.9% reached an employment rate of 59.2%, respectively. In this context, employment policies of these countries are considered as unsuccessful given both the progress required to meet the target and the data of 2014. Although United Kingdom set out no 2020 target, it has an employment rate of 76.2% by 2014.

Table 2: 2020 EU Countries' Employment Targets and Employment Rates between the Years of 2000-2014 (%), (Age: 20-64)

	2000	2008	2009	2010	2011	2012	2013	2014	2020	Uzaklık
EU 28	66,7	70,3	68,9	68,6	68,6	68,4	68,4	69,2	75,0	5,8
Belgium	66,3	68,0	67,1	67,6	67,3	67,2	67,2	67,3	73,2	5,9
Bulgaria	56,5	70,7	68,8	65,4	62,9	63,0	63,5	65,1	76,0	10,9
Czech Republic	70,9	72,4	70,9	70,4	70,9	71,5	72,5	73,5	75,0	1,5
Denmark	77,9	79,7	77,5	75,8	75,7	75,4	75,6	75,9	80,0	4,1
Germany	68,7	74,0	74,2	74,9	76,5	76,9	77,3	77,7	77,0	-0,7
Estonia	67,5	77,1	70,0	66,8	70,6	72,2	73,3	74,3	76,0	1,7
Ireland	70,1	72,2	66,9	64,6	63,8	63,7	65,5	67,0	69,0	2,0
Greece	62,1	66,3	65,6	63,8	59,6	55,0	52,9	53,3	70,0	16,7
Spain	60,6	68,5	64,0	62,8	62,0	59,6	58,6	59,9	74,0	14,1
France	67,4	70,4	69,5	69,3	69,3	69,4	69,6	69,8	75,0	5,2
Croatia	-	64,9	64,2	62,1	59,8	58,1	57,2	59,2	62,9	3,7
Italy	57,1	62,9	61,6	61,0	61,0	60,9	59,7	59,9	67,0	7,1
GCASC	72,0	76,5	75,3	75,0	73,4	70,2	67,2	67,6	75,0	7,4
Latvia	63,4	75,4	66,6	64,3	66,3	68,1	69,7	70,7	73,0	2,3
Lithuania	66,1	72,0	67,0	64,3	66,9	68,5	69,9	71,8	72,8	1,0
Luxemburg	67,5	68,8	70,4	70,7	70,1	71,4	71,1	72,1	73,0	0,9
Hungary	60,9	61,5	60,1	59,9	60,4	61,6	63,0	66,7	75,0	8,3
Malta	57,5	59,2	59,0	60,1	61,6	63,1	64,8	66,3	70,0	3,7
Netherlands	74,2	78,9	78,8	76,8	77,0	77,2	76,5	76,1	80,0	3,9
Austria	70,7	73,8	73,4	73,9	74,2	74,4	74,6	74,2	77,0	2,8
Poland	61,1	65,0	64,9	64,3	64,5	64,7	64,9	66,5	71,0	4,5
Portugal	73,4	73,1	71,1	70,3	68,8	66,3	65,4	67,6	75,0	7,4
Romania	70,5	64,4	63,5	64,8	63,8	64,8	64,7	65,7	70,0	4,3
Slovenia	68,5	73,0	71,9	70,3	68,4	68,3	67,2	67,8	75,0	7,2
Slovakia	63,0	68,8	66,4	64,6	65,0	65,1	65,0	65,9	72,0	6,1
Finland	72,3	75,8	73,5	73,0	73,8	74,0	73,3	73,1	78,0	4,9
Sweden	76,3	80,4	78,3	78,1	79,4	79,4	79,8	80,0	80,0	0,0
UK	73,9	75,2	73,9	73,5	73,5	74,1	74,8	76,2	-	-

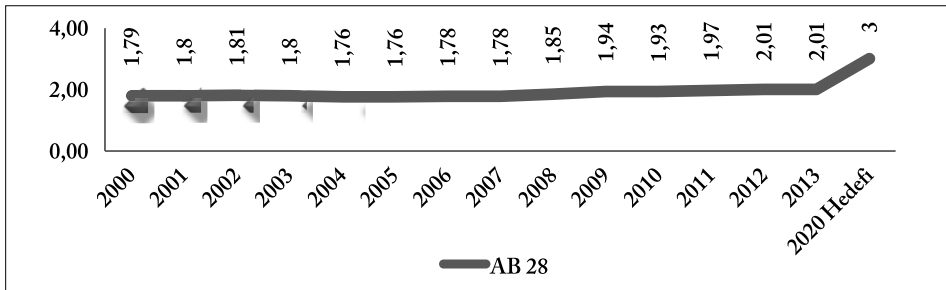
ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables , 10.06.2015.; European Commission, “Europe 2020 Targets”, (online) http://ec.europa.eu/europe2020/pdf/annexii_en.pdf , 10.06.2015.

R&D and Innovation

Another main target of the Europe Union within the scope of 2020 strategy is allocating 3% of Gross Domestic Product (GDP) to Research and Development (R&D) activities and support innovation. Given the fact that rapid changes and innovations at the global level shape the conditions of competition and affect the economic development of the countries, R&D investments and supporting innovative ideas have an important role for the countries. Sustainability of productivity and effective use of resources is mainly based on innovative interests and supports.

According to Graph 3 showing the ratio of R&D investment expenses to GDP by years at EU level, it is seen that the share allocated for the investment tends to increase and, although it is far from the 2020 target by 2014, it reached 2.01%.

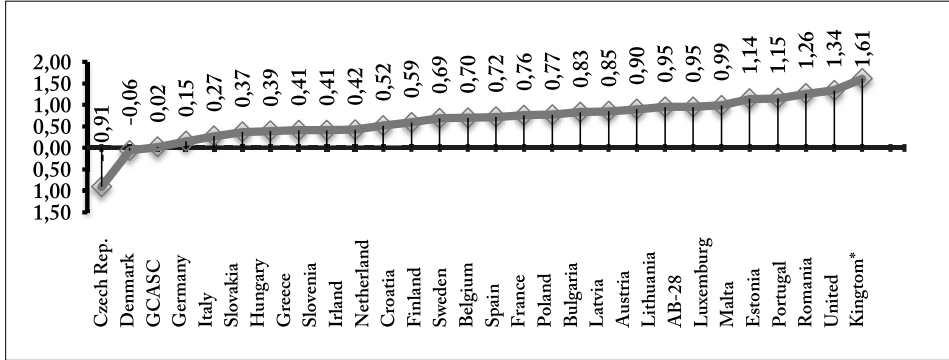
Graph 3: EU 28 R&D 2020 Target and 2000-2013 Years Expenditures (% GDP)



Source: It was prepared using the data in the Table 3.

It is seen that the member countries set out a national target below or above %3 depending on their own economic conditions as well as a target of 3% at EU level. Table 3 shows the R&D expenditures of the member countries between the years of 2000-2013 as well as their 2020 targets and progress required to meet these targets.

Graph 4: Progress Required for EU Countries to Meet Their 2020 R&D Targets (%), (2014)



Source: It was prepared using the data in the Table 3.

The Graph 4 includes the progress required for member countries to meet their 2020 targets with respect to the share of R&D investments in the GDP. According to these data, Czech Republic reached its target (1% public sector) and Denmark, GCASC, Germany and Italy are too close to their targets already. Romania, Portugal, Estonia, Malta, Luxemburg are the countries the farthest from their targets. No special R&D target for 2020 is set out for United Kingdom.

However, these progresses required are directly proportional to the varying targets of the countries. For example, the 2020 target of Finland and Sweden is 4% and the 2020 target of Austria is 3.76% while the other countries set their targets out below 3%. Of the countries sorted by the progress required to meet their targets, Denmark reached 3.06% and Germany reached 2.85% within the scope of the 3% target. In this context, 2020 country R&D targets and 2013 data given in the Table 3 should be evaluated together and the required progress for countries to meet their targets should be interpreted accordingly.

Considering an overall evaluation regarding the 3% and above targets of EU 2020, Denmark, Sweden, Finland, Austria, Germany, France, Slovenia and Belgium may be considered as successful countries in terms of meeting their targets.

Table 3: 2020 R&D Targets and 2000-2013 Expenditures of the EU Countries (% GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2020	distance to target
AB 28	1,79	1,8	1,81	1,8	1,76	1,76	1,78	1,78	1,85	1,94	1,93	1,97	2,01	2,01	3	0,99
EU 15	1,85	1,86	1,87	1,86	1,83	1,83	1,85	1,86	1,94	2,03	2,02	2,06	2,09	2,09	3	-
Belgium	1,93	2,03	1,89	1,83	1,81	1,78	1,81	1,84	1,92	1,97	2,05	2,15	2,24	2,28	3	0,72
Bulgaria	0,49	0,44	0,47	0,47	0,48	0,45	0,45	0,44	0,46	0,51	0,59	0,55	0,62	0,65	1,5	0,85
Czech Rep.	1,12	1,11	1,1	1,15	1,15	1,17	1,23	1,31	1,24	1,3	1,34	1,56	1,79	1,91	1	-0,91
Denmark	2,19	2,32	2,44	2,51	2,42	2,39	2,4	2,51	2,78	3,07	2,94	2,97	3,02	3,06	3	-0,06
Germany	2,4	2,39	2,42	2,46	2,42	2,43	2,46	2,45	2,6	2,73	2,72	2,8	2,88	2,85	3	0,15
Estonia	0,6	0,7	0,72	0,77	0,85	0,92	1,12	1,07	1,26	1,4	1,58	2,34	2,16	1,74	3	1,26
Ireland*	1,09	1,06	1,06	1,13	1,18	1,2	1,21	1,24	1,39	1,63	1,62	1,53	1,58	-	2	0,42
Greece	-	0,56	-	0,55	0,53	0,58	0,56	0,58	0,66	0,63	0,6	0,67	0,69	0,8	1,21	0,41
Spain	0,89	0,89	0,96	1,02	1,04	1,1	1,17	1,23	1,32	1,35	1,35	1,32	1,27	1,24	2	0,76
France	2,08	2,13	2,17	2,11	2,09	2,04	2,05	2,02	2,06	2,21	2,18	2,19	2,23	2,23	3	0,77
Croatia	-	-	0,95	0,95	1,03	0,86	0,74	0,79	0,88	0,84	0,74	0,75	0,75	0,81	1,4	0,59
Italy	1,01	1,04	1,08	1,06	1,05	1,05	1,09	1,13	1,16	1,22	1,22	1,21	1,27	1,26	1,53	0,27
GCASC	0,23	0,24	0,28	0,32	0,34	0,37	0,39	0,4	0,39	0,45	0,45	0,46	0,43	0,48	0,5	0,02
Latvia	0,44	0,4	0,41	0,36	0,4	0,53	0,65	0,56	0,58	0,45	0,6	0,7	0,66	0,6	1,5	0,90
Lithuania	-	-	-	-	0,75	0,75	0,79	0,8	0,79	0,83	0,78	0,9	0,9	0,95	1,9	0,95
Luxembourg	1,57	-	-	1,65	1,63	1,59	1,69	1,65	1,65	1,72	1,5	1,41	1,16	1,16	2,3	1,14
Hungary	0,79	0,92	0,99	0,92	0,87	0,93	0,99	0,97	0,99	1,14	1,15	1,2	1,27	1,41	1,8	0,39
Malta	-	-	0,25	0,24	0,49	0,53	0,58	0,55	0,53	0,52	0,64	0,7	0,86	0,85	2	1,15
Netherland	1,8	1,82	1,77	1,81	1,82	1,81	1,77	1,7	1,65	1,69	1,72	1,89	1,97	1,98	2,5	0,52
Austria	1,89	2	2,07	2,18	2,17	2,38	2,37	2,43	2,59	2,61	2,74	2,68	2,81	2,81	3,76	0,95
Poland	0,64	0,62	0,56	0,54	0,56	0,57	0,55	0,56	0,6	0,67	0,72	0,75	0,89	0,87	1,7	0,83
Portugal	0,72	0,76	0,72	0,7	0,73	0,76	0,95	1,12	1,45	1,58	1,53	1,46	1,37	1,36	2,7	1,34
Romania	0,36	0,39	0,38	0,38	0,38	0,41	0,45	0,52	0,57	0,46	0,45	0,49	0,48	0,39	2	1,61
Slovenia	1,36	1,47	1,44	1,25	1,37	1,41	1,53	1,42	1,63	1,82	2,06	2,43	2,58	2,59	3	0,41
Slovakia	0,64	0,63	0,56	0,56	0,5	0,49	0,48	0,45	0,46	0,47	0,62	0,67	0,81	0,83	1,2	0,37
Finland	3,25	3,2	3,26	3,3	3,31	3,33	3,34	3,35	3,55	3,75	3,73	3,64	3,42	3,31	4	0,69
Sweden	-	3,91	-	3,61	3,39	3,39	3,5	3,26	3,5	3,42	3,22	3,22	3,28	3,3	4	0,70
UK*	1,73	1,72	1,72	1,67	1,61	1,63	1,65	1,69	1,69	1,75	1,69	1,69	1,63	1,63	-	-

Source: It was prepared using the data EUROSTAT, “Europe 2020 Headline Indicators”, (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables>, 10.06.2015.; European Commission, “Europe 2020 Targets”, (online) http://ec.europa.eu/europe2020/pdf/annexii_en.pdf, 10.06.2015.. *During calculation of the distance of Ireland to the target, 2012 data was considered. UK stipulated no target for 2020 in its national program.

Climate Change and Energy

The European Union makes important regulations and performs controls on climate change and the use of energy resources as well as sets guiding targets at the Union and member countries level and develops the projections. Hence, it is considered that the climate change, environment and energy targets, which are also part of the integrated approach of 2020 strategy, will be at the top list on the EU agenda until 2020.

The climate and energy targets regarded as a part of sustainable growth and evaluated within the scope of efficient use of the sources can

be summarized as reducing green gas emission by 20% in comparison with the year of 1990, increasing the share of renewable energy resources in gross energy consumption by 20% and increasing energy efficiency in the primary-final energy consumption by 20%, respectively. These targets that are set out at the EU level may differ from each other at the countries level.

With reference to the data in Tables 1 and 4, it is seen that the EU's target of reducing green gas emission to 80% has reached 82.1% by 2012, the share of renewable energy increased to 15% by 2013 and the primary energy consumption reached 11.9% (1.567 mtoe / target 1.483 mtoe) and the final energy consumption reached 12.8% (1.105 mtoe / target 1.086 mtoe), respectively.

According to the member countries' performances given in Table 4, Sweden, Bulgaria and Estonia succeeded in the renewable energy targets while Ireland, Greece, Italy, GCASC, Latvia, Luxemburg, Hungary, Malta, Poland, Portugal, Romania, Slovenia and Finland succeeded in the energy efficiency targets (primary and final consumption).

Table 4: Climate Changes and Energy 2020 Targets of the EU Countries

Countries	Green Gas Emission (%)* (AB 1990=100), (EU countries ESD 2005 Base Year) Million Tone		Share of Renewable Energy in Gross Energy Consumption (%)**		Energy Efficiency*** Primary Energy Consumption (Mtoe)		Energy Efficiency*** Final Energy Consumption (Mtoe)	
	2012	Target	2013	Target	2013	Target	2013	Target
	EU 28	82,1	80	%15,0	%20	1.566,5	1.483	1.104,6
Belgium	89,0	85	%7,9	%13	47,4	43,7	34,8	32,5
Bulgaria	108,4	120	%19,0	%16	16,3	15,8	8,8	8,6
Czech Repu.	99,1	109	%12,4	%13	39,6	39,6	23,9	25,3
Denmark	89,7	80	%27,2	%30	17,8	17,8	14,2	14,8
Germany	95,3	86	%12,4	%18	302,5	276,6	217,3	194,3
Estonia	99,9	111	%25,6	%25	6,5	6,5	2,9	2,8
Ireland	88,8	80	%7,8	%16	13,4	13,9	10,7	11,2
Greece	77,6	96	%15,0	%18	23,7	27,1	15,3	20,5
Spain	84,4	90	%15,4	%20	113,6	121,6	81,1	80,1
France	90,4	86	%14,2	%23	245,8	263,3	152,8	131,4
Croatia	-	111	%18,0	%20	7,3	-	5,8	7,0
Italy	81,9	87	%16,7	%17	153,7	158,0	118,7	124,0
GCASC	83,5	95	%8,1	%13	2,2	2,8	1,6	1,8
Latvia	100,3	117	%37,1	%40	4,4	5,37	3,9	4,5
Lithuania	98,2	115	%23,0	%23	5,7	6,485	4,7	4,3
Luxemburg	94,7	80	%3,6	%11	4,3	4,482	4,1	4,2
Hungary	78,6	110	%9,8	%13	21,0	26,6	15,0	18,2
Malta	103,0	105	%3,8	%10	0,8	0,825	0,5	0,5
Netherland	91,2	84	%4,5	%14	65,9	60,7	51,2	52,2
Austria	87,5	84	%32,6	%34	31,9	31,5	28,0	25,1
Poland	112,9	114	%11,3	%15	93,2	96,4	63,4	71,6
Portugal	88,0	101	%25,7	%31	21,3	22,5	15,8	17,4
Romania	93,5	119	%23,9	%24	30,9	42,99	21,8	30,3
Slovenia	97,3	104	%21,5	%25	6,7	7,313	4,8	5,1
Slovakia	90,1	113	%9,8	%14	16,2	16,2	10,9	9,0
Finland	89,8	84	%36,8	%38	32,8	35,9	24,6	26,7
Sweden	85,3	83	%52,1	%49	47,1	43,4	31,6	30,3
UK	91,4	84	%5,1	%15	194,6	177,6	136,4	129,2

Source: EUROSTAT, “Europe 2020 Headline Indicators”, (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables> , 10.06.2015.; European Commission, “European Semester Thematic Fiche Climate Change And Energy”, s.10-13., (online) http://ec.europa.eu/europe2020/pdf/themes/2015/energy_and_ghg_targets.pdf , 09.06.2015.

*For Information on ETS and ESD: European Commission, “ETS (Energy Trading System)”, (online) http://ec.europa.eu/clima/policies/ets/index_en.htm, European Commission, “ESD (Effort Sharing Decision)”, (online) http://ec.europa.eu/clima/policies/effort/index_en.htm, 10.06.2015.

** For detailed information on Renewable Energy: European Commission, “Renewable Energy Progress Report”, COM(2015) 293 Final, Brussels, 2015, (online) http://eur-lex.europa.eu/resource.html?uri=cellar:4f8722ce-1347-11e5-8817-01aa75ed71a1.0001.02/DOC_1&format=PDF , 10.06.2015.

***For energy efficiency: European Commission, “Energy Efficiency” (online) <http://ec.europa.eu/energy/en/topics/energy-efficiency> , 10.06.2015. **Mtoe:** million tons of oil equivalent.

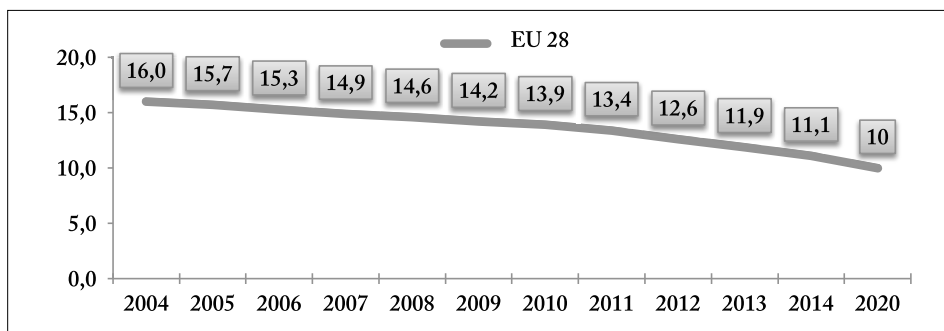
Education

As it can be seen in Table 12, the unemployment rates increase across the European Union and on the member countries basis due to the crisis of 2008. Financial crises affect labor markets and global competition as well as youth employment, unemployment and education. Hence, youth unemployment in the EU increased from 15.6% to 22% between the years of 2008-2014. Given the qualitative and quantitative significance of youth labor in the labor markets, the fact that the Europe 2020 strategy set some targets out with respect to the rates of leaving schools before graduation and participation in tertiary education for the purposes of increasing the nature of youth labor can be interpreted as a positive development. In the Europe 2020 strategy, it is aimed to reduce the rate of school leaving to 10% for the age group of 18-24 and increase the rate of higher education

graduation up to 40% for the age group of 18–40.

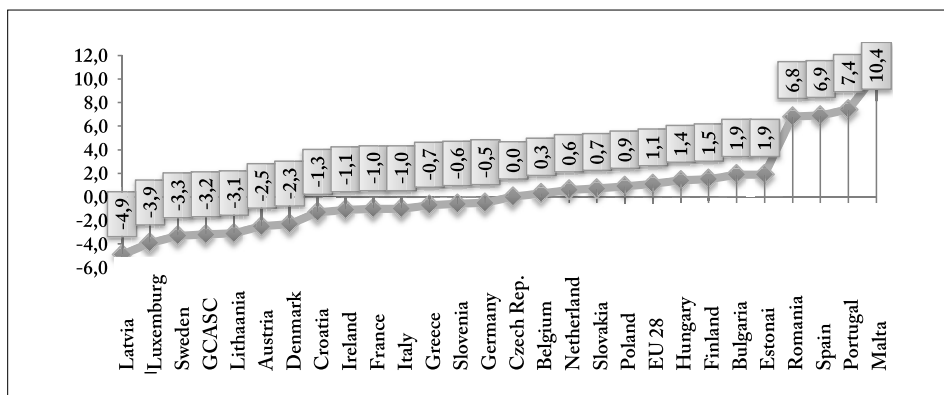
According to the Graph 5 showing the rate of early school leaving (age 18-24) in the EU, there is a decrease from 2004 to 2014. The reducing rate of school leaving from 16% to 11.1% is important since it implies that the reforms and implementations made for reaching the 10% target set out for 2020 have positive results.

Graph 5: EU 28 Early School Leaving Rates and 2020 Target (%), (18 -24 Age), (2004-2014)



Source: It was prepared using the data in the Table 5.

Graph 6: Progress Required the EU Countries to Meet the 2020 Targets on Early School Leaving (%), (18-24 Age), (2014)



Source: It was prepared using the data in the Table 5.

In spite of the 10% target at the EU level, the member countries may have different targets set out by considering their social-economic conditions. According to Graph 6 showing the progress required for member countries to meet their targets with respect to these targets given in Table 5, Latvia, Luxemburg, Sweden, GCASC, Lithuania, Austria, Denmark, Croatia, Ireland, France, Italy, Greece, Slovenia and Germany have even exceeded the targets they have set out.

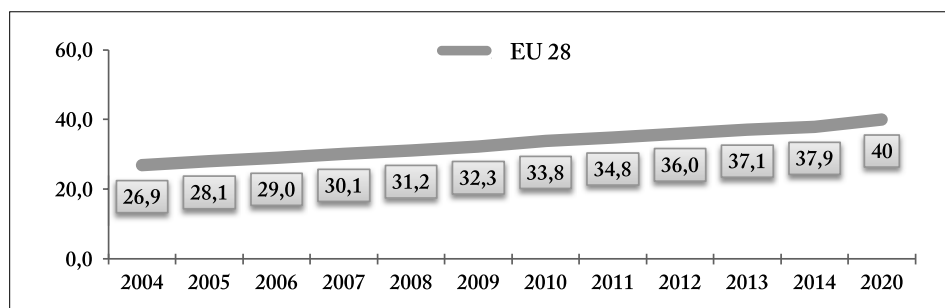
The countries, which have failed to reach the targets on school leaving, such as Romania, Spain, Portugal and Malta are still behind their targets. Although Netherland and Finland failed to reach the target set out as 8%, they are too close to reach the target. It is seen that they will likely reach this target until 2020. United Kingdom with a decreasing rate of school leaving over the years (11.8% in 2014) set out no target on school leaving for 2020.

Table 5: Early School Leaving Rates (%) and 2020 Targets of the EU Countries (18 - 24 Age), (2004 - 2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2020	Distance to Target
EU28	16,0	15,7	15,3	14,9	14,6	14,2	13,9	13,4	12,6	11,9	11,1	10	1,1
EU 15	17,7	17,5	17,2	16,7	16,5	15,8	15,3	14,6	13,7	12,7	11,7	-	
Belgium	13,1	12,9	12,6	12,1	12,0	11,1	11,9	12,3	12,0	11,0	9,8	9,5	0,3
Bulgaria	21,4	20,4	17,3	14,9	14,8	14,7	13,9	11,8	12,5	12,5	12,9	11	1,9
Czech Rep.	6,3	6,2	5,1	5,2	5,6	5,4	4,9	4,9	5,5	5,4	5,5	5,5	0,0
Denmark	8,8	8,7	9,1	12,9	12,5	11,3	11,0	9,6	9,1	8,0	7,7	10	-2,3
Germany	12,1	13,5	13,7	12,5	11,8	11,1	11,9	11,6	10,5	9,8	9,5	10	-0,5
Estonia	13,9	14,0	13,4	14,4	14,0	13,5	11,0	10,6	10,3	9,7	11,4	9,5	1,9
Ireland	13,1	12,5	12,2	11,8	11,4	11,7	11,5	10,8	9,7	8,4	6,9	8	-1,1
Greece	14,5	13,3	15,1	14,3	14,4	14,2	13,5	12,9	11,3	10,1	9,0	9,7	-0,7
Spain	32,2	31,0	30,3	30,8	31,7	30,9	28,2	26,3	24,7	23,6	21,9	15	6,9
France	12,1	12,2	12,4	12,6	11,5	12,2	12,5	11,9	11,5	9,7	8,5	9,5	-1,0
Croatia	5,4	5,1	4,7	4,5	4,4	5,2	5,2	5,0	5,1	4,5	2,7	4	-1,3
Italy	23,1	22,1	20,4	19,5	19,6	19,1	18,6	17,8	17,3	16,8	15,0	16	-1,0
GCASC	20,6	18,2	14,9	12,5	13,7	11,7	12,7	11,3	11,4	9,1	6,8	10	-3,2
Latvia	15,9	15,4	15,6	15,6	15,5	14,3	12,9	11,6	10,6	9,8	8,5	13,4	-4,9
Lithuania	10,3	8,4	8,8	7,8	7,5	8,7	7,9	7,4	6,5	6,3	5,9	9	-3,1
Luxemburg	12,7	13,3	14,0	12,5	13,4	7,7	7,1	6,2	8,1	6,1	6,1	10	-3,9
Hungary	12,6	12,5	12,5	11,4	11,7	11,5	10,8	11,4	11,8	11,9	11,4	10	1,4
Malta	42,1	33,0	32,2	30,2	27,2	25,7	23,8	22,7	21,1	20,5	20,4	10	10,4
Netherland	14,1	13,5	12,6	11,7	11,4	10,9	10,0	9,1	8,8	9,2	8,6	8	0,6
Austria	9,8	9,3	10,0	10,8	10,2	8,8	8,3	8,5	7,8	7,5	7,0	9,5	-2,5
Poland	5,6	5,3	5,4	5,0	5,0	5,3	5,4	5,6	5,7	5,6	5,4	4,5	0,9
Portugal	39,3	38,3	38,5	36,5	34,9	30,9	28,3	23,0	20,5	18,9	17,4	10	7,4
Romania	22,4	19,6	17,9	17,3	15,9	16,6	19,3	18,1	17,8	17,3	18,1	11,3	6,8
Slovenia	4,3	4,9	5,6	4,1	5,1	5,3	5,0	4,2	4,4	3,9	4,4	5	-0,6
Slovakia	6,8	6,3	6,6	6,5	6,0	4,9	4,7	5,1	5,3	6,4	6,7	6	0,7
Finland	10,0	10,3	9,7	9,1	9,8	9,9	10,3	9,8	8,9	9,3	9,5	8	1,5
Sweden	9,2	10,8	8,6	8,0	7,9	7,0	6,5	6,6	7,5	7,1	6,7	10	-3,3
UK	12,1	11,6	11,3	16,6	17,0	15,7	14,8	14,9	13,4	12,3	11,8	-	-

Source: EUROSTAT, “Europe 2020 Headline Indicators”, (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables> , 10.06.2015.

Graph 7: EU 28 Higher Education Graduation Rate and 2020 Target (%), (30-34 Age), (2004-2014)

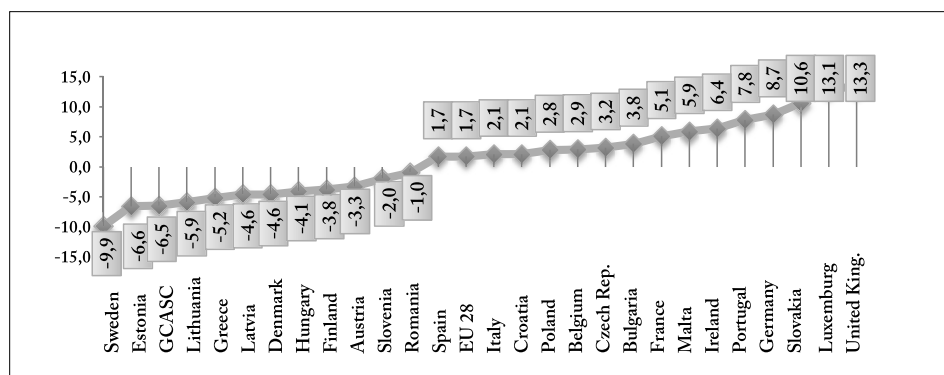


Source: It was prepared using the data in the Table 6.

As it can be seen in Graph 7, there is an upward trend in the target of exceeding 40% of the rate of higher education graduation in the age group of 30-34, one of the education targets of the Europe 2020 strategy, at the Europe Union level. While this rate was 26.9% in 2004, it has reached 37.9% in 2014 and approached to the 2020 target.

Considering the 2014 data on the higher education graduation rates of the member countries given in Table 6 and Graph 8, while Sweden, Estonia, GCASC, Lithuania, Greece, Netherland, Latvia, Denmark, Hungary, Finland, Austria and Slovenia are the successful countries; Luxemburg, Slovakia, Germany, Portugal, Ireland, Malta and France are the most unsuccessful countries. It can be said that other member countries are close to their targets.

Graph 8: Progress Required the EU Countries to Meet Their 2020 Targets on Higher Education Graduation (%), (30-34 Age), (2014)



Source: It was prepared using the data in the Table 6.

Table 6: Higher Education Graduation Rates and 2020 Targets of the EU Countries (%), (30-34 Age), (2004-2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2020	Distance to Target
EU28	26,9	28,1	29,0	30,1	31,2	32,3	33,8	34,8	36,0	37,1	37,9	40	2,1
EU 15	29,5	30,7	31,6	32,7	33,6	34,5	35,6	36,4	37,4	38,3	38,8	-	-
Belgium	39,9	39,1	41,4	41,5	42,9	42,0	44,4	42,6	43,9	42,7	43,8	47	3,2
Bulgaria	25,2	24,9	25,3	26,0	27,1	27,9	27,7	27,3	26,9	29,4	30,9	36	5,1
Czech Rep.	12,7	13,0	13,1	13,3	15,4	17,5	20,4	23,7	25,6	26,7	28,2	32	3,8
Denmark	41,4	43,1	43,0	38,1	39,2	40,7	41,2	41,2	43,0	43,4	44,1	40	-4,1
Germany	26,8	26,1	25,8	26,5	27,7	29,4	29,8	30,6	31,8	32,9	31,4	42	10,6
Estonia	28,3	31,7	32,5	33,5	34,4	36,3	40,2	40,2	39,5	43,7	46,6	40	-6,6
Ireland	38,6	39,2	41,3	43,3	46,3	48,9	50,1	49,7	51,1	52,6	52,2	60	7,8
Greece	25,1	25,5	26,9	26,3	25,7	26,6	28,6	29,1	31,2	34,9	37,2	32	-5,2
Spain	36,9	39,9	39,4	40,9	41,3	40,7	42,0	41,9	41,5	42,3	42,3	44	1,7
France	35,7	37,7	39,7	41,4	41,2	43,2	43,4	43,3	43,5	44,1	44,1	50	5,9
Croatia	16,8	17,4	16,7	16,8	18,5	21,3	24,5	23,9	23,1	25,6	32,2	35	2,8
Italy	15,6	17,1	17,6	18,6	19,2	19,0	19,9	20,4	21,9	22,5	23,9	26	2,1
GCASC	41,0	40,8	46,1	46,2	47,1	45,0	45,3	46,2	49,9	47,8	52,5	46	-6,5
Latvia	18,2	18,5	19,3	25,7	26,3	30,5	32,6	35,9	37,2	40,7	39,9	34	-5,9
Lithuania	30,9	37,7	39,4	36,4	39,9	40,4	43,8	45,7	48,6	51,3	53,3	48,7	-4,6
Luxemburg	31,4	37,6	35,5	35,3	39,8	46,6	46,1	48,2	49,6	52,5	52,7	66	13,3
Hungary	18,5	17,9	19,4	20,6	22,8	24,0	26,1	28,2	29,8	32,3	34,1	30,3	-3,8
Malta	17,6	17,6	20,7	20,8	21,0	21,9	22,1	23,4	24,9	26,0	26,6	33	6,4
Netherland	33,6	34,9	35,8	36,4	40,2	40,5	41,4	41,1	42,2	43,1	44,6	40	-4,6
Austria	20,9	20,7	21,1	20,9	21,9	23,4	23,4	23,6	26,1	27,1	40,0	38	-2,0
Poland	20,4	22,7	24,7	27,0	29,7	32,8	34,8	36,5	39,1	40,5	42,1	45	2,9
Portugal	16,3	17,5	18,3	19,5	21,6	21,3	24,0	26,7	27,8	30,0	31,3	40	8,7
Romania	10,3	11,4	12,4	13,9	16,0	16,8	18,3	20,3	21,7	22,9	25,0	26,7	1,7
Slovenia	25,1	24,6	28,1	31,0	30,9	31,6	34,8	37,9	39,2	40,1	41,0	40	-1,0
Slovakia	12,9	14,3	14,4	14,8	15,8	17,6	22,1	23,2	23,7	26,9	26,9	40	13,1
Finland	43,4	43,7	46,2	47,3	45,7	45,9	45,7	46,0	45,8	45,1	45,3	42	-3,3
Sweden	33,9	37,6	39,5	41,0	42,0	43,9	45,3	46,8	47,9	48,3	49,9	40	-9,9
United Kingdom	33,6	34,6	36,5	38,5	39,7	41,4	43,1	45,5	46,9	47,4	47,7	-	-

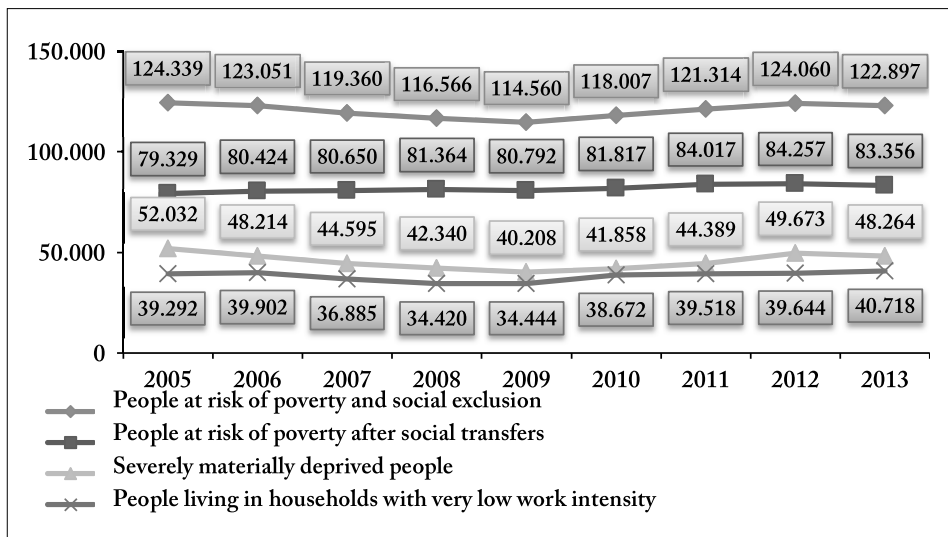
Source: EUROSTAT, "Europe 2020 Headline Indicators", (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables>, 10.06.2015.

Fight against Poverty and Social Exclusion

The main target of inclusive growth, one of the three priorities of the Europe 2020 Strategy is to lift approximately 20 million people out of poverty and social exclusion. The main initiative of inclusive growth is to build and agenda for new jobs and skills and to fight against poverty and social inclusion. In the target of fighting against poverty and social exclusion, while the people at risk of poverty and social exclusion are the main indicator, those at risk of poverty after social transfers, the severely materially deprived people and the people living in households with very low work intensity are the sub-indicators (Eurostat, 2015:136).

As it can be seen in the Graph 9, the number of people at risk of poverty across the EU between the years of 2005–2013 is far from the 2020 target. While the number of people at risk is expected to decrease by 20 million (from 116.566 to 96.566), it increased to 122.897 by 2013.

Graph 9: EU 28 Poverty and Social Exclusion Indicators (Thousand), (2005–2013)

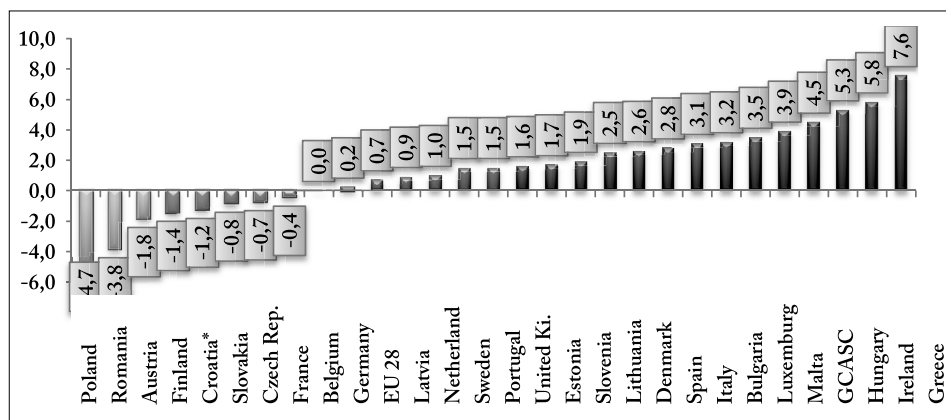


Source: EUROSTAT, “Europe 2020 Headline Indicators”, (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables> , 10.06.2015. *It was prepared using the data on Poverty and Social Exclusion

Given the data showing the values in the Graph 9 as a percentage, 24.5% of the EU population is at risk of poverty and social exclusion by 2013, 16.6% is at risk of poverty after social transfers, 9.6% is the severely materially deprived people and 10.8% is living in households with very low work intensity.

The Graph 10 includes the decrease and increase rates in the number of people at risk of poverty and social exclusion in the EU countries between the years of 2008-2013. According to these data, while the number of people at risk has decreased over the years in Poland, Romania, Austria, Finland, Croatia, Slovakia, Czech Rep. and France respectively, significant increases over 1.5% have been occurred in Greece, Ireland, Hungary, GCASC, Malta, Luxemburg, Bulgaria, Italy, Spain, Lithuania, Slovenia, Estonia and United Kingdom respectively.

Graph 10: People at Risk of Poverty and Social Exclusion in the EU Countries (Change % between the years of 2008-2013)



Source: EUROSTAT, “Europe 2020 Headline Indicators Poverty and Social Exclusion”, It was prepared using the data on the poverty and social exclusion indicators (%) of the EU countries

In spite of the proportional changes in the last 5 years, the rates of the risk of poverty in total population should also be noted. Hence, given the percentage distribution, Bulgaria (48%), Romania (40.4%), Greece (35.7%), Latvia (35.1%), Hungary (33.5%), Lithuania (30.8%), Croatia

(29.9%), Ireland (29.5%) and Italy (38%) have a rate of poverty risk over the EU average (24.5%). The countries' 2020 targets and 2008-2013 poverty and social exclusion data are shown in Table 7.

Table 7: Poverty and Social Exclusion Indicators and 2020 National Targets of the EU Countries (Thousand), (2008-2013)

Countries	People at Risk of Poverty and Social Exclusion		People at Risk of Poverty and Social Exclusion after Social Transfers		Severely Materially Deprived People		People Living in Households with Very Low Work Intensity		2020 National Targets of the Countries (Thousand)*
	2008	2013	2008	2013	2008	2013	2008	2013	
EU 28	116.566	122.897	81.364	83.356	42.340	48.264	34.420	40.718	20.000
<i>Belgium</i>	2.194	2.286	1.554	1.652	595	561	967	1.190	380
<i>Bulgaria</i>	3.421	3.493	1.632	1.528	3.151	3.129	470	695	260
<i>Czech Rep.</i>	1.566	1.508	925	886	696	679	581	541	30
<i>Denmark</i>	887	1.059	643	690	107	215	347	522	22
<i>Germany</i>	16.345	16.212	12.389	12.845	4.442	4.281	7.044	5.744	320
<i>Estonia</i>	291	313	259	248	65	100	55	86	15%
<i>Ireland</i>	1.050	1.358	686	648	245	455	509	894	200
<i>Greece</i>	3.046	3.904	2.187	2.529	1.213	2.223	611	1.466	450
<i>Spain</i>	11.124	12.630	9.415	9.425	1.625	2.862	2.351	5.604	1.400-1.500
<i>France</i>	11.150	11.229	7.554	8.496	3.253	3.133	4.069	3.670	1.900
<i>Croatia</i>	-	1.271	-	830	-	624	-	478	150
<i>Italy</i>	15.099	17.326	11.149	11.648	4.494	7.585	4.344	4.908	2.200
<i>GCASC</i>	181	240	124	132	71	139	29	55	27
<i>Latvia</i>	740	702	559	387	416	480	91	149	121
<i>Lithuania</i>	910	917	672	611	402	476	152	246	814
<i>Luxemburg</i>	72	96	62	80	3	9	18	27	6
<i>Hungary</i>	2.794	3.285	1.226	1.399	1.771	2.623	943	939	450
<i>Malta</i>	81	99	61	65	17	39	28	28	6,56
<i>Netherland</i>	2.432	2.648	1.713	1.735	252	416	1.053	1.183	100
<i>Austria</i>	1.699	1.572	1.252	1.203	485	355	472	496	235
<i>Poland</i>	11.491	9.748	6.353	6.520	6.680	4.486	2.444	2.124	1.500
<i>Portugal</i>	2.757	2.879	1.967	1.966	1.029	1.148	517	950	200
<i>Romania</i>	9.418	8.601	4.988	4.777	7.023	6.070	1.413	1.079	580
<i>Slovenia</i>	361	410	241	291	130	134	105	125	40
<i>Slovakia</i>	1.111	1.070	588	694	636	554	225	328	170
<i>Finland</i>	910	854	709	632	181	132	296	351	770
<i>Sweden</i>	1.367	1.602	1.121	1.440	132	138	381	505	14%
<i>United Kingdom</i>	14.069	15.586	11.335	10.000	2.739	5.219	4.905	6.334	-

Source: EUROSTAT, "Europe 2020 Headline Indicators", (online) <http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/main-tables>, 10.06.2015.

*National targets may differ from each other. Although the overall targets are set out generally on the basis of 2008 data for reducing the poverty and social exclusion, some countries have set out some special targets:

- Bulgaria, Reducing the poverty after social transfers by 260.000

- compared to 2008
- Denmark, Reducing the number of people living in household with very low work intensity by 22.000 compared to 2008
 - Germany, Reducing the number of long-term unemployed people by 320.000 (20%) compared to 2008.
 - Estonia, Reducing the poverty rate from 17.5% to 15% compared to 2010
 - Ireland, Reducing the poverty by 4% in 2016, 2% in 2020 and to-tally a minimum of 200.00 people.
 - France, Reducing by 1/6 or 1.900.000 people according to 2007 data
 - GCASC, Reducing by 150.000 people compared to 2011 data.
 - Netherland, Reducing the number of poor people aged 0-64 living in jobless households by 100.000 people compared to 2008
 - Sweden, Reducing the rate of people aged 20-64 not included in the labor force, long term unemployed woman and men below 14%.
 - For United Kingdom, the targets specified in the Child Poverty Act are valid. There is no special target for 2020.

EU Countries' Labor Market Outlook in the Context of Europe 2020 Strategy

Considering the changes and present situation in the five main tar-gets of the Europe 2020 strategy by 2014, it should be also investigated whether the strategy has been corresponded in the policies and implemen-tations in the labor market or not. In this context, the relation between em-ployment, unemployment and growth increases in the EU countries, the employment of woman and youth and progress made on unemployment, the change of long term unemployment in the labor market over the years through active and passive policies and the labor market policies in terms of participants and expense amounts are analyzed.

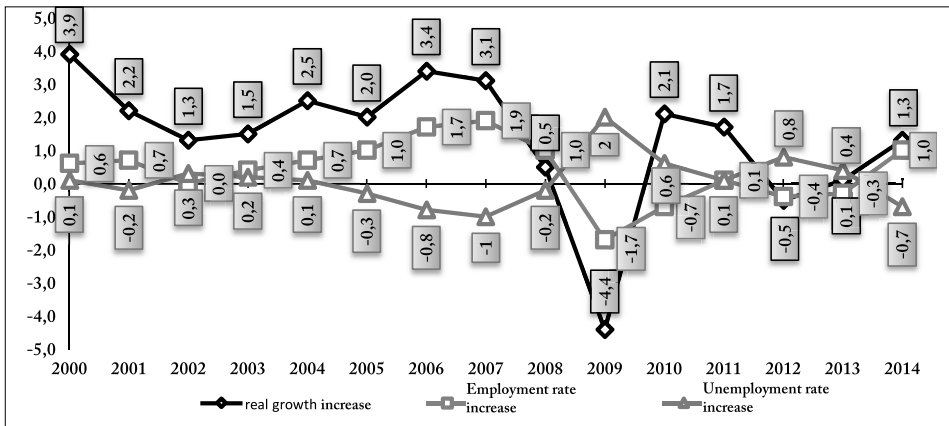
Employment, Unemployment and Growth

Analyzing how the targets, priorities, initiatives and measures for

the labor market evolved from 2000 Lisbon Strategy to the Europe 2020 strategy through an integrated approach reflecting on the data on employment, unemployment and growth of the Europe countries is considered as important in terms of mid-term review of the strategy.

The Graph 11 includes the employment, unemployment and growth increases at the EU level. On the basis of these data, there was an increase in growth and employment while there was a relative decrease in the rates of unemployment between the years of 2004-2007. The EU economy experienced a growth of 0.5% and an employment increase of 1% and an unemployment decrease of 0.2% in 2008 in spite of the financial crisis. However, the effect of the crisis became obvious by 2009 and while the EU economy has shrank by -4.4% compared to the previous year, the employment rate has decreased by -1.7% and the unemployment rate has increased by 2%. Although the EU economy has grown by 2.1% in 2010, the employment rate decrease and unemployment increase have been continued until 2011. Although the EU economy with a shrank rate of 0.5% in 2012 seem to eliminate the negative impacts of the financial crisis with an employment increase of 1.3% and unemployment decrease of 0.8%, it is still far from its performance between the years of 2004-2007.

Graph 11: EU 28 Employment, Unemployment and Growth (GDP) Increase (%), (2000-2014)



Source: EUROSTAT, “Annual National Accounts Statistics: GDP and Main Components (t_nama_10_gdp)”, (online) <http://ec.europa.eu/euro->

stat/web/national-accounts/data/main-tables, 12.06.2015.; “Employment Performance Monitor Indicators: Overall Employment Growth (tesem040)”, (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem040&plugin=1>, 12.06.2015.; “Employment Performance Monitor Indicators: Unemployment Rate (tesem120)”, (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem120&plugin=1>, 12.06.2015.

Considering the employment, unemployment and growth rates of the EU countries between the years of 2009-2014 in Table 8, it has been determined that Germany (growth: 4.5%, decrease in unemployment rate: 2.4%, increase in employment: 4.2%), United Kingdom (growth: 8.2%, unemployment rate: 0.5% and increase in employment: 3.7%), Sweden (growth 4.4%, unemployment rate: 1.7% and increase in employment rate: 3.8%) and Austria (growth: 18%, unemployment rate: 1.5% and increase in employment: 4.9%) have high growth rates, low unemployment rates or low unemployment increases and growth and employment increases even though the crisis come to the forefront. Ireland, Greece, Italy, Croatia and GCASC are the countries, which have shrunk at the most and of which employment rate have been decreased and unemployment rate have been increased at most between the years of 2009-2014. Ireland has shrunk 28.4% and had an unemployment rate increased by 4.9% and an employment rate decreased by 10.2%; Greece has shrunk -6.1% and had an unemployment rate increased by 18.7% and an employment rate decreased by 21.1%; Italy has shrunk 10.4% and had an unemployment rate increased by 6% and an employment rate decreased by 4%; Croatia has shrunk 8.1% and had an unemployment rate increased by 8.7% and an employment rate decreased by 11.9%; GCASC has shrunk 0.7% and had an unemployment rate increased by 12.4% and an employment rate decreased by 11.4%; Spain has shrunk 2.3% however had an unemployment rate increased 13.3% and an employment rate decreased 15.5% over 6 years, respectively.

Table 8: Increase of Employment, Unemployment and Growth (GDP) (%) in EU Countries Year-Over-Year, (2009-2014)

Countries	Employment Increase (%)						Unemployment Increase (%)						Growth Increase (%)					
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014
EU 28	-1,7	-0,7	0,1	-0,4	-0,3	1,0	2,0	0,6	0,1	0,8	0,4	-0,7	-2,6	2,5	1,6	0,1	0,3	1,1
Belgium	-0,2	0,7	1,4	0,3	-0,3	0,4	0,9	0,4	-1,1	0,4	0,8	0,1	-5,0	0,7	2,0	0,5	1,1	1,7
Bulgaria	-1,7	-3,9	-2,2	-2,5	-0,4	0,4	1,2	3,5	1,0	1,0	0,7	-1,6	-4,8	2,3	2,0	-0,8	-0,7	2,0
Czech Rep.	-1,8	-1,0	-0,3	0,4	0,4	0,4	2,3	0,6	-0,6	0,3	0,0	-0,9	-5,1	1,6	1,2	-0,7	-0,5	1,1
Denmark	-3,0	-2,3	-0,1	-0,3	0,0	0,7	2,6	1,5	0,1	-0,1	-0,5	-0,4	-5,6	4,1	3,6	0,4	0,1	1,6
Germany	0,1	0,3	1,3	1,1	0,6	0,8	0,2	-0,6	-1,2	-0,4	-0,2	-0,2	-14,7	2,5	8,3	4,7	1,6	2,1
Estonia	-10,2	-5,0	6,5	1,7	1,2	0,8	8,0	3,2	-4,4	-2,3	-1,4	-1,2	-6,4	-0,3	2,8	-0,3	0,2	4,8
Ireland	-7,8	-4,1	-1,8	-0,6	2,4	1,7	5,6	1,9	0,8	0,0	-1,6	-1,8	-4,4	-5,4	-8,9	-6,6	-3,9	0,8
Greece	-0,6	-2,7	-6,9	-7,8	-3,8	0,7	1,8	3,1	5,2	6,6	3,0	-1,0	-3,6	0,0	-0,6	-2,1	-1,2	1,4
Spain	-6,3	-1,7	-2,5	-3,7	-2,6	1,3	6,6	2,0	1,5	3,4	1,3	-1,6	-2,9	2,0	2,1	0,2	0,7	0,2
France	-1,1	0,1	0,8	0,3	0,0	0,3	1,7	0,2	-0,2	0,7	0,4	0,0	-7,4	-1,7	-0,3	-2,2	-0,9	-0,4
Croatia	-0,7	-3,8	-3,9	-3,6	-2,6	2,7	0,6	2,5	2,0	2,3	1,3	0,0	-5,5	1,7	0,6	-2,8	-1,7	-0,4
Italy	-1,7	-0,6	0,3	-0,3	-1,8	0,1	1,0	0,7	0,0	2,3	1,4	0,6	-2,0	1,4	0,3	-2,4	-5,4	-2,3
GCASC	-0,4	-0,2	0,5	-4,2	-5,2	-1,9	1,7	0,9	1,6	4,0	4,0	0,2	-14,2	-2,9	5,0	4,8	4,2	2,4
Latvia	-14,3	-6,7	1,5	1,4	2,3	-1,3	9,8	2,0	-3,3	-1,2	-3,1	-1,1	-14,8	1,6	6,1	3,8	3,3	2,9
Lithuania	-7,7	-5,3	0,5	1,8	1,3	2,0	8,0	4,0	-2,4	-2,0	-1,6	-1,1	-5,3	5,1	2,6	-0,2	2,0	-
Luxemburg	1,0	1,8	3,0	2,4	2,0	2,3	0,2	-0,5	0,2	0,3	0,8	0,1	-6,6	0,8	1,8	-1,5	1,5	3,6
Hungary	-2,5	-0,3	0,0	0,1	0,9	3,1	2,2	1,2	-0,2	0,0	-0,8	-2,5	-2,5	3,5	2,1	2,5	2,3	3,5
Malta	0,0	1,7	2,8	2,3	4,2	4,5	0,9	0,0	-0,5	-0,1	0,1	-0,5	-3,8	1,4	1,7	-1,1	-0,5	1,0
Netherlands	-0,9	-0,7	0,9	-0,2	-0,9	-0,2	0,7	0,6	0,0	0,8	1,5	0,1	-3,8	1,9	3,1	0,9	0,2	0,3
Austria	-0,4	0,9	1,7	1,2	0,7	0,8	1,2	-0,5	-0,2	0,3	0,5	0,2	-2,6	3,7	4,8	1,8	1,7	3,4
Poland	0,4	-2,7	0,6	0,1	-0,1	1,7	1,0	1,6	0,0	0,4	0,2	-1,3	-3,0	1,9	-1,8	-4,0	-1,6	0,9
Portugal	-2,7	-1,4	-1,9	-4,1	-2,9	1,4	1,9	1,3	0,9	2,9	0,6	-2,3	-7,1	-0,8	1,1	0,6	3,4	2,8
Romania	-2,0	-0,3	-0,8	-4,8	-0,6	0,8	0,9	0,5	0,2	-0,4	0,3	-0,3	-7,8	1,2	0,6	-2,6	-1,0	2,6
Slovenia	-1,8	-2,2	-1,6	-0,8	-1,5	0,7	1,5	1,4	0,9	0,7	1,2	-0,4	-5,3	4,8	2,7	1,6	1,4	2,4
Slovakia	-2,0	-1,5	1,8	0,1	-0,8	1,4	2,5	2,4	-0,8	0,3	0,2	-1,0	-8,3	3,0	2,6	-1,4	-1,3	-0,1
Finland	-2,4	-0,7	1,3	0,9	-1,5	-0,4	1,8	0,2	-0,6	-0,1	0,5	0,5	-5,2	6,0	2,7	-0,3	1,3	2,3
Sweden	-2,4	1,0	2,1	0,7	1,0	1,4	2,1	0,3	-1	0,2	0	-0	-4,3	1,9	1,6	0,7	1,7	2,8
England	-1,6	0,2	0,5	1,1	1,2	2,3	2	0,2	0,3	-0	-0	-2	-2,8	2,5	1,6	2,3	2,2	2,4

Source: Prepared by using the data from: EUROSTAT, “Annual National Accounts Statistics: GDP and Main Components (t_nama_10_gdp)”, (online) <http://ec.europa.eu/eurostat/web/national-accounts/data/main-tables>, 12.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Overall Employment Growth (tesem040)”,(online)<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem040&plugin=1>, 12.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators:UnemploymentRate(tesem120)”,(online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem120&plugin=1>, 12.06.2015. >

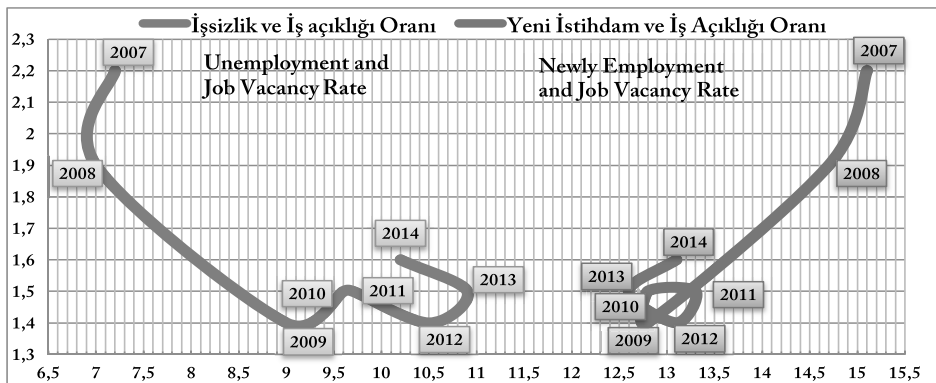
An Assessment on New Employment Rates and Job Vacancies: Employment and Unemployment Status of Women

Another important method in the analysis of labor market is the investigation of new employment rates and job vacancies. New employment

opportunities as EUROSTAT definition means individuals employed within 12 months while job vacancy rate is calculated on the basis of the ratio of the number of unfilled jobs to the number of current jobs occupied. In Graph 12, job vacancy rates are shown in the left axis, unemployment is in the left region and newly employment ratios are in the right region. While job vacancy rate, which was 2.2% in 2007 across EU, decreased to its lowest level in 2009, in which the effect of financial crisis is seen, unemployment rate has increased from 7% to 9% and the rate of people recently employed decreased from 15.1% to 12.8%. In 2010, while job vacancy rate increased to 1.5%, the rate of people newly employed remained constant and unemployment rate exceeded 9.5%. As regards to 2013, unemployment reached 10.9%, whereas job vacancy rate increased to 1.5% compared to 2012 and the rate of people newly employed decreased to 12.6%. The year of 2014 can be considered as a recovery for European Union. Thus, in Graph 12, it is seen that job vacancy rate increases to 1.6%, unemployment rate decreased to 10.2% and the rate of those newly employed reaches up to 13.1%, respectively.

As a general evaluation across the EU, the increase in unemployment rate caused the expected new employment to be insufficient despite the increase in job vacancy rate. In this sense, it can be said that the increase in job vacancy rate remained insufficient against the increased unemployment rate. In European Union, the effects of recovery can be clearly seen as of the year 2009 and recovery period is observed to be entered in 2014. The status of the member states of EU are given in Table 2.9.

Graph 12: EU 28 Job Vacancy, Unemployment and New Employment Rates (%), (2007-2014)



tistics”, (online) <http://ec.europa.eu/eurostat/web/labour-market/job-vacancies/database> , 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Newly Employment (tesem200)”, (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1>, 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Unemployment Rate(tesem120), (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1>, 13.06.2015.

Considering the data presented in Table 9; it is observed that in Germany, which has the lowest unemployment rates compared to EU countries as of 2014, unemployment rate declined to 5% with a decrease rate at 2.4%, but new employment rate is decreased by 1.5% within the last 8 years and became 12.9% with the job vacancy rate that increased by 0.2%. In Greece, which is one of the countries having greatest unemployment rate, unemployment rate increased by 18.7% and reached 26.5% while new employment rate increased by 1.5% and reached 10.6% with an increase of 0.5% observed in job vacancy rate. In Spain, based on the data provided for the year 2014, it is seen that unemployment rate has reached 24.5% with an increase of 13.2%, job vacancy rate remained constant and new employment rate is found as 16.5% with a decrease of 4%, respectively. As of 2014, in Denmark, which is an EU country with the highest new employment rate, unemployment rate reached 6.6% with an increase of 3.2% and new employment rate has reached 21.1% with a decrease of 2.3%. In Sweden, new employment rate reached up to 18.4% with an increase of 0.1% while job vacancy rate has decreased by 0.4% and unemployment rate has reached 7.9% with an increase of 1.7%. In general, the decrease in job vacancies with an increase in unemployment rates cause a decrease in the new employment or in the increase rate of new employment across the EU compared to 2008.

Table 9: Job Vacancy, New Employment and Unemployment Rates in EU Countries (%), (2008-2014)

Countries	Newly Employment (%)							Job Vacancy Rate (%)							Unemployment Rate (%)			
	2008	2009	2010	2011	2012	2013	2014	2008	2009	2010	2011	2012	2013	2014	2008	2010	2012	2014
EU 28	14,7	12,8	12,8	13,3	13,1	12,6	13,1	1,9	1,4	1,5	1,5	1,4	1,5	1,6	7,0	9,6	10,5	10,2
EU 15	15,1	13,2	13,2	13,8	13,5	13,1	13,6	-	1,5	1,6	1,7	1,6	1,6	1,8	7,2	9,6	10,6	10,5
Belgium	13,0	11,5	11,3	12,9	12,4	11,3	11,6	-	-	1,7	1,8	2,4	2,4	2,2	7,0	8,3	7,6	8,5
Bulgaria	13,5	11,5	10,1	11,2	11,9	12,2	11,3	0,9	0,7	0,7	0,7	0,7	0,6	0,7	5,6	10,3	12,3	11,4
Czech Rep.	10,8	10,7	10,8	11,1	10,4	10,0	10,4	3,2	1,1	0,8	0,9	1	0,9	1,3	4,4	7,3	7,0	6,1
Denmark	23,4	20,0	18,6	19,4	19,2	20,4	21,1	-	-	-	-	-	-	-	3,4	7,5	7,5	6,6
Germany	14,4	13,5	13,8	14,1	13,8	13,0	12,9	3,1	-	2,6	2,7	2,6	2,6	2,9	7,4	7,0	5,4	5,0
Estonia	15,4	14,5	16,1	18,6	17,4	16,3	16,5	2,5	0,9	1	1,3	1,4	1,4	1,4	5,5	16,7	10,0	7,4
Ireland	15,9	11,7	10,8	12,1	12,8	13,4	14,2	1,2	0,4	0,5	0,6	0,7	0,7	0,8	6,4	13,9	14,7	11,3
Greece	9,1	9,2	8,5	7,5	7,1	8,5	10,6	1,4	1,7	1,1	1	0,7	:	0,9	7,8	12,7	24,5	26,5
Spain	20,5	16,6	16,0	15,8	14,8	15,0	16,5	0,6	0,6	1,2	1	0,8	0,8	0,6	11,3	19,9	24,8	24,5
France	15,0	13,4	13,7	14,3	14,2	12,2	12,4	-	-	-	-	-	-	-	7,4	9,3	9,8	10,2
Croatia	10,7	9,1	7,7	9,4	9,1	9,6	12,2	-	-	-	-	1	0,8	0,9	8,6	11,7	16,0	17,3
Italy	12,0	9,9	9,9	10,2	10,1	9,5	9,9	-	-	-	-	-	-	-	6,7	8,4	10,7	12,7
GCASC	18,3	17,2	16,8	16,7	16,7	16,5	19,4	4,1	-	1,6	1,1	0,6	0,4	0,7	3,7	6,3	11,9	16,1
Latvia	17,5	14,1	18,7	19,8	18,4	17,7	15,9	1	0,3	0,3	0,4	0,4	0,5	0,4	7,7	19,5	15,0	10,8
Lithuania	15,5	13,7	15,1	17,9	16,1	17,3	15,9	1,7	0,5	0,6	0,9	0,9	-	1	5,8	17,8	13,4	10,7
Luxemburg	9,2	12,6	11,2	12,9	12,2	12,1	13,0	0,6	0,4	0,6	0,8	0,8	0,7	0,9	4,9	4,6	5,1	6,0
Hungary	13,8	12,8	13,3	13,2	14,6	15,5	15,4	1,3	1,1	1,2	1,3	1,2	-	1,6	7,8	11,2	11,0	7,7
Malta	10,4	8,9	10,2	10,5	11,0	11,4	10,6	-	-	-	-	-	-	-	6,0	6,9	6,3	5,9
Netherlands	8,7	7,4	9,0	13,3	12,9	12,3	12,6	2,9	1,7	1,5	1,6	1,4	1,2	1,4	3,7	5,0	5,8	7,4
Austria	15,0	14,4	14,4	15,6	14,8	14,9	14,4	-	1,5	1,9	2	1,9	1,7	1,7	4,1	4,8	4,9	5,6
Poland	15,9	13,5	13,8	12,9	12,7	11,9	12,6	1,5	0,6	0,6	0,6	0,4	0,4	0,5	7,1	9,7	10,1	9,0
Portugal	13,1	12,3	12,6	13,3	12,2	12,6	14,0	0,6	0,4	0,4	0,4	0,4	0,4	0,6	8,8	12,0	15,8	14,1
Romania	8,3	6,6	6,1	6,3	5,7	5,5	5,3	1,9	0,9	0,6	0,6	0,6	0,7	0,9	5,6	7,0	6,8	6,8
Slovenia	14,1	11,9	11,4	11,3	11,9	11,4	9,8	1	0,7	0,7	0,8	0,8	0,7	0,7	4,4	7,3	8,9	9,7
Slovakia	11,4	9,7	10,1	9,8	8,8	8,8	10,4	1,3	1	0,8	0,8	0,8	0,8	0,9	9,6	14,5	14,0	13,2
Finland	19,1	16,6	16,3	18,6	18,0	17,5	17,0	2,3	1,6	1,9	2,1	2,2	-	-	6,4	8,4	7,7	8,7
Sweden	18,8	16,4	17,1	19,4	18,6	18,3	18,9	1,2	0,8	1,2	1,5	1,5	1,5	1,6	6,2	8,6	8,0	7,9
England	16,4	14,0	13,7	13,9	14,2	14,5	15,6	2,2	1,6	1,7	1,7	1,7	1,9	2,3	5,6	7,8	7,9	6,1

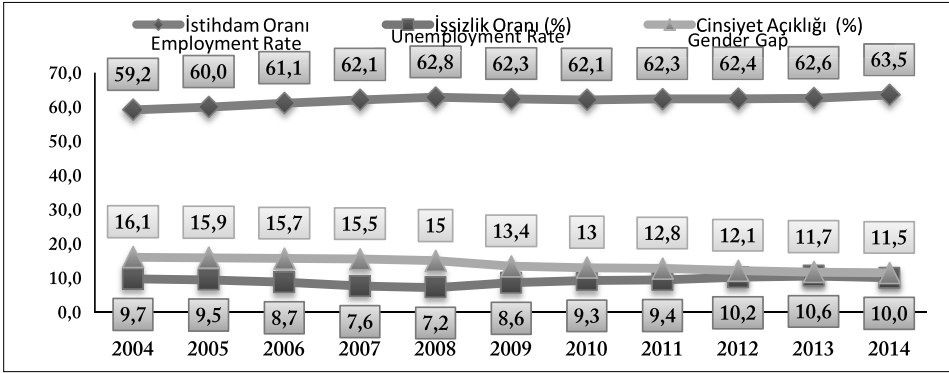
Source: Prepared by using the data from: EUROSTAT, “Job Vacancy Statistics”, (online) <http://ec.europa.eu/eurostat/web/labour-market/job-vacancies/database>, 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Newly Employment (tesem200)”, (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1>, 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Unemployment Rate(tesem120), (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1>, 13.06.2015.

Employment Status of Women

Another employment target of European Union is improving the employment rate of women and reducing the gender gap between opposite sexes. In Graph 13, considering the change in women employment, unemployment and gender gap rates in 2004-2014 across the EU, women

employment is observed to increase by 4.2% and women unemployment is observed to increase by 0.3% and gender gap decreased by 4.6%, respectively. As of 2014, in EU, for the age group of 20-64, women unemployment is found to be 10%, women employment is 63.5% and the gender gap is 11.5%, respectively. Women unemployment, which was on the rise in 2009, has declined for the first time in 2010.

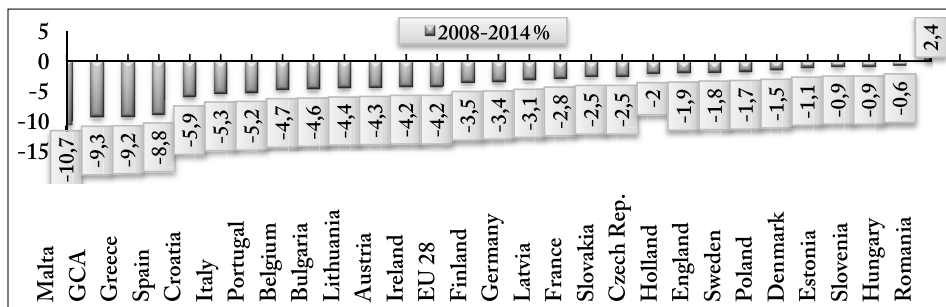
Graph13: EU 28 Women Employment, Unemployment and Gender Gap Rates (%), (ages of 20-64), (2004-2014)



Source: Prepared by using the data from: EUROSTAT, “Labour Force Surveys”, (online) <http://ec.europa.eu/eurostat/web/lfs/data/database> , 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Unemployment Rate (tesem120), (online)<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1>, 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Gender Employment Gap (tesem060)”,(online)<http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tesem060> , 13.06.2015.

According to Graph 14, which shows the effect of the 2008 financial crisis on gender gap in EU countries, it is observed that the gender gap only increased in Romania (2.4%) and it tends to decrease in other countries between the years in 2008-2014. It is understood from the Graph that Malta, GCASC, Greece, Spain, Croatia, Italy and Portugal seem to be closing the gender gap at most.

Graph 14: Gender Employment Gap Rate in EU Countries (%), (Change in 2008-2014)



Source: Prepared by using the data presented in Table 10.

The reason of this situation is that such countries have high gender gap rates as of the year 2008. Thus, as it can be seen in Table 10, as of 2008, Malta has a gender gap rate of 39.1%, whereas Greece has 275%, Italy has 24.7%, Spain has 19%, GCASC has 17%, Croatia has 15.9%, and Portugal has 12.3%, respectively.

Considering the data given in Table 10, in 2014, countries with highest women employment rates are Sweden (77.6%), Germany (73.1%), Denmark (72.2%), Finland (72.1%), Netherlands (70.7%), England (70.6%) and Lithuania (70.6%). On the other hand, the countries with lowest employment rates are Greece (44.3%), Italy (50.3%), Malta (51.9%), Croatia (4.3%), and Spain (54.8%). In Table 10, considering the unemployment rate in EU countries as of 2014, the countries with the highest unemployment rates are Greece (30.2%), Spain (25.4%), Croatia (18.3%), GCASC (15.1%), Portugal (14.5%) and Italy (13.8%). The lowest unemployment rates are observed in Germany (4.6%), Malta (5.4%), Austria (5.4%) and England (5.8%). The most increase in unemployment rates as of the years 2000-2014 is seen to be in Greece, GCASC, Portugal, Spain and Ireland.

Table 10: Women Employment, Unemployment and Gender Gap Rates in EU Countries (%), (Ages of 20-64), (2000-2014)

	Employment Rate (%)					Unemployment Rate (%)					Employment Gender Gap (%)				
	2000	2008	2010	2012	2014	2000	2008	2010	2012	2014	2008	2010	2012	2014	2008-2014
EU 28	57,3	62,8	62,1	62,4	63,5	10,0	7,5	9,6	10,5	10,3	15	13	12,1	11,5	-3,5
<i>Belgium</i>	56,4	61,3	61,6	61,7	62,9	8,5	7,6	8,5	7,4	7,9	13,4	11,9	11	8,7	-4,7
<i>Bulgaria</i>	51,7	65,4	61,7	60,2	62,0	16,2	5,8	9,6	10,8	10,4	10,7	7,4	5,6	6,1	-4,6
<i>Czech Rep.</i>	61,8	62,5	60,9	62,5	64,7	10,6	5,6	8,5	8,2	7,4	19,5	18,7	17,7	17,5	-2
<i>Denmark</i>	73,3	75,5	73,0	72,2	72,2	4,8	3,7	6,5	7,5	6,8	8,4	5,6	6,4	7,3	-1,1
<i>Germany</i>	60,7	67,8	69,6	71,6	73,1	8,3	7,6	6,5	5,2	4,6	12,3	10,5	10,5	9,2	-3,1
<i>Estonia</i>	64,0	72,9	65,9	69,4	70,6	13,3	5,1	14,1	9,1	6,8	8,6	1,9	5,7	7,7	-0,9
<i>Ireland</i>	57,5	64,2	60,2	59,4	61,2	4,2	4,9	9,9	11,0	9,4	16	8,9	8,7	11,8	-4,2
<i>Greece</i>	45,7	52,6	51,8	45,2	44,3	17,1	11,5	16,4	28,2	30,2	27,5	24,2	19,8	18,3	-9,2
<i>Spain</i>	44,4	58,9	56,3	54,6	54,8	17,5	12,8	20,2	25,1	25,4	19	12,9	10	10,2	-8,8
<i>France</i>	60,0	65,5	64,8	65,1	66,2	8,7	7,9	9,5	9,8	10,0	10	9,1	8,8	7,5	-2,5
<i>Croatia</i>	-	57,0	56,4	52,6	54,2	17,1	10,4	12,4	16,1	18,3	15,9	11,5	11,1	10	-5,9
<i>Italy</i>	42,0	50,6	49,5	50,5	50,3	13,6	8,5	9,6	11,8	13,8	24,7	23,2	21	19,4	-5,3
<i>GCASC</i>	58,5	68,2	68,8	64,8	63,9	7,1	4,3	6,4	11,1	15,1	17	12,9	11,3	7,7	-9,3
<i>Latvia</i>	58,7	71,9	64,5	66,4	68,5	13,3	7,1	16,3	14,0	9,8	7,4	-0,5	3,6	4,6	-2,8
<i>Lithuania</i>	64,4	68,7	65,0	67,9	70,6	14,0	5,6	14,5	11,6	9,2	6,9	-1,5	1,2	2,5	-4,4
<i>Luxemburg</i>	53,8	60,1	62,0	64,1	65,5	2,9	5,9	5,5	5,8	6,2	17,1	17,2	14,4	12,9	-4,2
<i>Hungary</i>	53,6	54,8	54,6	56,2	60,2	5,6	8,0	10,7	10,6	7,9	13,9	10,9	11,1	13,3	-0,6
<i>Malta</i>	33,5	39,4	41,6	46,6	51,9	7,4	6,8	7,1	7,3	5,4	39,1	36,6	32,6	28,4	-10,7
<i>Netherlands</i>	64,0	72,2	70,8	71,9	70,7	5,1	4,5	5,5	6,2	7,8	13,3	12	11,3	11,4	-1,9
<i>Austria</i>	62,2	67,6	68,8	69,6	70,1	4,2	4,4	4,6	4,8	5,4	12,5	10,2	9,7	8,2	-4,3
<i>Poland</i>	54,5	57,3	57,3	57,5	59,4	18,2	7,9	10,0	10,9	9,6	15,7	14	14,5	14,2	-1,5
<i>Portugal</i>	65,2	67,1	65,6	63,0	64,2	5,0	9,0	12,2	15,6	14,5	12,3	9,8	6,8	7,1	-5,2
<i>Romania</i>	64,8	57,3	56,5	56,7	57,3	6,9	4,4	6,2	6,1	6,1	14,3	16,6	16,1	16,7	2,4
<i>Slovenia</i>	64,1	68,5	66,5	64,6	63,6	7,0	4,8	7,1	9,4	10,6	8,9	7,5	7,2	8	-0,9
<i>Slovakia</i>	56,9	60,3	57,4	57,3	58,6	18,7	11,0	14,7	14,5	13,6	17,1	14,5	15,5	14,6	-2,5
<i>Finland</i>	69,0	73,1	71,5	72,5	72,1	10,6	6,7	7,6	7,1	8,0	5,3	3	3	1,9	-3,4
<i>Sweden</i>	74,4	77,2	75,0	76,8	77,6	5,3	6,6	8,5	7,7	7,7	6,3	6,1	5,1	4,6	-1,7
<i>England</i>	66,6	68,8	67,9	68,4	70,6	4,8	5,1	6,9	7,4	5,8	13,1	11,4	11,6	11,3	-1,8

Source: Prepared by using the data from: EUROSTAT, “Labour Force Surveys”, (online) <http://ec.europa.eu/eurostat/web/lfs/data/database> , 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Unemployment Rate (tesem120), (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem200&plugin=1> , 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Gender Employment Gap (tesem060)”,(online) <http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tesem060> , 13.06.2015.

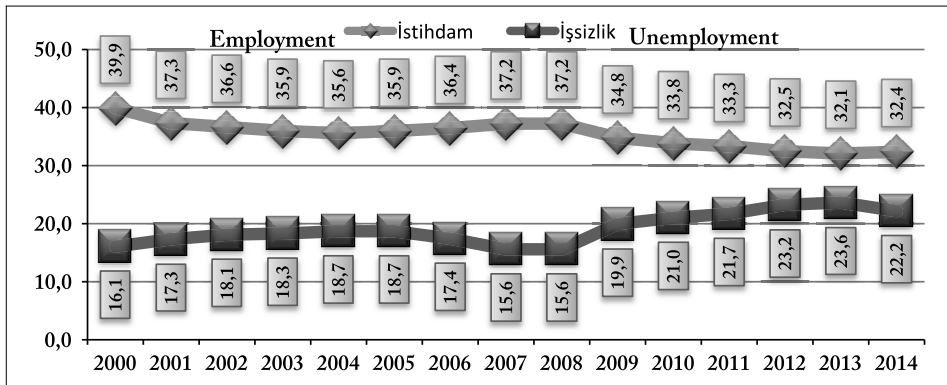
Employment Status of Youth

European Union has been developing a range of important policies for youth employment and unemployment (vocational education, fight against early school leavers, life-long learning and etc.) in particular. It is as important as the education level that the young people should be able to

find job opportunities and be employed in accordance with their qualifications in the labor market.

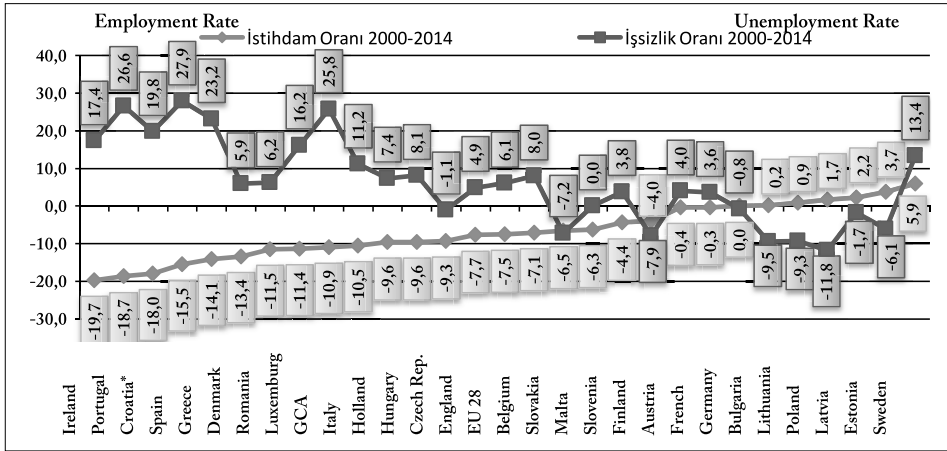
Considering Graph 15 showing the reflection of the youth policies, which have been developed within the scope of 2020 targets in EU level on the data in 2000–2014, it is evident that the youth employment decreased from 39.9% to 32.4% and youth unemployment increased from 16.1% to 22.2%, respectively. However, these increase and decrease trends were not permanent. Thus, the employment rate, which gained acceleration in 2012, is found as 37.2% in 2008 and 32.4% in 2014. Similarly, the unemployment rate, which had a trend to decrease, was 15.6% in 2008 and reached 22.2% in 2014, respectively.

Graph 15: EU 28 Youth Employment and Unemployment (%), (Ages of 15-24), (2000-2014)



Source: Prepared by using the data from: EUROSTAT, “Labour Force Surveys”, (online) <http://ec.europa.eu/eurostat/web/lfs/data/database>, 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Youth Unemployment Rate (tesem140)”, (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem140&plugin=1>, 14.06.2015.

Graph 16: Change in Youth Employment and Unemployment Rates in EU Countries (%), (Ages of 15-24), (2000-2014)



Source: Prepared by using the data given in Table 11.

*Employment and unemployment data of Croatia for 2000 (2002).

In Graph 16, the change in youth employment and unemployment rates in EU countries between the years 2000-2014 are shown as ranked. Considering these data, unemployment increased while employment decreased in EU countries except Sweden. In Czech Republic, both youth unemployment and youth employment are seen to be decreased. In Sweden, youth unemployment rate is increased by 13.4% in a year while employment has shown an increase by 5.9%. The largest decrease in youth employment and the largest increase in unemployment rates are observed in Ireland, Portugal, Croatia, Spain, Greece, Denmark, Romania, Luxembourg, GCA SC and Italy.

According to Table 11, the countries with the highest youth unemployment rate as of 2014 are Spain (53.2%), Greece (52.4%), Croatia (45.5%), Italy (42.7%), GCASC (36%), Portugal (34.8%), Slovakia (29.7%) and France (24.2%). The lowest unemployment rates are observed in Germany (7.7%), Austria (10.3%), Malta (11.8%), Denmark (12.6%) and Netherlands (12.7%). The highest employment rates are encountered in Netherlands (58.8%), Denmark (53.7%), Austria (52.1%) and England while the lowest employment rates are observed in Greece (13.3%), Spain (15.6%), Italy (16.7%) and Croatia (18.3%).

Table 11: Youth Employment and Unemployment Rates in EU Countries (%), (Ages of 15-24), (2000-2014)

	Employment Rate (%)								Unemployment Rate (%)							
	2000	2008	2009	2010	2011	2012	2013	2014	2000	2008	2009	2010	2011	2012	2013	2014
EU 28	39,9	37,2	34,8	33,8	33,3	32,5	32,1	32,4	16,1	15,6	19,9	21,0	21,7	23,2	23,6	22,2
<i>Belgium</i>	30,3	27,4	25,3	25,2	26,0	25,3	23,6	23,2	15,2	18,0	21,9	22,4	18,7	19,8	23,7	23,2
<i>Bulgaria</i>	20,5	26,3	24,8	22,2	22,1	21,9	21,2	20,7	33,3	12,7	16,2	23,2	25,0	28,1	28,4	23,8
<i>Czech Rep.</i>	36,4	28,1	26,5	25,2	24,5	25,2	25,6	27,1	17,0	9,9	16,6	18,3	18,1	19,5	19,0	15,9
<i>Denmark</i>	67,1	66,4	62,5	58,1	57,5	55,0	53,7	53,7	6,7	8,0	11,8	14,0	14,2	14,1	13,1	12,6
<i>Germany</i>	46,1	46,6	46,0	46,2	47,9	46,6	46,9	46,1	8,5	10,6	11,2	9,9	8,5	8,0	7,8	7,7
<i>Estonia</i>	29,6	35,9	28,3	25,3	31,1	32,3	32,4	33,3	21,1	12,0	27,4	32,9	22,4	20,9	18,7	15,0
<i>Ireland</i>	48,1	46,2	36,9	31,5	29,5	28,2	29,0	28,4	6,5	13,3	24,0	27,6	29,1	30,4	26,8	23,9
<i>Greece</i>	27,4	23,5	22,8	20,1	16,1	13,0	11,8	13,3	29,2	21,9	25,7	33,0	44,7	55,3	58,3	52,4
<i>Spain</i>	32,2	36,0	28,0	25,0	22,0	18,4	16,8	16,7	25,3	24,5	37,7	41,5	46,2	52,9	55,5	53,2
<i>France</i>	28,2	31,3	30,3	30,0	29,5	28,4	28,3	27,9	20,6	18,6	23,2	22,9	22,1	23,9	24,0	24,2
<i>Croatia*</i>	36,3	28,0	27,1	24,2	20,6	17,4	14,9	18,3	25,7	23,7	25,2	32,4	36,7	42,1	50,0	45,5
<i>Italy</i>	26,1	24,2	21,5	20,2	19,2	18,5	16,3	15,6	31,5	21,2	25,3	27,9	29,2	35,3	40,0	42,7
<i>GCASC</i>	36,7	38,0	34,8	33,8	30,1	28,1	23,5	25,8	10,2	9,0	13,8	16,6	22,4	27,7	38,9	36,0
<i>Larvia</i>	30,3	37,0	27,5	25,4	25,8	28,7	30,2	32,5	21,3	13,6	33,3	36,2	31,0	28,5	23,2	19,6
<i>Lithuania</i>	26,7	26,0	20,6	18,3	19,0	21,5	24,6	27,6	28,6	13,3	29,6	35,7	32,6	26,7	21,9	19,3
<i>Luxemburg</i>	31,8	23,8	26,7	21,2	20,7	21,7	21,9	20,4	6,4	17,9	17,2	14,2	16,8	18,8	15,5	22,6
<i>Hungary</i>	33,1	20,2	18,1	18,3	18,0	18,4	20,1	23,5	12,3	19,5	26,4	26,4	26,0	28,2	26,6	20,4
<i>Malta</i>	52,4	46,6	44,1	44,2	45,0	43,8	46,0	46,1	11,8	11,7	14,5	13,2	13,3	14,1	13,0	11,8
<i>Netherlands</i>	68,4	69,3	68,0	63,0	61,3	61,1	60,1	58,8	5,3	5,3	6,6	8,7	10,0	11,7	13,2	12,7
<i>Austria</i>	52,5	54,4	53,1	52,8	53,9	53,7	53,1	52,1	6,3	8,5	10,7	9,5	8,9	9,4	9,7	10,3
<i>Poland</i>	24,1	27,3	26,8	26,4	24,9	24,7	24,2	25,8	35,7	17,3	20,6	23,7	25,8	26,5	27,3	23,9
<i>Portugal</i>	41,1	34,1	30,8	27,9	26,6	23,0	21,7	22,4	8,2	16,7	20,3	22,8	30,3	37,9	38,1	34,8
<i>Romania</i>	34,0	24,8	24,5	24,3	23,4	23,7	22,9	22,5	17,8	18,6	20,8	22,1	23,9	22,6	23,7	24,0
<i>Slovenia</i>	31,2	38,4	35,3	34,1	31,5	27,3	26,5	26,8	16,4	10,4	13,6	14,7	15,7	20,6	21,6	20,2
<i>Slovakia</i>	28,3	26,2	22,8	20,6	20,0	20,1	20,4	21,8	36,9	19,0	27,3	33,6	33,4	34,0	33,7	29,7
<i>Finland</i>	45,4	44,7	39,6	38,8	40,4	41,8	41,5	41,4	28,4	16,5	21,5	21,4	20,1	19,0	19,9	20,5
<i>Sweden</i>	36,9	42,2	38,3	38,8	40,9	40,2	41,7	42,8	9,5	20,2	25,0	24,8	22,8	23,6	23,5	22,9
<i>England</i>	55,8	52,0	47,9	46,8	45,8	46,2	46,3	48,1	12,0	15,0	19,1	19,9	21,3	21,2	20,7	16,9

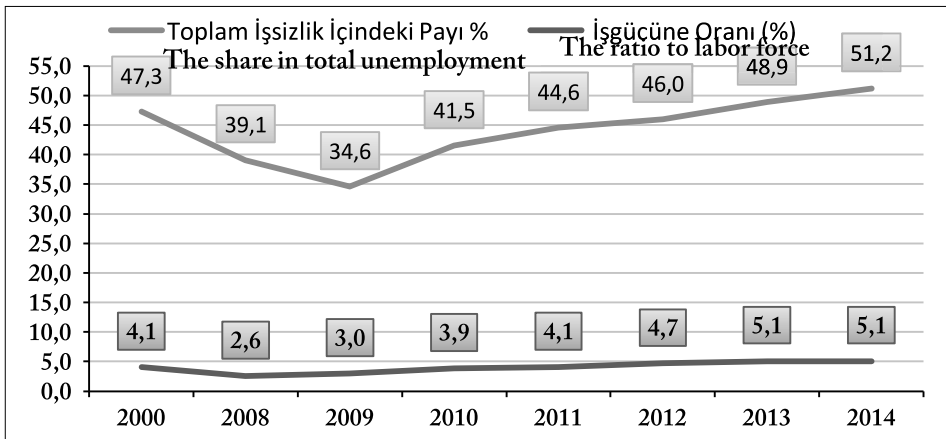
Source: Prepared by using the data from: EUROSTAT, “Labour Force Surveys”, (online) <http://ec.europa.eu/eurostat/web/lfs/data/database> , 13.06.2015.; EUROSTAT, “Employment Performance Monitor Indicators: Youth Unemployment Rate (tesem140), (online) <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem140&plugin=1> , 14.06.2015. * Employment and unemployment rates of Croatia for the year 2000 are the data of 2002.

An Assessment on Long-Term Unemployment Data

In line with Europe 2020 targets, analysis of the change of long term unemployment share for the age group of 20-64 in total unemployment by years is important for especially in terms of the success of active employment policies. Long term unemployment is defined as the unemployment that lasts for at least 12 months. The percentage of the long term unemployed individuals exceeds 50% of total unemployed individuals across the EU.

In Graph 17, the status of the share of the long term unemployment in total employment and its ratio to the labor force in 2000-2014 across the EU is shown. Considering these data obtained, the long term unemployment, which was 47.3% in 2000, increased up to 41.5% with an increase of 5.9% in 2010 since the duration of the unemployment exceeds one year due to the effect of crisis in 2009. While an increase is observed until 2014, 51.2% of total unemployed individuals in EU as of 2014 have been unemployed for at least 12 months. This situation is important since it indicates that the active employment policies remain insufficient across the EU or their increasing success remains insufficient against the unemployment growth.

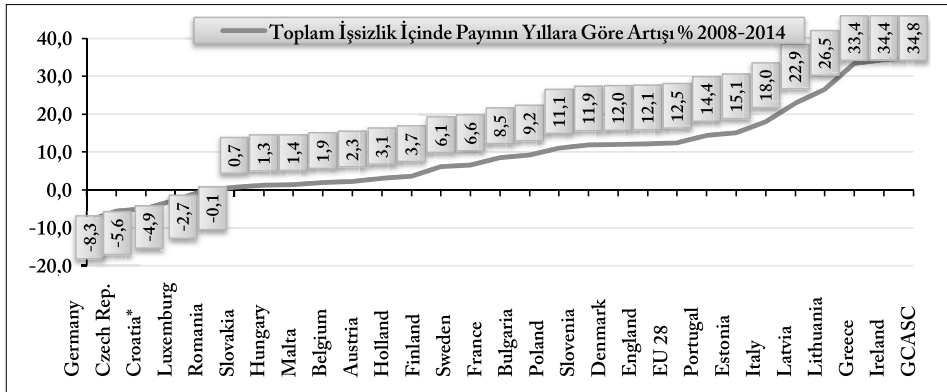
Graph 17: EU 28 the Share of the Long Term Unemployment in Total Unemployment (Ages of 20-64) and Its Ratio to Labor Force (%), (2000-2014)



Source: Prepared by using the data from Table 12.

According to Graph 18, considering the change of the share of the long term unemployment in total unemployment in EU countries in 2008-2014 (in order to see the effect of the crisis) by years, it is observed that the share of the long term unemployment decreases in Germany, Czech Republic, Croatia, Luxemburg and Romania. Spain (+34.8%), GCASC (+34.4%), Ireland (+33.4%), Greece (+26.5%), Lithuania (+22.9%), Latvia (+18%), Italy (+15.1%), Estonia (+14.4%) and Portugal (+12.5%) are the countries showing a long term unemployment above the average of the EU (+12.1%).

Graph18: The Increase of the Share of the Long Term Unemployment in Total Employment in EU Countries (Aged between 20-64), (%), (2008-2014)



Source: Prepared by the data from Table 12.

In Table 12, the EU countries with the highest long term unemployment rates as of 2014 are Greece (74.2%), Slovakia (71.6%), Italy (62.1%), Ireland (61.3%), Portugal (61.1%), Bulgaria (61.0%), Croatia (60.9%), Slovenia (54.9%), Spain (53.69%) and Belgium (51.2%). The countries with the lowest long term unemployment rate are Sweden (22.2%), Finland (25.3%), Denmark (28.2%), Luxemburg (28.4%), Austria (28.4%) and England (39.1%).

Table 12: The Share of the Long Term Unemployment in Total Employment in EU Countries (%), (2000-2014)

Countries	Share in Total Unemployment % (Ages of 20-64)										Ratio to Labor Force (%)									
	2000	2008	2009	2010	2011	2012	2013	2014	2008-2014	2000	2008	2009	2010	2011	2012	2013	2014	2008-2014		
EU 28	47,3	39,1	34,6	41,5	44,6	46,0	48,9	51,2	12,1	4,1	2,6	3,0	3,9	4,1	4,7	5,1	5,1	2,5		
Belgium	58,9	49,3	45,6	50,5	49,9	45,9	47,0	51,2	1,9	3,7	3,3	3,5	4,1	3,5	3,4	3,9	4,3	1,0		
Bulgaria	59,8	52,5	44,5	47,3	56,8	56,2	58,3	61,0	8,5	9,4	2,9	3,0	4,8	6,3	6,8	7,4	6,9	4,0		
Czech Rep.	51,6	50,3	30,6	41,7	41,5	44,4	44,2	44,7	-5,6	4,3	2,2	2,0	3,0	2,7	3,0	3,0	2,7	0,5		
Denmark	21,6	16,3	10,5	23,1	27,7	31,7	28,6	28,2	11,9	0,9	0,5	0,6	1,5	1,8	2,1	1,8	1,7	1,2		
Germany	52,5	54,0	46,5	48,6	49,5	46,8	45,9	45,7	-8,3	4,1	3,9	3,5	3,3	2,8	2,4	2,3	2,2	-1,7		
Estonia	49,1	31,8	27,3	46,0	59,1	56,3	45,7	46,2	14,4	6,7	1,7	3,7	7,6	7,1	5,5	3,8	3,3	1,6		
İreland	41,9	27,9	29,8	50,6	61,3	63,6	62,8	61,3	33,4	1,6	1,7	3,5	6,8	8,7	9,1	7,9	6,7	5,0		
Greece	57,8	47,7	40,8	45,0	49,9	59,8	67,8	74,2	26,5	6,2	3,7	3,9	5,7	8,8	14,5	18,5	19,5	15,8		
Spain	43,8	18,8	24,2	37,3	42,4	45,0	50,4	53,6	34,8	5,0	2,0	4,3	7,3	8,9	11,0	13,0	12,9	10,9		
France	40,9	38,7	36,3	41,1	42,5	41,4	41,5	45,3	6,6	3,3	2,8	3,2	3,7	3,8	3,9	4,1	4,4	1,6		
Croatia*	-	65,8	58,8	57,8	62,9	65,8	65,9	60,9	-4,9	-	5,3	5,1	6,6	8,4	10,2	11,0	10,1	4,8		
Italy	62,7	47,0	45,4	49,4	52,7	54,0	57,7	62,1	15,1	6,2	3,1	3,5	4,1	4,3	5,7	6,9	7,8	4,7		
GCASC	26,4	14,1	10,4	20,9	21,3	30,3	38,4	48,5	34,4	1,2	0,5	0,6	1,3	1,6	3,6	6,1	7,7	7,2		
Latvia	58,4	25,3	26,4	45,8	55,9	53,7	49,4	43,3	18,0	8,3	1,9	4,5	8,8	8,8	7,8	5,8	4,7	2,8		
Lithuania	50,9	22,2	24,3	42,2	52,8	50,0	43,3	45,1	22,9	8,0	1,3	3,3	7,4	8,0	6,6	5,1	4,8	3,5		
Luxemburg	21,3	31,1	24,4	29,8	29,4	31,4	31,1	28,4	-2,7	0,5	1,6	1,2	1,3	1,4	1,6	1,8	1,6	0,0		
Hungary	48,7	47,0	42,0	49,3	48,0	45,9	49,4	48,3	1,3	3,0	3,6	4,2	5,5	5,2	5,0	4,9	3,7	0,1		
Malta	62,6	48,5	46,6	49,4	52,5	52,2	50,2	49,9	1,4	4,5	2,5	2,9	3,1	3,1	3,1	2,9	2,7	0,2		
Netherlands*	-	40,2	27,2	30,9	37,5	38,0	38,9	43,3	3,1	1,0	1,3	1,1	1,4	1,7	2,0	2,6	3,0	1,7		
Austria	28,9	26,1	22,6	26,8	27,4	26,0	25,4	28,4	2,3	1,1	1,0	1,2	1,2	1,2	1,2	1,3	1,5	0,5		
Poland	45,5	34,3	31,1	31,8	38,0	41,3	43,3	43,5	9,2	7,4	2,4	2,5	3,0	3,6	4,1	4,4	3,8	1,4		
Portugal	46,8	48,6	45,4	53,6	49,9	50,0	57,9	61,1	12,5	2,1	4,1	4,7	6,3	6,2	7,7	9,3	8,4	4,3		
Romania	52,2	42,6	32,7	35,5	42,2	45,6	46,5	42,5	-0,1	3,9	2,3	2,1	2,4	2,9	3,0	3,2	2,8	0,5		
Slovenia	65,4	43,8	31,0	44,1	44,9	48,4	51,5	54,9	11,1	4,1	1,9	1,8	3,2	3,6	4,3	5,2	5,3	3,4		
Slovakia	57,5	70,9	54,6	65,1	69,3	68,3	71,3	71,6	0,7	10,3	6,7	6,5	9,3	9,3	9,4	10,0	9,3	2,6		
Finland	31,0	21,6	19,2	27,5	25,4	24,6	23,8	25,3	3,7	2,8	1,2	1,4	2,0	1,7	1,6	1,7	1,9	0,7		
Sweden	32,0	16,1	15,7	21,7	22,9	22,1	21,7	22,2	6,1	1,4	0,8	1,1	1,6	1,5	1,5	1,5	1,5	0,7		
England	31,3	27,1	26,2	35,3	36,5	37,4	39,2	39,1	12,0	1,4	1,4	1,9	2,5	2,7	2,7	2,7	2,2	0,8		

Source: Prepared by using the data from: EUROSTAT, “Long-term unemployment (12 months or more) (lfsa_upgan)” (online) http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsq_upgal&lang=en,15.06.2015; EUROSTAT, “Employment Performance Monitor Indicators: Long-term unemployment (tesem130)”,(online)[http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem130&plugin=1,15.06.2015.](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem130&plugin=1,15.06.2015) * No data available for Croatia and Netherlands for 2000.

Participatory Movements of Labor Market Policies

The efficiency of the labor market policies of member states and the compliance with the targets of the Union are assessed in analyses and searches conducted in order to achieve the employment goals of Europe 2020 Strategy. Services, measures and supports characterized as Active and Passive labor market policies in the literature have been collected under the titles of Labor market services, Labor market measures and Labor market supports by EUROSTAT (European Union Statistical Office). While labor market services involve areas of responsibilities of public employment organizations such as job placement, consultancy, etc., labor market measures characterized as active policies are categorized as training, employment incentives, sheltered employment and rehabilitation supports (includes disadvantageous groups), direct job creation supports and business establishment/entrepreneurship incentives. Passive labor market supports are categorized as non-business income and care services (including unemployment insurance benefits) and early retirement (European Commission B, 2015:7).

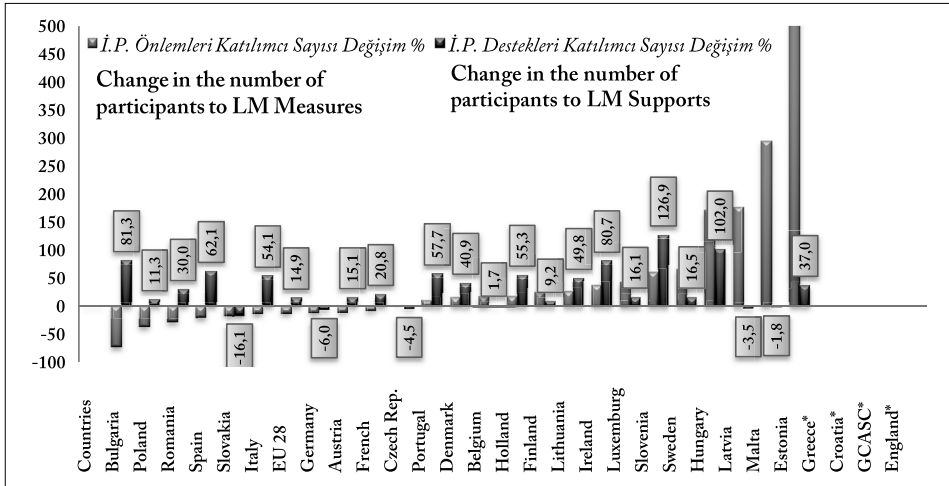
Labor market policies should be analyzed and discussed in terms of participants and expenses as well as indicators such as employment, unemployment and job vacancies. Europe which is under the effect of the financial crisis especially in 2008 is expected to increase the unemployment benefits that are characterized as passive policies, and to decrease the participation and expense ratios regarding the policies for the prevention of unemployment, which are characterized as active (Uşen, 2007:69).

Considering Graph 19 showing the changes in the number of participants to labor market measures and supports in European countries in 2008-2012, it is observed that the number of beneficiaries of labor market supports increased by 14.9% in EU 28. While the number of participants benefiting from labor market supports showed a very significant increase in Latvia (+175.6%), Malta (+294.6%) and Estonia (+510%), which are exclusions for such increase, the number of beneficiaries of support services is decreased. In Hungary, the number of participants benefiting from measures (+170.6%) and supports (+102%) both showed an increase. Generally, as it is seen in Graph 19 showing the countries ranked in ascending order

in terms of labor market measures, it can be said that the unemployment, which increased after the crisis across the EU apart from exceptions, increased the demand for passive labor market policies and decreased the participation to active labor market policies.

The countries with highest decrease in the participation to active labor market are Bulgaria (-71.6%), Poland (-35.6%), Romania (-28%), Spain (-20%), Slovakia (-16.9%), Italy (-12.9%), Germany (-11.6%), Austria (-10.3%), France (-7.4%) and Czech Republic (-1%). Decreases are observed in participations to both supports and measures of labor market in Slovakia, Germany and Czech Republic.

Graph 19: The Change in Number of Participants to Labor Market Measures and Supports in EU Countries (%), (2008-2012)



Source: Prepared by using the data from EUROSTAT, Labour Market Policy Statistics.

* No data available for Greece, Croatia, GCASC and England for 2011-12-13.

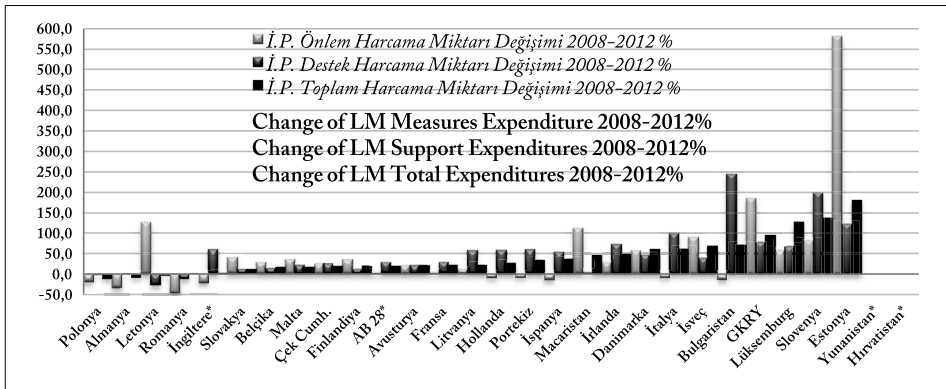
Distributions and Amounts of Expenditures in Labor Market Policy

It is possible to analyze the labor market policies in terms of amount in million Euros for labor market expenditures of the member states by

dividing to gross domestic product and in terms of the amount of expenditure when it is requested to work based on the purchasing power standard (PPS) per capita.

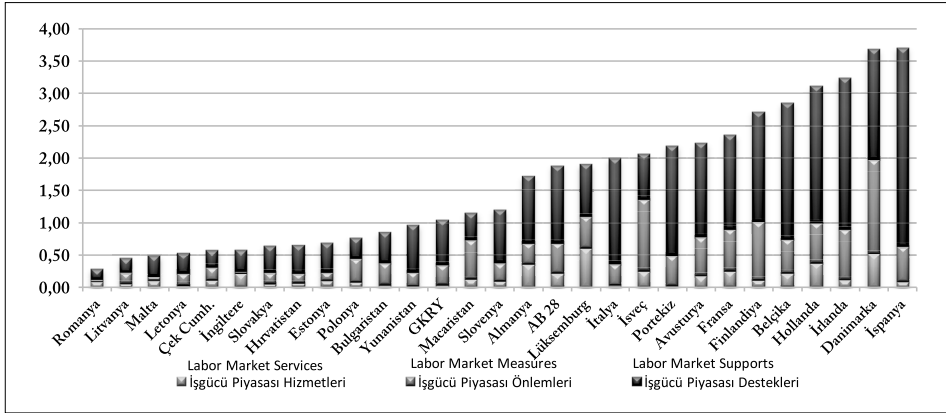
In Graph 20, which ranks the total labor market expenditures of EU countries in 2008–2012 in ascending order, changes in expenditures of labor market measures and supports (active–passive) are shown in terms of quantities. According to these data, the highest increase in total labor market expenditures are observed in Estonia, Slovenia, Luxemburg, GCASC, Bulgaria, Sweden and Italy, respectively. Among these countries, in Estonia, GCASC and Sweden, the share of labor market measures and in other countries, the share of labor market supports seem to have the highest impacts in total expenditure. In Poland, Germany, Latvia and Romania, decreases in total expenditure amounts were seen. However, the amounts of expenditures and the rates in GDP for the member states are as important as such increases.

Graph 20: The Changes of Labor Market Measures, Supports and Total Expenditure Amounts in EU Countries (%), (2008–2012)



Source: Prepared by using the data from EUROSTAT, Labour Market Policy Statistics. * No data available for Greece and Croatia in 2011–12–13 and the change in 2008–2011 was calculated for England, EU 28 and GCASC.

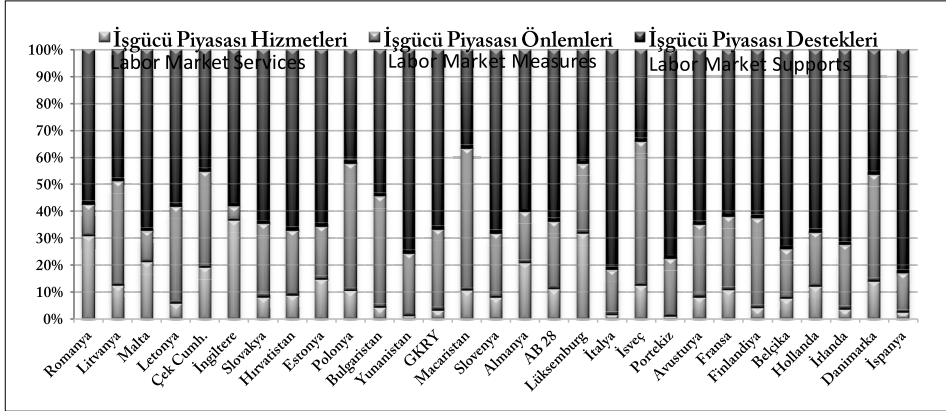
Graph 21: The Share of Labor Market Expenditures in GDP in EU Countries (%), (Services, Measures, Supports), (2013)*



Source: Prepared by using the data given in Table 15.* 2010 data were calculated for Greece, 2011 data for EU 28, GCASC and England, and 2012 data for Denmark, Spain, France, Croatia, Luxemburg, Hungary, Malta, Poland and Romania.

As it is shown in Graph 21, considering the labor market expenditures of EU countries in terms of their ratios to GDP, it is observed that labor market support expenditures (passive) have the highest share in GDP in all countries except Hungary and Poland, while labor market measures are in the second position and labor market service expenditures containing public employment services are at the lowest levels. These data show that most of the investments fighting against unemployment in EU countries are made for passive measures against the problems caused by unemployment. Thus, given the data in Table 13, Spain (3.07%), Ireland (2.37%), Netherlands (2.11%), Belgium (2.11%), Denmark 1.70%, Portugal (1.70%), Finland (1.69%), Italy (1.63%), France (1.45%) and Austria (1.45%) are the EU countries with the highest ratio of support expenditures which are above the EU average (1.20%) to passive (GDP), respectively. On the other hand, Denmark (1.46%), Sweden (1.11%), Finland (0.91%), Ireland (0.77%), France (0.64%), Netherlands (0.63%), Hungary (0.61%), Austria (60%) and Spain (0.55%) are the countries with the highest ratios of expenditures of labor market measures (active) to GDP and these countries are above the EU average (0.47%).

Graph 22: Percentage Distribution of the Share of Labor Market Expenditures in GDP in EU Countries (%), (Services, Measures, Supports), (2013)*



Source: Prepared by using the data given in Table 13. * 2010 data were calculated for Greece, 2011 data for EU 28, GCASC and England, and 2012 data for Denmark, France, Croatia, Luxemburg, Hungary, Malta, Poland and Romania.

The percentage of services, measures and supports in the ratios of expenditures of the countries to GDP was calculated in Graph 22 by following the order of magnitude of the ratio of labor market expenditures to GDP given in Graph 21 for EU countries. According to these data, these countries, in which the percentage of the labor market support expenditures in GDP is the highest and above the EU average (63.7%), are Spain (82.9%), Italy (81.8%), Portugal (77.5%), Greece (75.5%), Belgium (73.9%), Ireland (72.5%), Slovenia (68.3%), Netherlands (67.9%), Malta (67.3%), Croatia (67.0%), GCASC (66.6%), Estonia (65.1%), Austria (64.8%) and Slovakia (64.4%), respectively. The lowest percentage is found to be in Sweden (34.1%).

Given the labor market measure expenditures, the countries with the highest percentage and above the EU average (25.1%) are Luxemburg (25.8%), Austria (27.1%), Slovakia (27.2%), France (27.4%), GCASC (30.2%), Finland (33.5%), Czech Republic (35.6%), Latvia (35.8%), Lithuania (39.1%), Denmark (39.7%), Bulgaria (41.4%), Poland (47.5%), Hungary (52.9%) and Sweden (53.7%), respectively. England (5.4%) has

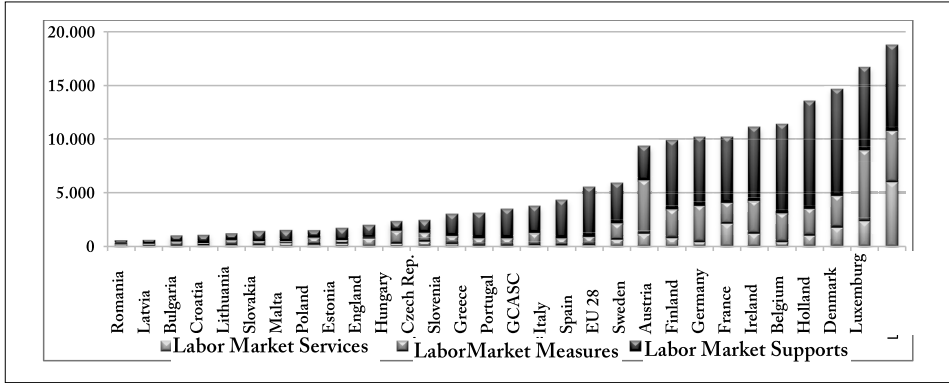
the lowest percentage. England (20.7%), Luxemburg (21.1%), Romania (30.8%), Malta (31.9%) and Germany (36.6%) have the highest and Portugal (0.9%), Greece (1.1%), Italy (1.5%) and Spain (2.3%) have the lowest percentages in labor market employment services, respectively.

Table 13: The Share of Labor Market Expenditures in GDP in EU Countries (%), (Services, Measures, Supports), (2008-2013)

Countries	Labor Market Services (%)		Labor Market Measures (%)		Labor Market Supports (%)		Total Labor Market Expenditures (%)	
	2008	2013*	2008	2013*	2008	2013*	2008	2013*
EU 28	0,20	0,21	0,46	0,47	0,94	1,20	1,60	1,88
Belgium	0,20	0,22	0,50	0,53	2,00	2,11	2,70	2,85
Bulgaria	0,05	0,04	0,25	0,35	0,15	0,46	0,45	0,84
Czech Rep.	0,12	0,11	0,11	0,20	0,19	0,26	0,42	0,57
Denmark	0,23	0,52	0,96	1,46	1,21	1,70	2,40	3,68
Germany	0,34	0,36	0,57	0,33	1,05	1,03	1,95	1,72
Estonia	0,04	0,10	0,03	0,14	0,21	0,45	0,28	0,69
Íreland	0,22	0,12	0,55	0,77	1,34	2,35	2,10	3,24
Greece	0,01	0,01	0,14	0,22	0,47	0,73	0,63	0,96
Spain	0,10	0,08	0,61	0,55	1,89	3,07	2,60	3,70
France	0,21	0,25	0,64	0,64	1,18	1,45	2,03	2,35
Croatia*	-	0,06	-	0,16	-	0,44	-	0,65
Italy	0,05	0,03	0,38	0,33	0,81	1,63	1,23	1,99
GCASC	0,04	0,03	0,11	0,31	0,41	0,69	0,56	1,04
Latvia	0,05	0,03	0,08	0,19	0,35	0,31	0,48	0,53
Lithuania	0,08	0,06	0,16	0,18	0,15	0,22	0,39	0,45
Luxemburg	0,05	0,61	0,36	0,49	0,55	0,81	0,96	1,90
Hungary	0,09	0,12	0,26	0,61	0,37	0,42	0,72	1,15
Malta	0,13	0,10	0,05	0,06	0,31	0,33	0,49	0,49
Netherlands*	0,30	0,37	0,72	0,63	1,11	2,11	2,13	3,10
Austria	0,16	0,18	0,51	0,60	1,16	1,45	1,83	2,23
Poland	0,09	0,08	0,47	0,36	0,35	0,32	0,91	0,77
Portugal	0,13	0,02	0,41	0,47	0,99	1,70	1,52	2,19
Romania	0,03	0,09	0,06	0,03	0,17	0,16	0,27	0,29
Slovenia	0,09	0,10	0,09	0,29	0,27	0,82	0,45	1,20
Slovakia	0,11	0,05	0,15	0,17	0,43	0,41	0,69	0,64
Finland	0,11	0,11	0,67	0,91	1,34	1,69	2,13	2,71
Sweden	0,16	0,25	0,67	1,11	0,58	0,70	1,41	2,06
England	0,30	0,21	0,04	0,03	0,20	0,33	0,54	0,58

Source: Prepared by using the data from: EUROSTAT, “Labour Market Policy Statistics”, (online) http://ec.europa.eu/eurostat/web/labour-market/labour-market-policy/database?p_p_id=NavTreeportletprod_WAR_NavTreeportletprod_INSTANCE_pISN6unmqWuR&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=1 , 18.06.2015. * 2010 data were calculated for Greece, 2011 data for EU 28, GCASC and England, and 2012 data for Denmark, Spain, France, Croatia, Luxemburg, Hungary, Malta, Poland and Romania.

Graph 23: Distribution of Labor Market Expenditures per People Willing to Work (PWW) in EU Countries, (Services, Measures, Supports and Total Expenditures) (PPS: According to Purchase Power Standard), (2013)*



Source: Prepared by using the data given in Table 14. * 2010 data were calculated for Greece, 2011 data for EU 28, GCASC and England, and 2012 data for Denmark, France, Croatia, Luxemburg, Hungary, Malta, Poland and Romania.

Another analysis method for labor market expenditures is the calculation of the expenditure amount in terms of purchasing power standard per people willing to work. Purchasing power standard (PPS) here is important since it enables to make a healthier assessment between the countries theoretically and eliminates the price differences between these countries to be assessed. The expression ‘people willing to work’ includes the unemployed individuals and labor force reserve. Labor force reserve refers to individuals who are excluded from the labor force and are suitable to work under current conditions and are willing to work; (European Commission B, 2015:19), (Gagel, 2008:3).

Given the data in Graph 23, in which the labor market expenditures per people willing to work in terms of purchasing power standard (PPS) are ranked in ascending order, expenditure per capita is above the EU average (5.901) and highest compared to other countries such as Luxemburg (9.355), Denmark (9.869), Netherlands (10.171), Belgium (10.27), Ireland (11.091), France (11.352), Germany (13.546), Finland (14.607), Austria (16.669) and Sweden (18.785), respectively. The lowest expenditure per

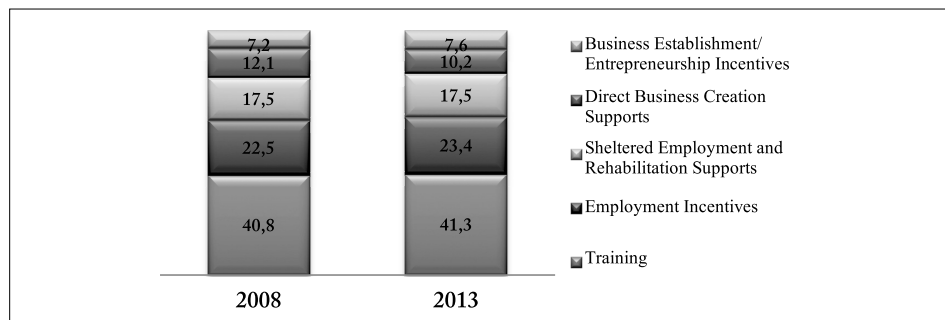
capita is in Romania (529), Latvia (578), Bulgaria (998), Croatia (1.024) and Lithuania (1.164).

Table 14: Distribution of Labor Market Expenditures per People Willing to Work in EU Countries (PWW), (Services, Measures, Supports and Total Expenditures), (PPS: Satin According to Purchasing Power Standard), (2008-2013)

Countries	Labor Market Services		Labor Market Measures		Labor Market Supports		Total Labor Market Expenditures	
	2008	2013*	2008	2013*	2008	2013*	2008	2013*
EU 28	762	661	1.729	1.482	3.537	3.759	6.028	5.901
Belgium	1.181	1.027	3.019	2.501	11.964	10.018	16.164	13.546
Bulgaria	96	43	470	412	279	543	845	998
Czech Rep.	575	456	563	844	935	1.073	2.073	2.373
Denmark	1.682	2.342	6.961	6.614	8.712	7.713	17.355	16.669
Germany	1.428	2.124	2.418	1.962	4.444	6.140	8.291	10.227
Estonia	118	252	89	339	653	1.115	860	1.706
Íreland	1.460	416	3.673	2.706	9.007	8.231	14.140	11.352
Greece	62	35	771	729	2.538	2.361	3.371	3.125
Spain	301	126	1.761	819	5.493	4.572	7.555	5.517
France	1.192	1.195	3.696	3.036	6.783	6.859	11.671	11.091
Croatia*	-	90	-	248	-	686	-	1.024
Italy	123	63	1.017	711	2.177	3.480	3.316	4.255
GCASC	267	119	855	1.126	3.039	2.486	4.160	3.731
Latvia	62	33	90	209	398	337	549	578
Lithuania	204	143	427	453	404	568	1.035	1.164
Luxemburg	996	5.981	7.413	4.836	11.509	7.967	19.917	18.785
Hungary	213	242	643	1.215	899	839	1.756	2.296
Malta	451	312	172	170	1.104	990	1.726	1.472
Netherlands*	2.549	1.759	6.069	2.941	9.355	9.907	17.973	14.607
Austria	747	795	2.366	2.676	5.322	6.399	8.435	9.869
Poland	155	155	824	700	614	622	1.593	1.477
Portugal	493	32	1.589	747	3.845	2.692	5.927	3.472
Romania	77	163	134	63	389	302	599	529
Slovenia	405	237	442	717	1.268	2.038	2.115	2.991
Slovakia	314	113	431	377	1.242	891	1.987	1.381
Finland	557	411	3.263	3.406	6.561	6.354	10.381	10.171
Sweden	868	1.153	3.599	5.017	3.090	3.185	7.558	9.355
England	1.329	725	171	108	893	1.147	2.393	1.981

Source: Prepared by using the data from: EUROSTAT, “Labour Market Policy Statistics”, (online) http://ec.europa.eu/eurostat/web/labour-market/labour-market-policy/database?p_p_id=NavTreeportletprod_WAR_NavTreeportletprod_INSTANCE_pISN6unmqWuR&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=1 , 18.06.2015. * 2010 data were calculated for Greece, 2011 data for EU 28, GCASC and England, and 2012 data for Denmark, France, Croatia, Luxemburg, Hungary, Malta, Poland and Romania.

Graph 24: The Share of Sub-indicators of Labor Market Measures (Active) in Total Labor Market Measure Expenditures in EU 28 (%), (PPS/PPW) (2008-2013)

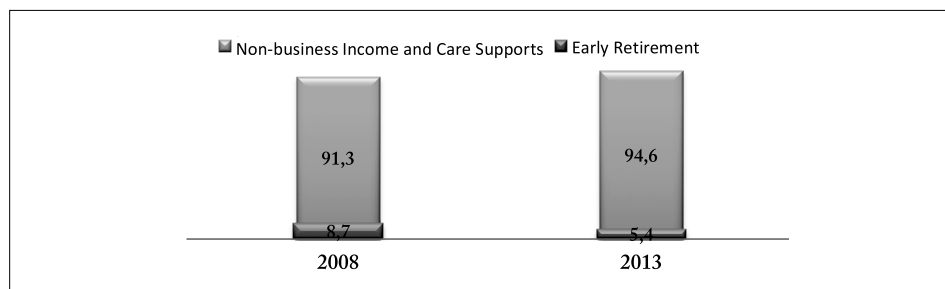


Source: Prepared by using the data from EUROSTAT, Labour Market Policy Statistics.

As it can be seen in Graph 24 showing the change of expenditures shares per capita in sub-categories of labor market measures across EU in 2008-2013, the highest expenditure per capita as of 2013 was made for training services (41.3%). While expenditure of employment incentives reached 23.4%, sheltered employment (disadvantageous) and rehabilitation services remained at 17.5%. Expenditure shares of direct business creation supports (10.2%) and business establishment supports (7.2%) were decreased.

Given the sub-indicators of labor market supports across the EU in Graph 25, it is observed that non-business income and care supports are increased to 94.6% in 2013 and early retirement expenditures (5.4%) are decreased as in all countries.

Graph 25: The Share of Sub-Indicators of Labor Market Supports (Passive) in Total Labor Market Support Expenditures (%), (PPS/PWW), (2008-2013)



Source: Prepared by using the data from EUROSTAT, Labour Market Policy Statistics.

Conclusion

Employment and unemployment issues and policies, which have become one of the common concerns of the Europe since 90s, have formed the European Employment Strategy with primarily Treaty of Amsterdam, Luxemburg and Lisbon Summits. 2010 targets, which could not be achieved after 2008 financial crisis, have been transformed into a new employment policy and strategy paper containing an inclusive growth by maintaining sustainable development by protecting education, environment, technological and digital development, economic growth and global competition conditions, climate and environment, and by fighting against poverty and social exclusion. This policy titled “Europe 2020 Strategy” has reached to a midterm as of 2015 and has been ready to be analyzed and revised if necessary.

Considering the findings obtained in the light of developments of which details are given in the paper, as regards to employment targets across the EU, it is seen that the target of employing 75% of the population aged between 20-64 remained at 69.2% as of 2014 and according to 70% employment level, which was obtained in 2008, a trend for decrease can be observed. On the other hand, there is an increase (63.5% with an increase of +0.7%) in the employment rate of women aged between 20-64 years and a decrease (75.0% with a decrease of -2.8%) in the employment rate of men between the years 2008-2014, respectively.

Europe 2020 targets may differ in each member country in the Union. This situation can be clearly seen in national reform programs of the countries. Given 2020 employment targets specified by such countries for people aged between 20-64 and present situation in 2014, Germany and Sweden seem to have achieved their 2020 employment targets and Luxemburg (0.9%), Lithuania (1.0%), Czech Republic (1.5%), Estonia (1.7%) and Ireland (2%) seem to be the countries that are closest to their targets. The countries seem to be far away from their targets are Greece (16.7%), Spain (14.1%), Bulgaria (10.9%), Hungary (8.3%), Portugal

(7.4%), GCASC (7.4%), Slovenia (7.2%), Italy (7.1%), Slovakia (6.1%) and Belgium (6.1%), respectively. England with an employment rate of 76.2% does not have any employment rate target for 2020. However, these data do not allow making an assessment sufficiently.

In this context, the analysis should be carried out by considering the employment targets and 2014 employment rates of the countries. For example; Sweden, Denmark and Netherlands with employment target of 80%, Germany and Austria with 77% and Bulgaria and Estonia with 76% have aimed to achieve an employment target above the targeted rate at EU level which is 75%. According to these data, 2014 employment rates were 75.9% in Denmark, 76.1% in Netherlands, 74.3% in Estonia, 74.2% in Austria and 73.1% in Finland despite there is progressed required for these countries to reach their goals in terms of employment rates. Among these countries, Bulgaria is really far from its employment target.

On the other hand, in some countries, 2014 employment rates are remarkably less than 60%. Among these countries; Greece has achieved an employment rate of 53.3% with an employment target of 70%, Spain has achieved 59.9% with an employment target of 74%, Italy has achieved to 59.9% with an employment target of 67%, and Croatia has achieved to 59.2% with an employment target of 72.9%, respectively. In this sense, the employment policies in such countries can be considered as unsuccessful given the progress required to meet their targets and the data provided for the year 2014. England has an employment rate of 76.2% as of 2014 and it has not set an employment target for 2020.

Consequently, Europe 2020 Strategy, which has already completed its five years, can be considered as successful since labor markets got rid of the effect of the global crisis as of 2010 compared to 2008, and since it provides a new motivation on the basis of union as well as activating the financial and administrative employment and unemployment policies. However, this achievement cannot be observed in all Strategic targets. Poverty and social exclusion indicators showed a negative development despite the success in education. At this point, policies, support and measures of active-passive labor market should be revised; registered employment and new jobs should be increased; holistic and more inclusive policies and targets aiming a sustainable, qualified and less gender gapped employment

should be developed and implemented.

Within the scope of fighting against poverty and social exclusion, accessing to labor market and finance sources should be easier as well as undertaking a venture/enterprise. At this point, individuals out of labor market should be employed as registered workers and their employment should be permanent, qualified, sufficient and compatible with human dignity. Development of studies and inspections for the participation of women in labor force and employment of any individual compatible with human dignity is considered as important in terms of achievement of 2020 targets of the strategy.

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