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**Research Report**

## The Turkish economy in a regional perspective

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# The Turkish Economy in a Regional Perspective

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HWWI Policy  
Paper 3-12

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# The Turkish Economy in a Regional Perspective

**Secil Pacaci Elitok, Thomas Straubhaar**

The end of the Cold War changed the political landscape of the Black Sea area and the Middle East completely:

- In the North-East, the collapse of the Soviet Union was followed by the nascence of new sovereign nation states – with all the problems of nation building and all the costs of going through a fundamental economic and social transformation from communist systems to market oriented economies.
- In the West, the European Union (EU) widened geographically and deepened structurally, increasing the number of full members from 12 to 15 (1995) to 25 (2004) and finally to 27 (2007). Furthermore a European Monetary Union with a common currency for 16 members was established.
- Finally, the South-East – disturbed by political crisis and wars – has become more important as a supplier of energy (i.e. gas and oil) not only for the area itself but even more for Europe and other world regions.

In sum, the Black Sea area and the Middle East have become one of the hottest geopolitical spots worldwide. It is of enormous interest as a supplier of energy (i.e. oil and gas) to the world market. And it has become an area where many actors have strategic interests for many reasons. One single ranking, the military expenditures, illustrates this point (Table 1). Many of the countries with the highest share of military expenditures on GDP<sup>1</sup> are situated more or less close to Turkey, belonging to the Balkans, the Middle East or the Black Sea area. Consequently the state of the Turkish relationship to its neighbors is and will be a key issue for stability and security – not only for the region itself but also for the world as a whole.

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<sup>1</sup> Military expenditures are measured as spending on defense programs as a percent of gross domestic product (GDP); the GDP is calculated on an exchange rate basis, i.e., not in terms of purchasing power parity (PPP). Data shown in Table 1 are for the most recent year available, mostly 2008. Data source: World Bank World Development Indicators.

*Table 1: Military Expenditures as % of Gross Domestic Product 2008 (or latest year available)*

<b>World Ranking</b>	<b>Country Name</b>	<b>2008</b>
1	Oman	10.4%
2	Saudi Arabia	8.2%
3	Georgia	8.1%
4	Israel	8.0%
5	Jordan	5.9%
6	Yemen, Rep. of	4.5%
7	Lebanon	4.4%
8	United States	4.3%
9	Sudan	4.2%
10	Djibouti	4.1%
17	Cyprus	3.7%
19	Greece	3.5%
20	Russian Federation	3.5%
22	Syria	3.4%
25	Armenia	3.2%
30	Iran	2.9%
32	Azerbaijan	2.7%
34	Ukraine	2.7%
45	Bulgaria	2.2%
47	Turkey	2.2%
77	Romania	1.5%
127	Moldova	0.4%

Data Source: World Bank: World Development Indicators.

## **1. The Black Sea Area as an Economic Area**

The Gross Domestic Product (GDP) of the Black Sea Area has grown from about 1 trillion US-\$ in 1990 to 3.6 trillion in 2008 (see Table 2).<sup>2</sup> That is an increase by a factor of 3.4 what is much more than for the economy of the US (which increased by a factor of 2.5) or the Euro Area (2.4). Consequently, the Black Sea Area has widened its economic size compared to the size of the US economy by 7.5% from 18.4% in 1990 to 25.9% in 2008.

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<sup>2</sup> All countries having either a direct common border with Turkey or having a sea border with the Black Sea are called Turkish neighbors. Thus, Turkish neighborhood consists of the following 13 countries: Armenia, Azerbaijan, Bulgaria, Cyprus, Georgia, Greece, Iran, Iraq, Moldova, Romania, Russia, Syria and Ukraine.

Table 2: The Black Sea Area 1990 and 2008: GDP in billion current US-\$

	1990 GDP in billion \$	1990 GDP US = 100	2008 GDP in billion \$	2008 GDP US = 100	Increase 1990-2008 1990 = 100	Change 1990-2008 $\Delta$ to US
Russia	517	9.0	1679	11.9	325	2.9
Turkey	151	2.6	735	5.2	488	2.6
Greece	94	1.6	356	2.5	378	0.9
Iran	116	2.0	286	2.0	247	0.0
Romania	38	0.7	200	1.4	522	0.8
Ukraine	81	1.4	180	1.3	221	-0.1
Syria	12	0.2	55	0.4	449	0.2
Bulgaria	21	0.4	50	0.4	241	0.0
Azerbaijan	9	0.2	46	0.3	521	0.2
Cyprus	6	0.1	25	0.2	446	0.1
Georgia	8	0.1	13	0.1	165	0.0
Armenia	2	0.0	12	0.1	528	0.0
Moldova	4	0.1	6	0.04	168	0.0
<b>Black Sea Area</b>	1058	18.4	3644	25.9	344	7.5
<b>United States</b>	5757	100	14093	100	245	0.0
<b>Euro Area</b>	5686	98.8	13582	96.4	239	-2.4

Data Source: World Bank: World Development Indicators.

GDP = Gross Domestic Product in current billions of US-\$.

US = 100 sets the GDP of the US to hundred; values for single countries show the size of their economy compared to the US.

Increase 1990-2008 with 1990 = 100 shows the total growth for a single economy between 1990 and 2008 in percent

Change 1990-2008  $\Delta$  to US = the change between 1990 and 2008 of the size of national GDP vis-à-vis the US.

No reliable data available for Iraq.

The population development of the Black Sea Area (BSA) is of special interest. Today, about 417 million people live in the BSA. This is about 6% of the World population. There will be a slight population increase to about 430 million only in the next twenty years. However, by the year 2050 the population of the BSA will have almost the same size as today, because World population will grow faster and reach about 9 billion - what is about 30% more than today, and the size of the BSA population will decline to about 5% of the total World population.

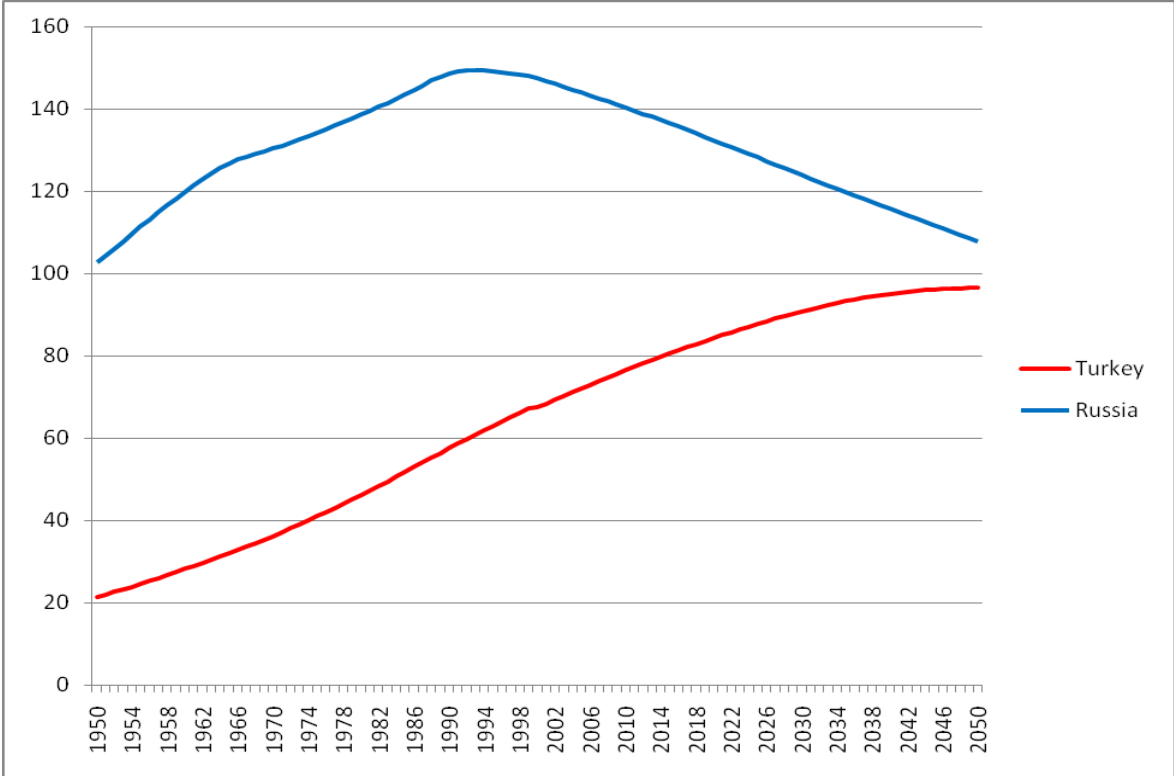
Table 3: Population Projections for the BSA and the World from 2010 to 2050 in million people

Country	2010 million	BSA =100	2020 million	BSA =100	2030 million	BSA =100	2040 million	BSA =100	2050 million	BSA =100
RUSSIA	139	33.4	132	30.9	124	28.8	116	27.1	109	25.8
TURKEY	77	18.4	85	19.9	91	21.2	95	22.2	97	23.0
IRAN	74	17.7	84	19.6	91	21.0	96	22.4	99	23.4
UKRAINE	45	10.9	42	9.8	38	8.9	35	8.1	31	7.5
SYRIA	21	5.1	26	6.0	29	6.8	32	7.5	35	8.2
ROMANIA	21	5.1	20	4.7	19	4.4	17	4.0	16	3.7
GREECE	11	2.7	11	2.6	11	2.6	11	2.6	11	2.6
AZERBAIJAN	9	2.1	9	2.2	10	2.3	10	2.3	9	2.2
BULGARIA	7	1.8	7	1.6	6	1.5	6	1.3	5	1.2
GEORGIA	4	1.0	4	1.0	4	0.9	4	0.8	3	0.7
MOLDOVA	4	0.9	4	0.9	3	0.8	3	0.8	3	0.7
ARMENIA	3	0.7	3	0.7	3	0.7	3	0.7	3	0.6
CYPRUS	1	0.2	1	0.2	1	0.2	1	0.3	1	0.3
BSA	417	100	427	100	431	100	429	100	423	100
		World = 100		World = 100		World = 100		World = 100		World = 100
BSA	417	6.1	427	5.6	431	5.3	429	4.9	423	4.7
US	310	4.5	338	4.5	360	4.4	378	4.4	394	4.4
EURO AREA	324	4.7	326	4.3	325	4.0	321	3.7	315	3.5
WORLD	6831	100	7576	100	8205	100	8677	100	9014	100

Data Source: World Bank: <http://go.worldbank.org/H4UN4D5KI0>.

However, there is a dramatic change in the population development within the BSA. Today, Russia has the largest population by far (with 132 million people that is almost one third of BSA's total) and Turkey and Iran follow with about 85 and 84 million people (that is about one fifth of BSA's total). In 2050, the population in Russia, Turkey and Iran will have almost the same size of about 100 million people. Table 3 and Figure 1 show that the population in Russia will decline by 22% while the Turkish population will increase by 27% and the Iranian population will increase by one third.

Figure 1: Population Development in Turkey and Russia, 1950 – 2050 in million people\*



Data Source: OECD Factbook 2008: Economic, Environmental and Social Statistics. Paris (OECD) 2008.

\*The OECD population projections deviate slightly from the United Nations World Population Prospects. They correspond for Turkey to the medium variant and for Russia to the low variant of the population projections.

## 2. Turkey as a Regional Economic Power

Turkey was and is a regional power within the Black Sea Area and the Middle East. Its economy produced a GDP of about 735 billion US-\$ in 2008 (see Table 2). This is one fifth of the total GDP of the area and 37%, if the Russian economy is not counted. The Turkish GDP is about half the size of the Russian GDP but has twice the size of the Greek or the



Iranian GDP. It was about 2.6% of the US GDP in 1990. Since then the Turkish economy has caught up remarkably. It has gone through a period of dynamic growth (with some deep crises in between). And nowadays it reaches about 5.2% of the US GDP. Furthermore, Table 2 shows that the Turkish economy has had the fastest growth of all larger economies in the Black Sea area (with the exception of Romania). Of course, the strong population development makes Turkey a gravity power of the Black Sea Area.

As it can be seen from Table 4, the GDP levels in Turkey and its neighborhood varies from one country to another and it is difficult to observe a common path. Considering Greece as an exception due to its specific deficit, the rest of the countries will reach to positive growth rates in 2011. However, some countries (Georgia, Turkey etc.) will reach the pre-crisis growth rates and will even achieve better rates, whereas some other countries (Moldova, Romania etc.) will not be able recover that soon and even in 2011, their growth rates will be quite poor. Consumer Prices present relatively more coherent trend with a quick recovery in 2011. Exceptions from this falling trend in consumer prices are Iraq, Moldova and Syria. Finally, the current account balance figures of the area are somewhat consistent with each other. Except Armenia, current account balance as a share of GDP will improve in all countries in the area by the year 2011, yet the range of change varies between -13.8 and 24.2.

*Table 4: Economic situation in Turkey and its Neighborhood after the Economic Crisis of 2008/2009*

	Real GDP (annual % change)				Consumer Prices (annual % change)				Current Account Balance (percent of GDP)			
	2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
<b>Armenia</b>	6.8	-14.4	1.8	3.0	9.0	3.4	6.8	5.2	-11.5	-13.8	-13.0	-12.6
<b>Azerbaijan</b>	10.8	9.3	2.7	0.6	20.8	1.5	4.7	3.5	35.5	23.6	25.3	24.2
<b>Bulgaria</b>	6.0	-5.0	0.2	2.0	12.0	2.5	2.2	2.9	-24.2	-9.5	-6.3	-5.8
<b>Cyprus</b>	3.6	-1.7	-0.7	1.9	4.4	0.2	2.7	2.3	-17.7	-9.3	-11.4	-10.9
<b>Georgia</b>	2.3	-4.0	2.0	4.0	10.0	1.7	4.9	5.0	-22.7	-12.2	-14.2	-13.8
<b>Greece</b>	2.0	-2.0	-2.0	-1.1	4.2	1.4	1.9	1.0	-14.6	-11.2	-9.7	-8.1
<b>Iran</b>	2.3	1.8	3.0	3.2	25.4	10.3	8.5	10.0	7.2	2.4	2.3	1.7
<b>Iraq</b>	9.5	4.2	7.3	7.9	2.7	-2.8	5.1	5.0	15.1	-19.4	-21.0	-5.5

<b>Moldova</b>	7.8	-6.5	2.5	3.6	12.7	0.0	7.7	5.7	-16.3	-7.9	-9.7	-9.7
<b>Romania</b>	7.3	-7.1	0.8	5.1	7.8	5.6	4.0	3.1	-12.2	-4.4	-5.5	-5.5
<b>Russia</b>	5.6	-7.9	4.0	3.3	14.1	11.7	7.0	5.7	6.2	3.9	5.1	4.6
<b>Syria</b>	5.2	4.0	5.0	5.5	15.2	2.5	5.0	5.0	-3.6	-4.5	-4.0	-3.5
<b>Turkey</b>	<b>0.7</b>	<b>-4.7</b>	<b>5.2</b>	<b>3.4</b>	<b>10.4</b>	<b>6.3</b>	<b>9.7</b>	<b>5.7</b>	<b>-5.7</b>	<b>-2.3</b>	<b>-4.0</b>	<b>-4.4</b>
<b>Ukraine</b>	2.1	-15.1	3.7	4.1	25.2	15.9	9.2	8.9	-7.1	-1.7	-2.3	-2.3

Data Source: IMF: World Economic Outlook, April 2010, Various Tables.

### 3. The Heterogeneity of the Turkish Neighborhood

Table 2 shows how heterogeneous the Black Sea Area and the Middle East was and still is. While the Russian economy has produced a GDP of 1.6 trillion in 2008, most of the countries of the area generate only a tiny fraction of the Russian GDP.

Table 5 presents the GDP per capita. It confirms the heterogeneity of the Black Sea Area and the Middle East. There are high income countries in the West (Greece and Cyprus) with an average national per capita income that is almost 3.5 times (Greece) or more than 2.6 times (Cyprus) the average per capita GDP of the region as a whole. And there are very poor countries, like Moldova or Syria, with an average national per capita GDP that is about one quarter (Syria) to one sixth (Moldova) of the average GDP for the group. There is an income gap of almost twenty to one between the richest and the poorest countries of the area.

*Table 5: GDP per Capita in Turkey and its neighborhood 2008*

<b>All data for 2008</b>	<b>GDP per Capita in current US-\$</b>	<b>GDP per Capita Average = 100</b>
<b>Greece</b>	31875	346
<b>Cyprus</b>	24306	264
<b>Russia</b>	11340	123
<b>Turkey</b>	10744	117
<b>Romania</b>	9302	101
<b>Bulgaria</b>	6579	71
<b>Iran</b>	5350	58
<b>Azerbaijan</b>	5287	57
<b>Armenia</b>	3900	42
<b>Ukraine</b>	3888	42

Georgia	2955	32
Syria	2594	28
Moldova	1667	18
Average (mean)	9214	100
VC for the Area	0.98	
US	46724	507
Euro Area	41610	452
VC for the EU-27	0.78	
VC for the EU-15	0.34	

Data Source: World Bank: *Quick Query Database*.

VC = Variation Coefficient = standard deviation divided by the mean.

No reliable data available for Iraq.

Furthermore, Table 5 reproduces the Variation Coefficient (VC) as an indicator to measure and compare the heterogeneity of an area.<sup>3</sup> It shows a value of 0.98 for Turkey and its neighborhood and 0.78 for the current EU with 27 member states and 0.34 for the EU of 15 member states not including the ten new members in Eastern Europe, Malta and Cyprus. That clearly demonstrates that Turkey and its neighborhood are a much more diverse region than the EU is.

#### 4. Conclusions

One can observe heterogeneity to a great extent within the Black Sea Area and the Middle East. Economic forecasts on the future of the Turkish economy and Turkey's neighborhood postulate that this heterogenous structure will continue and become even more intensified since the dynamics of each economy are quite diverse. The discrepancies among the countries in the region can be considered as a sign for a future divergent pattern. The probability of these countries to converge is fairly low. Moreover, the heterogeneity of the Turkish neighborhood has implications in terms of distribution of gains from trade. Due to the gaps among countries with respect to their main macroeconomic indicators such as GDP, GDP per capita or current account balance, gains from trade are and will be distributed unequally. In this uneven distribution, Turkey's role and its relations with its trade partners are of considerable importance.

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<sup>3</sup> The variation coefficient (VC) is a dimensionless normalized measure, defined as the ratio of the standard deviation  $\sigma$  to the mean  $\mu$ . It allows a comparison of the spread of GDP or GDP per capita between different areas.

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