

# tepaV

The Economic Policy Research Foundation of Turkey

## **Turkish Economy: Achievements and Steps Ahead**

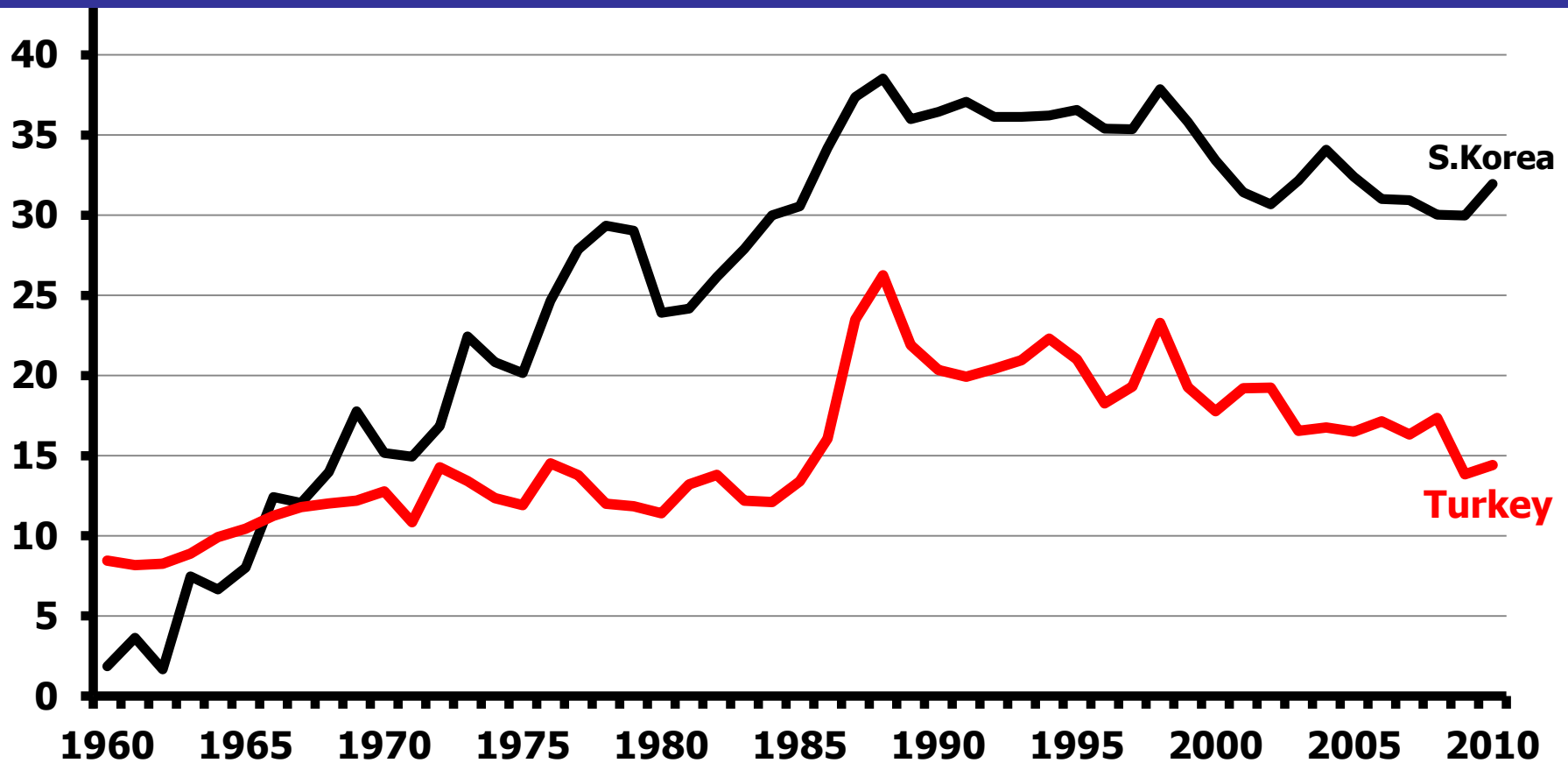
Ankara, 2 October 2013

# Outline

- How Turkish Economy Evolved
  - What do we produce? What should we produce?
  - Is there a range problem?
- Connectivity as a major bottleneck
  - Not all Turkey is connected to the EU
- What is ahead?
  - Short term risks
  - Long term aspirations

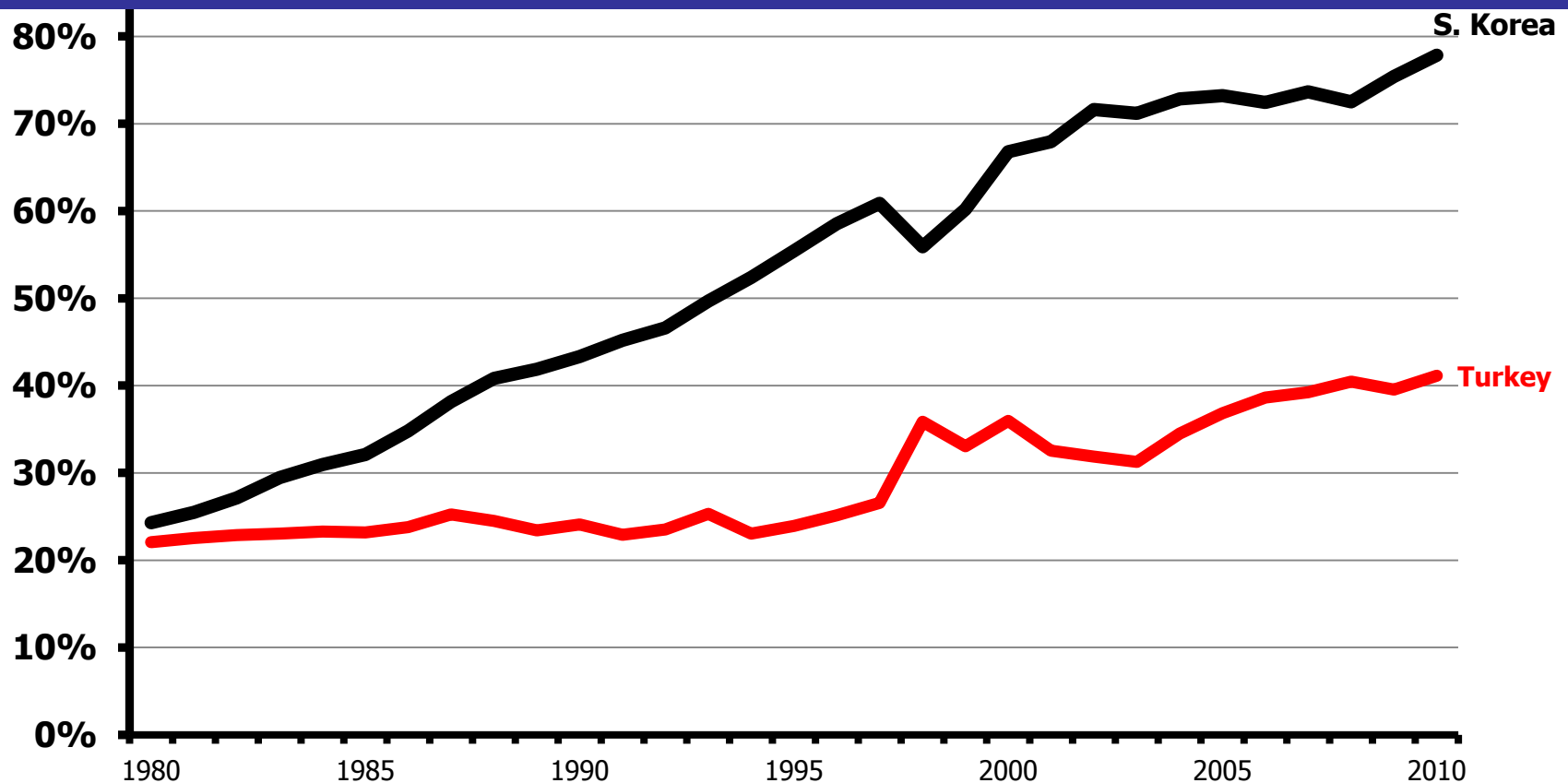
# A tale of two countries...

## Gross domestic savings (as % of GDP), 1960-2010



# Tale of divergence?

GDP per capita in S.Korea and Turkey  
as percentage of GDP per capita in Germany., (PPP, 1980-2010)



# Turkey: an outlier?

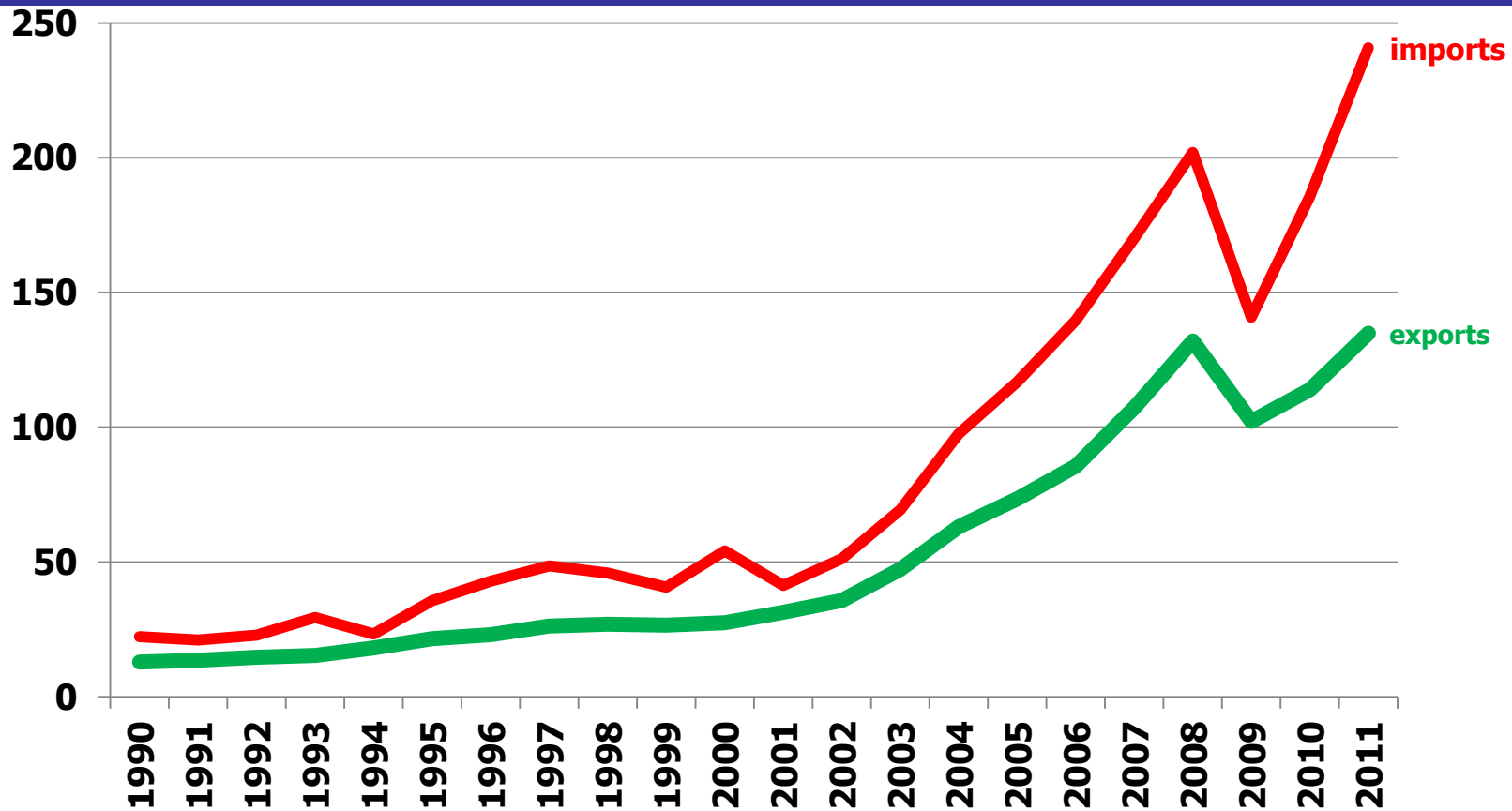
World Ranking (by change in urbanization rate in the last 52 years)	Country*	Urbanization difference during the last 50 years	Urbanization rate in 1960	Urbanization rate in 2012	Years of Schooling, 2012	Share of High Tech. in Exports, 2011
1	Korea	55.5	27.7	83.2	11.6	29
2	S. Arabia	51.0	31.3	52.3	7.8	0.7
3	Angola	48.7	10.4	59.1	4.7	
4	Malaysia	45.1	26.6	72.1	9.5	45
5	Algeria	42.4	30.5	72.9	7.6	0.5
6	<b>Turkey</b>	<b>39.9</b>	<b>31.5</b>	<b>71.4</b>	<b>6.5</b>	<b>4</b>
7	Brazil	38.5	46.1	84.6	7.2	11
8	Cameroon	38.1	13.9	52.1	5.9	5
9	Indonesia	36.1	14.6	50.7	5.8	11
10	Iran	35.3	33.7	69.1	7.8	5

# Today's challenge in Turkey: Can we become a top-10 economy by 2023?

		Nominal GDP (billion USD)	Output per worker (thousand USD)	
Top-10	1	USA	14,582	104.9
	2	China	5,879	7.9
	3	Japan	5,498	87.9
	4	Germany	3,310	85.4
	5	France	2,560	99.5
	6	UK	2,246	77.6
	7	Brazil	2,088	94.8
	8	Italy	2,051	89.7
	9	India	1,730	4.1
	10	Canada	1,574	92.4
	11	Russia	1,480	21.2
	12	Spain	1,407	76.3
	13	Mexico	1,040	23.7
	14	S. Korea	1,014	42.6
	15	Australia	925	82.2
	16	Netherlands	783	91.1
	<b>17</b>	<b>Turkey</b>	<b>735</b>	<b>32.5</b>
	18	Indonesia	707	6.5
	19	Switzerland	524	113.4
	20	Poland	469	31.3

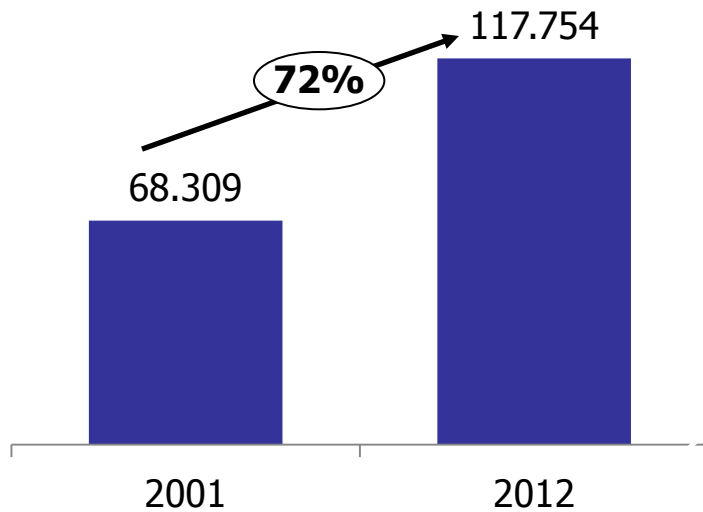
# Rapid trade integration after 2001 crisis

Turkey's imports to and exports from the World  
1990-2011, USD bn

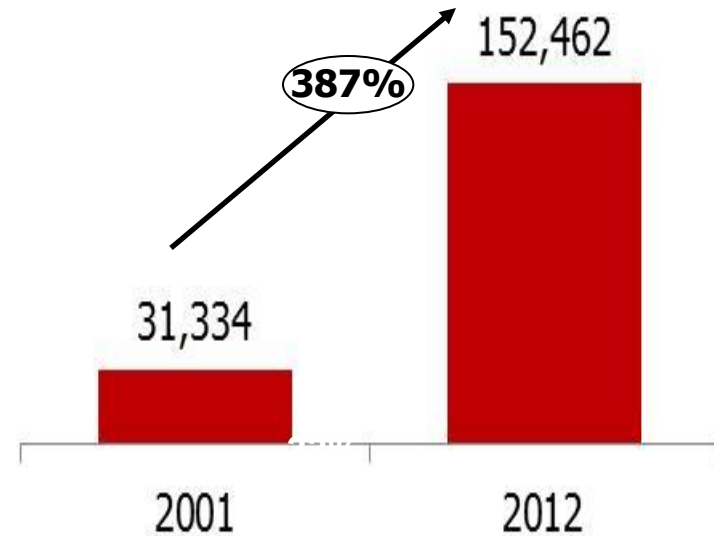


# Key economic indicators after 2001 crisis

GDP (1998 prices)



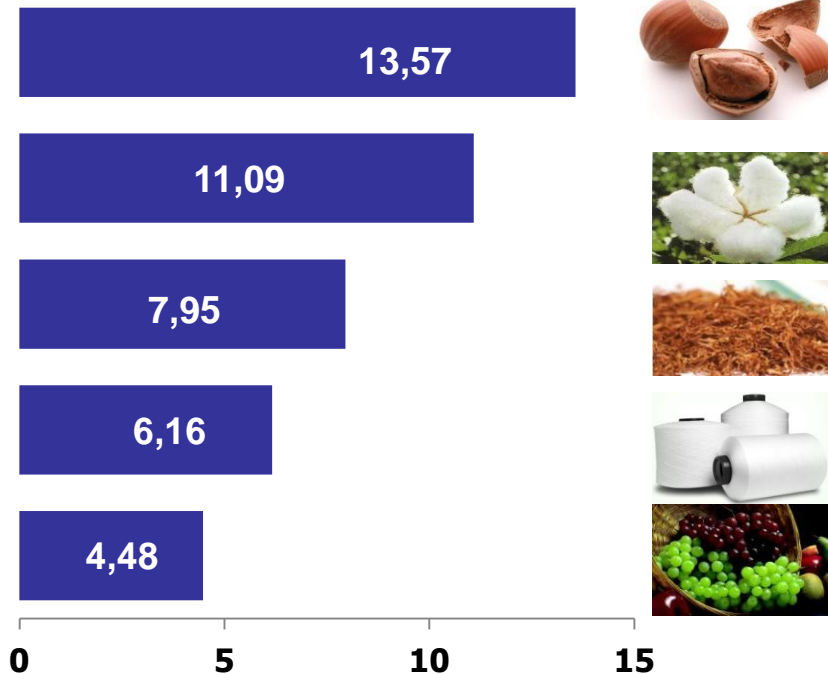
Exports (billion \$)



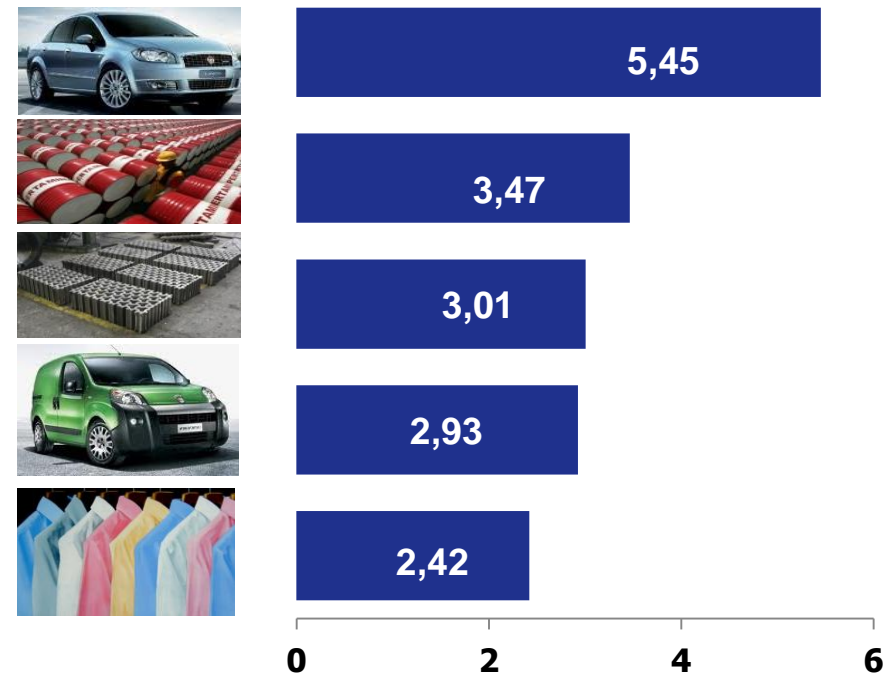


# Economic transformation: a lot of diversification and a little bit of sophistication

Turkey's top-5 export items (1980, share %)

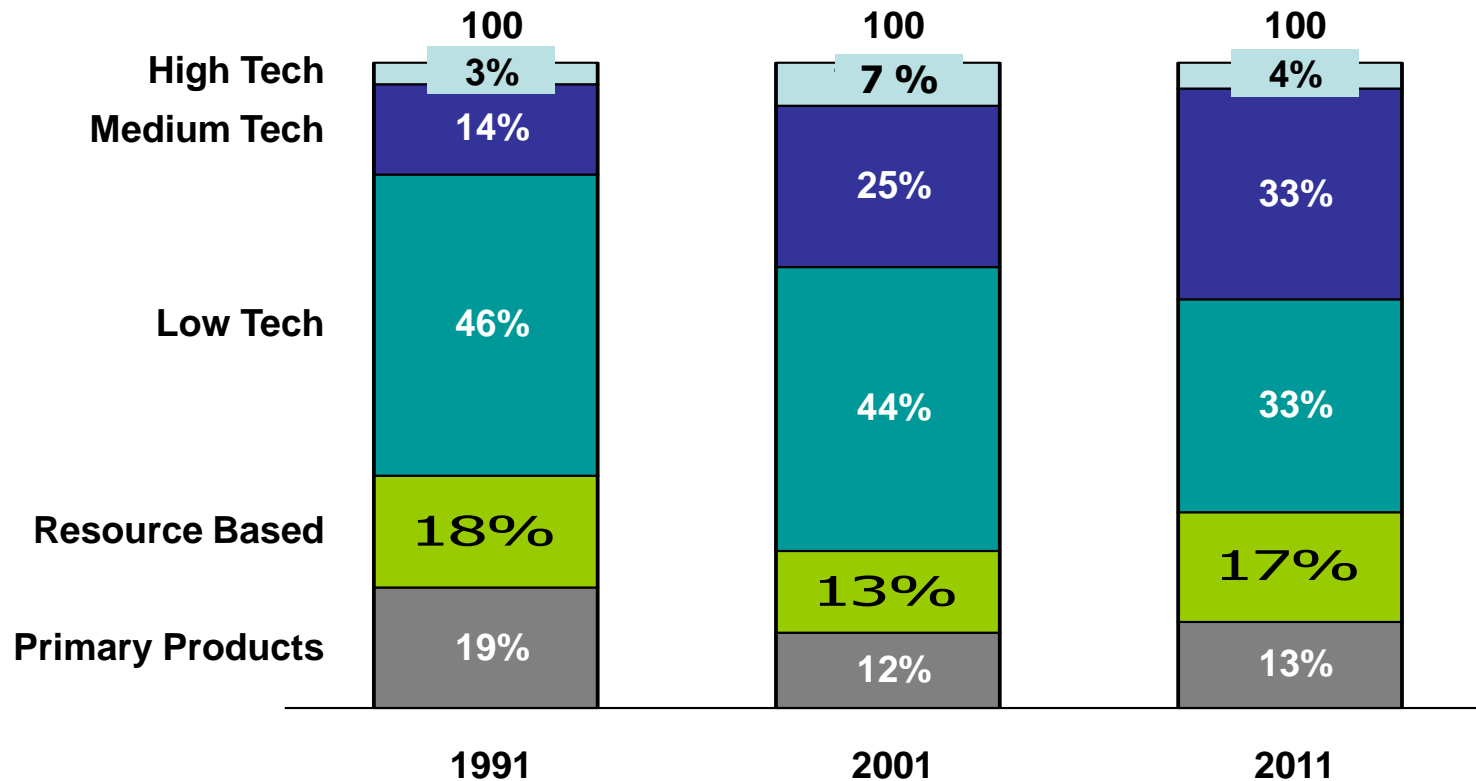


Turkey's top-5 export items (2010, share %)



# Sophistication of Turkey's exports..

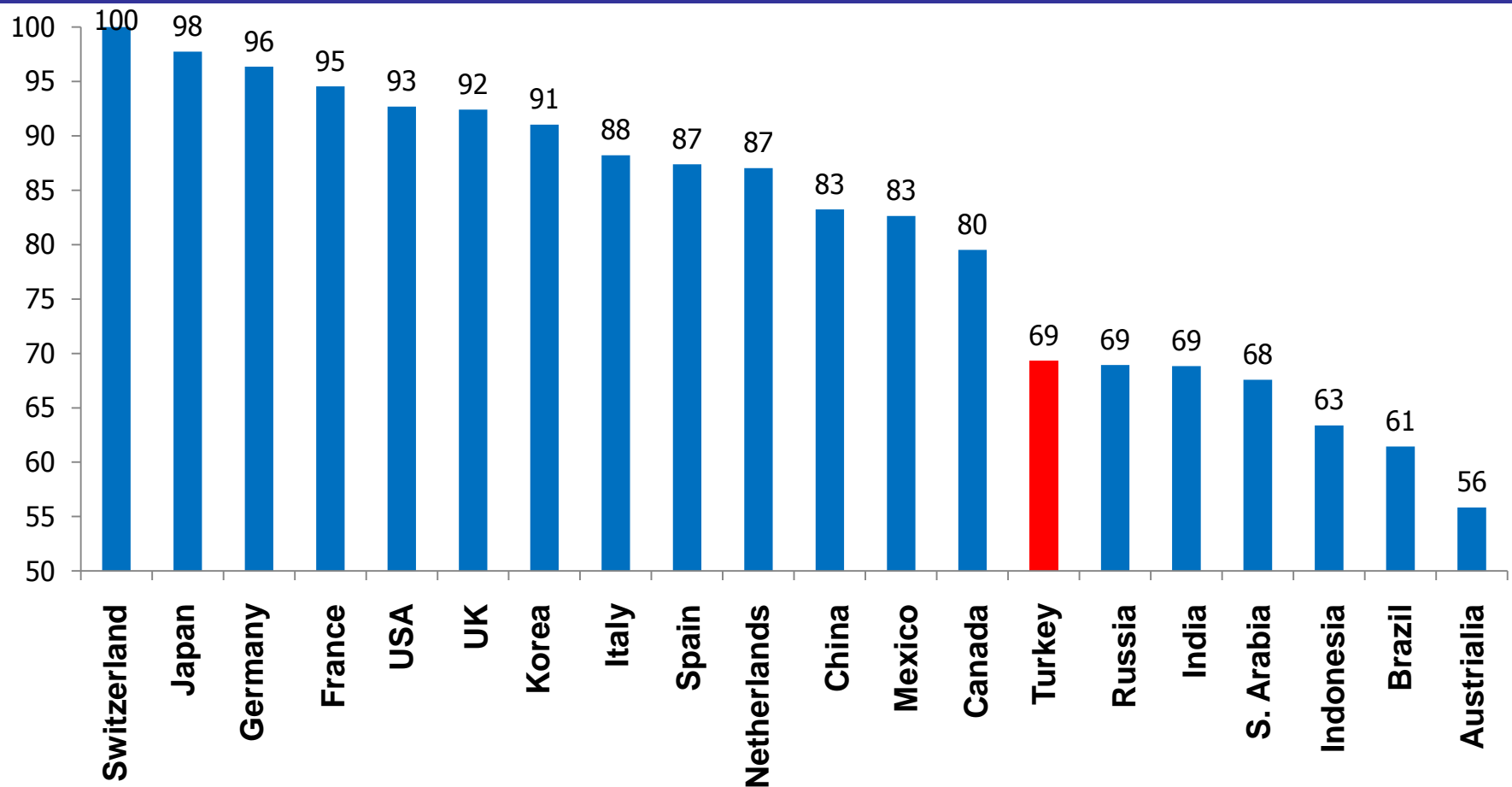
Technological breakdown of Turkey's total exports,  
1991-2001-2011, %



## Making a sophistication jump? How?

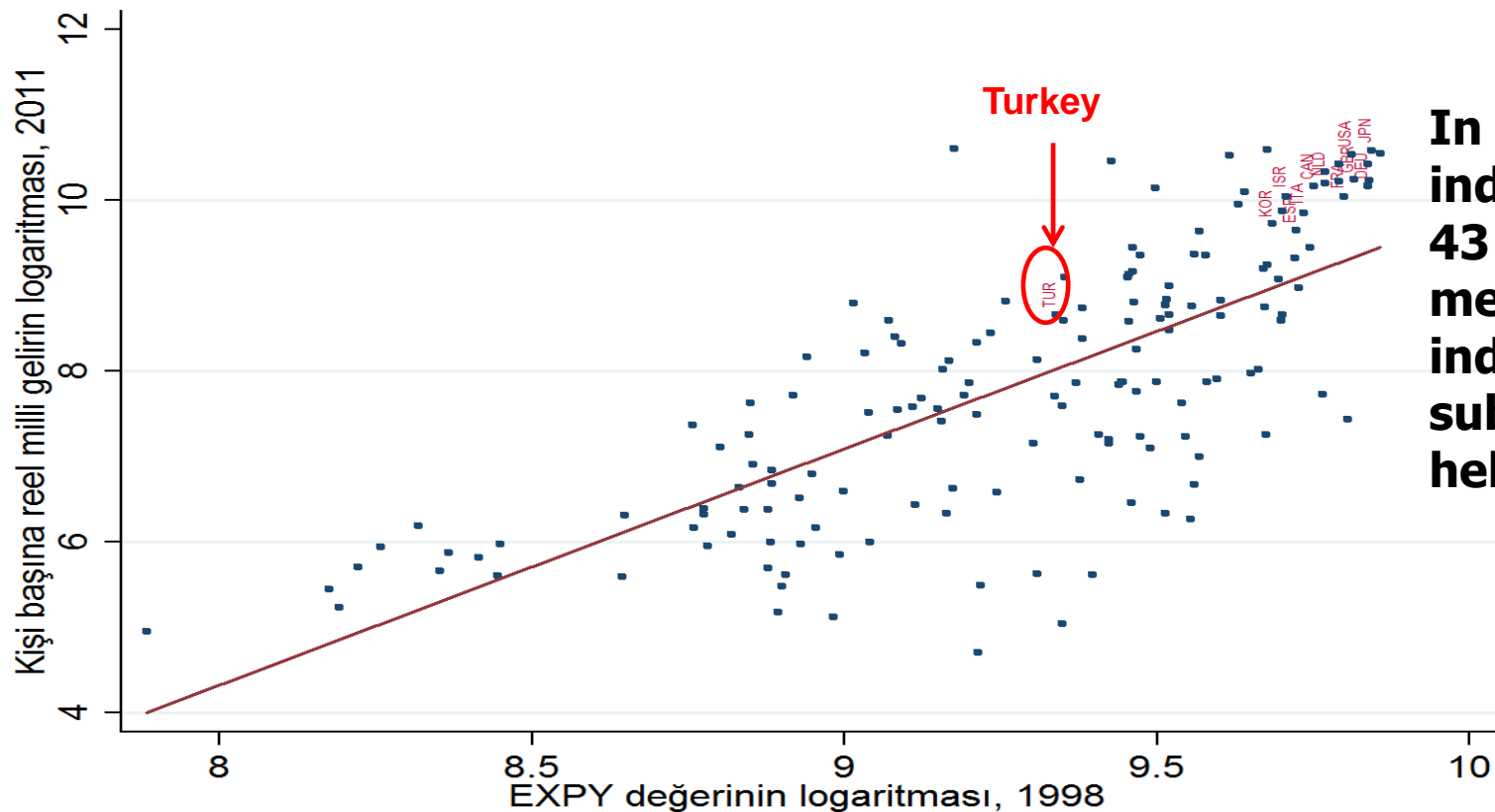
### Export sophistication index (EXPY) for the top 20 largest economies, 2010

Normalized values, Switzerland= 100, Nijer=0



# Life sciences and health industries are important for sophistication jump

GDP per capita in 2011 (log) and export sophistication index values in 1998 (log)

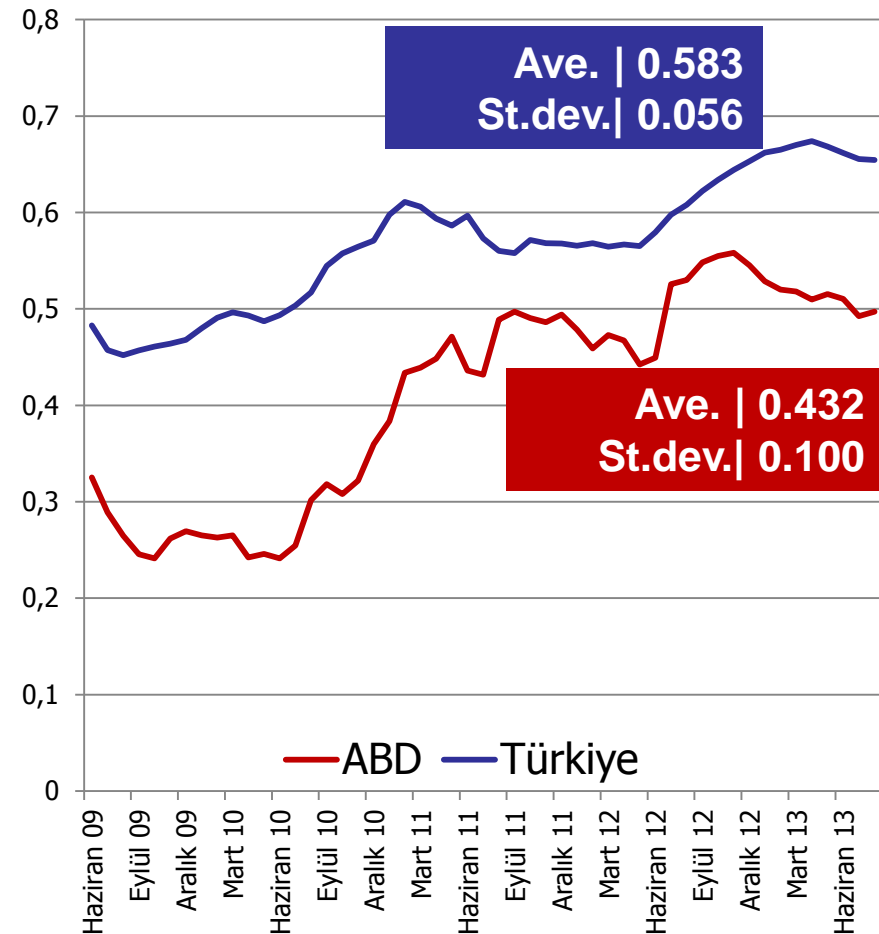


**In pharmaceutical industry 36 out of 43 sub-sector, in medical device industry 62 of 64 sub-sector will help this increase**

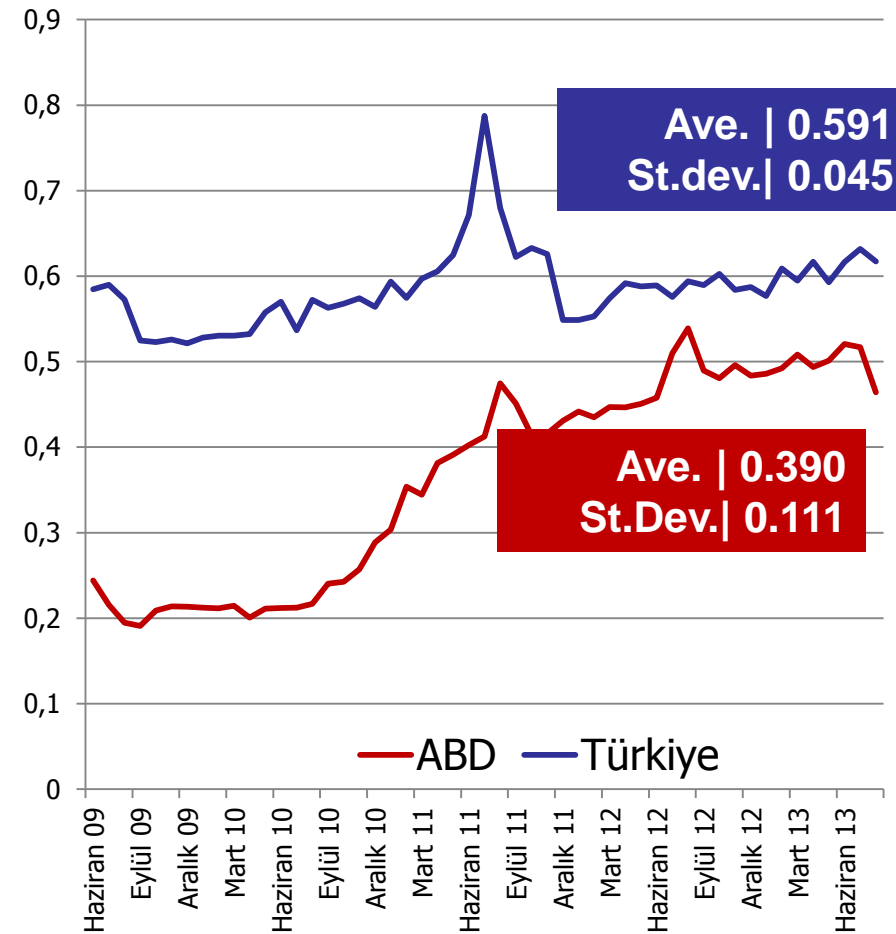
# Turkish agricultural goods market:

Protection and intervention:= High price, low volatility

Wheat



Corn



Biotechnology is not only a mandatory ingredient of academic excellence, but a “must” for economic development

-Biotechnology  
-Genetics  
-Biochemistry

- Biomechanics  
- Molecular biology  
- Neuroscience

- Pharmacology  
-Biomedical sciences  
- Animal science

- Food science  
- Biophysics  
- Bioinformatics

## Health

- Diagnostics and pharmacogenetics
- Tissue engineering
- Biomedical
- Genetic tests
- Biological pharmaceuticals
- ...

## Industry

- Bioplastics
- Biotechnological applications in industrial process
- Industrial bioproducts
- ...

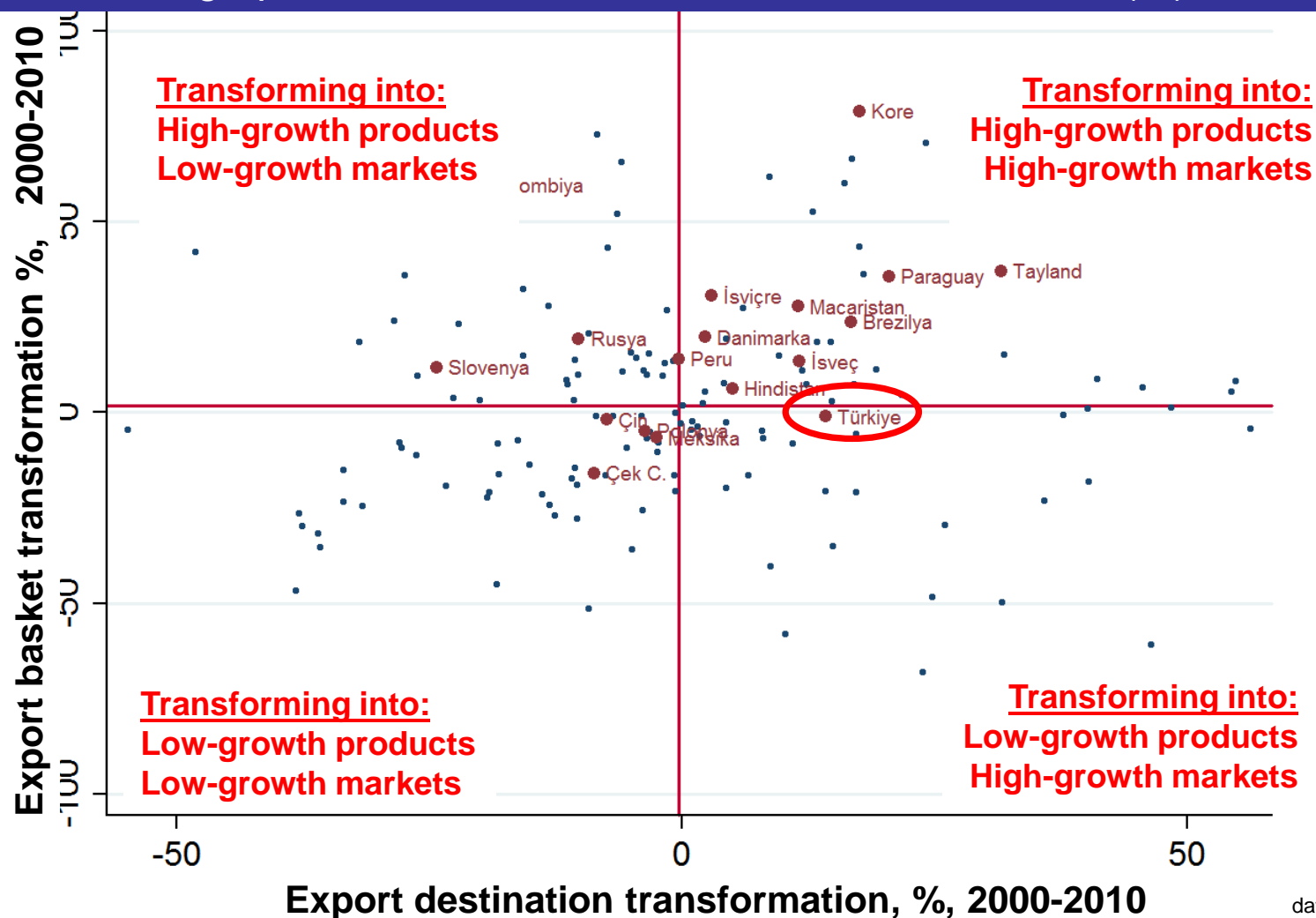
## Agriculture

- Biotechnology applications in food value chain
- Sustainable agricultural production
- ...

# Turkey cannot transform its product basket

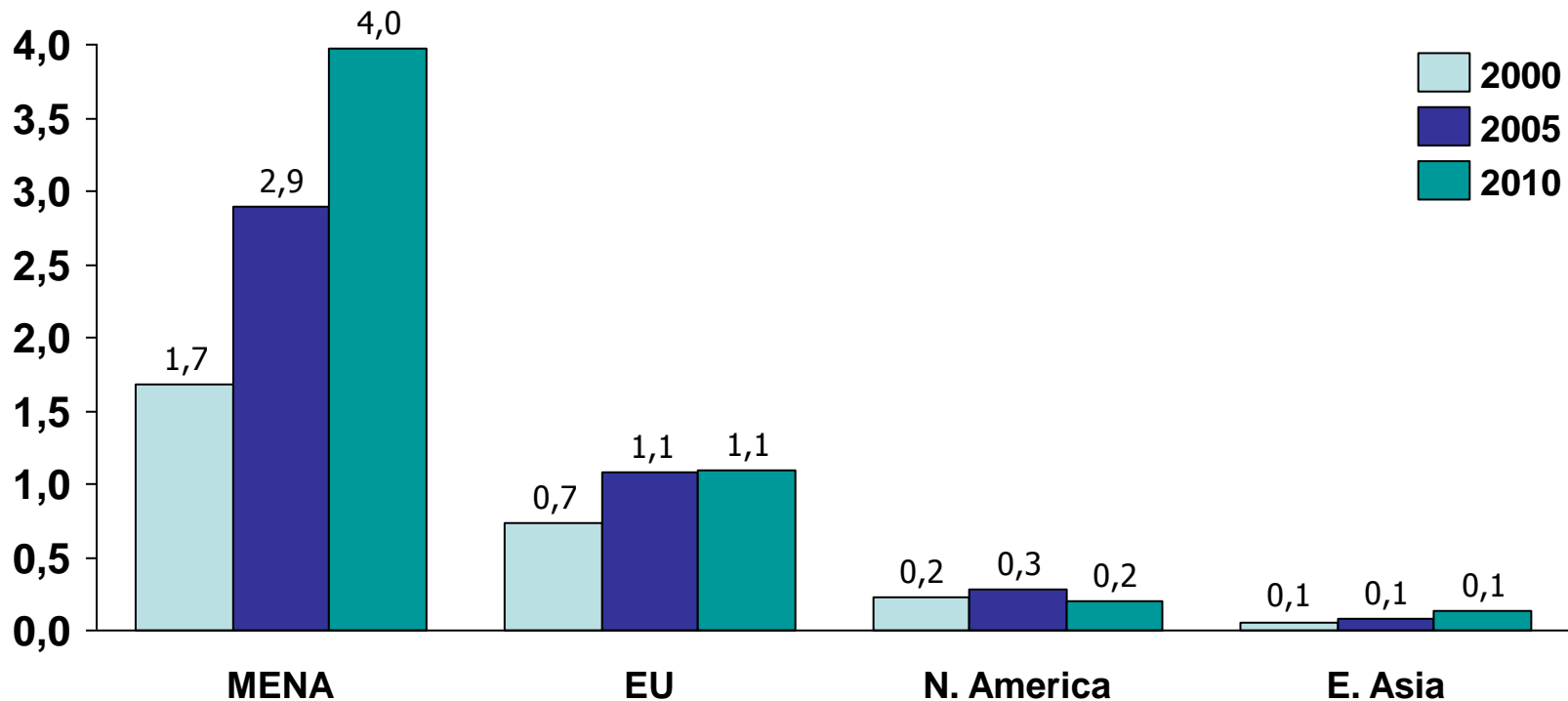
In the last decade, Turkey's world market share went up from 0.42% to 0.92%

Geographic vs. Sectoral Transformation, 2000-2010, (%)



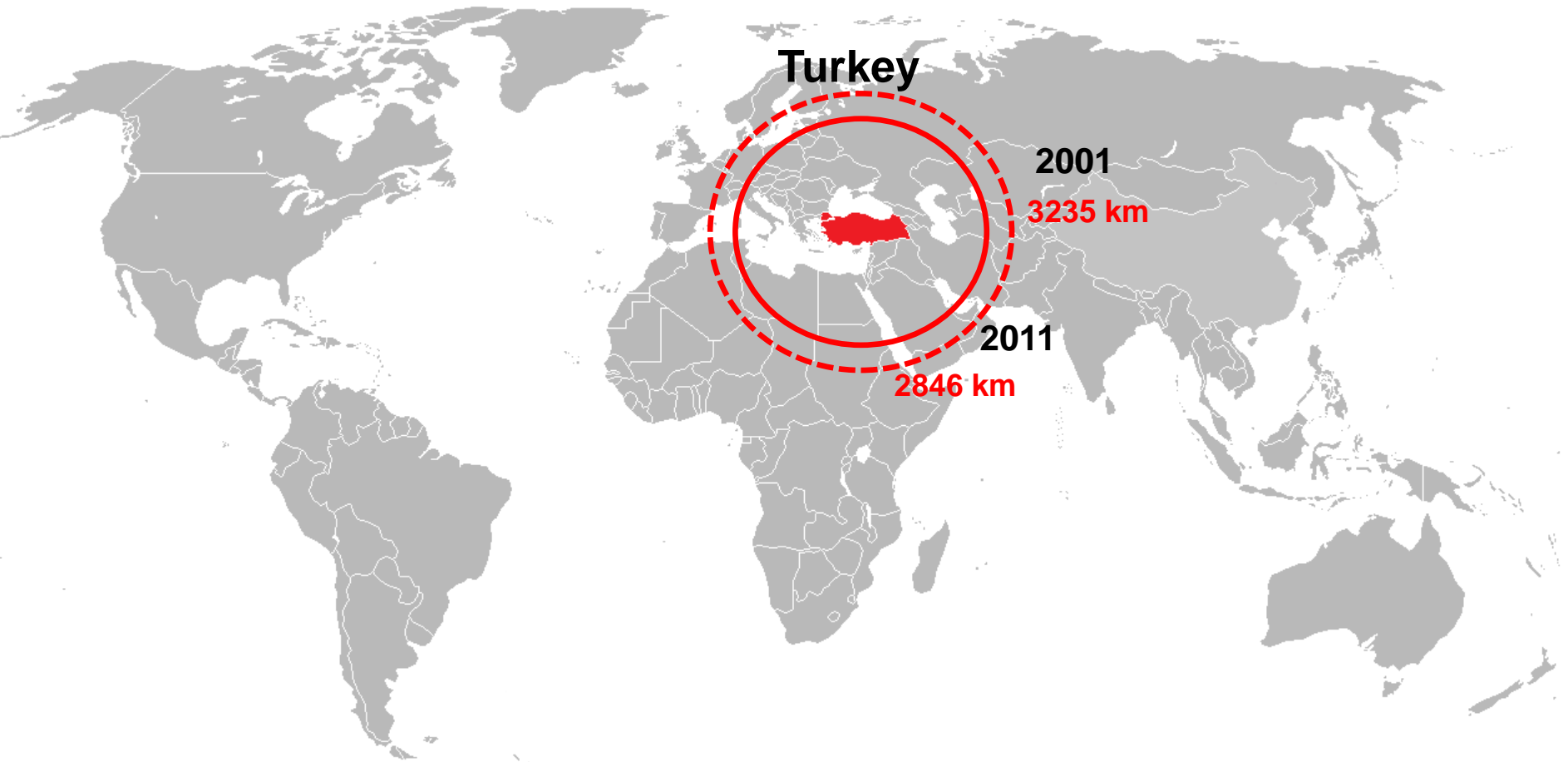
# Presence in world markets: out of sight, out of mind?

Share of Turkish Exports in Total Imports  
2000-2005-2010, %

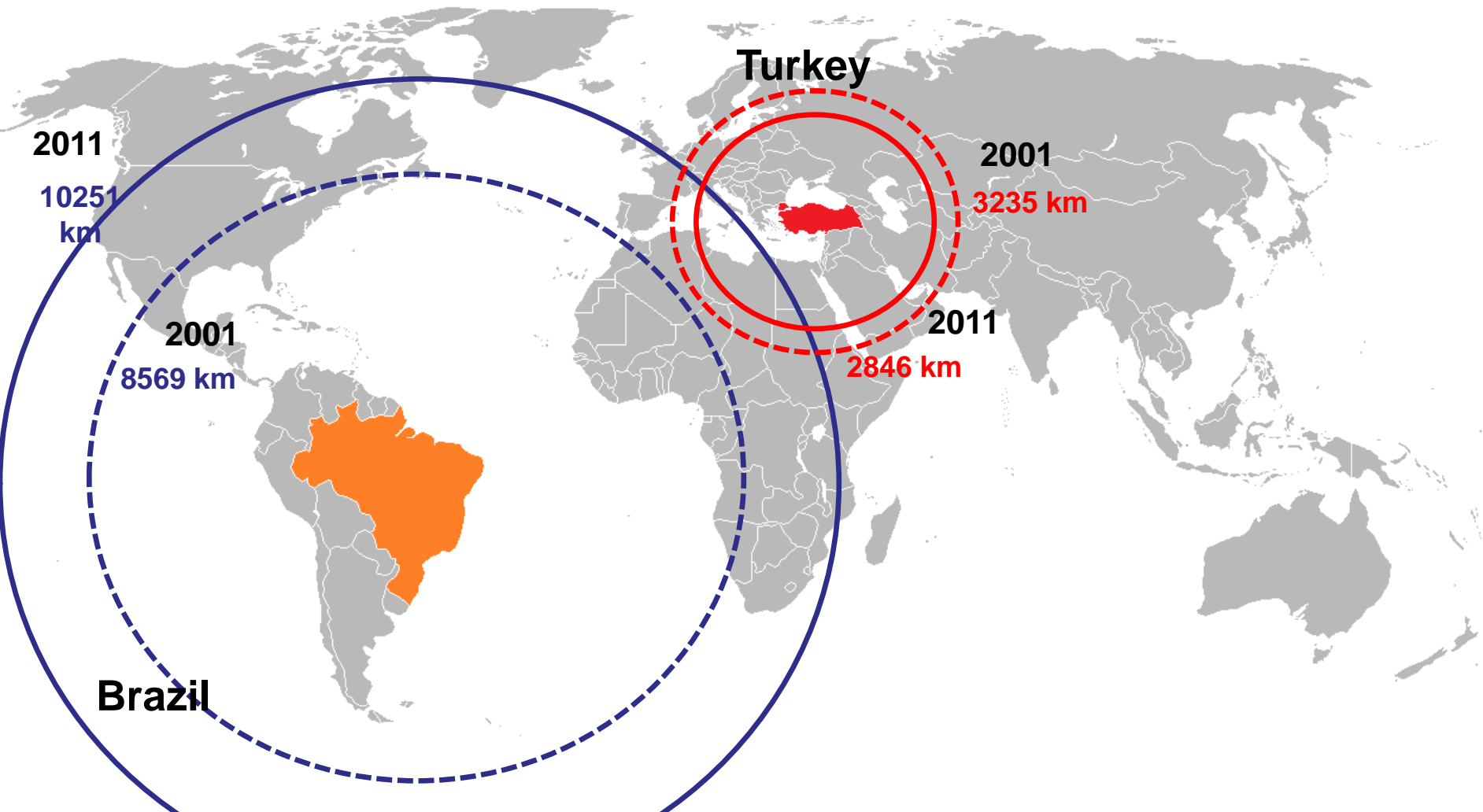




# Turkey's export range is already narrow and it is getting narrower



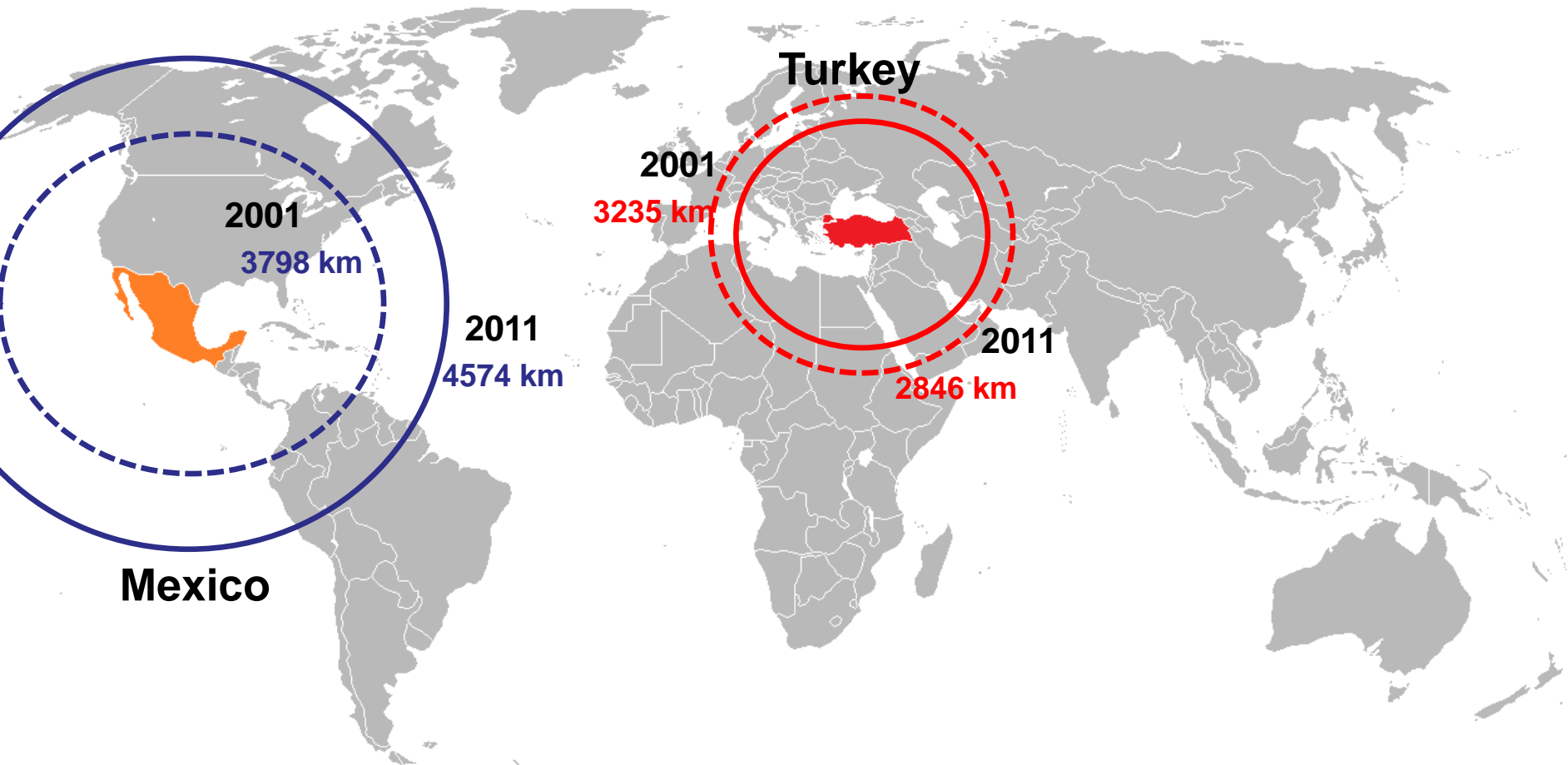
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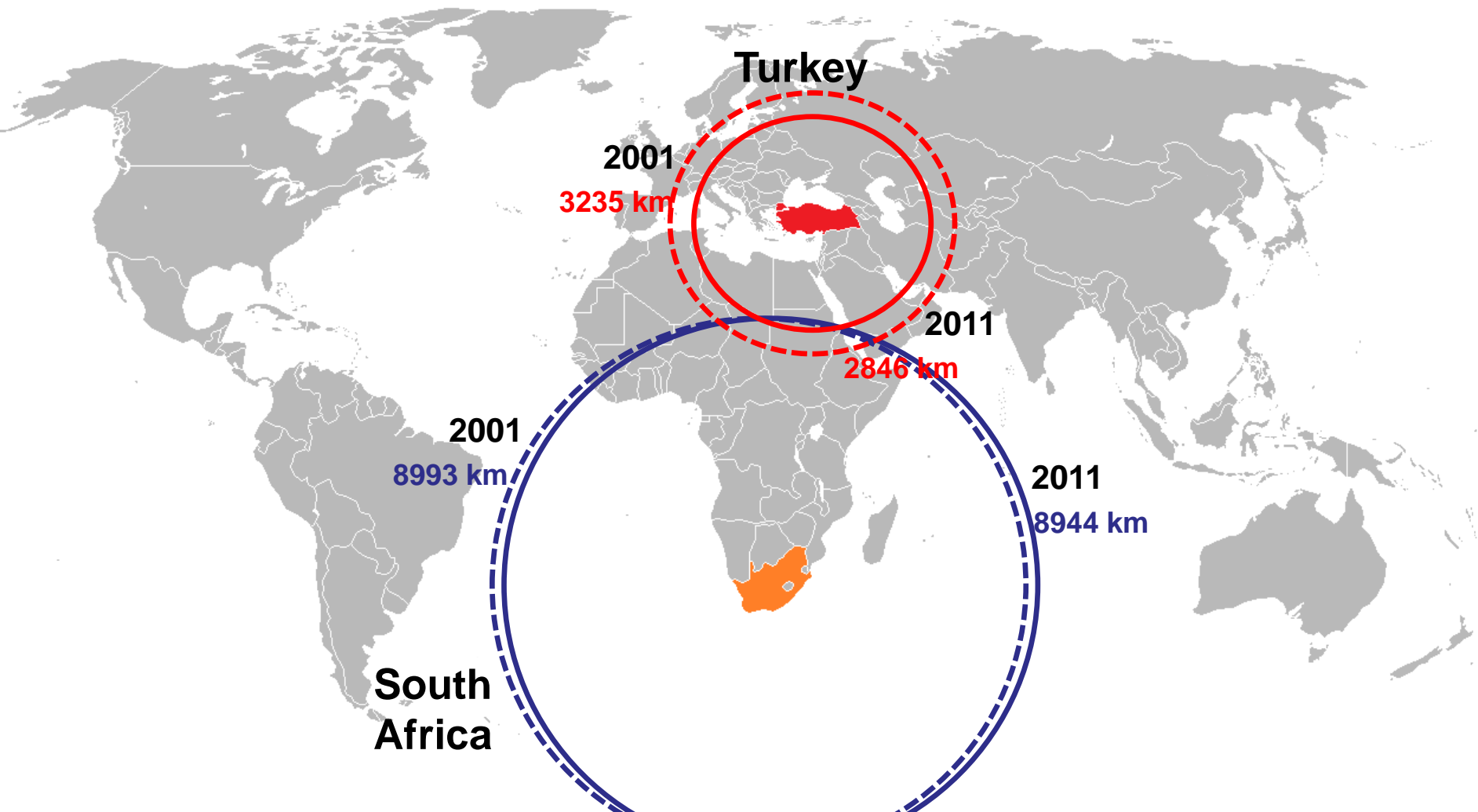
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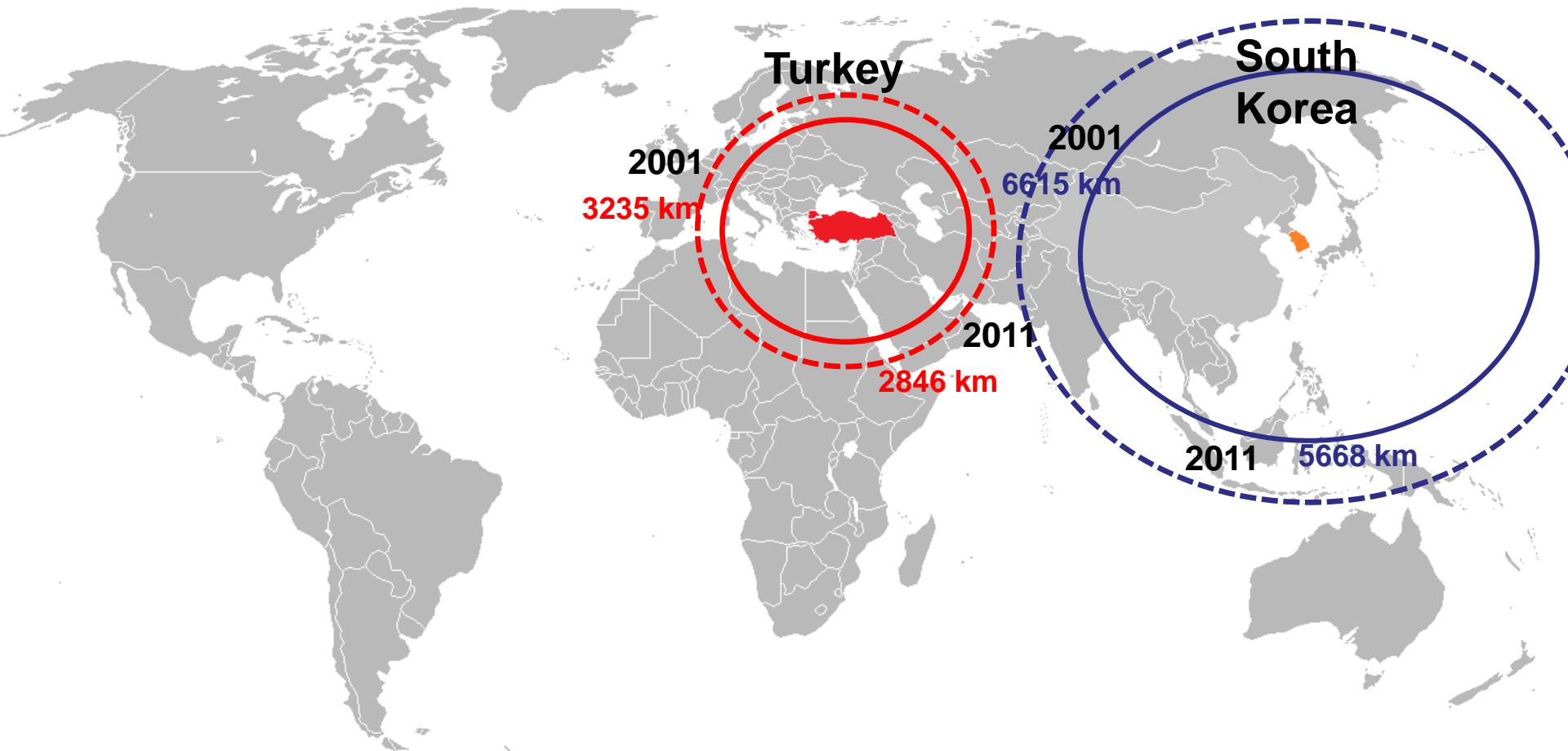
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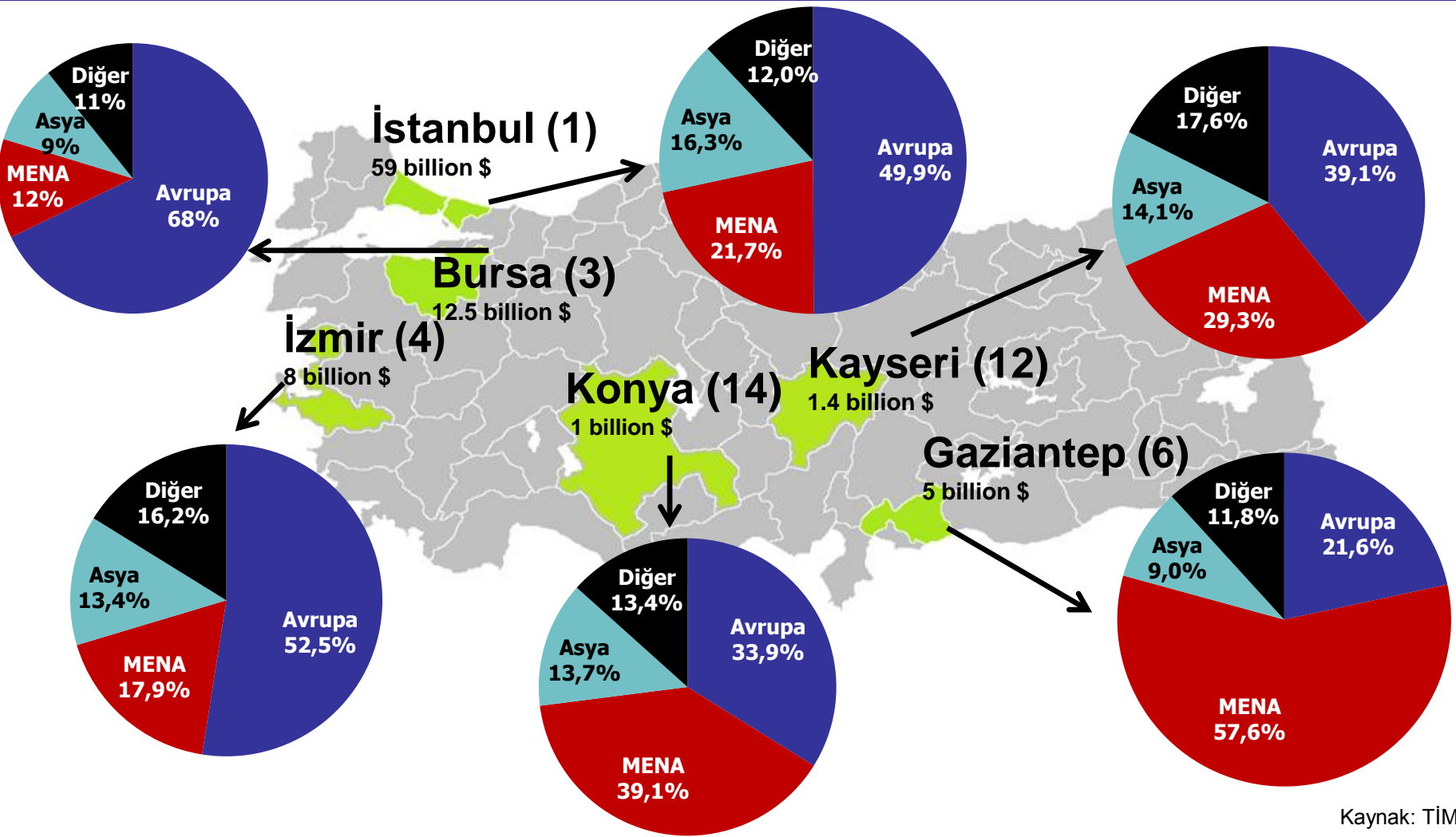


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# Making rest of Turkey more connected with EU

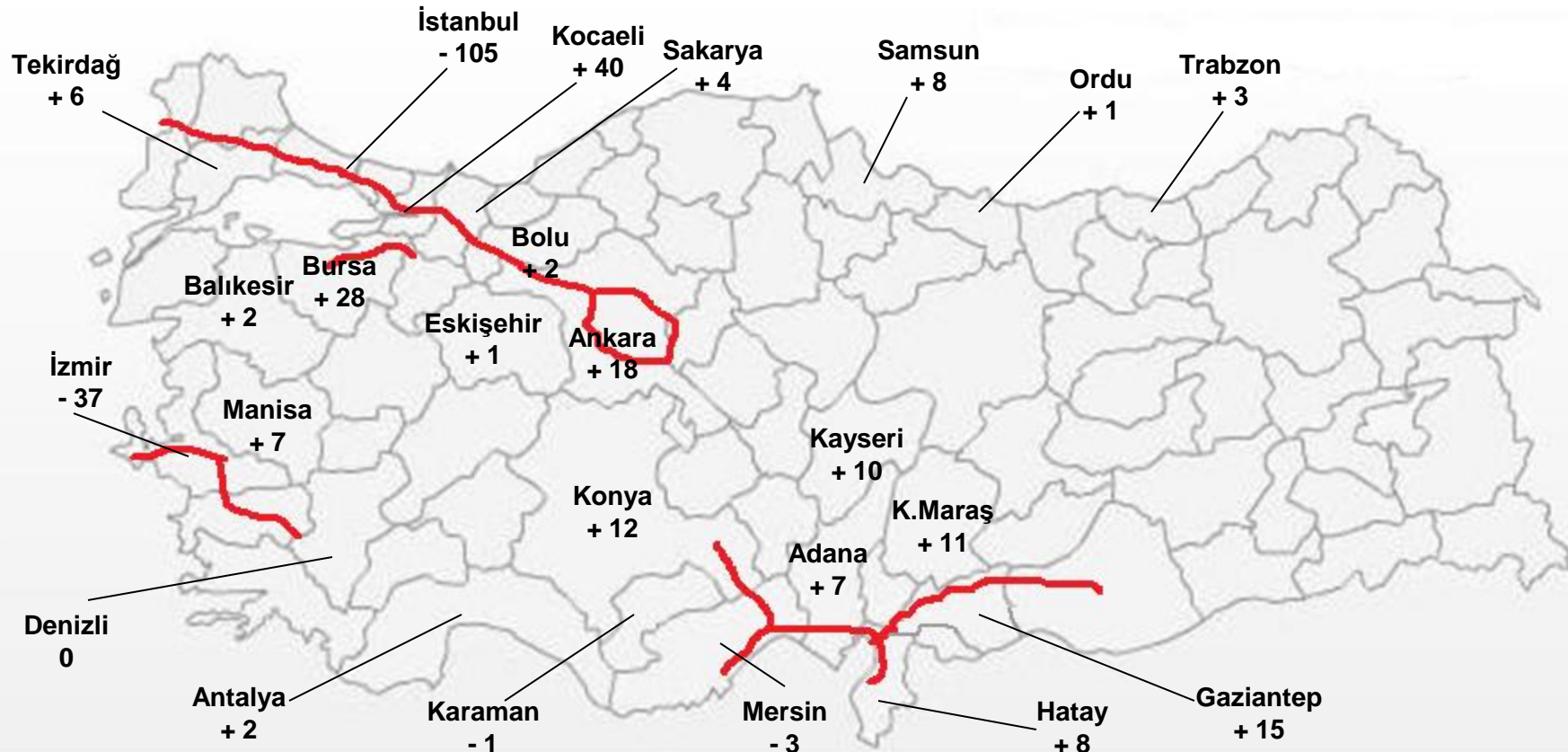
Export destinations of main Turkish provinces (2011)



# Turkey's connectivity problem

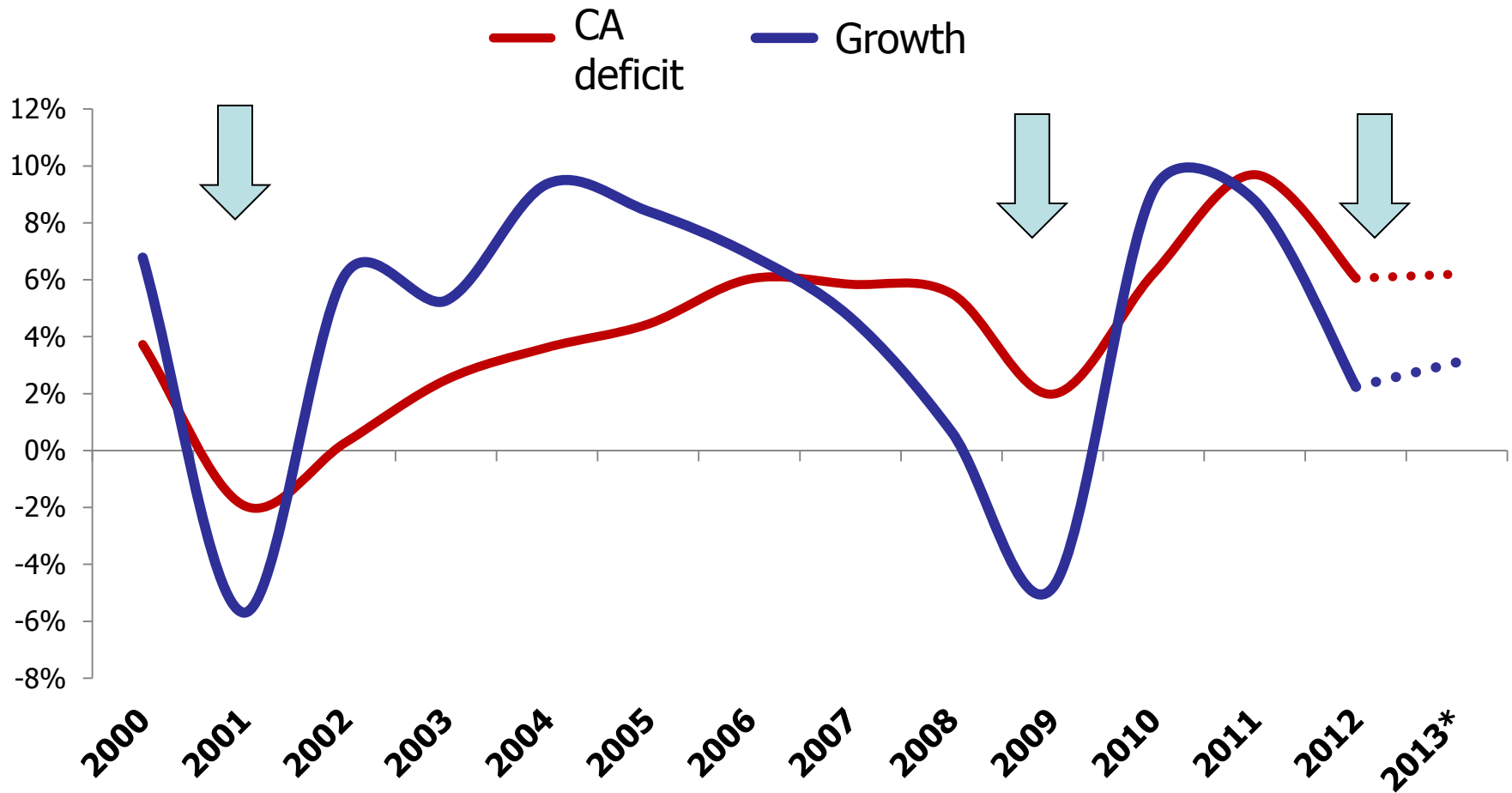
(+ prioritization problem: carrying passengers vs. carrying containers)

Six-lane Expressways (red lines, as of 2010) and the change in the number of firms located in the provinces that had more than 5 firms in the largest 1000 industrial enterprise rating of the Istanbul Chamber of Industry by 2009, between 1997 and 2009.





# Short term risks: high growth accompanied by high external deficits

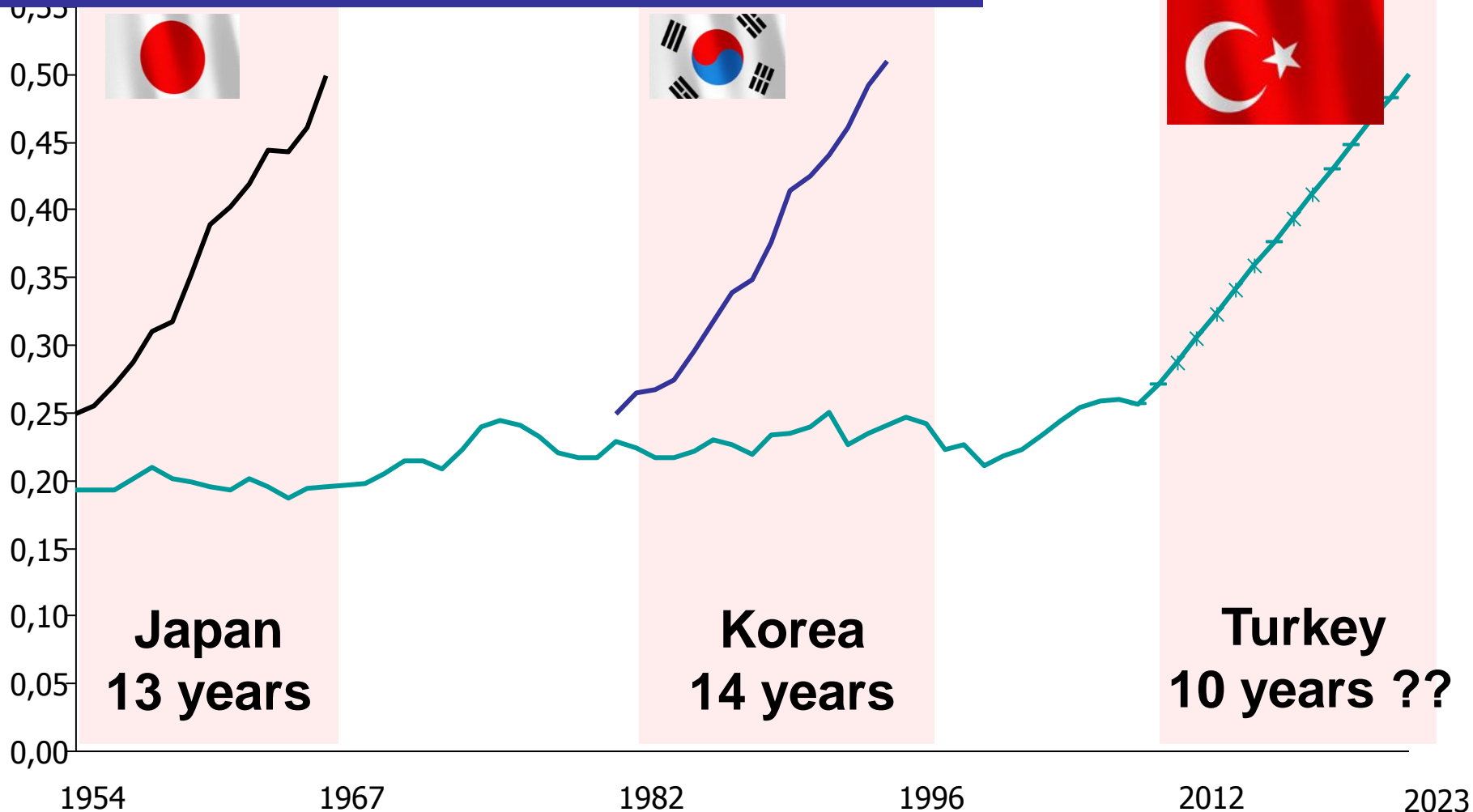


## Turkey has a savings problem (like the USA)

		Current Account	
2010-2012 Average	Savings (%)	Balance (%)	Growth (%)
<b>China</b>	50.7	3.1	9.2
<b>Malesia</b>	33.6	9.5	6.0
<b>Indonesia</b>	32.9	-0.6	6.3
<b>S. Korea</b>	31.9	3.0	4.0
<b>India</b>	31.8	-3.9	7.7
<b>Mexico</b>	23.9	-0.6	4.4
<b>Chile</b>	22.6	-1.1	5.7
<b>Brazil</b>	17.0	-2.2	3.7
<b>Polond</b>	16.8	-4.5	3.4
<b>S.Africa</b>	15.5	-4.2	3.0
<b>Turkey</b>	<b>14.0</b>	<b>-7.3</b>	<b>6.8</b>

# 2023 Challenge:

Per capita income as % of US per capita income – 1954-2012



# We are working with Ministry of Development for the Life Sciences Research Foundation Model

