



# Turkey in Perspective, 1880-2005

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# Why Study the Turkish Experience?

In December 17, 2004, membership negotiations with the European Union commenced.

Turkey today is a candidate member for the BRIC's – Brazil, Russia, India, and China.

From 1923 to now,

State-led economy → Trade and financial liberalization

Finally, Turkey was built on the ruins of the Ottoman Empire which collapsed during World War I.



# Our Periodization

## FIVE Sub-Periods:

- i) 1880-1913: Ottoman era to World War I
- ii) 1913-1929: 1929 shows the year when post WWI recovery ends and a new policy era begins
- iii) 1929-1950: early Republic including the Great Depression and WWII
- iv) 1950-1980: post-WWII era under import substituting industrialization
- v) 1980-2005: era of globalization since 1980



# Economic Indicators for Turkey, 1880-2005

	1880	1913	1929	1950	1980	2005
Population (mill.)	13	17	14	21	45	72
Share of urban pop (5000 inhab) in total pop (percent)	26	28	24	25	44	68
Share of agriculture in the labor force (percent)	80	80	84	84	51	34
Share of agriculture in GDP (percent)	54	50	52	54	26	11
Share of industry in GDP (percent)	?	13	10	13	21	26
GDP per capita, PPP adj. in 1990 US dollars	850	1200	1220	1620	4020	7500
GDP per capita as percent of (W. Europe+US)	37	29	23	24	25	30
GDP per capita as percent of developing countries	147	168	n.a.	188	219	225
GDP per capita as percent of World	81	79	n.a.	77	89	117

# Economic Indicators for Turkey, 1880-2005

	1880	1913	1929	1950	1980	2005	
<b>Life expectancy at birth (years)</b>	?	30 ?	30	47	62	69	
<b>Adult Literacy (ages above 15 in percent)</b>	?	10	10	32	69	89	
<b>Annual Growth Rates (in percent)</b>	<b>1880-1913</b>	<b>1913-1950</b>	<b>1929-1950</b>	<b>1950-1980</b>	<b>1980-2005</b>	<b>1913-2005</b>	<b>1913-2005</b>
<b>Population</b>	0.8	0.6	1.9	2.6	1.9	1.6	2.0
<b>GDP per capita</b>	0.8	0.8	1.4	3.1	2.5	2.0	2.4
<b>Total agricultural output</b>	1.3	1.0	2.7	2.9	1.2	1.7	2,3
<b>Total industrial output</b>	?	3.1	5.3	7.7	5.8	5.3	6.5



# Annual Growth Rates (in percent)

	<b>Output</b>	<b>Labor</b>	<b>Capital</b>	<b>Hum. Cap.</b>
<b>1880-1913</b>	1.48	0.73	1.76	2.83
<b>1913-1929</b>	-0.72	-1.31	-0.03	-1.31
<b>1929-1950</b>	2.71	1.93	1.82	6.75
<b>1950-1980</b>	4.95	1.93	6.31	6.76
<b>1980-2005</b>	4.07	1.35	4.21	3.06
<b>1880-1950</b>	1.36	0.62	1.37	3.06
<b>1950-2005</b>	4.55	1.67	5.35	5.08



# General Observations

Sharp break between the pre- and post- World War II periods.

The growth rates of output and of the factor inputs such as labor, capital, land and human capital are all significantly greater in the post-World War II period.

We can explain this pattern with these observations.

- Rates of per capita growth accelerated sharply after World War II in all regions of the world.

- Apprx. 20% decline in population in Turkey during and after WWI

- More than 40% decline in GDP and GDP per capita.

- By 1929 GDP per capita turned backed to pre-WW 1 period.

- Growth rates for output, labor and most other variables were negative for the period 1913-1929 as a whole.

- GDP per capita growth rates for Turkey until 1950 are below 1% per annum



## General Observations (cont'd)

1880-1913, (The late-Ottoman era) positive growth in output and the factor inputs

After 1929, positive growth with two distinctly different political and economic regimes:

1880-1913, political and military disintegration of the Ottoman Empire.

1929 - , formation years of the Republic,  
series of political and economic innovations.

Global context of open trade and financial regimes at the late Ottoman era

After 1929, return to autarkic regimes world-wide.



# General Observations

For better performance everywhere and especially in developing countries, we need to look at the period after WWII.

The growth of output and factor inputs for Turkey are significantly higher after WWII.

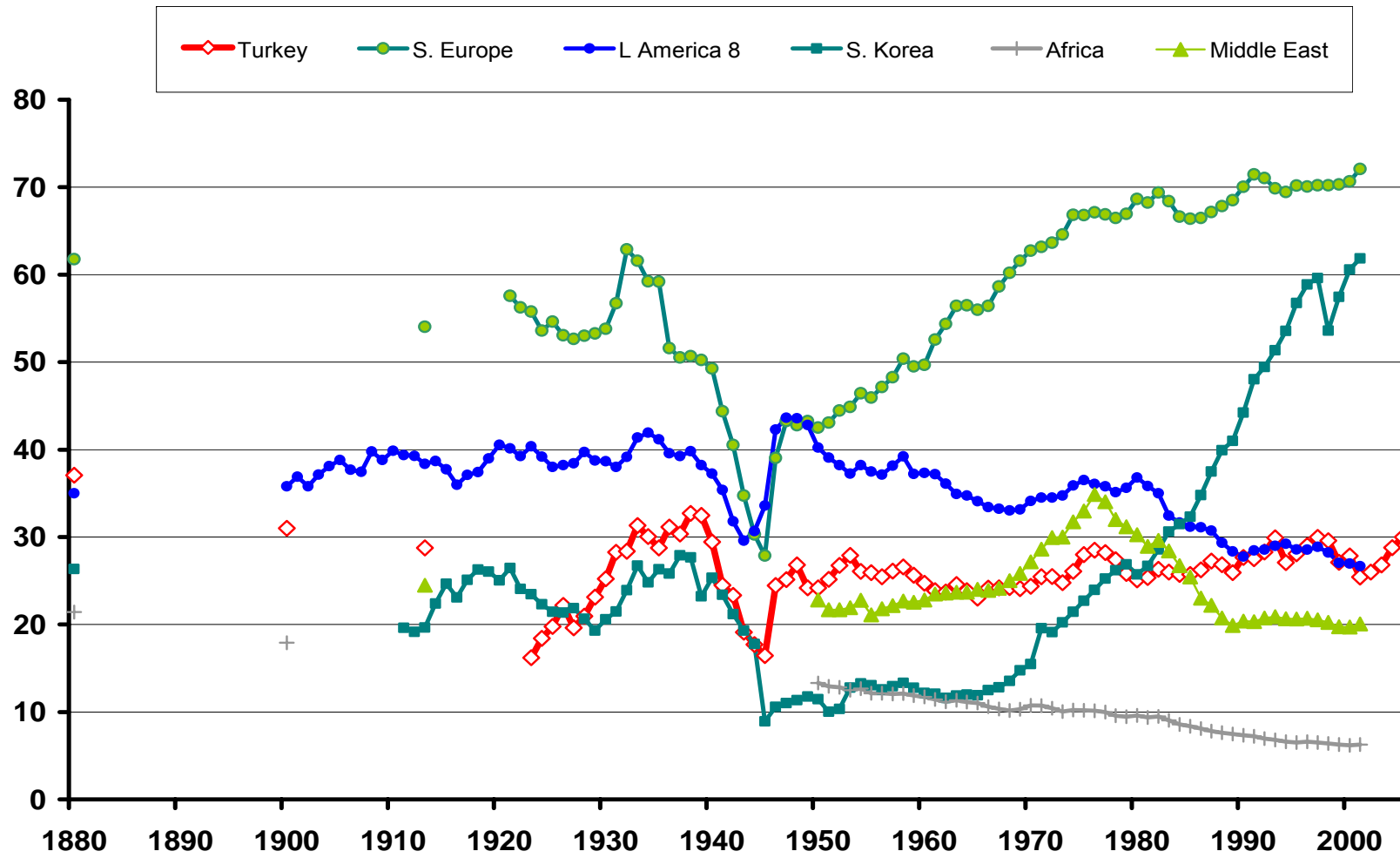
Output grew at annual rate of nearly 5% during 1950-1980, and 4% during 1980-2005.

Per capita increase in GDP at rates above 3 percent during 1950-1980 and at rates above 2 percent during 1980-2005.

These per capita rates are above averages for the developing countries as a whole.

Turkey's average performance is better than that of the Latin American countries. See Pamuk (2007), Data from Maddison (2003).

Figure 1: GDP per capita as percent of (W. Europe+U.S.), 1880-2005





# Questions

The analysis of Turkey's experience poses some challenges.

Turkey's growth experience is better than the average performance of most developing countries.[Pamuk (2007)]

Why Turkey was not able to achieve the performance of some of the East Asian economies?

Per capita incomes of S. Korea and Turkey were approximately equal in 1960.



# Puzzles

Altug, Filiztekin, and Pamuk, *European Review of Economic History*, 2008 argue that Turkey's experience is characterized by some "puzzles."

TFP (Total Factor Productivity) growth is low and the contribution of TFP to overall growth is only 15%.

The rate of capital accumulation is low.

The East Asian countries achieved a rapid structural transformation through high saving and investment.

3-3.5% growth in the capital-output ratios for a variety of East Asian countries during the period 1966-1990.

1.2% growth in the capital-output ratio in Turkey during 1960-2005.

For the period 1960-1980, this growth rate is 3.14%, (comparable to East Asian countries)

The rate of transition from agriculture to non-agricultural activities is low.

The share of population remaining in agriculture in Turkey by 2000 is nearly 35%, one of the highest in Europe.



# Resolving the Puzzles

We identify three reasons for explaining these puzzles:

- The role of human capital

- Institutions and political economy considerations

- Macroeconomic policy-making



# The role of human capital

10% literacy level in 1923.

This fact itself may help to explain why, despite a broad-reaching set of military, political and economic reforms, the Ottoman Empire was not able to transform itself into a modern state.

Human capital may also have an effect on the quality of institutions.

Educational policies in Turkey in the last 80+ years have succeeded in bringing the literacy rate to 86.5% by 2000.

The average level of schooling for the workforce remains at 5.3 years.

Are these worries allayed by current policies?

The share of government spending accruing to education is 3.82% of GDP in 2002 whereas the OECD average is 5.73%.



# Institutions

Define **institutions** as a formal or informal set of rules in the sphere of economic, political or social interactions.

The idea that **institutions** are a key determinant of growth has witnessed a revival.

The disparity in observed income worker i.e., productivity, may only be explained by differences in social infrastructure [Hall and Jones (1999)]

“The institutions and government policies that determine the economic environment within which individuals accumulate skills, and firms accumulate capital and produce output.”



# Institutions

There exists the problem of quantifying the impact of institutions over a long horizon.

Democratic Capital [Persson and Tabellini (2006)], one variable that we found informative for our purposes.

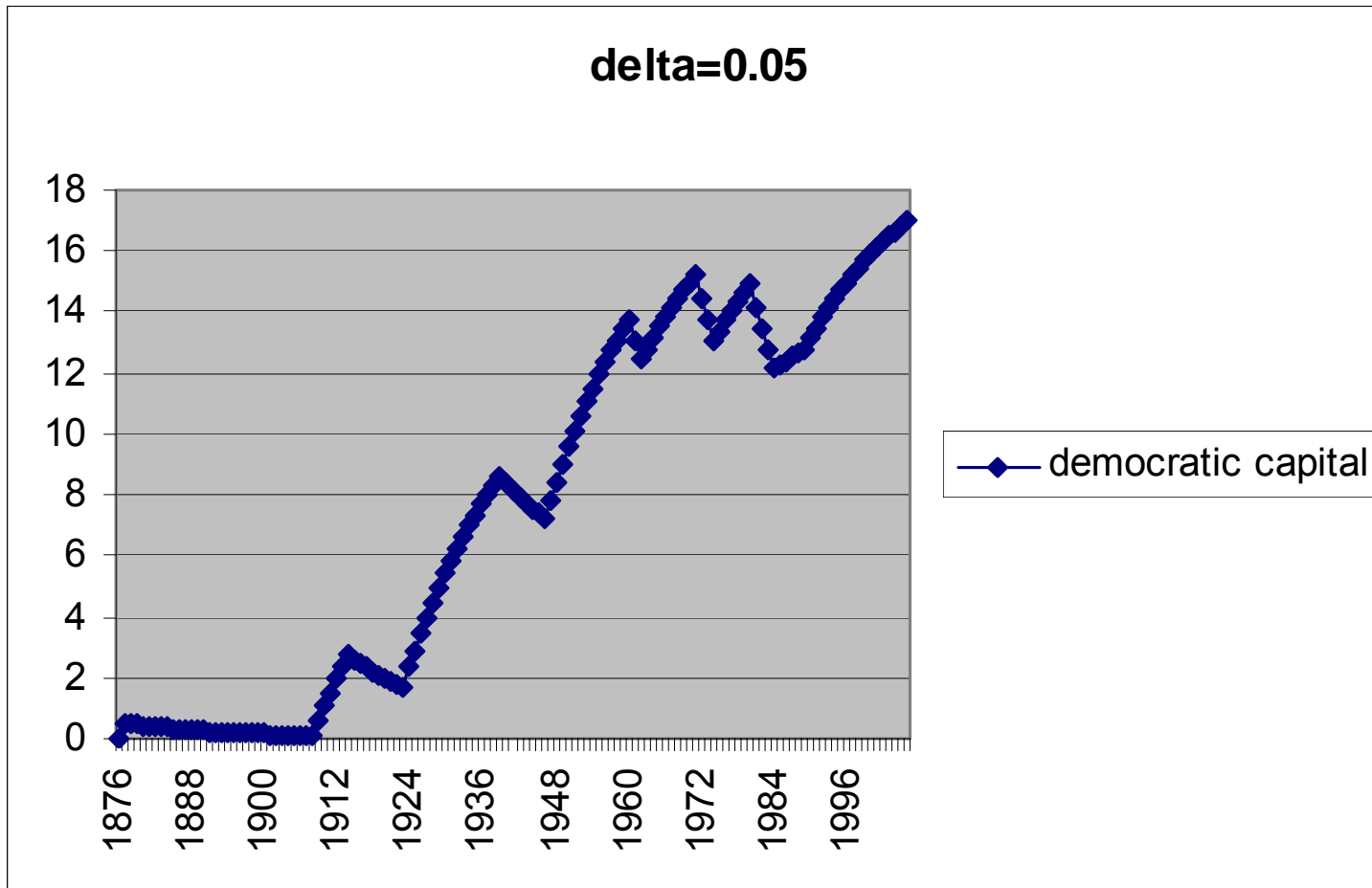
Cumulation of periods of democratic rule as in a simple capital accumulation equation using Polity IV measures of democracy and autocracy.

This measure can be constructed for Turkey since the 1880's because there is potentially very rich information on the political regime since that period.

If there is a change of regime, say, a military take-over, then the existing stock of military capital starts depreciating at some given rate.

The next figure illustrates our measure of democratic capital for depreciation rate of 0.05.

# Democratic Capital





# Narrative

1876, the first Constitution in a Muslim Country.

1877, abolition of the first constitutional assembly.

Until 1908, absolutist era of Abdulhamit.

- Large territorial losses

- Worst rating on the autocracy scale

WWI – 1922, interregnum period

1923, Establishment of Republic of Turkey

- One-party rule led by a single leader, Mustafa Kemal Atatürk.

- Creation of a formal law-making body

- Parliamentary elections

- Lightening of the autocracy index



# Narrative

1946, multi-party elections

1950, Democratic Party ascends to power

- Rising incomes

- Rise in the influence of landed interests and private sector industrialists

- Steady increase in democratic capital during the 1950's

- Populist policies

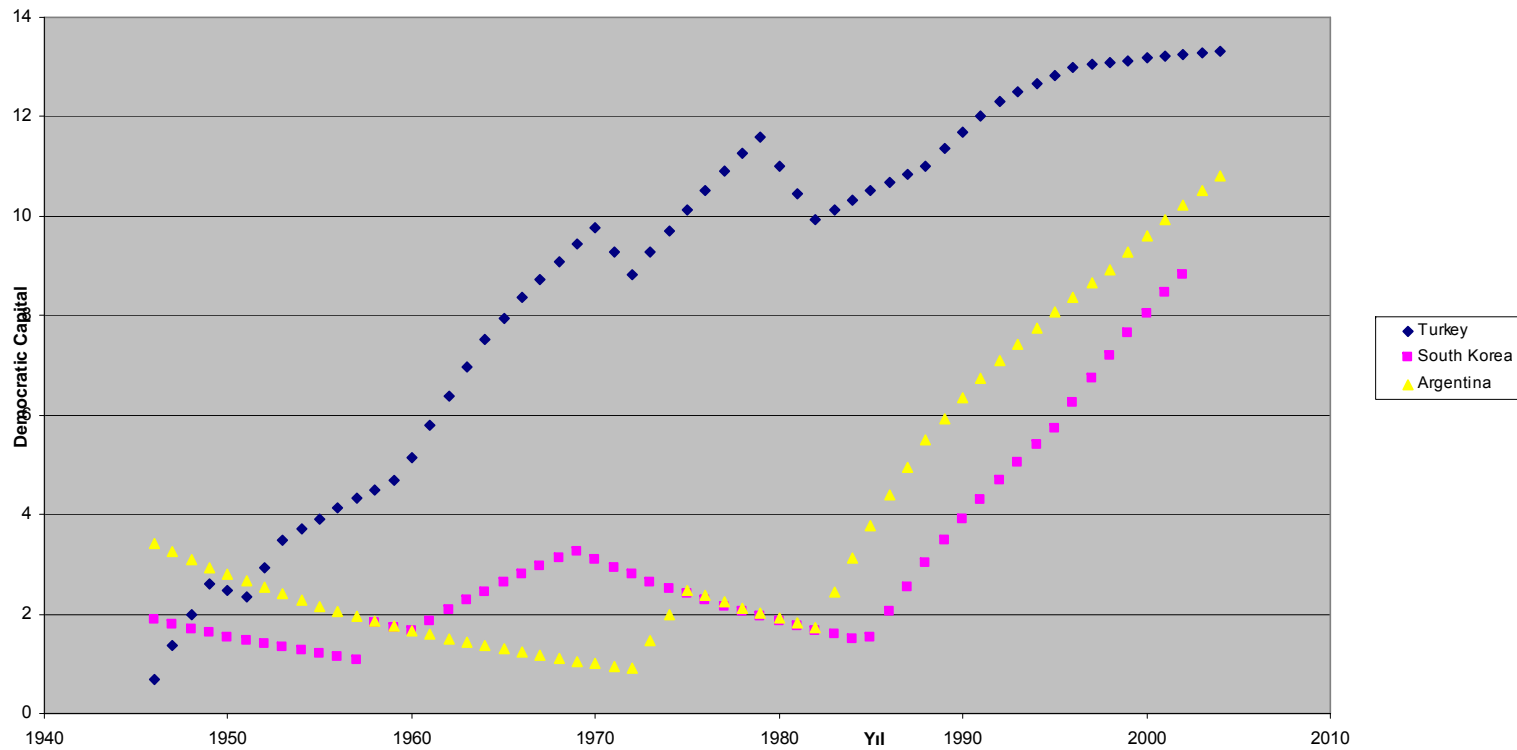
- Agricultural subsidies in Turkey prevented those employed in agriculture from moving to more high productivity sectors.

1980, Open economy orientation to Turkish industry

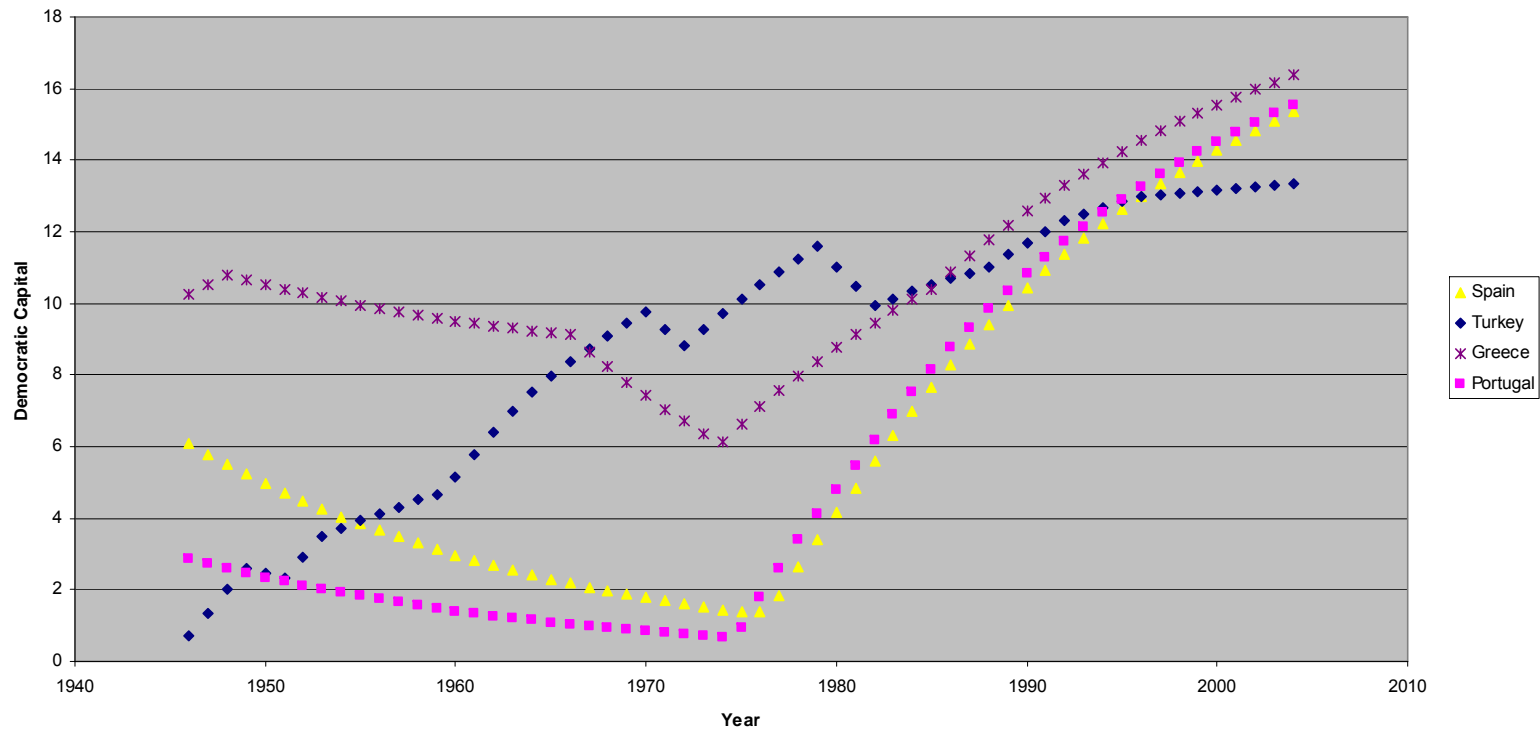
- Trade liberalization

- Export subsidies

# Democratic Capital: A Cross-Country Comparison



# Democratic Capital: A Cross-Country Comparison





# Institutions (cont'd)

Political economy considerations may explain the insufficient utilization of resources for Turkey, whether they be capital or labor. In contrast to East Asian countries, Turkey followed more gradualist and populist policies.

Agricultural subsidies prevented those employed in agriculture from moving to more high productivity sectors.

An open economy orientation to Turkish industry came only in 1980.

The E. Asian countries had been following industrial policies geared to open trade regimes much earlier.

Turkey failed to adopt policies that would promote greater international competitiveness

Concentrating on exports of technology-intensive goods.  
the distribution of export subsidies took a more prominent place.



# Macro-economic policy-making

The E. Asian countries: prudent macro-economic policy-making  
Even following the 1997 financial crisis, the economies of E. Asia have shown a rapid recovery.

By contrast, the principles of modern macro-economic policy-making have taken a long time to take hold in Turkey.

Frequent foreign exchange shortages and foreign exchange crises

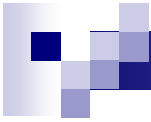
Regardless of the economic policy regime – whether it is import-substitution or trade and financial liberalization –.[1950s]

A foreign exchange crisis following the oil price shocks of the mid-1970's laid, in many ways, the groundwork for the military coup of 1980.

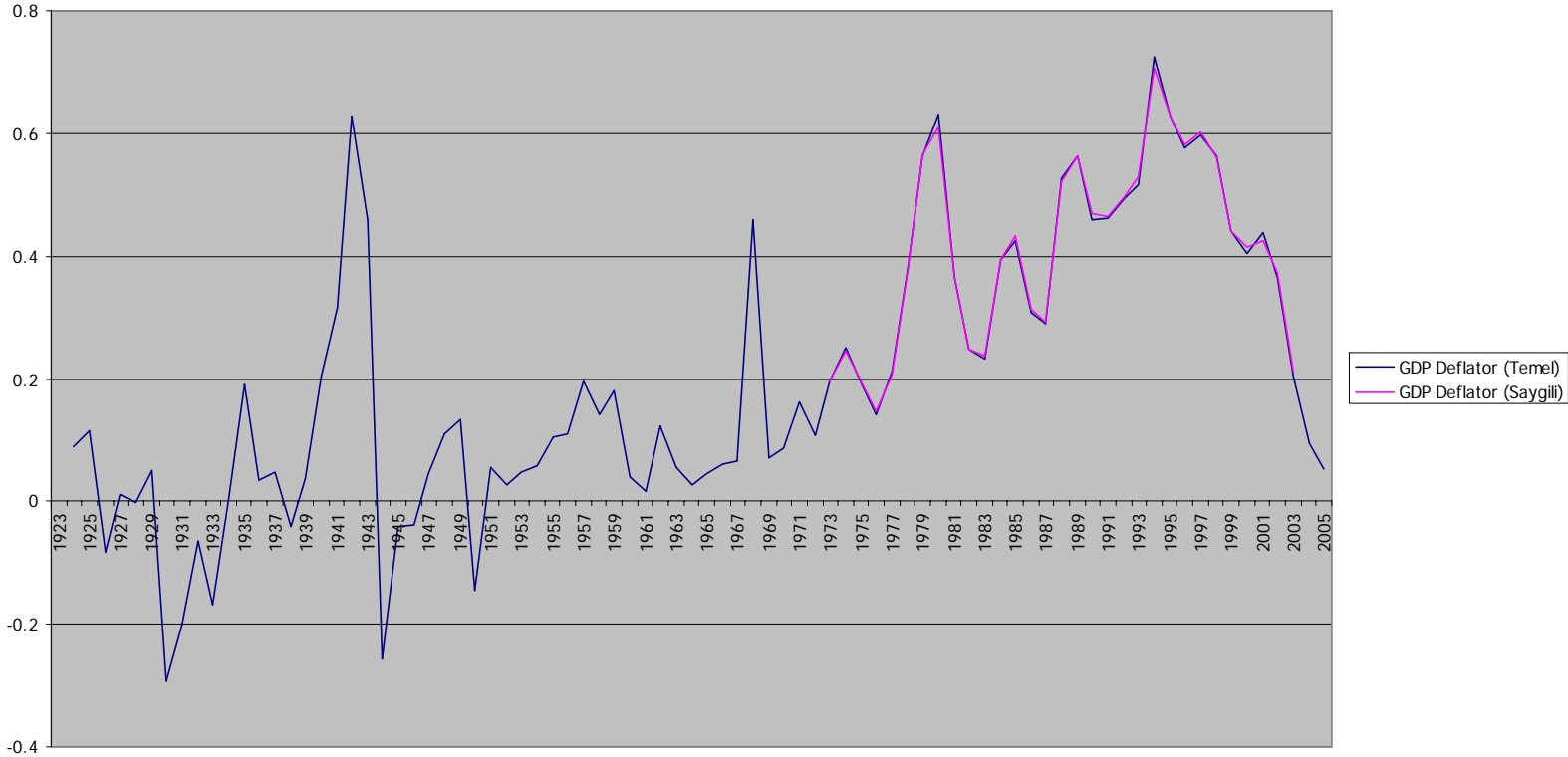
The financial crisis in 1994: worsening fiscal deficit combined with loose monetary policies.

The 2000-2001 crisis: banking crisis with largest GDP decline in Republican history

Institutional reforms adopted in the wake of the 2000-2001 crisis - fiscal discipline, central bank independence, banking regulation and supervision - prevented worst effects of 2008 crisis.

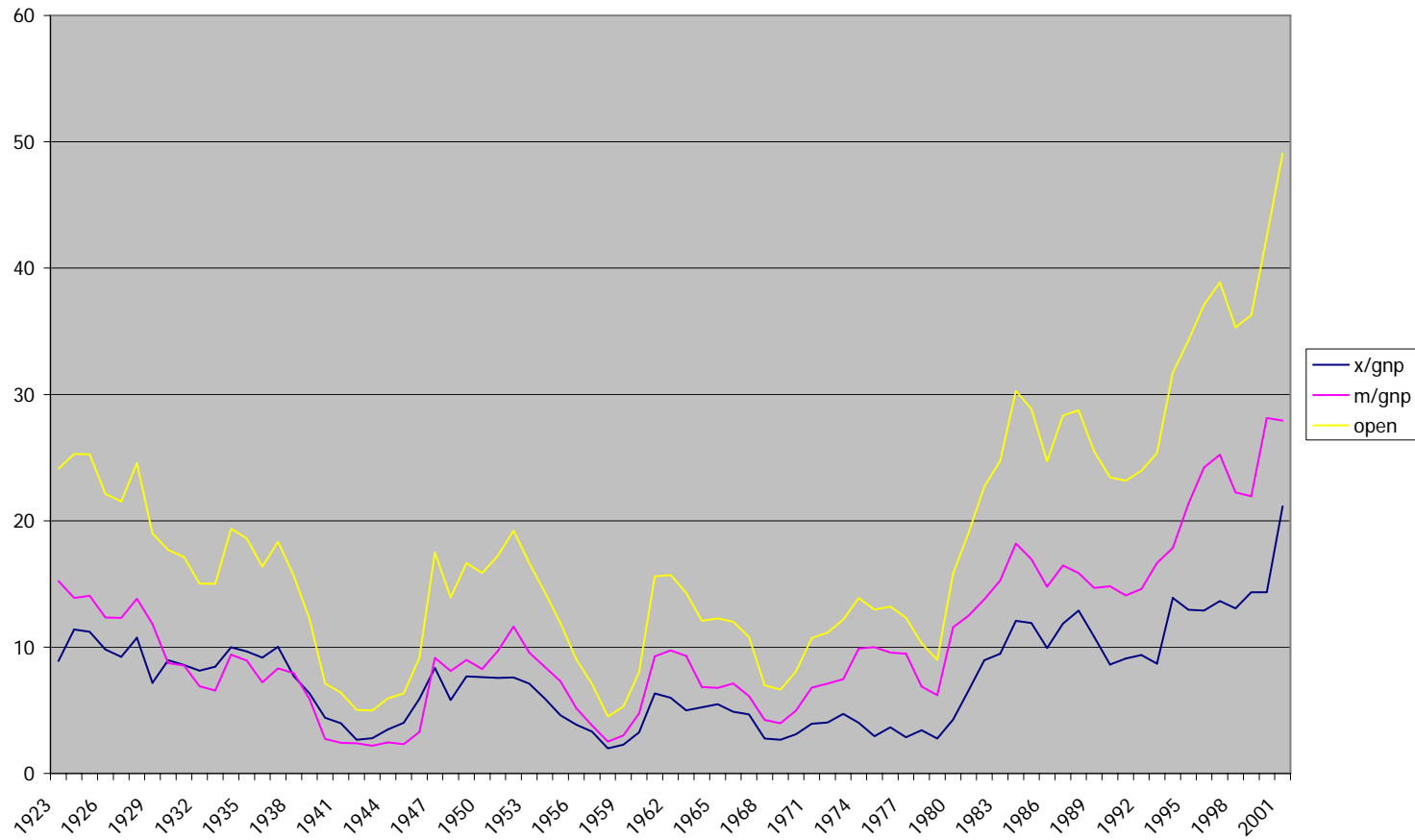


# Inflation





# Openness



# Budget Deficit as a Share of GDP

