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Fostering Open and Efficient Markets through Effective Competition Policies

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TURKEY: Fostering Open and Efficient Markets through Effective Competition Policies

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The Investment Climate for Competitiveness TA Project team was led by Donato De Rosa (ECSPF) and Alvaro González (ECSPF). This report, "Turkey–Fostering Open and Efficient Markets through Effective Competition Policies," was prepared as part of this project by a team led by Martha Martinez Licetti (Competition Policy Practice, CICIS) and including Mariana Iootty (ECSPF), Markus Kitzmuller (CICIS), Graciela Miralles Murciego (CICIS) Ana Florina Pirlea (ECSPF), Sunita Kikeri (FCMCG) and David Robinett (FCMCG), Alper Ahmet Oguz (ECSPF), Can Selcuki (ECSPF) and Carlos Piñerúa (ECSPF). Martin Raiser (Country Director, ECCU6), Gerardo Corrochano (ECSPF), Lalit Raina (ECSPF), Florian Fichtl (ECCU6) and José Guilherme Reis (ECSPF) provided overall guidance. Mediha Agar (ECSP4) and Rekha Menon (ECSH1) offered valuable comments. The final version of this report benefits from reviewer comments received from Martin Raiser (Country Director, ECCU6), Jorge Luís Rodríguez Meza (FGIEA), and Sylvia Solf (CICBR).

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EXECUTIVE SUMMARY

Competition in domestic markets is critical to ensure increased international competitiveness. Firms facing more intense competitive pressures are more likely to introduce new products and upgrade existing product lines. Firms usually acquire many of their inputs (such as transportation, energy, construction, and professional services) in local markets. If these upstream markets lack competition, goods and services necessary for production will not be provided at competitive prices. As a result, firms may be less competitive than their foreign rivals and less likely to compete globally.

Competition policies are defined as the set of policies and laws ensuring that competition in the marketplace is not restricted in a way that reduces economic welfare.[1] In practical terms, competition policy usually involves the enforcement of antitrust legislation (typically rules against anticompetitive business conduct and mergers) and the promotion of measures to enable firm entry and rivalry, typically referred to as competition advocacy.[2] The successful implementation of competition policy results in the elimination of anticompetitive product market regulations that limit entry of firms or affect their capacity to compete. Anticompetitive business practices are also discouraged by effective enforcement of antitrust rules.

This report reviews the current status of competition policy in Turkey, focusing on the economy-wide enforcement of competition rules and on specific regulations and government policies that affect product market competition. Economic and legal analysis is used to identify key challenges and to propose specific areas of intervention and reform. In addition, this report provides an evaluation of the potential benefits of pro-competition policies. Turkey is benchmarked against other economies that represent international best practice, as well as regional and global standards, with particular reference to European Union (EU) countries.

This study finds that although Turkey has made significant progress in enforcing competition law effectively, it still faces challenges in achieving a comprehensive and coherent policy framework to promote product market competition. Product market regulation indicators reveal that Turkish product market policies likely restrict competition. In addition, state control of economic activity and barriers to entrepreneurship are prevalent, with Turkey ranking as one of the most restrictive countries in the sample considered in this study.

The study also finds that there is significant scope to achieve efficiency gains from pro-competitive sector policies and more effective economy-wide competition policy enforcement. Removal of sector-level barriers to entry and competition, mainly in the services sector, is particularly warranted. In addition, competition principles can be more fully incorporated within broader government policies. Finally, improvements to the antitrust and state aid framework would complement measures to reduce restrictive product market regulation.

[1] Motta (2004).
[2] Fordetails, see ICN (2009).

KEY FINDINGS

Although Turkey has made significant progress in enforcing competition law effectively, it still faces challenges in achieving a comprehensive and coherent policy framework to promote product market competition.

Turkish markets would benefit from increased competition

A more competitive environment would have positive consequences for productivity growth and, ultimately, for the living standards of the Turkish population. A 10 percent decrease in the average price-cost margins in the Turkish economy would lead, all else equal, to a 4.5 percent increase in the annual rate of productivity growth.[3] This result is consistent and robust to several specifications which suggests that higher mark-ups, that result from relatively less competition, negatively impact productivity growth.

Productivity dividends from increased competition would be particularly high in key sectors. When exploring the sectoral dimension, results point to a particularly high effect of an improvement in the level of competitive pressure in: extraction of crude petroleum and natural gas; real estate activities; manufacture of wood and wood products; manufacture of basic metals; manufacture of coke, refined petroleum products, and nuclear fuel; manufacture of other transport equipment; land transport and transport via pipelines; and construction.

More intense competition in service sectors would lead to 1 percentage point of additional growth in value added in all service-intensive sectors. Increasing competition in nonmanufacturing sectors would be particularly beneficial, as insufficient competition in these upstream markets is bound to have negative spillover effects downstream on nearly all sectors of the economy. Conservative estimates indicate that reducing regulatory and competition constraints on professional and transport services would result in benefits of at least TL 1002.82 million (US$ 557 million) in additional value added to the economy per year.

Regulations governing product markets are quite restrictive of competition compared to other OECD economies

Product market regulation indicators reveal that Turkish product market policies are among the most restrictive of competition. This significantly limits the potential productivity gains from increased competition.[4]

State control of economic activity and barriers to entrepreneurship are prevalent, with Turkey ranking as one of the most restrictive countries in the sample considered in this study. Public ownership and state involvement in business operations are widespread across several markets, with Turkey displaying the most pervasive price controls of all OECD economies. Administrative provisions are opaque, while single contact points ("one stop shops")

[3] World Bank Group calculations using Eurostat and Turkstat sectoral panel data for the period 2005-2008 and estimates based on Aghion and Griffith (2005).

[4] The OECD indicator of product market regulation (PMR) measures the degree to which policies promote or inhibit competition in areas of the product market where competition is viable. It measures the economy-wide regulatory and market environments in 40 OECD and non-OECD economies in the following areas: public ownership and state control; administrative policies and administrative requirements for business start-ups; regulation in nonmanufacturing industries, such as energy, telecommunications, transportation, professional services and retail distribution.

for obtaining information and issuing licenses are not yet fully operational, resulting in high entry barriers for new market players.

At the sector level, entry barriers into potentially competitive markets also remain significant, potentially leading to relatively high prices.

Competition is adversely affected by regulations that limit entry and price competition in key service sectors. In the *road freight sector*, the government regulates retail prices, provides pricing guidelines, and allows professional bodies and business associations to enforce entry regulations. In *professional services*—which account for 20 percent of Turkey's total economic activity—both the regulatory framework and the regulations imposed by professional associations lessen competition by either restricting entry (such as stipulating a fixed number of suppliers, exclusivity in the provision of services, and restrictions to practice) or aiding members in coordinating prices (such as establishing minimum prices). Minimum prices are in place for accounting, architecture, legal, and engineering services, while notaries regulate the exact level of pricing. Limitations on advertising apply to some professions and access to several professions is foreclosed to foreign nationals.

Fees of key professional services are among the highest in the OECD and the EU. Turkish legal fees are the highest among OECD and EU economies for comparable transactions. Based on available information for mortgage services, the buyer and seller each pay a fee of 16.5 percent of the sales value, plus a one time fee of 3.96 percent on the value of the mortgage. Likewise, notaries' fees can amount to as much as 18 percent of the overall cost of starting a business. In both cases, fees are above EU and OECD best practice levels.

Institutional mechanisms to minimize anticompetitive regulations are limited

The competition policy framework remains unbalanced. While the Turkish Competition Authority (TCA) has concentrated its efforts on improving antitrust enforcement and merger reviews, it remains severely constrained when it comes to advocacy vis-à-vis sector regulators and other government bodies. *Competition advocacy*—defined as "the ability to promote a competitive environment by means of non-enforcement mechanisms, mainly through its relationships with other governmental entities and by increasing public awareness of the benefits of competition"[5]—plays a central role for the effective enforcement of competition policy. However, opinions issued by the TCA on anticompetitive sector-level regulation and legislation are neither mandatory nor binding. There is a clear need to enhance the capacity of the TCA to interact with sector regulators and other government bodies. Lack of advocacy powers constrains the effectiveness, and ultimately the impact, of policy advocacy to open markets to competition.

Given the considerable role of the Turkish public sector as a supplier in key markets, there is a need to be aware of the potential costs of crowding out private sector activity. State-owned enterprises (SOEs)—with full or partial public ownership—are present in a number of sectors including mining, energy, transportation, agriculture, postal services and manufacturing. In addition, despite privatizations there is still public presence in oil, gas, electricity production and distribution where privatization is almost complete, maritime, ports adminstrations, air freight, rail, and postal services. Typical measures that could increase transparency of SOEs'

[5] Definition of advocacy of the International Competition Network (ICN). See ICN (2011, p. 3).

participation and guarantee a level playing field include adequate accounting separation between commercial and public service obligations, as well as disclosure of information related to resources transferred to SOEs, particularly in sectors where competition with the private sector is viable**.**

Control of State aid granted by the Government—essential mechanism to safeguard effective competition and free trade—remains limited compared to EU practices. The objective of state aid control is to ensure that government interventions do not distort market competition and trade by unduly favoring specific economic agents or sectors.[6] The legislation on state aid recently enacted in Turkey aims to align state aid control with EU policies. Yet both the framework and its implementation remain incomplete. The current state aid framework includes wider sector-level exemptions than in EU regulations, with explicit exemptions for agriculture, fisheries, and services, which account for 70 percent of GDP. Sector-level exemptions reduce the effectiveness of the framework and have the potential to severely constrain competition and reduce welfare in the Turkish economy.

IMPLICATIONS AND POLICY OPTIONS

There is significant scope to achieve efficiency gains from pro-competitive sector policies and more effective economy-wide competition policy enforcement. Removal of sector-level barriers to entry and competition, mainly in the services sector, is particularly warranted. In addition, competition principles need to be fully mainstreamed within broader government policies. Finally, improvements to the antitrust and state aid framework would complement measures to reduce restrictive product market regulation. Specific areas for reform are outlined below.

(i) Open professional services to competition

Turkey's regulatory framework governing the liberal professions (professions requiring special training in the liberal arts or sciences, such as notaries, lawyers, engineers, or accountants) does not comply with international best practices. Reforms in professional services would have three main objectives: increasing productivity by allowing entry and competition across professional services; incentivizing competitive and efficient pricing; and lowering costs to users of professional services across the economy. These same principles should apply to restrictions on entry and price competition imposed by business associations and professions in other key sectors (such as road freight).

(ii) Strengthen economy-wide policies to foster market competition and guarantee a level playing field

A more effective competition policy framework could be achieved by adopting measures aimed at increasing the efficiency of antitrust enforcement; adopting best practices for state aid control. Such reforms would also foster a more predictable and transparent business environment.

[6] Following the EU definition, state aid is defined as an advantage in any form whatsoever conferred on a selective basis to undertakings (firms, economic agents) by national public authorities. Therefore, subsidies granted to individuals or general measures open to all enterprises do not constitute State aid.

(iii) Revise the competition framework to increase performance and advocacy powers of the Turkish Competition Authority (TCA)

Strengthening the competition law framework and its enforcement could be aimed at reducing costs to firms and increasing the efficiency of the TCA's merger review procedure. They could also help deter the enactment and elimination of anticompetitive regulation by increasing the awareness of other government agencies and regulators on the distortive effects of specific regulatory provisions.

(iv) Reinforce the State Aid Act and its enforcement to minimize potential distortive effects on competition

The introduction of a comprehensive state aid legal framework could ensure a level playing field for firms and avoid the use of public funds to support distortive state aid schemes that may discourage new investors. Implementation of such a framework would promote a shift of state aids toward "horizontal" objectives that could benefit entire industries instead of specific firms. This approach—more in line with the EU State Aid principles—- would redirect aid to economy-wide objectives, such as R&D and innovation, risk capital, training, renewable energy/climate change, and other measures to protect the environment.

(v) Better align government policies with competition principles

In the medium term, the Turkish government could evaluate the design and adoption of a comprehensive regulatory framework to achieve level playing field among all market players.

Policy Options to Facilitate Competition

Topic/Market segment	Short term	Medium term	Responsible institution	Relevant regulatory framework
Professional services				
Engineers, architects	Remove asymmetric fees for licenses between foreign and national applicants		Union of Turkish Engineers and Architects	Professional laws and regulations
Lawyers, notaries, engineers, architects, and accountants	Abolish minimum and fixed prices	Eliminate recommended prices	Turkish Government and Professional Associations and Unions	Professional laws and regulations
Lawyers, notaries, accountants, engineers, and architects	Evaluate whether a service must be exclusively provided by the profession	Reduce exclusivity restrictions (license, experience, limitations on the activity)	Turkish Government and Professional Associations and Unions	Professional laws and regulations
Lawyers, notaries, accountants.	Reduce citizenship and foreigner restrictions		Turkish Government and Professional Associations and Unions	Professional laws and regulations
Lawyers, accountants	Evaluate removal of general restrictions on advertising Prohibit only false or misleading advertising	Allow informative advertising	Turkish Government and Professional Associations and Unions	Professional laws and regulations

Topic/Market segment	Short term	Medium term	Responsible institution	Relevant regulatory framework
Competition Law				
Merger review	Revise merger control thresholds Clarify mergers& acquisitions framework		TCA Parliament Council of Ministers	Competition Act, including secondary legislation and enforcement guidelines
Advocacy and anticompetitive regulation	Strengthen TCA advocacy powers including its opinions directed to eliminate anticompetitive regulation. Develop and pilot a methodology to identify anticompetitive regulations Assure level competitive playing field for private and commercial public enterprises	Systematically address anticompetitive regulation arising for government interventions.	TCA Parliament Council of Ministers	Competition Act, including secondary legislation and enforcement guidelines
State aid				
	Establish a comprehensive state aid inventory by beneficiary and type of aid instruments (e.g. grants, tax exemptions and arrears, capital injections)	Develop a state aid typology with clear criteria as well as a system to monitor compliance	General Directorate of State Aid (Undersecretariat of Treasury) Parliament Council of Ministers	State Aid Act, including secondary legislation and enforcement guidelines
	Remove the service sector from the list of exemptions to the state aid law.		General Directorate of State Aids (Undersecretariat of Treasury) Parliament Council of Ministers	State Aid Act, including secondary legislation and enforcement guidelines

I. THE IMPORTANCE OF A COMPREHENSIVE COMPETITION POLICY FRAMEWORK

1. **Competition brings substantial economic benefits.** Firms operating in a competitive environment are more likely to innovate (Bassanini and Ernst 2002; Bloom, Draca, and Von Reenen 2011) and to increase their productivity (Aghion and Griffith 2005; Acemoglu et al. 2007). Competition boosts investment (Alesina et al. 2005), generates employment, and ultimately speeds up economic growth and improves overall welfare. Competition in input (upstream) markets, such as transportation, financial services, energy, telecommunications, and construction services, is a key driver of efficiency and productivity growth in downstream sectors—the users of these inputs. Empirical evidence strongly supports the positive effects of competition policy enforcement on productivity growth (Buccirossi et al. 2009; Voigt 2009). Tough enforcement against the practices of cartels, based on well-designed anti-cartel laws, for example, constitutes an effective tool to reduce negative impact of anticompetitive behavior (Alexander 1994; Symeonidis 2008). Increased international competitiveness—and therefore, more favorable terms of trade—is another important and positive effect associated with increased competition in domestic markets. Finally, consumers benefit from lower prices, direct savings, and improvements in the variety and quality of goods and services. Consumers also find enhanced job opportunities and additional income as investors.

2. **Alternatively, anticompetitive product market regulation can have substantial negative effects.** Easing anti-competitive regulation to best practice levels would have resulted in cumulative productivity gains of between 3 and 13 percent between 2000 and 2007, based on Bourles et al. (2010) estimates for 20 sectors in 15 OECD countries. The highest potential gains were observed in the retail trade and professional services sectors. Along similar lines and also using sector-level data for OECD countries, Conway et al. (2006) provide empirical evidence that the pace with which a follower country closes the productivity gap in relation to the leader is likely to depend on the status of policies that promote competition through firm rivalry and market entry. Countries with more restrictive product market regulations are less likely to achieve convergence.

3. **Anticompetitive practices also result in welfare losses for the economy as a whole.** Price-fixing agreements among competitors impose significant costs on society. Connor (2010) examines studies and judicial decisions on 381 cartelized markets worldwide and estimates a long-run median overcharge of 23.3 percent of prices above competitive levels. A recent study of the international market for coffee beans finds that the cartel's breakdown explains 49 percentage points of the 75 percent drop in the real coffee price between 1988 and 2001 (Igami 2011). Apart from increasing the cost of goods and services to conduct business, cartels are also associated with low labor productivity and reduced incentives to innovate (Broadberry and Crafts 2001; Evenett, Levenstein, and Suslow 2001; Symeonidis 2003). In addition, several studies confirm that pro-competition sectoral reforms and effective implementation of antitrust rules lead to significant productivity gains and consumer savings.[7]

[7] For a detailed summary of the impact of competition policies, see Kitzmuller and Martinez Licetti (2012).

4. **The introduction of a comprehensive national competition policy framework can yield substantial economic gains by promoting competition.** Australia is one of the countries that serve as an example of successful implementation of a national competition policy framework. In 1990, as the country was undertaking a major microeconomic reform program, it became obvious that the effects of the reforms would be severely limited if the existing competition policies were not reviewed and modified and if a coherent competition policy framework was not established. In April 1995, the Australian State and Territory Governments agreed to implement a National Competition Policy (NCP).[8] The guiding principle of NCP is that policies that restrict competition should be kept only if they are proven to be in the public interest.

5. **Competition policy reforms boosted Australia's GDP by at least 2.5 percent, due to their effect on increased productivity and lower prices during the 1990s.**[9] Likewise, conservative estimates for the UK suggest that direct consumer savings resulting from the enforcement of competition law are worth US$ 112 million a year. In the case of the Netherlands, the positive impact of the competition agency's actions on Dutch society is estimated at US$ 426 million (a three-year rolling average). Finally, recent studies also provide evidence that budgetary commitments to competition agencies and institutions yield economic benefits in terms of improved economic growth since they are associated with higher levels of per capita GDP growth (Clougherty 2009).

6. **A comprehensive competition policy framework rests upon two complementary pillars: opening markets to entry and competition by addressing sector specific constraints; and effective enforcement of competition policies.** Both pillars rely on an effective institutional set up that is able to foster and guarantee healthy market conduct. For example, in developing countries, de facto independence—that is, autonomy of decisions—of the competition authority and an institutional emphasis on promoting competition, rather than consumer protection issues, seem to play a crucial role in driving total factor productivity growth. De facto independence of the competition authority in a developing country can translate into a 17 percentage point reduction in the total factor productivity (TFP) gap with the United States, on average, Voigt (2009) estimates, in a study using cross-country evidence.

7. **In Turkey, the potential economic benefits from increasing market competition would be particularly large.** Calculations prepared for this report show that a 10 percent decrease from the average price-cost margins would increase productivity growth by 4.5 percent per year, all else equal. Moreover, increasing competition in Turkey's services sector by reducing restrictive product market regulation to best practice OECD levels could bring about additional growth in value added of up 1 percentage point in all service-intensive sectors.

[8] Based on a blueprint from the earlier independent review (the so-called Hilmer Review).

[9] This conservative estimate does not consider the effects of dynamic efficiency gains from more competitive markets Productivity Commission (2005); Crawford (2009).

II. PRODUCT MARKET COMPETITION IN TURKEY: AN EMPIRICAL ASSESSMENT

8. **Though Turkey made significant progress in enforcing competition law, this is not yet reflected in marked improvements in the level of domestic market competition.** In recent years, Turkey has redoubled its enforcement of antitrust policies, achieving a high degree of alignment with the EU. However, market incumbents continue to wield a relatively high degree of market power in domestic markets.

Table 1 Estimated Economic Effects of Competitive Pressure on Labor Productivity Growth by Country

Country	Percent increase in labor productivity
Slovakia	5.12
Sweden	5.07
Bulgaria	4.79
France	4.59
Turkey	**4.49**
Czech Republic	4.48
Finland	4.26
Lithuania	4.21
Ireland	4.03
Hungary	3.92
Belgium	3.85
Latvia	3.75
Netherlands	3.49
Austria	3.37
Greece	3.14
Italy	2.92
Slovenia	2.91
Denmark	2.84
Norway	2.76
Luxembourg	2.47
Portugal	1.89
Estonia	1.83
ECA (within EU)	1.28
All countries[a]	1.01

Source: Authors.

a. All countries include EU countries (except Romania and Malta), plus Norway and Turkey

Results refer to the economic magnitude of the effect of a 10 percent decrease from the country's average observed mark-up. A two-step approach was adopted. First, the following equation was estimated

$\Delta \ln LP_{ict,t-1} = \alpha + \beta PCM_{ict-1} + \sum_c \gamma_c \, Country_c * PCM_{it-1} + \sum_i \varphi \, sector_i + \sum_c \gamma \, Country_c + \sum_t \theta \, time_t + \epsilon_{it}$.

Then, as the dependent variable is in logarithmic format, the exact percentage change in the predicted labor productivity associated with a variation in the PCM was computed as $[\exp(\hat{\beta}\Delta PCM) - 1] * 100$, where $\hat{\beta}$ is the estimated country's average marginal effect and ΔPCM is a 10 percent decrease from the country's average observed PCM value (over the 2003–08 period).. Results for Cyprus, Germany, Poland, Spain, and the United Kingdom were not statistically significant.

9. **Most industries (except capital goods) in Turkey charge prices well above competitive levels.** Results from an extensive survey of the Central Bank of Turkey (CBT)[10] indicate that price-setting behavior of Turkish firms is oligopolistic in nature, which translates into relatively higher prices.

10. **Continued signs that competition could be improved is particularly unfortunate in the face of evidence that indicates that the effect of more competition on productivity growth is significantly positive in Turkey** (Appendix B). A 10 percent decrease from the average margin of 0.151 between 2003 and 2008 would have increased labor productivity growth by 4.5 percent per year, all else equal. For the entire sample of countries included in the analysis, a similar reduction in the average mark-up of 0.153 over the same period would boost labor productivity growth by a more modest 1.01 percent per year. For European and Central Asian (ECA) countries within the EU region, decreasing the average price-cost margin by 10 percent would increase productivity growth by 1.28 percent per year. Table 1 (above) summarizes the estimated increase in average annual labor productivity growth by country over the 2003–08 period given an increase in competitive pressure (that is, a 10 percent decrease from the country's average observed mark-up).

11. **Productivity dividends that result from an increase in competition in Turkey are particularly high in some sectors.** Results from table 2 (below) suggest that, all else equal, increasing competition would boost productivity growth by a large factor, especially in the following sectors: extraction of crude petroleum and natural gas; real estate activities; manufacture of wood and wood products; manufacture of basic metals; manufacture of coke, refined petroleum products, and nuclear fuel; manufacture of other transport equipment; land transport and transport via pipelines; and construction.

12. **Having high levels of competition in non-manufacturing sectors such as real state, land transport and construction are particularly relevant to the rest of the economy.** Insufficient competition in these markets tends to have negative effects on nearly all sectors of the economy as all industries tend to use the inputs of these nonmanufacturing sectors. In this sense, increasing competition intensity will allow the economy to fully reap the productivity gains in the near future.

[10] Price-setting behavior in Turkey was investigated on the basis of a survey that was carried out by the Central Bank of the Republic of Turkey between May and July 2005 on a final sample of 999 firms. For details, see Sahinoz and Saracoglu 2008, 2011).

Table 2. Estimated Economic Effects of Competitive Pressure on Labor Productivity Growth by Sector in Turkey*

Sector	Average PCM (2003–08)	Percent increase in labor productivity
Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying	0.39	35.44
Real estate activities	0.18	10.77
Manufacture of wood and wood products	0.15	10.68
Manufacture of basic metals	0.13	10.67
Manufacture of coke, refined petroleum products, and nuclear fuel	0.09	10.60
Manufacture of other transport equipment	0.15	10.38
Land transport; transport via pipelines	0.10	9.23
Construction	0.18	8.43
Manufacture of other nonmetallic mineral products	0.20	8.21
Manufacture of radio, television, and communication equipment and apparatus	0.11	7.80
Manufacture of chemicals, chemical products, and man-made fibers	0.13	7.76
Other mining and quarrying	0.22	7.20
Wholesale trade and commission trade, except for motor vehicles and motorcycles	0.06	7.12
Manufacture of electrical machinery and apparatus	0.12	6.29
Manufacture of medical, precision and optical instruments, watches, and clocks	0.18	6.22
Manufacture of leather and leather products	0.13	6.17
Manufacture of machinery and equipment n.e.c.	0.14	6.12
Manufacture of textiles	0.13	5.87
Manufacture of fabricated metal products, except machinery and equipment	0.13	5.37
Manufacture of food products and beverages	0.11	5.07
Manufacture of wearing apparel; dressing; dyeing of fur	0.10	4.90
Manufacture of rubber and plastic products	0.14	4.62
Publishing, printing and reproduction of recorded media	0.16	4.12
Manufacture of furniture; manufacturing n.e.c.	0.12	4.11
Manufacture of motor vehicles, trailers and semi-trailers	0.14	3.94
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	0.06	3.72
Computer and related activities	0.18	3.52
Research and development	0.19	3.46

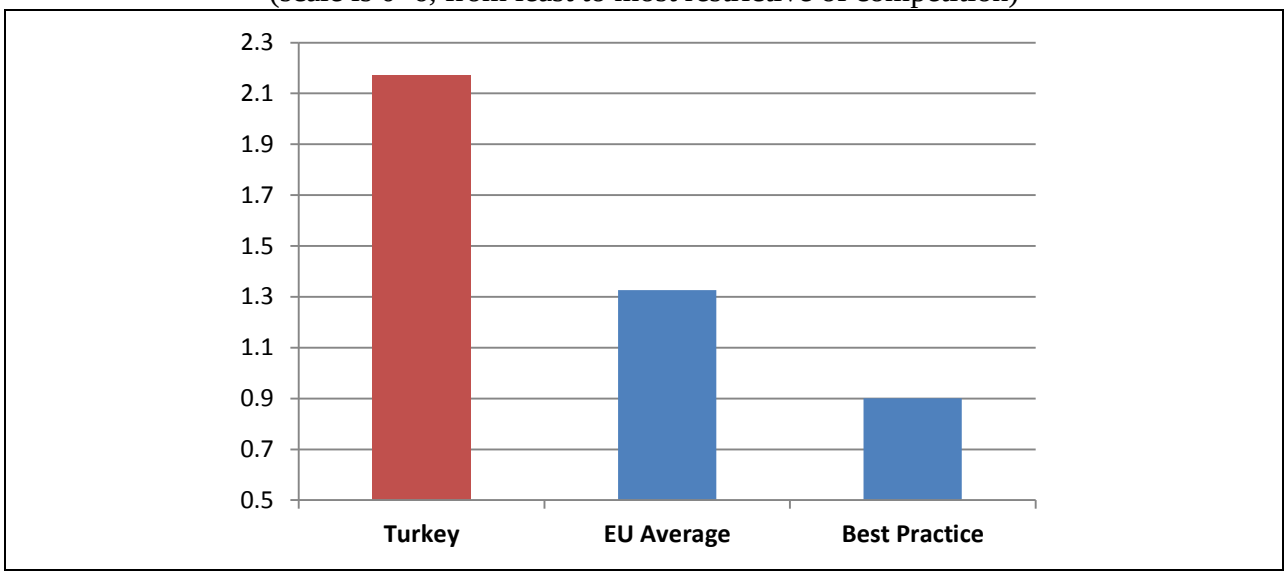
The table shows only the sectoral results for which the estimated effects showed to be statistically significant.

* Based on equation (3) specified in appendix B, the exact percentage variation in the predicted LP associated with a change in the PCM is computed as $[\exp(\hat{\beta}\Delta\text{PCM}) - 1] * 100$, where $\hat{\beta}$ is the estimated sector's average marginal effect, and ΔPCM is a 10 percent decrease from the sector's average observed PCM value (over the 2003-08 period).

III. PRODUCT MARKET REGULATION AND COMPETITION POLICIES

13. **Regulatory restrictions to competition are more prevalent in Turkey than in other OECD and EU economies.** Evidence based on product market regulation indicators (box 1) across countries reveals that regulations affecting market competition are more restrictive in Turkey than in other EU economies, in both relative and absolute terms. Turkey's score is also 2.4 times more restrictive than the average best practice economy (Figure 1).

Figure 1. Restrictiveness of Product Market Regulation
(scale is 0–6, from least to most restrictive of competition)



Source: OECD Product Market Regulation Database (High-Level Indicator), 2008. Best practice includes Top 5 performers.

14. **Pervasive sector regulation, administrative barriers, and a large public enterprise sector translate into restrictions to competition.** In the case of Turkey, regulations that restrict the structure of product markets (transparency and amount of licenses and expenses to set up a business) and conduct within markets (price controls, exclusive rights for some economic agents to provide services) are still prevalent.

15. **Turkey's relative poor standing in the PMR indicators is driven by state control of economic activity.** Comparing Turkey with the 21 EU countries included in the survey, Turkey ranks twentieth for the economy-wide PMR indicator.[11] A decomposition of the economy-wide PMR reveals that the restrictiveness of product market regulation in Turkey is driven by state control of economic activity (Figure 2, below).

[11]Bulgaria, Cyprus, Latvia, and Lithuania have not been covered in the PMR sample (2008 or later).

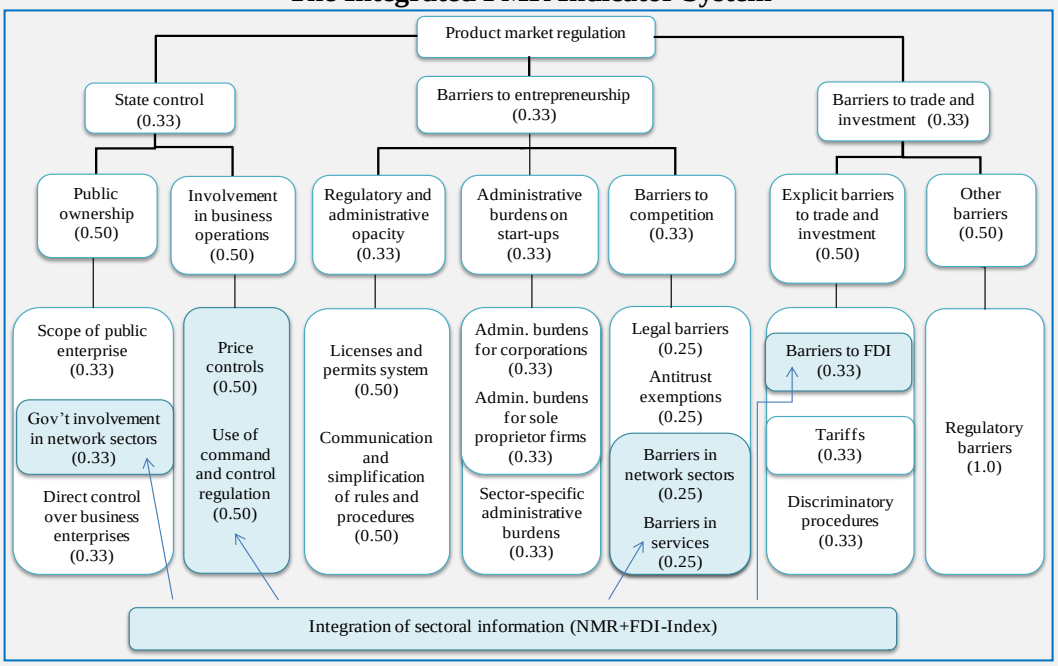
Box 1. The PMR Methodology

A regulatory environment that favors competition in product markets has positive repercussions on long-run economic performance (Nicoletti and Scarpetta 2003). This may occur by promoting a more efficient allocation of resources both across and within sectors (Nickel 1996).] Enhancing competition in product markets has been found to positively affect GDP per capita by providing incentives to firms to reallocate resources to more productive activities, and increase innovation and technological diffusion, thus enhancing dynamic efficiency (Aghion et al. 2005). In addition, less restrictive regulations may positively affect employment by reducing the rents that some firms extract from overregulation and force firms to expand their activities.

Product market regulation (PMR) is measurable through a methodology developed at the Organisation for Economic Co-operation and Development (OECD). Benchmarking product market regulation has proved to be a useful tool for monitoring the performance of policies and institutions in OECD countries and for identifying specific policy gaps, thus offering the opportunity to benefit from the experience of other member states.

The OECD methodology relies on the OECD Regulatory indicators questionnaire. The PMR indicators summarize information on economy-wide and industry-specific regulatory provisions (see figure). The PMR indicator was updated and revised in 2008.

The Integrated PMR Indicator System

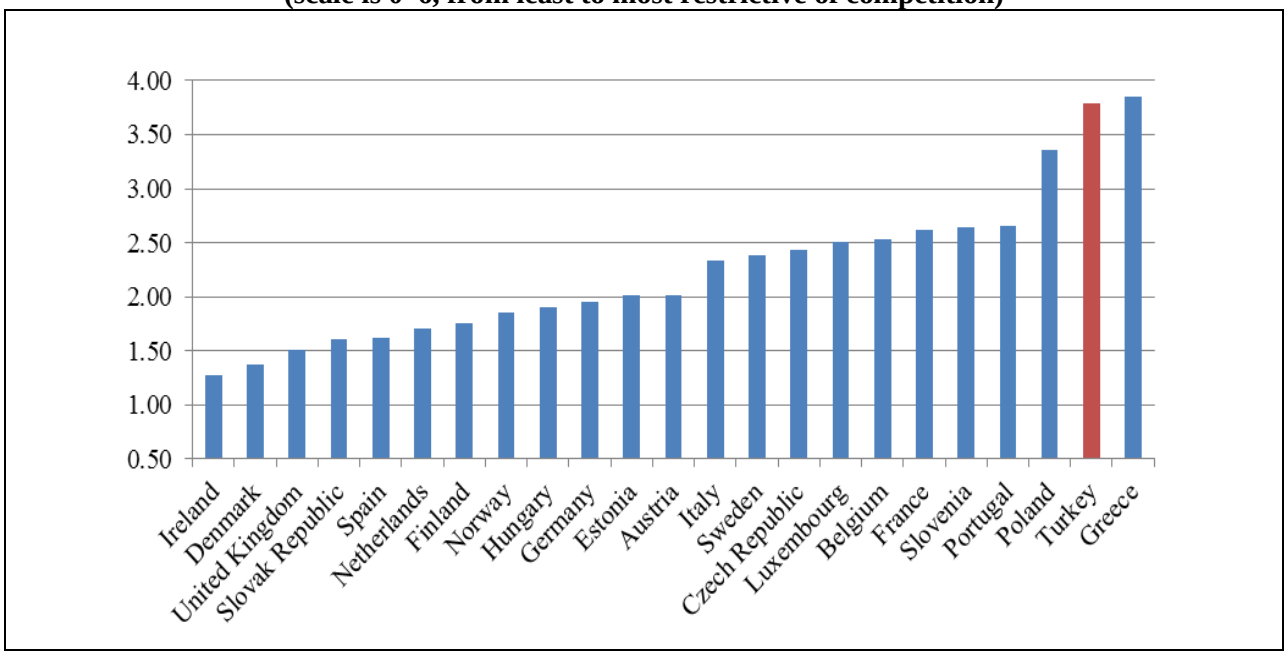


Source: OECD .

The PMR indicators are designed to reflect regulations that have the potential to restrict competition in areas where competition is viable. By construction, they have a number of features that make them useful not only for analysis, but, more importantly, for policy advice, since they allow specific policies that hamper competition in product markets to be pinpointed. First, PMR indicators are focused on enacted policies and not on outcomes, implying that they are objective, in the sense that they are not based on opinion surveys. Second, since the summary PMR indicator is constructed as the average of well-defined components, PMR scores can be related to specific underlying policies, thus providing precise inputs in the phase of policy recommendation. Finally, PMR indicators focus on regulatory measures that affect the economy at large and can therefore be considered as comprehensive measures of regulatory restrictiveness. Their advantages notwithstanding, PMR indicators are not designed to capture informal regulatory practices or the effective The detailed description of the 18 low-level indicators are presented in Appendix B.

16. **State involvement in business operations and public ownership are higher in Turkey relative to EU counterparts.** Government involvement in business operations is measured by the use of price controls and coercive regulations, as opposed to incentive-based ones.After Greece, Turkey registers the highest presence of the state in the economy compared with European economies (Figure 2).

Figure 2. State Control of Economic Activity
(scale is 0–6, from least to most restrictive of competition)

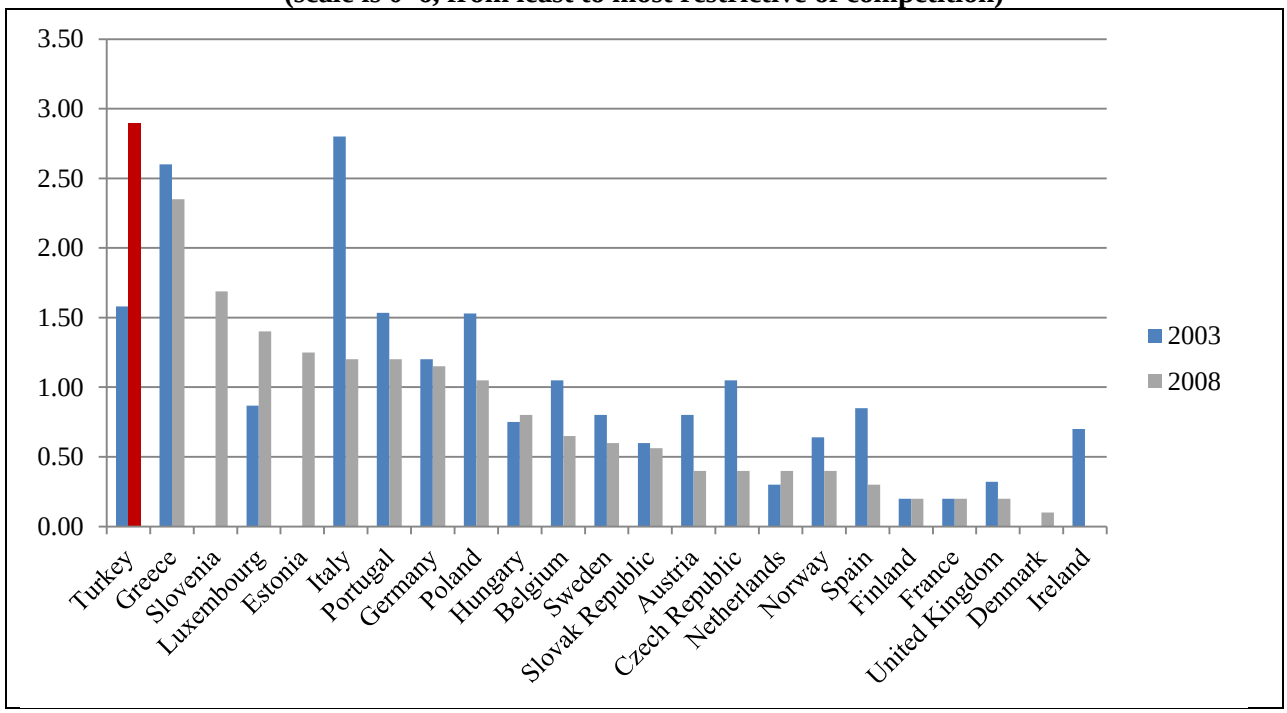


Source: OECD Product Market Regulation Database (High-Level Indicator), 2008.

17. **Unlike other countries, the extent of price controls almost doubled in Turkey between 2003 and 2008** (Figure 3). Turkey now ranks last across EU countries in the extent of price controls applied in the economy, while in 2003 it scored higher than Italy and Greece. In addition, price controls on the supply side of labor markets, such as minimum wages and compulsory social security contribution rates, restrict competitive pricing in line with productivity.

Price controls in several sectors is another indicator of relatively high levels of anti-competition state intervention in the economy that may damage productivity growth. In 2008, price controls were pervasive in air travel, retail trade, road freight and professional services. Figure 3 shows that Turkey's PMR indicator for price controls is about 2.7 times higher than the EU average.

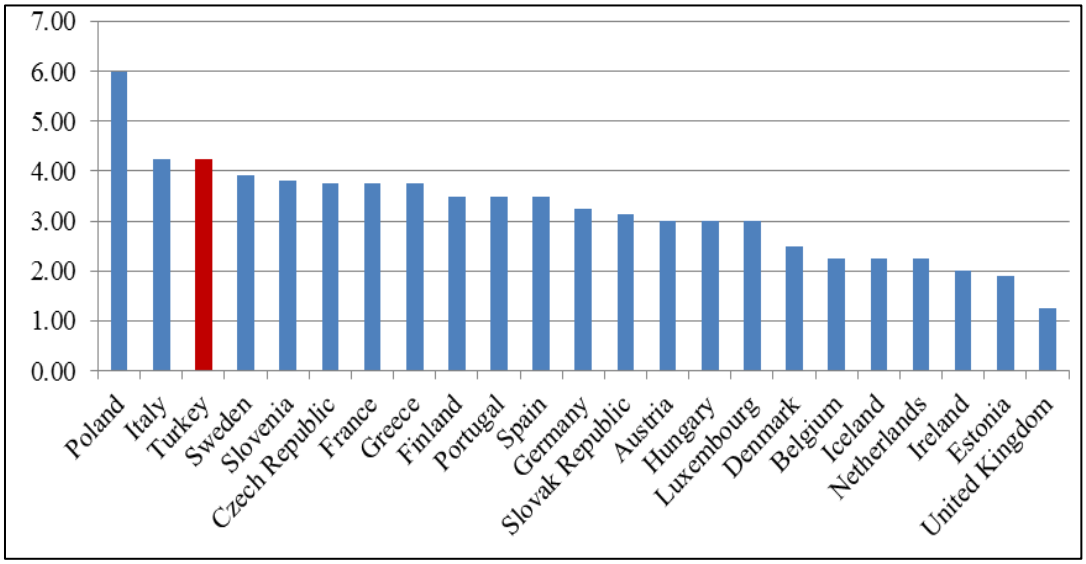
Figure 3. Price Controls in Turkey
(scale is 0–6, from least to most restrictive of competition)



Source: OECD Product Market Regulation Database (Low-Level Indicator: Price Controls), 2008.

18. **The Turkish government is also a market player and intervenes in markets through the scope and scale of its state-owned enterprises (SOEs) and this also is likely to negatively affect competition.**Turkey has one of the broadest scopes of the public enterprise sector when compared to EU countries (Figure 4). Not only is the presence of SOEs widespread across many key sectors of the Turkish economy, but the government's shareholding within the largest firm is also relatively high in network sectors. Network industries are of particular strategic importance to the whole economy since their services often represent a substantial input for other sectors. Even after a privatization wave between 2005 and 2008 that reduced public employment numbers, SOEs (with full or partial public ownership) continue to hold significant market shares in key sectors such as airlines, agriculture, telecommunications, oil, gas, and mining, electricity, rail, and postal services.

Figure 4. Scope of Public Enterprises
(scale is 0-6, from least to most restrictive of competition)



Source: OECD Product Market Regulation Database (Low-Level Indicator: Scope of Public Enterprise), 2008.

Professional Services

19. **The Turkish economy relies heavily on services as inputs. While the service sector has an important part (59 percent of total value added) in the economy, it is likely to suffer from inefficiencies due to a wide range of regulatory restrictions that hamper competition.**[12] In particular, the liberal professions such as notaries, lawyers, engineers, and accountants represent approximately 20 percent of total Turkish economic activity.[13] In this sense, Turkey is similar to many other European countries such as Italy, where an average of 6 percent of costs of exporting firms were due to professional services. Also, Turkey remains one of the few OECD countries where professional bodies or representatives of trade and commercial interests are involved in specifying or enforcing pricing guidelines and regulations. Turkey continues to set minimum prices for at least seven professions, including notaries.

20. **Cross-country evidence further suggests that there is a statistically significant negative relation between levels of service sector regulation and growth in value added and productivity.** These studies have calculated the effect of one country moving toward the best practices levels of low regulation or at least increasing its service sector liberalization relative to other countries.[14] Building on this work, it can be assumed that a significant decrease[15] of

[12] Industries can be defined as "service-dependent"—based upon information from input-output table technical coefficients measuring knock on effects of one sector to others—if the technical coefficient of service inputs for this industry is above the average technical coefficient of service inputs. In Turkey, 19 out of 31 industries use transport services intensively, and 12 out of 31 industries are above the average in their dependence on professional services, according to 2005 input-output data.
[13] Presentation at the World Bank Workshop Competition and Competition Policy in Turkey, Ankara, 2011.
[14] See Conway and Nicoletti (2006), Arnold, Nicoletti, and Scarpetta (2008), and Barone and Cingano (2011), among other studies.

relative regulatory restrictiveness will yield an increase of between 0.5 and 1 percentage points[16] in annual growth in value added in service-intensive industries, at a minimum.[17]

21. **Inefficiencies in professional services likely have real economic ramification since professional services constitute an important input for many sectors.** A wider use of professional services also increases labor productivity. Average labor productivity of firms that use accounting, legal and engineering professional services is 10 to 45 percent higher than that of firms that do not.[18] In Turkey, 12 out of 31 industries are above the average in their dependence on professional services.

22. **Competition policy reforms in the professional service sector across countries can yield large economic benefits by boosting productivity and growth.** The removal of price floors and other restrictions to competition is associated with increases in productivity and a reversal of the trend of higher ability lawyers leaving the profession (Pellizari and Pica 2011). An OECD study using PMR data suggests that, along with the energy sector, liberalizing professions would generate the most significant gains from deregulation and would have significant impact on growth in downstream, service-dependent industries (Barone and Cingano 2011). Wider use of professional services implies higher productivity, where average labor productivity of firms that use accounting, legal, engineering professional services is 10 to 45 percent higher than that of firms that do not. Significant cost savings could also be achieved. It has been estimated that eliminating the exclusive rights of lawyers in Australia, for instance, would lead to a 12 percent drop in overall legal costs (OECD 1999).

23. **In Turkey, the sector of professional services has high barriers to entry in the form of administrative procedures and exclusivity of rights that likely make their services costly and not as efficient as they could be**. For instance, there are restrictions on picking up freight on the return leg ("backhauling"), shop hours are regulated, and companies operating railway infrastructure or providing railway services are obliged to serve specific customers. Given that 19 sectors in Turkey rely heavily on transport services as inputs, a liberalization yielding 0.75 percent growth in value added can yield benefits of TL 1002.82 million (US$ 557 million) in value added to the economy.

24. **Turkey's economy as a whole could significantly benefit from opening key professional service markets.** Assuming an average increase of 0.75 percent in value added growth in service-intensive sectors following liberalization of the business and professional

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[15] A significant decrease in relative regulatory restrictiveness is defined as an improvement of at least one quartile in the distribution of countries according to their restrictiveness (that is, a country that moves from the 75th percentile to the 25th percentile in the respective sectors or lower-level indicators).

[16] This can be assumed to be an underestimation given the fact that OECD (2011) calculated the acceleration in growth in value added economy wide and not just for the service-intensive industries.

[17] Given that there are 19 Turkish sectors that use transport services intensively and 12 sectors that use business and professional services intensively, if all of these grow in value added by 0.75 percent, the additional value added generated from transport liberalization would be TL 1002.82 million (US$ 549.21 million), and from professionals service sector liberalization, it would be TL 876.74 million (US$ 484 million). These results constitute conservative and lower-bound impact approximations. The aggregate and cross-sector impact of all service sectors would presumably be much larger.

[18] Presentation at the World Bank Workshop, Competition and Competition Policy in Turkey, Ankara, 2011.

services sector to OECD best practice levels, Turkey would be able to realize benefits in terms of additional generation of value added of TL 876.74 million (US$ 484 million).[19]

25. **Liberalizing professional services does not mean deregulating them altogether.** Professional services usually face some degree of regulation or self-regulation. Regulation often aims to address a perceived market failure. The most relevant issues in the professional services sector arise in the form of asymmetry of information that prevents consumers from judging the quality of the services they purchase; potential (negative) externalities that the provision of a service may have on third parties; and the consideration of certain professional services as public goods. In some cases, consumers are unable to assess the quality of services that have been provided to them or are not in a position to determine which services they should purchase. As a result, there is a risk that competition in professional services will lead to consumers being offered low quality and inappropriate services.Typically, self-regulations of professional services include measures that affect entry into the respective profession, the conduct of members of the profession, including price-controls, and the granting of exclusive rights to carry out certain activities. In many countries, professional self-regulations have the direct or indirect effect of restricting competition in these markets, raising the price, and limiting variety and innovation in professional services.

26. **Self-regulation and state regulation of professions can be good but both have the potential of generating anticompetitive practices that do not benefit or protect consumers.** Some specific structural and behavioral restraints on professional practices that are in this category are catalogued and described in box 2, below. These are pernicious in that they most ofen have no demonstrable consumer welfare benefits or the benefits do not outweigh the costs.

27. **In regulating the provision of professional services, it is necessary to find a balance between assuring quality and proper incentives while keeping markets open and competitive.** In the EU, professional regulations that are "objectively necessary for the proper functioning of the profession" do not infringe Article 101 (the so-called Wouters exception). To fall under the Wouters exception, three cumulative requisites must be met. First, the regulation must be connected to public interest goals. Second, the anti-competitive restrictions must be determined to be inherent to the public interest objectives (that is, they must pass the necessity test). Third, anti-competitive restrictions must not go beyond what is necessary for the proper functioning of the profession (that is, they must pass the proportionality test).

28. **The European Union reflects the importance of promoting effective competition in the professional services sector**. Since 2003, as part of the European Union's competition policy, the European Commission has embarked on the promotion of liberalizing professional services (specifically, notaries, lawyers, engineers, accountants, and pharmaceuticals) to foster further integration of the respective EU markets. For example, the Netherlands fully liberalized the notaries' profession. Lithuania enacted a new law with respect to bar associations that relaxed effective prohibitions on advertising. Slovakia abolished the recommended tariffs of selected professions as of 2005. Moreover, since the entry into force of the Services Directive

[19] Authors' calculations based on OECD PMR low-level indicators and STAN input output table for Turkey, 2005.

(2006/123/EC of 12 December 2006), the provision of services within the EU has been liberalized.

Box 2. Restrictive Regulation in Professional Services

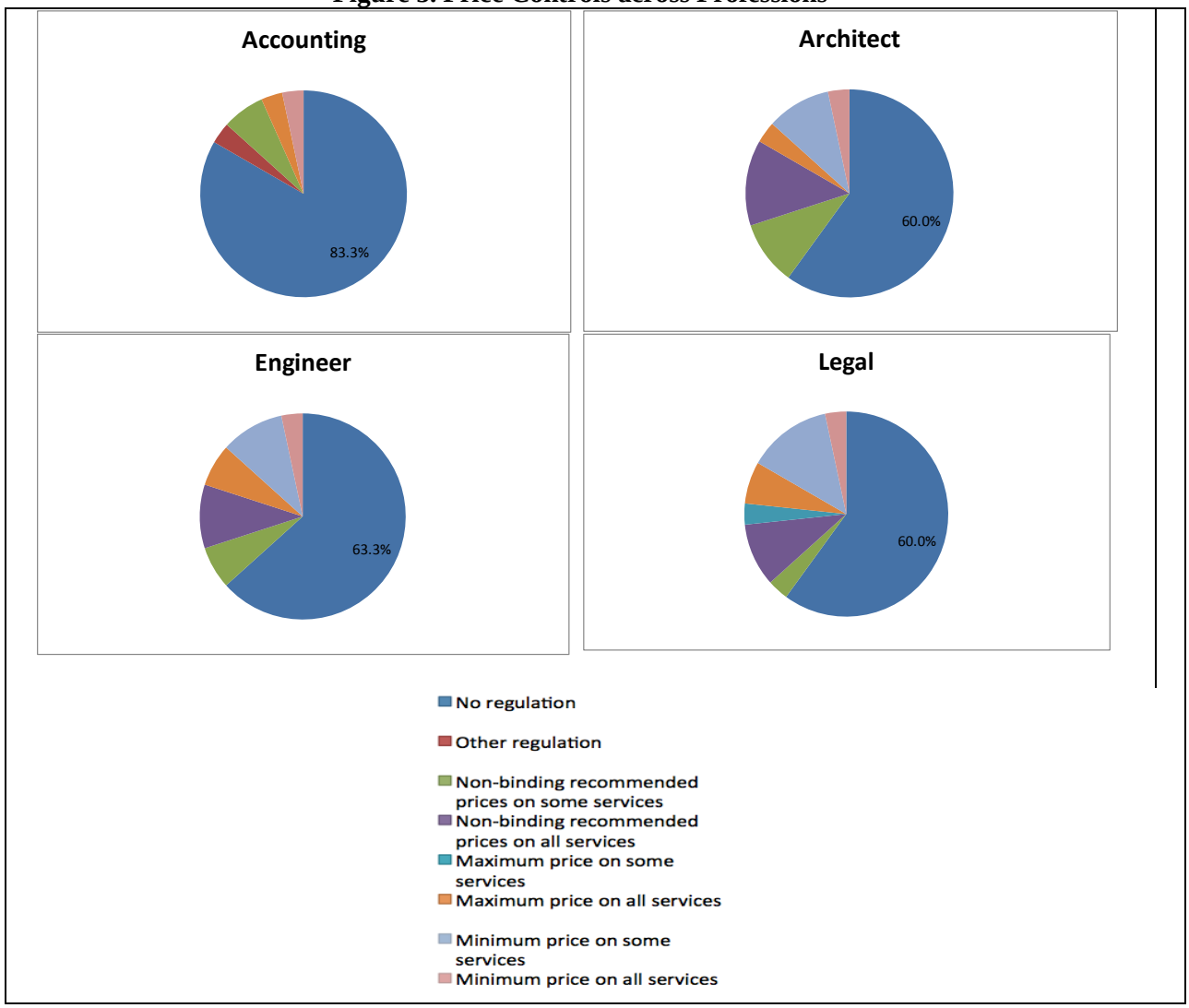
The EU Commission analyzed the markets in which lawyers, notaries, accountants, architects, engineers, and pharmacists operate in the European Union and identified five main categories of national legislation or self-regulation that restrict competition. These are:

- **Fixed prices**: These are probably the regulatory instrument likely to have the most detrimental effects on competition, eradicating or seriously reducing the benefits that competitive markets deliver for consumers, particularly in terms of price choice.
- **Recommended prices**: These have a significant negative effect on competition since they may facilitate the coordination of prices between service providers and/or mislead consumers about reasonable price levels.
- **Advertising restrictions**: Advertising may facilitate competition by informing consumers about different products and allowing them to make better-informed purchasing decisions. Advertising, and in particular comparative advertising, can be a crucial competitive tool for new firms entering the market and for existing firms wanting to launch new products.
- **Entry restrictions and reserved rights**: Entry restrictions, combined with reserved rights, ensure that only practitioners with appropriate qualifications and skills can carry out certain tasks. But excessive licensing regulation is likely to reduce the supply of service providers, with negative consequences for competition and quality of service. In many cases, entry restrictions are coupled with reserved rights to provide certain services. In some member states, the pharmacist and notary professions are even subject to quantitative entry restrictions based on demographic or geographical criteria.
- **Regulations governing business structure and multidisciplinary practices**: Business structure regulations may have a negative economic impact if they prevent providers from developing new services or cost-efficient business models. For example, these regulations might prevent lawyers and accountants from providing integrated legal and accountancy advice for tax issues or prevent the development of one-stop shops for professional services in rural areas. Certain ownership regulations can also reduce access to capital in professional services markets, hindering new entry and expansion.

Source: EU Report on Competition in Professional Services (2004).[[Add to ref list/Is EU the author. If not, fix here. Shorten this to an author date citation: Author (2004).]]

29. **Anticompetitive regulations of professional services can be categorized into two types of barriers: structural (or entry) barriers and conduct barriers.** Structural barriers limiting entry include exclusivity of service provision and licensing restrictions. Conduct barriers limiting competition include price controls and restrictions on advertising.

Figure 5. Price Controls across Professions



Source: OECD Product Market Regulation Database, 2008.

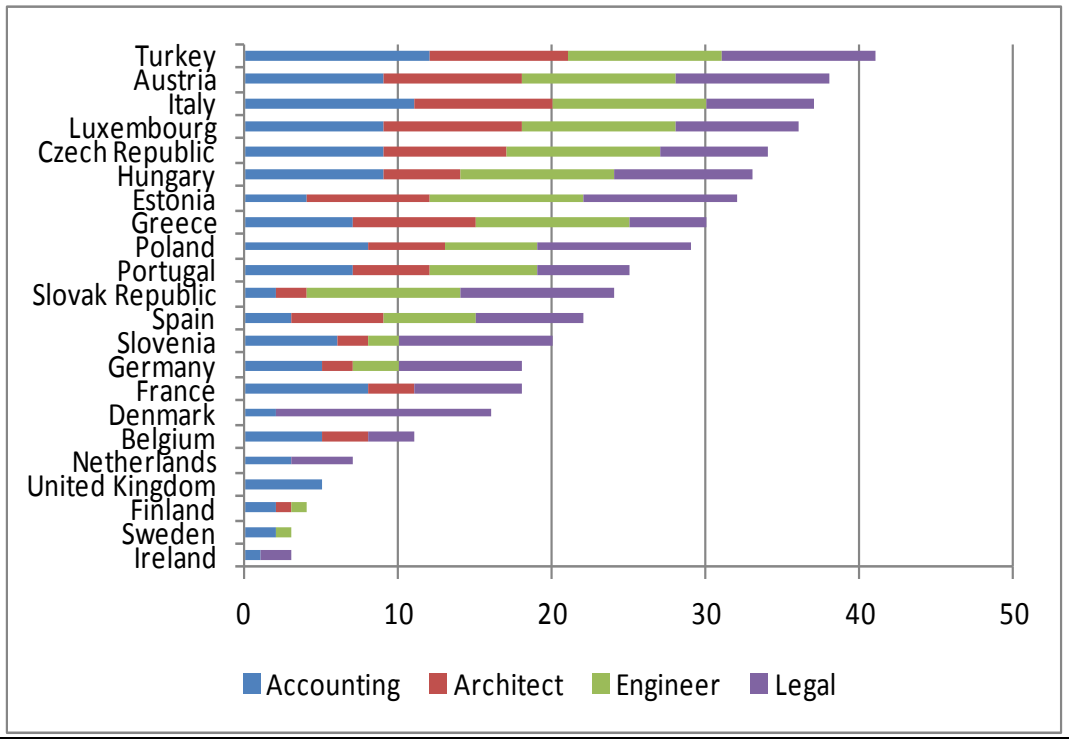
30. **Price controls including recommended, minimum, or fixed prices are common across professions in Turkey.** In contrast with EU countries, which have reduced price controls in the professional sector significantly, Turkey has increased such price controls, and imposes some form of compulsory price controls in most of its sector-specific regulations; this can have the effect of artificially maintaining higher prices in the markets (Figure 5). Accounting, legal, architecture, and engineering professionals are all subject to government and self- regulations - regulations imposed by thie respective member associations- on fees. Accountants and lawyers have minimum prices on all services. Turkey is the only country in the OECD that imposes minimum prices on all accounting and legal services. Turkey is one of three OECD countries to have binding minimum prices for some services provided by engineers and architects.[20] The majority of OECD countries have no price regulation for these professional services at all.It is recognized that price floors are set for sectors that concern public health and safety such as

[20] Luxembourg is the only country that has minimum prices for all services provided by engineers and architects.

engineering and architecture in order to protect the consumers. However, from an economic perspective price floors does not resolve the issue of information asymmetry, that is the ability of the consumer to know the quality of the services prior to purchasing. While price floors help keep the competent service providers in the market by preventing a race to the bottom in pricing, it does not serve the aim of deterring incompetenet or immoral service providers who would still deliver a sub-standard end product regardless of the price. Therefore, a more suitable approach would be to design insurance liability laws and promote their market.

31. **Excessive exclusivity of services provided by professionals and licensing restrictions remains common.** Licensing restrictions in the form of minimum periods of education, professional examinations, and minimum periods of professional experience that are excessive—that is, not proportionate to ensure the desired quality of the services—may severely limit viable entry. In many cases, entry restrictions are coupled with reserved rights to provide certain services, with the effect of foreclosing the markets. In practice, this implies fixing the number of competitors per service. Examples include regulations preventing lawyers and accountants from providing integrated legal and accountancy advice for tax issues, or preventing the development of one-stop shops for professional services in rural areas.On average, EU governments endow selected professions with the exclusive or shared exclusive rights to provide specific services. However, Turkey ranks first in the number of services that are provided exclusively by professions. A Turkish accountant can exclusively provide 12 services. Architects can exclusively provide 9 types of services, while the EU average is 4. Engineers can also restrict others from providing twice as many services as for EU average (10 compared to 5).

Figure 6. Number of Services Provided Exclusively or Shared Exclusively by Professions



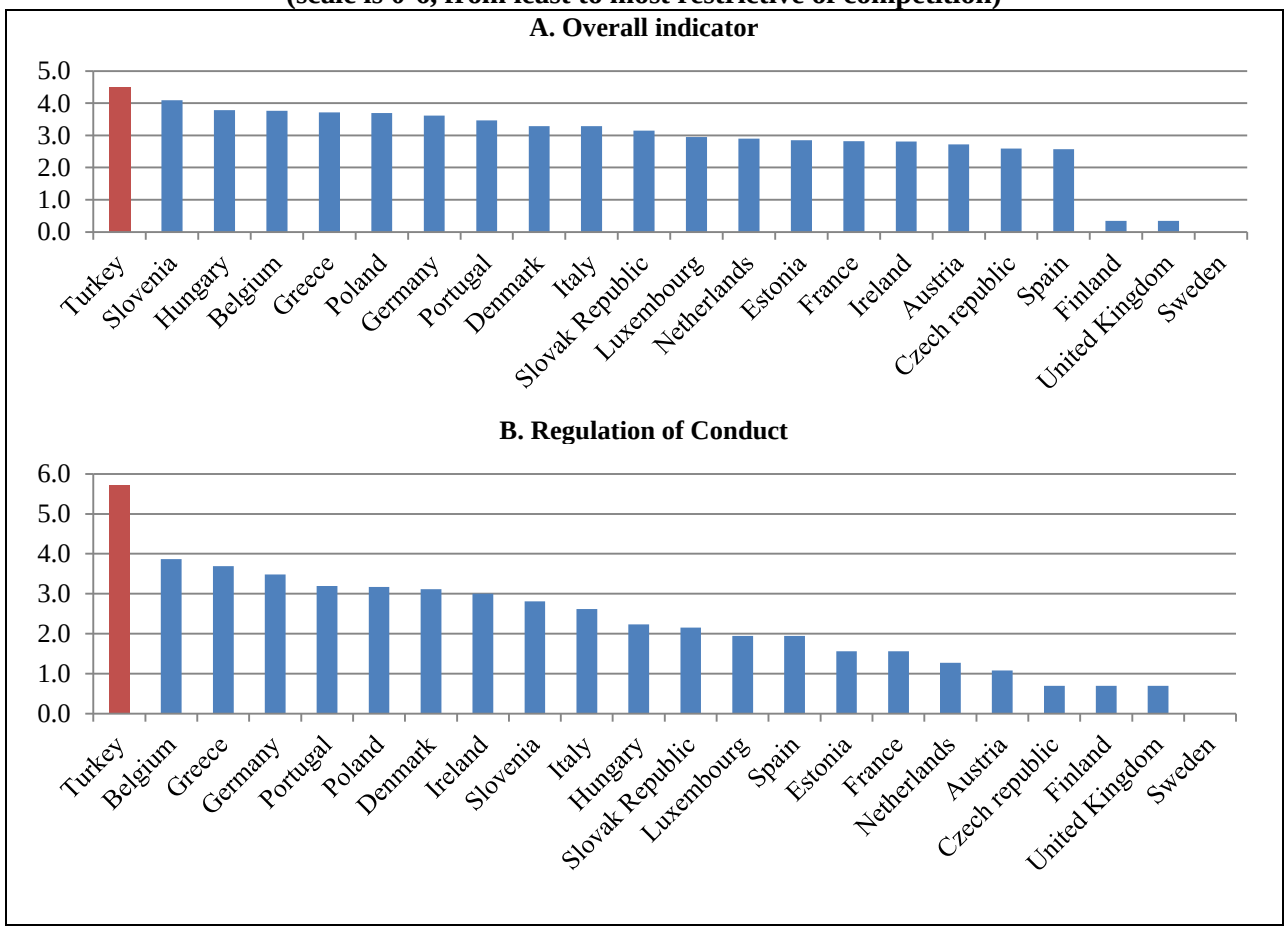
Source: OECD Product Market Regulation Database.

32. Professionals offering legal services enjoy exclusivity in providing 10 services, while the average for EU countries is 7 (Figure 6). The following sections outline the status of restrictive regulation in each profession in more detail.

Legal Services

33. The regulatory regime governing the provision of legal services imposes severe restrictions on entry and conduct, including on advertising (Figure 7 and Table 3). The main restrictions on conduct are price controls. Restrictions on entry are both quantitative and qualitative. Quantitative restrictions base their selection mechanism on exogenous requirements such as demographic or geographic criteria, citizenship. Qualitative restrictions set minimum standards pertaining to education, training, or joining a bar association and take the form of minimum periods of education, professional examinations, and minimum periods of professional experience.[21]

Figure 7. Restrictive Regulation in Legal Services
(scale is 0-6, from least to most restrictive of competition)



Source: OECD Regulatory Database on Professional Services, 2008 data.

[21] The European Commission uses this categorization when analyzing competition in professional services. See EC Communication 52004DC0083, Report on Professional Services.

Table 3. Overview of Restrictive Regulation of the Legal Profession

Restrictions	Legislative and regulatory basis
Exclusivity (license, experience, limitations on the activity)	• Established by law (Attorneyship Law No. 1136 of 19 March 1969)
Citizenship	• Mandate established by law (Attorneyship Law No. 1136 of 19 March 1969) • Requirements for foreigners set by the Attorney Partnership Regulations of the Union of Bar Associations of Turkey (Official Gazette 24594 of 25 November 2001)
Price controls	• Cap on fees established by the Attorneyship Law (Attorneyship Law No. 1136 of 19 March 1969)
Advertising	• Attorneyship Law (Attorneyship Law No. 1136 of 19 March 1969) • Regulation by the Union of Bar Associations of Turkey

Box 3. The EU Approach to Price Fixing through Professional Associations

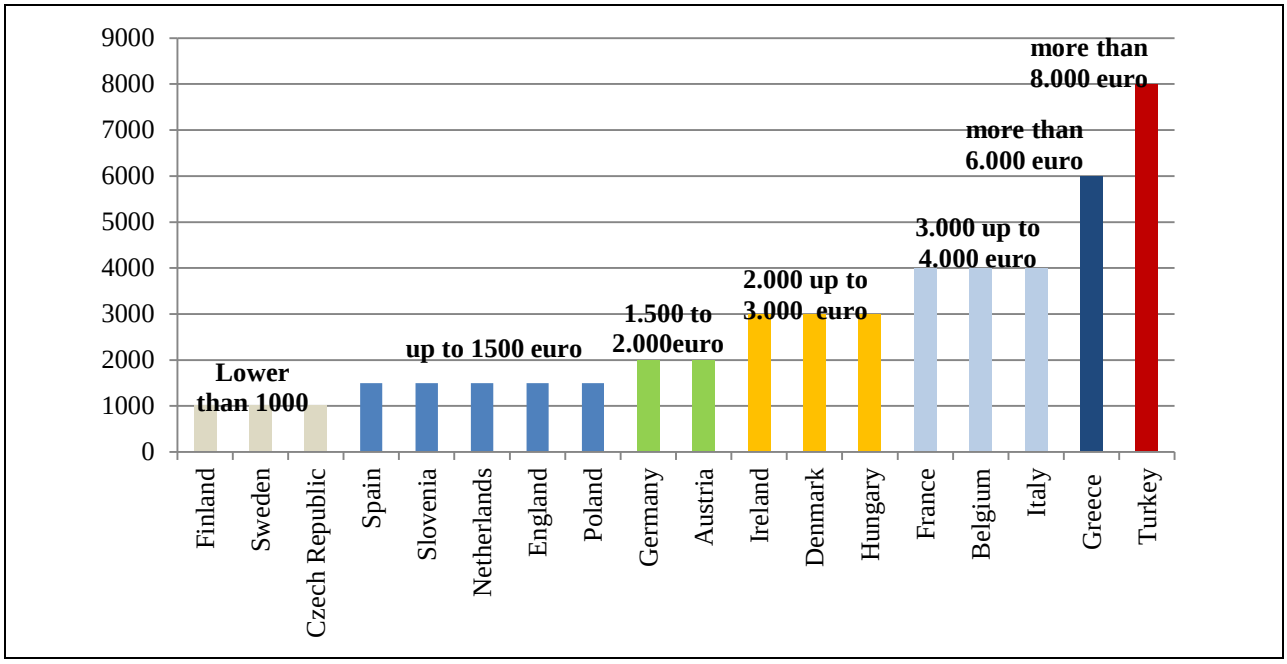
The European Commission has strongly advocated for the elimination of minimum prices set by the member states or professional associations, since the imposition of minimum prices infringes EU rules. The European Court of Justice (ECJ) has supported the European Commission's position by declaring the imposition of minimum prices illegal in two landmark cases: Arduino (C-35/99) and Cipolla (C-250/03). In both cases, the ECJ ruled that rules in Italy that imposed minimum fixed prices for Italian legal services were illegal since they prevented lawyers from engaging in competitive pricing below the fixed minimum level. Moreover, to highlight the importance of consumer welfare, the ECJ pointed out that consumers of legal services in Italy were deprived of the benefits of free price competition. Ultimately, the ECJ clarified the test that state-fixed prices should comply with in order to be legal. The test establishes that (i) the measure must be suitable for securing the attainment of the objectives pursued, and (ii) the measures do not have to go beyond what is necessary to attain those objectives.

34. **Turkish legal fees are higher than in any EU economy**. Turkey imposes maximum and minimum prices by law. Attorneys may not charge fees higher or lower than a certain cap, as established in the Attorneyship Act. These fees are set by the Union of Bar Associations of Turkey and add substantial costs to the consumer. For example, for a transaction, including a mortgage, valued at €250,000, the average costs in absolute terms in Turkey are significantly higher than any EU country (Figure 8). For a mortgage, the buyer and seller each pay a fee of 16.5 percent of the sales value,[22] plus a one-time fee of 3.96 percent on the value of the mortgage.[23]

[22] This constitutes the most significant fee associated with a purchase or sale of real estate and in Turkey is determined pursuant to the Law on Fees No. 492 ("Law on Fees"), as further specified by Article 20 Tariff No. 4 of the Law on Fees for a real estate transaction of €250,000, each of the buyer and the seller pay approximately €4,125s.

[23] This fee is set by Article 7 Tariff No. 4 of the Law. For a mortgage credit for €250,000, this fee amounts to €990.

Figure 8. Legal Fees in the EU and Turkey*



Source: ZERP et al. (2007) and authors' calculations.

*Estimated average costs in absolute terms for a €250.000 transaction, including a mortgage

Notaries

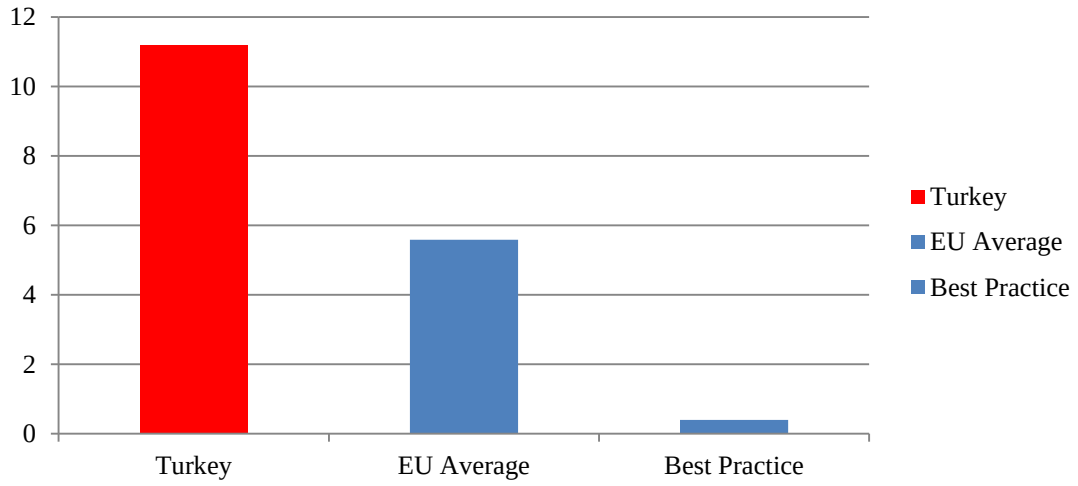
35. **The law governing notaries imposes mandatory fixed fees that are applied to the provision of all notaries' services.** Moreover, both quantitative and qualitative restrictions constrain entry to the profession (Table 4). The market for notaries is foreclosed to foreigners and is limited to Turkish nationals between the ages of 23 and 50, contrary to the European trend of abolishing such constraints. Moreover, the government ultimately decides the limited number of openings to access the notaries professions, which are published each year. The qualitative restrictions imposed by the Turkish laws are also substantially higher than those imposed within the EU, and include requirements such as having completed military service.

Table 4. Overview of Restrictive Regulation of Notaries

Restrictions	Legislative and regulatory basis
Exclusivity (license, experience, limitations on the activity)	• Established by law (Notaries Act No. 1512 of 5.2.1972)
Citizenship	• Established by law (Notaries Act No. 1512 of 5.2.1972)
Price controls	• Established by law (Notaries Act No. 1512 of 5.2.1972)
Advertising	• Established by law (Notaries Act No. 1512 of 5.2.1972)

36. **Fees for notaries can amount to as much as 18 percent of the overall cost of starting a business in Turkey.**[24] Services provided by notaries are an essential input into starting a business and include a variety of procedures, from execution and notarization of articles of association to certification of deposits or books. When compared to the EU average and best practice, the costs of starting a business in Turkey are high (Figure 9).

Figure 9. Costs of Starting a Business (percent of income per capita)



Source: World Bank, Doing Business, 2012.

Architects and Engineers

37. Like other liberal professions, architects and engineers impose quantitative and qualitative restrictions for entering the professions (Table 5). Foreign architects can provide services in Turkey as long as they obtain a temporary license for the relevant Turkish Chamber of Architects. However, the fee to obtain such license is substantially higher (approximately. US$250) than the fee that nationals pay (approximately US$20).

Table 5. Overview of Restrictive Regulation of Architects and Engineers

Restrictions	Legislative and regulatory basis
Exclusivity (license, experience, limitations on the activity)	• Mandate by the Turkish Engineers and Architects Laws (No. 3458) • Implemented by the Union of Turkish Engineers and Architects Law (Law No. 6235of 27 January 1954)
Citizenship	• Foreigners are not restricted
Price controls	• The Law on Control of Construction (Law No. 4708 of 29 June 2001)
Advertising	• Not applicable

Accountants

38. In spite of an EU trend to curb restrictive regulation of accountants, the accounting profession remains highly regulated in Turkey. The law contains both qualitative and

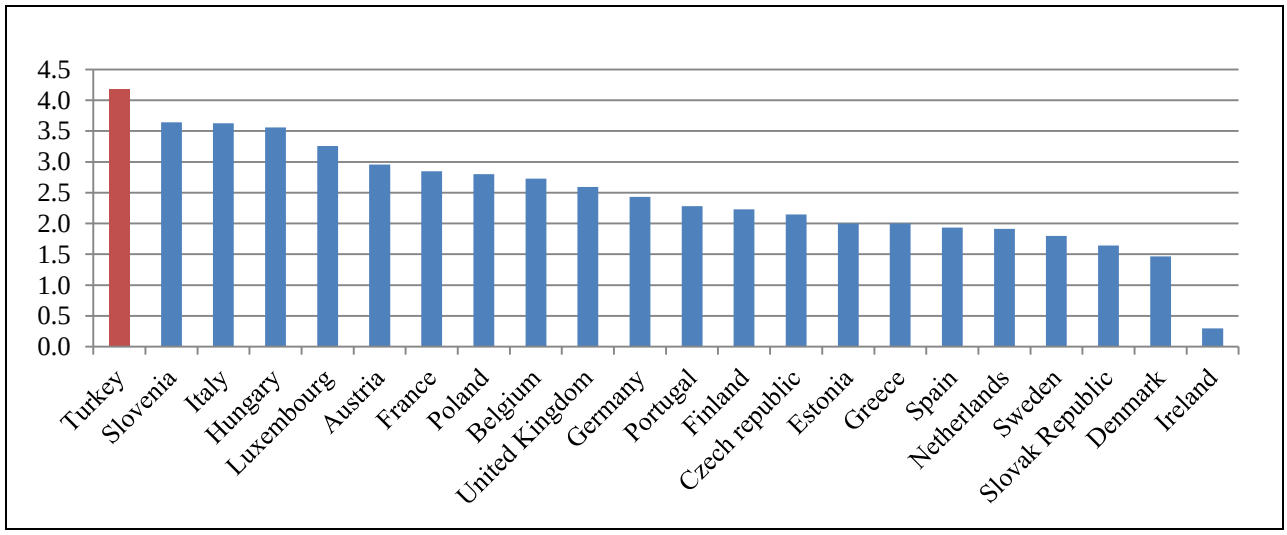
[24] Calculations based on World Bank Doing Business data. http://doingbusiness.org/data/exploreeconomies/turkey#starting-a-business.

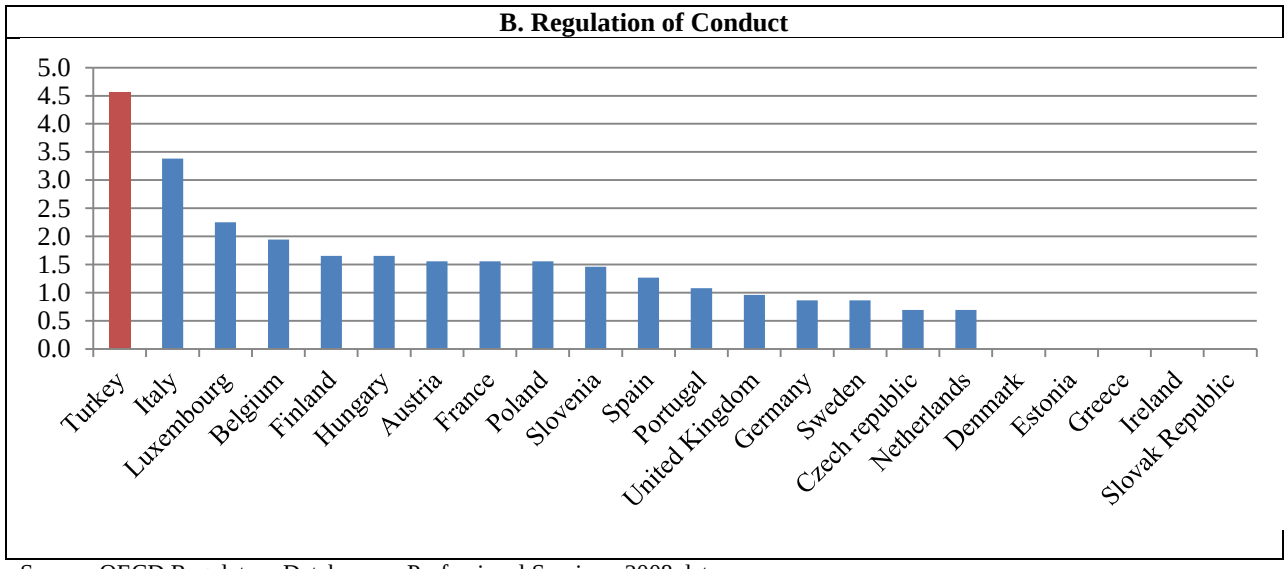
quantitative restrictions, as well as price controls, reserved tasks, and limitations on advertising. Together, these make Turkey one of the most restrictive markets for accounting (Table 6 and Figure 10). While the Union of Turkish Accountants establishes the number of openings subject to passing an exam (a quantitative restriction), the law stipulates an exclusive citizenship requirement, as well as a total ban on advertising.

Table 6. Overview of Restrictive Regulation of Accountants

Restrictions	Legislative and regulatory basis
Exclusivity (license, experience, limitations on the activity)	• Law regulates the requirements (Independent Accountants, Public Accountants Consulting and a Certified Public Accountant Law Law No. 3568, R. Gazette No. 20194 Acceptance: 1.6.1989 R.G. Date: 06/13/1989) • Regulation by the Union of Turkish Accountants responsible for implementing the requirements (e.g. deciding on the number of openings, administering the entry exam.)
Citizenship	• Established by law (Independent Accountants, Public Accountants Consulting and a Certified Public Accountant Law Law No. 3568, R. Gazette No. 20194 Acceptance: 1.6.1989 R.G. Date: 06/13/1989)
Price controls	• Law mandates the fixing minimum and cap fees • Established by a decree on a yearly basis upon recommendation of the Union of Turkish Accountants
Advertising	• Law prohibits advertising (Independent Accountants, Public Accountants Consulting and a Certified Public Accountant Law Law No. 3568, R. Gazette No. 20194 Acceptance: 1.6.1989 R.G. Date: 06/13/1989)

Figure 10. Restrictive Regulation in Accounting
(scale is 0-6, from least to most restrictive of competition)





Source: OECD Regulatory Database on Professional Services, 2008 data.

Economy-wide Enforcement of Competition Policies: Antitrust and State Aid Policies

39. **The Turkish competition framework is based on the Competition Act (Law No. 4054 on the Protection of Competition), implemented in 1994.** It encompasses antitrust enforcement, merger notification and clearance, as well as advocacy vis-à-vis government counterparts such as sectoral regulators. Box 6 describes typical rules included in the EU Competition Policy Framework. The Turkish Competition Authority (TCA) is the agency charged with actively guaranteeing market competition, enforcing compliance with the laws, and advocating and promoting broader understanding of competition rules and benefits.

40. **In recent years, Turkey has strengthened the application of antitrust policies.** These advances were reported in the OECD Turkey 2010 Progress Report.[25] The Turkish Competition Authority (TCA) has also received positive feedback regarding its satisfactory level of administrative and operational independence,[26] strong emphasis on staff training, and a clear track record in the implementation of competition rules.[27] In line with the trend toward more in-depth economic analysis, the Authority has a stand-alone Economics Department. In addition, important competition regulations and guidelines on leniency applications[28] and fines for collusive behavior have been passed.

[25] See, for example, the regulation on active cooperation for detecting cartels, or the regulation on fines to apply in cases of agreements, concerted practices, and decisions limiting competition, and abuse of dominant position. http://www.rekabet.gov.tr/index.php?Sayfa=yonetmelikliste&Lang=EN.

[26] Paragraph 41 discusses some recent changes that could be affecting the operational independence of the TCA.

[27] For details, see the European Commission staff working document on Turkey 2010 Progress Report of 9 November 2010. http://ec.europa.eu/enlargement/pdf/key_documents/2010/package/tr_rapport_2010_en.pdf

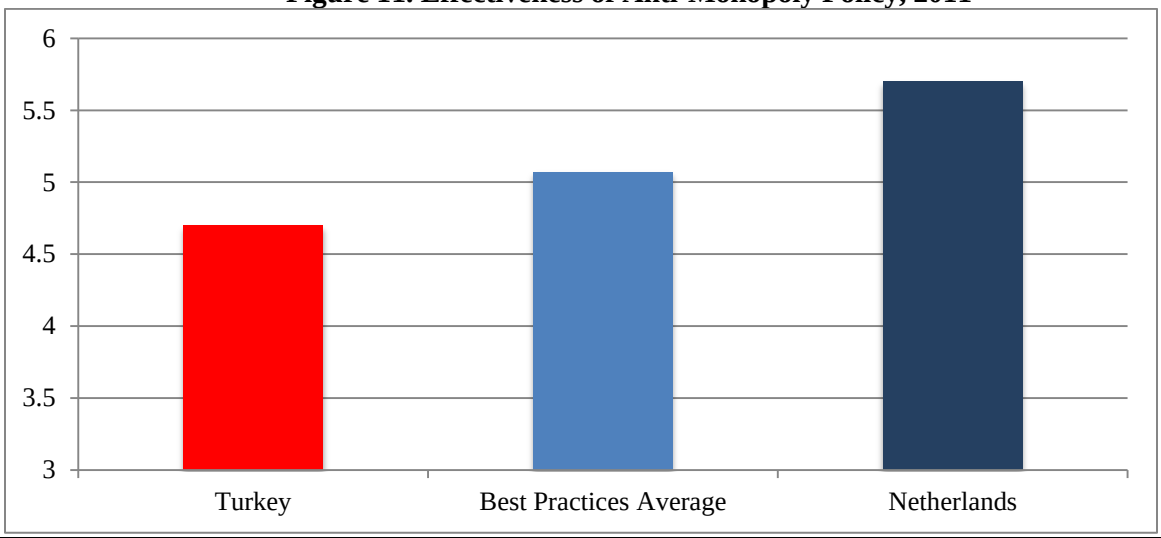
[28] Leniency programs refer to the possibility of receiving full or partial immunity from fines for companies that provide the authorities with information about a cartel in which they participated.

Box 4. Competition Policies and their Application in EU Legislation[a]

The Treaty of the Functioning of the European Union covers competition rules in Articles 101 to 106.[b] The main objectives of competition policy are economic efficiency and European market integration. Articles 101 and 102 of the Treaty deal with *anticompetitive business practices* resulting from coordinating behavior between competitors and from unilateral conducts of firms with significant market power. In addition, merger regulations provide *rules to assess the potential competitive harm of horizontal, vertical, and conglomerate mergers* and economic concentrations. Merger rules are concerned with economic concentrations that will later significantly restrict effective competition in the market. In this sense, Articles 101 and 102 regulate conduct of firms, while Merger Regulations focus on the structure and consolidation of markets. While the DG Competition of the EC enforces competition rules at the European Community level (in cases where the behavior has an inter-state effect within the EU), these rules are part of the law of each member state and are being directly enforced by national courts and National Competition Authorities at the member state level.

41. **The Competition Act foresees that the TCA may conduct research and investigations (including on-site investigations) in order to detect anticompetitive behavior.** The TCA continuously (re)evaluates and handles notifications for exemption and/or negative clearance and grants permissions for mergers and acquisitions. The TCA's decisions can be judicially reviewed by the Administrative Courts of Ankara. Since July 2012, courts of first instance are the competent authority for reviewing the objections filed against the decisions of Competition Board.[29] Additionally, the TCA can issue communiqués and make necessary regulations for the fulfillment of the obligations of the Competition Act (Law No. 4054) and submit opinions, directly or upon the request of the Ministry of Industry and Trade.

Figure 11. Effectiveness of Anti-Monopoly Policy, 2011

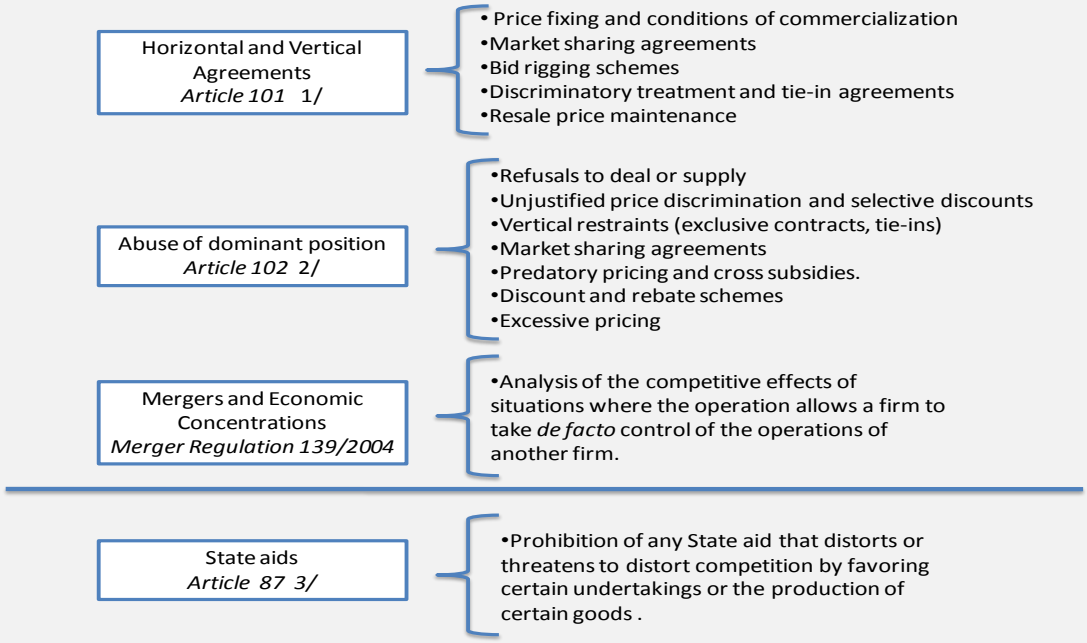


Source: Global Competitiveness Report, 2012–13.\
Note: Results to the question, "To what extent does anti-monopoly policy promotes competition in your country?" [1 = does not promote competition; 7= effectively promotes competition].
Best Practice is an average score based on the following 10 country scores: Austria, Belgium, Denmark, Germany, Japan, Netherlands, Sweden, Switzerland, United Kingdom, and United States.

[29] The referred amendment was provided in Article 63 of Law No. 6352 on the Amendment of Certain Law for Increasing the Efficiency of Judicial Services and Postponement of Offenses Committed Through Press, which was published in the Official Gazette dated 05 July 2012. Prior to the amendment of the Turkish Competition Act (No 4054) by Article 63 of Law NO 6352 (published on 5 July, 2012), the competence to review the TCA's decisions was held directly by the Council of State.

42. **However, Turkey's current best practice antimonopoly policy is still perceived to be a work in progress** (Figure 10). The Global Competition Review (Rating of Enforcement, 2012) summarizes a few areas that could contribute to the relatively low perception indicators. More than one-third of the TCA's 300-plus staff are dedicated to frontline competition enforcement. Though many of the non-lawyer experts hold master degrees in law (LL.M degree), there are only 20 lawyers in all. In addition, TCA may lack sufficient independence. For example, TCA's activities are now supervised by the Ministry of Customs and Trade. Previously, the TCA fell under the Ministry's remit, rather than being directly overseen by it. Furthermore, the appointment of members to the Competition Board —the Authority's decision-making body —is now solely decided by the Ministry, courts, and other departments. Until November 2011, the Authority had made two nominations itself. Finally, although a bill of amendments to the Competition Act has been proposed to Congress (the "Bill for Amendments 2005"), it was not enacted, and was finally dropped. The 2005 proposal aimed at revamping the Competition Act in line with European and international best practices. Another bill of amendments to Competition Act was proposed in 2008 (the "Bill for Amendments 2008") which was also dropped.

Typology of Competition and State Aid Rules in EU Law



Source: Treaty of the Functioning of the European Union. Rules on Competition
1/ Prohibition does not apply to particular agreements (R&D, distribution) that do not distort competition.
2/ It requires the existence of a dominant position
3/ Aid can be granted in specific circumstances (e.g. to promote the economic development of areas where the standard of living is abnormally low).

The scope of the application of EU rules on State Aid extends to any State Aid that distorts or threatens to distort competition by favoring certain markets or firms (either private or public). The criteria for application include the following: (i) there must be an intervention by the State or through State resources; (ii) the intervention must be liable to affect trade between member states; (iii) the intervention must confer an advantage on the recipient; and (iv) it must distort or threaten to distort competition.

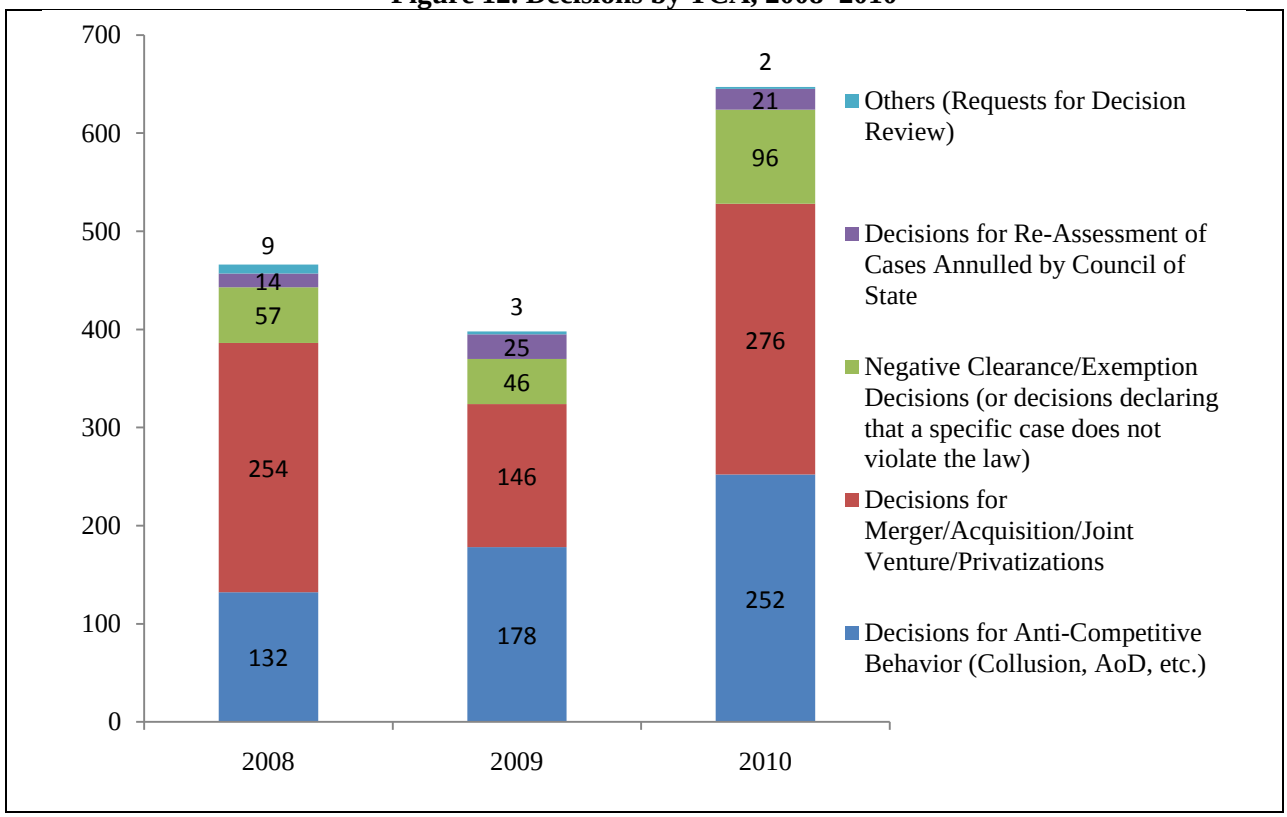
a. Provisions are those of the Treaty of Rome, consolidated by the Lisbon Treaty, which in substance did not change the original provisions on competition.

b. Official Journal C 83 of 30.3.2010.

43. **While the TCA may still have some weaknesses, this institution is making progress.** The total number of cases concluded by TCA substantially increased from 2008 to 2010 (Figure 12) and almost doubled between 2005 and 2010. The most substantial increase took place in 2010. The share of anticompetitive behavior cases increased from 31 percent of all files concluded to 40 percent, while the cases concerning mergers and acquisitions, joint ventures, and privatization decreased in relative importance from 54 percent to 44 percent of total case volume. Most of the cases dealing with anticompetitive behavior took place in the food and beverages sectors as well as the transport and petroleum sectors, while the majority of merger and privatization cases were concentrated in the energy, food, and chemical product sectors. Almost 60 percent of all exemptions and negative clearance cases occurred in the petroleum sector (Figure 13).

44. **Investigative cases to combat cartel behavior in markets crucial to the economy led to €152 million in fines in 2011.** Important cases on anti-cartel enforcement include taking on the financial sector and fining seven banks €31.5 million for entering into no-compete agreements. In addition, in November 2011, the Authority opened a second investigation of 12 banks for allegedly colluding to set rates on loans and deposits. TCA also sanctioned 15 companies in the automotive sector with a fine of €110 million for cartel activity.

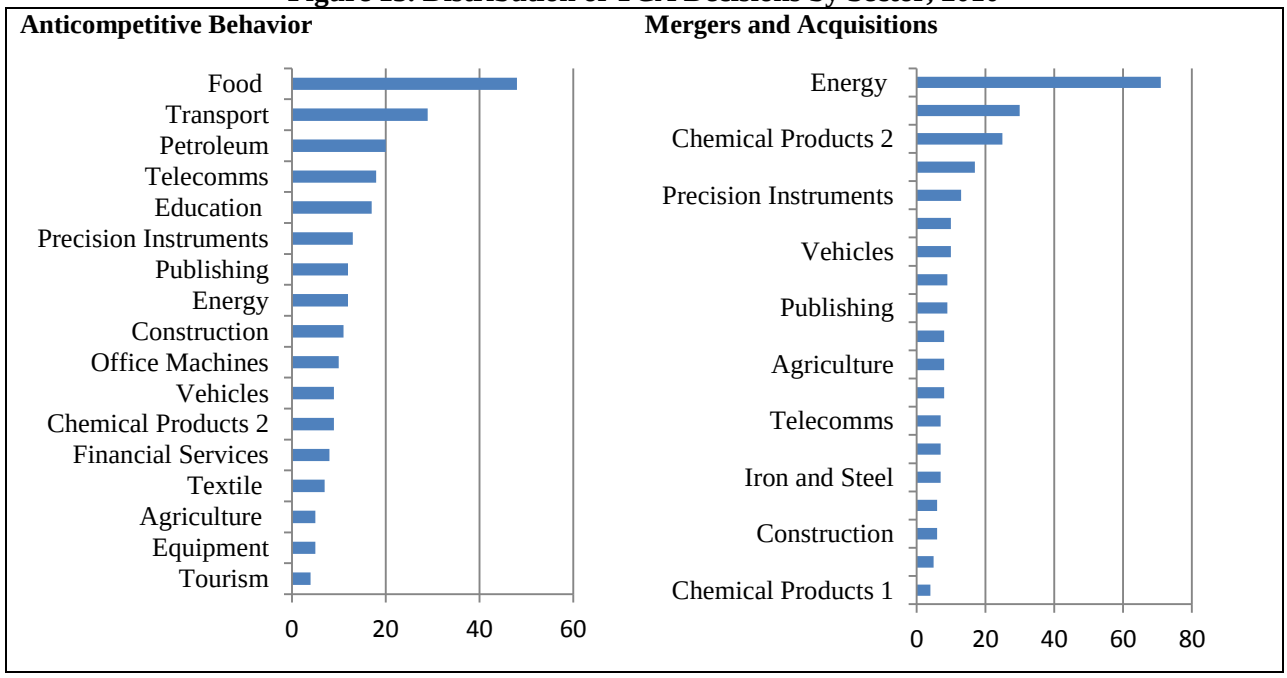
Figure 12. Decisions by TCA, 2008–2010



Source: TCA Annual Reports, 2008–2010.

45. **In addition to enforcement activity to deter anticompetitive practices, Turkey introduced a state aid legal framework in 2010.**[30] Typically, the implementation of a state aid control regime has the objective of guaranteeing a level playing field by revising public subsidies that could potentially distort competition. State aid is defined as any kind of measure providing financial benefits to the beneficiaries directly by the public sector or through public resources in any form whatsoever. Relevant criteria to assess state aid include whether it distorts or threatens to distort competition by favoring certain enterprises or the production of certain goods, or whether it has an impact on trade.

Figure 13. Distribution of TCA Decisions by Sector, 2010



46. **The current state aid framework can be improved to be more comprehensive particularly by adressing exemptions that significantly reduce its effectiveness.** There is no specific provision on the types and forms of state aid regimes, since state aid measures are not only related to transfer of public funds but also revenues foregone by the State (including tax exemptions and selling below cost). A comprehensive list of compliant forms of state aid exists, mainly related to achieving economic or regional development and common EU-Turkish goals. Agriculture, fishery, and all service sectors are exempted.

[30] Turkey adopted Law No. 6015 on the Monitoring and Supervision of State Support (the State Aid Act), which forms the basis of the state aid legal framework.

IV. POLICY OPTIONS TO PROMOTE EFFECTIVE COMPETITION POLICIES

Strengthen enforcement of competition law

47. **The existence of a well-designed competition law constitutes is fundamental basis for the effective enforcement of competition rules.** The importance of adequate rules, along with effective enforcement, has been acknowledged by the empirical literature. In particular, research by Buccirossi et al. (2009) looked at the relationship between a competition policy index, which captures the overall quality of institutional and enforcement policies, and growth in total factor productivity (TFP). A 20 percent increase in the competition policy index—, which is roughly equivalent to moving enforcement levels from those of the Czech Republic to those of the United Kingdom—results in TFP growth of 1 percent.

Streamline merger control policies

48. **Merger control policy should be designed and implemented to ensure that merger review is effective, efficient,** and **timely.** The objective of merger control policies is to prevent transactions that will cause anticompetitive effects in the market. Merger control policy seeks to identify situations in which a change in control of firms will likely affect market outcomes and harm consumers. This instrument should not be implemented in an overly-rigid way so as to define market structures (for example, the number of firms in the market), but in a residual manner to focus in mergers that will significantly raise anticompetitive concerns. To ensure that merger regulations allow the most efficient firms to thrive, this mechanism should not be used to pursue other public policy objectives.

49. **Merger control policy should allow for beneficial dynamic changes in market structure without unjustifiably increasing the cost of doing business.** Merger review should be designed in such a way that the costs of the review for government and businesses are proportionate. At the government level, merger reviews, if not appropriately designed, can displace investigations on actual anticompetitive behavior, reducing the effectiveness of the entire competition framework. For businesses, overly burdensome information requirements, a long review process, and an unclear and broad scope of merger review can increase administrative costs, the economic costs that stem from delaying the completion of the transaction, and business risks. Entry, growth, and exit of businesses are natural in a competitive business environment; therefore, merger regulations should not obstruct these efficient processes. Table 8 presents elements of a well-designed merger control policy.

Table 7.Elements for Designing Sound Merger Control Policies

Components	Key areas
1. Defining transactions that will be evaluated	• Voluntary or mandatory ex ante or ex post notification • Definition of economic concentration: definition of control and change in control, and types of transactions • Thresholds for merger notification: variables, values, and calculation method
2. Establishing formal procedures for merger review	• Due process: transparency, consistency, accountability • Timeframe: time limits, staggered process (phases for less and more complex cases) • Required documentation and confidential treatment of information

	• Required payments: calculation of merger filing fees •
3. Setting the economic framework for analysis	• Criteria for evaluating potential anticompetitive effects: unilateral and coordinated effects • Treatment of efficiencies, pass through to consumers, and compensation for anticompetitive effects • Criteria to establish remedies or conditions that can remove anticompetitive concerns
4. Addressing institutional constraints	• Availability of resources to conduct merger review • Optimization of organization structure for effective enforcement.

50. **A new merger control regulation along the lines of the European Union principles entered into force in Turkey on January 1, 2011.** Communiqué No. 2010/4 attempted to simplify merger notification procedures by introducing objective thresholds and a new notification form. Communiqué 2012/3 amended Article 7 of the original communiqué to adopt new thresholds. Objective thresholds, based on sales (turnover) or assets of the merging parties and/or the amount of the transaction,[31] represent recommended international best practices.[32] In addition, the Communiqué granted the TCA the power to revise these thresholds every two years, thus allowing it to maintain a dynamic approach to markets and merger control. The potential revision of 2013 represents a good opportunity to increase the current thresholds in order to adapt them to the current size of Turkish markets and firms.[33] The notification threshold for merger control should be set so as to balance the costs of unnecessary merger review and the harm from anti-competitive mergers that are completed (Table 9).[34]

Table 8. Elements for Estimating the Optimal Threshold

Costs of unnecessary merger review consist of: • **Costs of a merger review by the TCA. These costs consist mainly of labor costs involved in the merger review process.** **Costs for business include:** • **direct costs of a merger filing (fees of legal and economic advisors, and merger filing fees).** • **costs associated with delays in**	**Harm from anti-competitive merger can be measured by** • **The probability of the merger causing anticompetitive effects.** • **The expected price increase due to an anticompetitive merger. Usually ranges from close to zero to 10 percent.**

[31] According to amended Article 7 of Communiqué No. 2010/4, if the total turnover of the parties to a merger in Turkey exceeds TL 100 million and the respective turnover of at least two of the parties individually exceeds TL 30 million, or the worldwide turnover of one of the parties exceeds TL 500 million and at least one of the remaining transaction parties has turnover in Turkey exceeding TL 5 million, then the transaction will be subject to the Competition board's permission.

[32] The International Competition Network (ICN) recommends using thresholds based on objective criteria. Recommended Practices for Merger Notification Procedures, ICN, available at www.internationalcompetitionnetwork.org/uploads/library/doc588.pdf.

[33] Article 7 of Communiqué No. 2010/4

[34] Similar methodology was applied by the Swedish Competition Authority in the study of merger notification thresholds, Konkurrensverket, Tröskelvärden för koncentrationsprövningar – Bättre omsättningsgränser för anmälanav företagskoncentrationer 31-33 (2006), available at http://www.kkv.se/upload/Filer/Trycksaker/Rapporter/rap_2006-3.pdf. English summary is available at http://www.kkv.se/upload/Filer/ENG/Publications/rap_2006-3_summary.pdf .

implementing the merger and legal uncertainties associated with a merger review process.

Increase advocacy powers to curb government interventions that are anticompetitive

51. **The Turkish Competition Authority provided opinions to a variety of sectoral regulators and government agencies.** An example is the telecommunications market, where, according to the International Competition Network, the TCA conducted successful advocacy activities, asking for structural separation of cable infrastructure from fixed line telecom. Likewise, the approach of the TCA in the sale of Telsim (a mobile operator company) prevented Turkcell (the incumbent mobile operator) from bidding, in such a way that a third company could purchase Telsim and enter into the market.[35]

52. **The current regulatory framework could be strengthened to increase effectiveness of TCA's advocacy activities.** The president of the TCA is empowered to issue opinions on legislation and decisions concerning competition policy.[36] However, these opinions are neither obligatory nor binding.[37] There is a clear need to enhance the capacity of the TCA to interact with sector regulators and other government bodies. Lack of advocacy powers constrains the effectiveness, and ultimately the impact, of policy advocacy to open markets to competition.

53. **Some positive yet insufficient initiatives have emerged to improve the role and power of TCA as an advocate for competition across sectors.** A bilateral cooperation protocol was signed between the Public Procurement Agency and the TCA with a view to acting jointly so that a fair and sound competition environment in public procurement could be established, developed and protected. There have also been some efforts to sign protocols with regulators in the energy as well as in the information and communication technologies (ICT) sectors, with the aim of increasing cooperation, information exchange, and coordination, in order to achieve a competitive market environment. Well-designed protocols that include actions plans on specific regulatory initiatives between the competition authority and regulators are a key tool to conduct successful advocacy.

54. The Bill for Amendments 2005 proposed a significant improvement of the advocacy role of the TCA to broaden and deepen the reach of pro-competition principles into sector regulation. First, the proposed amendments included a provision to introduce a requirement for the regulators to solicit and receive comments from the TCA on legislation that will affect competition in their respective markets. Should a regulatory body abstain from seeking TCA's opinion; the respective laws will be unenforceable. This provision was not included in the Bill for Amendments 2008.

55. **Additional provisions are needed to achieve successful advocacy**. More precisely, according to the proposal of 2005, regulators would comply with the Competition Act simply by

[35] International Competition Network (2009). Report on the Assessment of ICN Members' Requirements and Recommendations on Further ICN Work on Competition Advocacy.
[36] Provision 30 (f) of Competition Act.
[37] Article 30 (f) of the Turkish Competition Law.

receiving the TCA´s opinion, and therefore could completely ignore its recommendations. Requiring binding opinions or shifting the burden of proof from TCA to the regulators—that is, requiring an agency that decides to ignore a TCA opinion to justify its decision—would constitute more powerful tools. Regulators should be compelled to provide evidence and arguments as to why and how costs due to anticompetitive effects are outweighed by benefits.

56. In addition, the law as it currently stands does not provide clarification as to how courts should review advocacy cases that the TCA may bring before them. The Council of State's decision that the Competition Board could not fine the Pharmacists' Association for an action in line with current professional regulation suggests a secondary position for competition law vis-à-vis other laws. If the legislation that the TCA appeals is more highly ranked within the Turkish legal structure, the recommendations will not have any superseding effect. Therefore, without further clarifying TCA's effective advocacy powers/options, the proposed 2005 amendment will not open up the opportunity to improve the regulatory framework to promote competition. Currently, there is no precedent regarding the relative standing of the Competition Act and related regulations or communiqués in the Turkish legal hierarchy. Opinions are not considered a legal tool in any circumstance.

57. Finally, information on anticompetitive regulation implemented by local and national authorities should be systematically collected. A coherent effort to remove anti-competitive and market-distorting regulations at the national and subnational levels is needed to overcome the negative effects of limited effective market competition. This could also helped raised the profile of the competition authority vis-à-vis other sector regulators and line Ministries.

Improve policies to level the playing field for firms

Minimize distortive effects of state aid

58. In 2010, Turkey implemented a state aid law that sets forth a new framework for aligning the Turkish state aid scheme to the European state aid scheme. In Turkey, the regulation of state aid is governed by the act on monitoring and auditing of state aid (No. 6015, October 2010) (the State Aid Act). The framework (i) introduces state aid control to sectors of the economy, (ii) establishes the criteria to grant state aid, and (iii) implements a notification procedure. Secondary legislation is in the process of being developed and implemented, with the goal of minimizing distortive state aid and identifying potential anticompetitive effects, including through impact evaluation. To minimize distortive state aid, there are several elements that state aid regimes may want to consider to protect competition; namely:

- Establish a clear definition of what qualifies as state aid
- Specify the criteria to grant state aids
- Consolidate and keep a record of the beneficiaries of state aid
- Avoid sectoral and targeted aid towards specific firms
- Implement an effective monitoring and compliance regime.

59. **The introduction of a comprehensive legal framework with respect to state aid in Turkey could ensure a level playing field for firms.** It would also serve to prevent the use of public funds to support distortive state aid schemes that can discourage the entry of new investors and organic business expansion. In the short run, it is expected that the implementation of this framework would reduce the amount of state aid to appropriate levels. State aid could then be applied to "horizontal" objectives that could benefit entire industries instead of specific firms. This approach is more in line with the EU State Aid Reform, which aims to redirect aid to transversal objectives, such as R&D and innovation, risk capital measures, training, renewable energy/climate change, and other measures for protection of the environment.

60. **However, the State Aid Act covers some areas that require clarification and modification to converge with the EU framework.** First, further clarification of the scope and purpose of the State Aid Act is necessary. According to the State Aid Act, the purpose and scope of the law is to establish general provisions to regulate the principles and procedures related to the coordination, monitoring, and auditing of state aid law in compliance with the agreements between Turkey and the European Union. Given the actual scope of the law, it would be advisable to include a statement stipulating that the purpose of the law is also to define state aid and the mechanisms for authorizing, granting, and reporting state aid, with the view of creating and maintaining a healthy competitive environment. In addition, it is recommended that for the purposes of the law, a definition of undertakings as potential beneficiaries of aid should be included. "Undertaking" means any natural or legal person, regardless of its organization form, that carries out, totally or partially, lucrative or economic activities.

61. **The Law would benefit from a definition and typology of state aid.** The modalities of granting state aid can be classified as follows: subsidies; debts write-offs; exemptions, reductions, or deferrals of fee and tax payments; foregoing of normal returns on public funds, including granting of loans with preferential interest rates; guarantees given by the state or public central or local authorities on preferential terms; equity injections by the state, county, town, commune, or other public bodies if the rate of return on such investments is less than the return normally expected by a prudent private investor; reductions in the price of goods supplied and services provided by public central and local authorities or other bodies administering state or local resources, including the sale of lands owned by the state, town, commune or other public bodies at below market prices.

62. **The number of sectors exempted should be reduced; most notably services should not be exempted from state aid legislation.** The State Aid Act expressly mentions that its provisions do not apply to state aid in the agriculture, fisheries, and service sectors. While the scope of Ankara agreement and the Customs Union do not cover agriculture, fisheries, and service sectors removal of exemptions in the future should be considered particularly if Turkey is to completely align its rules with EU, it needs to draft rules specific to these sectors.

63. **Criteria need to be developed in the current law or in secondary legislation to identify compliant state aid.** The EU's existing rules and guidelines are specific on benchmarks and list of exemptions. However, the Turkish legislation tends to provide general statements (such as aid in support of certain economic activities, or aid in support of important projects), which are then limited via a more specific restriction that such measure is "not in violation with common interests between Turkey and EU." This approach might prove

problematic, as it does not establish criteria to identify what is considered a violation of common interests. Without firm definitions and metrics, these provisions are open to subjective decisions by the State Aid Monitoring and Auditing Board. The provision on "aid for serious problems emerging in Turkish economy" also deserves attention. Again, without the necessary metrics or further definitions on what constitutes "serious problems," the legislation becomes too subjective and open to many interpretations.

64. **The notification procedure and enforcement mechanism should require that a balancing test is applied for those state aid schemes that require a deeper analysis.** This entails two important dimensions. The first assures proper identification and accounting that is transparent. The second addresses efficiency of state aid. It asks whether the primary principle that aid must be necessary and proportionate to achieve objectives of common interest—which is a basic principle of EU legislation—is fulfilled. Clearly, the first dimension of transparent accounting in the form of an inventory of state aid granted is a necessary condition to evaluate the economic rationale and potentially beneficial impact of state aid in the Turkish economy. Secondary legislation would be a good opportunity to address detailed rules.

Better align government policies with competition principles

65. It is important that Turkey benefits from good international practices while considering leveling the competitive playing between private and commercial public enterprises. For example, the main lesson from Australia is the sequence of its policy strategy, from identifying distortions to creating an adequate institutional infrastructure and incentive scheme achieve a level playin field in practical terms. The goal of this sequencing is to achieve a framework that is sustainable in the long run. IV.C. Eliminate Product Market Restrictions to Competition

66. Across the professional service sectors discussed, priority should be given to removing restrictions to the development of competition that are unnecessary or disproportionate to achieve goals that are in the public interest. . Given the significant positive effects that can be expected as a result of addressing the most restrictive and anticompetitive regulations, self-regulation, and conduct, the following specific interventions are suggested:

- Abolish minimum prices as well as recommended prices across the professions.
- Prohibit only false or misleading advertising rather than maintaining a complete ban on advertising for professional service. Allow for informative advertising in the medium term.
- Reduce the number of exclusive rights and instead use less restrictive means to address market failure, such as quality of assurance, third-party accreditation, or quality ratings.
- Ensure that entry requirements are proportionate and eliminate discriminatory treatment among market players.

Eliminate restrictions on the number of providers.

Appendices

Appendix A. An empirical assessment of competition and productivity in Turkey

To understand the extent and importance of market competition in Turkey, a study was conducted to analyze the market structure determinants of productivity differences across countries, with emphasis on the potential gains that Turkey could achieve from increased competition. Assuming that the evidence of pricing power in a sector/country can be employed as a proxy for the extent of product market competition, price-cost margins (PCM) are used as the main indicator to be examined, following Aghion and Griffith (2005) and Aghion, Braun, and Fedderke (2008).

To retrieve the PCM, the standard approach of the literature was followed, in which the first-order equilibrium condition, for a firm i, of a demand function amounts to:

$$L_i = {}^{\alpha_i}/_{\varepsilon},$$

where α_i is the market share of the firm, ε is the elasticity of demand, and L_i is the PCM or the Lerner Index,[a] indicating the differential between price and marginal cost (MC), measured as:

$$\frac{(P-MC)}{P}.$$

Using variable costs to retrieve marginal costs, the extent of pricing power in an industry is measured as the difference between value added and labor costs as a proportion of turnover, as follows:[b]

$$PCM_{i,c,t} \simeq \frac{(\text{value added})_{ict} - (\text{cost of wages and salaries})_{ict}}{\text{turnover}_{ict}}, \qquad (1)$$

where *i* denotes the sector (NACE 2-digit), *c* is for country, and *t* is year (varying from 2003 to 2008). The higher the measure, the higher is the average market power in the sector/country.[c]

Based on Aghion, Braun, and Fedderke (2008), the following equation was estimated:

$$\Delta \ln LP_{ict,t-1} = \alpha + \beta PCM_{ict-1} + \sum_i \varphi\, \text{sector}_i + \sum_c \gamma\, \text{Country}_c + \sum_t \theta\, \text{time}_t + \epsilon_{it}, \qquad (2)$$

where $\Delta \ln LP_{ict,t-1}$ is defined as the change in the logarithm of labor productivity[d] of sector *i*, in country *c*, from *t* to *t*-1. The PCM_{ict-1} is the lagged mark-up in NACE 2-digit level sector *i*, country *c*, as computed in equation (1). The PCM variable needs to be lagged, as it cannot be treated as an exogenous determinant of economic outcomes. Firms/sectors can experience a positive shock in productivity—for instance, due to a product innovation leading to higher quality or a process innovation leading to lower cost—and this could translate into a higher price-cost margin. $Country_c$ and $sector_i$ are vectors of country and sector dummies, respectively; they are included to account for unobserved time-invariant factors that might affect productivity

growth in a particular country and sector. In this sense, the inclusion of these variables mitigates the risk of omitted variable bias if it is assumed that sector and country-specific characteristics that could affect measured mark-ups, but that are not related to the intensity of competition, are time-invariant. Finally, $time_t$ is a vector of time dummies included to control for possible productivity shocks that might occur in a given year.

As a linear specification, the β coefficient is expected to be negative, reflecting the spurring effect of competition on (innovation and) productivity growth. In this case, following the idea presented by Aghion and Griffith (2005), the "escape competition effect" would dominate over the "Schumpeterian competition," in the sense that competitive pressures would encourage firms to innovate more. Even though the expected profits after innovation are smaller due to increased competition, they are still higher than without innovation, which can be expected to result in growth in productivity.[e] Consistent with Aghion, Braun, and Fedderke (2008), this specification allows the results to be shielded from either industry or firm characteristics that may affect measured price–cost margins but that are nonetheless not related to the degree of competition it faces. This danger could arise either since marginal and average costs divergence may differ across industries due to differential economies of scale, or since the exclusion of capital costs from the PCM measure may have a differential effect across industries sorted on capital intensity. However, as long as these characteristics do not vary systematically in time, fixed effects resolves the issue.

Table A1 presents the measure of competition—proxied by the price-cost margin (PCM) —for each NACE two-digit sector in Turkey for 2003 and 2008.

Table A1. Price Cost Margin at Factor Cost in Turkey, 2003 and 2008

Sector	**2003**	**2008**	**CAGR (percent)**
Mining of coal and lignite; extraction of peat[a]	0.10	0.17	11.2
Extraction of crude petroleum and natural gas; service act. incidental to oil and gas extraction, excluding surveying	0.33	0.65	12.0
Other mining and quarrying	0.29	0.21	-5.20
Manufacture of food products and beverages	0.15	0.09	-8.20
Manufacture of tobacco products	0.08	0.14	9.80
Manufacture of textiles	0.17	0.11	-7.00
Manufacture of wearing apparel; dressing; dyeing of fur	0.17	0.08	-11.80
Manufacture of leather and leather products	0.18	0.10	-9.30
Manufacture of wood and wood products	0.18	0.14	-4.10
Manufacture of pulp, paper and paper products	0.12	0.10	-3.00
Publishing, printing and reproduction of recorded media	0.23	0.13	-9.10
Manufacture of coke, refined petroleum products and nuclear fuel	0.09	0.06	-6.50
Manufacture of chemicals, chemical products and man-made fibers	0.18	0.12	-6.50
Manufacture of rubber and plastic products	0.21	0.12	-8.90
Manufacture of other non-metallic mineral products	0.22	0.18	-3.30
Manufacture of basic metals	0.17	0.13	-4.40

Manufacture of fabricated metal products, except machinery and equipment	0.17	0.12	-5.60
Manufacture of machinery and equipment n.e.c.	0.19	0.12	-7.40
Manufacture of office machinery and computers	0.09	0.06	-6.50
Manufacture of electrical machinery and apparatus n.e.c.	0.14	0.12	-2.50
Manufacture of radio, television and communication equipment and apparatus	0.15	0.1	-6.50
Manufacture of medical, precision and optical instruments, watches and clocks	0.26	0.17	-6.80
Manufacture of motor vehicles, trailers and semi-trailers	0.19	0.12	-7.40
Manufacture of other transport equipment[b]	0.16	0.13	-4.10
Manufacture of furniture; manufacturing n.e.c.	0.21	0.08	-14.90
Recycling	0.06	0.03	-10.90
Electricity, gas and water supply	0.18	0.08	-12.60
Construction	0.25	0.15	-8.20
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	0.11	0.05	-12.30
Wholesale trade and commission trade, except of motor vehicles and motorcycles	0.08	0.05	-7.50
Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	0.12	0.06	-10.9
Hotels and restaurants	0.12	0.14	2.6
Air transport	0.13	0.08	-7.8
Land transport; transport via pipelines	0.13	0.08	-7.8
Water transport	0.16	0.28	9.8
Supporting and auxiliary transport activities; activities of travel agencies	0.21	0.20	-0.8
Post and telecommunications	0.28	0.36	4.3
Real estate activities	0.27	0.12	-12.6
Renting of machinery and equipment without operator and of personal and household goods	0.21	0.38	10.4
Computer and related activities	0.28	0.14	-10.9
Research and development	0.01	0.15	57.0
Other business activities	0.24	0.32	5.0

Source: Authors calculations
CAGR=Compound Annual Growth Rate

Results (see Table A2) point to a positive effect of product market competition on productivity growth. PCM coefficients are negative and statistically significant, suggesting that higher mark-ups negatively impact productivity expansion. These results are robust to a different specification. A squared term—$(PCMt-1)^2$ was included in equation (2) to check whether the "Schumpeterian effect"(in which competition reduces the incentives to innovate and therefore the productivity growth of firms that start below the technological frontier) would be also present, which would then indicate an inverted-U shape format between competition and growth. Results in table B2 show that the squared term is in fact positive, although due to a smaller sample, it is not always statistically significant. This suggests that mark-up are in fact negatively related to productivity growth, on average, but in a U-shaped format, which is in line with the theoretical prediction in Aghion and Griffith (2005). Results hold even after instrumental variables estimations. To account for the possible endogeneity of PCM —as mark-ups might be affected by productivity shocks— we follow Aghion instrumenting mark-ups with import

penetration (defined as total imports over output). In this case, the import ratio is assumed to affect growth in productivity only through its effect on competition intensity. The IV estimates of the effect of the mark-up on labor productivity growth show a negative sign that was statistically significant for Turkey (see table B3). This suggests that the relation between competition intensity and growth is at least in part caused by mark-ups affecting growth, and not the other way around.

Table A2. PCM and Labor Productivity Growth at the Sector Level (robust standard errors in parenthesis)

Dependent variable: $\Delta lnLP_{ict,t-1}$

	All countries[a]		**ECA countries (within EU)**		**Turkey**	
	1	2	3	4	5	6
PCMt-1	-0.6581***	-1.1474***	-0.9135***	-1.2652***	-2.9183***	-5.6526***
	(0.085)	(0.156)	(0.140)	(0.327)	(0.525)	(1.759)
$(PCMt\text{-}1)^2$		0.8799***		0.9036		6.693
		(0.234)		(0.666)		(4.666)
_cons	-0.0519	-0.0102	-0.1901	-0.1706	0.3072**	0.4840***
	(0.048)	(0.051)	(0.116)	(0.119)	(0.121)	(0.158)
Country fixed effects	Yes	Yes	Yes	Yes	No	No
Sector fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.1268	0.132	0.1911	0.1927	0.4059	0.4329
N. obs	3665	3665	1149	1149	209	209

Source: Authors calculations
* significant at 10%; ** significant at 5%; *** significant at 1%.
a. All countries include EU countries (except Romania and Malta), plus Norway and Turkey.
b. Year fixed effects are jointly significant,

Table A3. PCM and Labor Productivity Growth at the Industry Level: IV estimations

Dependent variable: $\Delta lnLP_{ict,t-1}$

	All countries[a]	**ECA countries (within EU)**	**Turkey**
	1	**2**	**3**
PCM*t-1*	-0.1088	-0.3077	-1.9280***
	(0.162)	(0.294)	(0.663)
_cons	-0.1365***	-0.3124***	0.2301**
	(0.031)	(0.055)	(0.111)
Country fixed effects	Yes	Yes	No
Sector fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R-squared	0.0967	0.1257	0.3055
N. obs	3881	1449	169

a. All countries include EU countries (except Romania and Malta), plus Norway and Turkey.
* significant at 10%; ** significant at 5%; *** significant at 1%.

To identify the sectors for which the negative impact of lack of competition on labor productivity is higher in Turkey, the following equation is estimated:

$$\Delta \ln LP_{it} = \alpha + \beta PCM_{it-1} + \sum_{i} \varphi_i \, sector_i * PCM_{it-1} + \sum_{i} \varphi \, sector_i + \sum_{t} \theta \, time_t + \epsilon_{it} \, , \qquad (3)$$

and the average marginal effects for each NACE two-digit sector are computed. Considering only those sectors for which these estimated effects showed to be statistically significant, table 2 in the main text presents what would be the increase on productivity growth by sector due to a 10 percent reduction from the sector's average observed PCM over the 2003–08 period.

a. Lerner index varies between 0 and 1, where 0 reflects P=MC, and hence perfect competition.

b. Value added (VA) figures for all countries are computed in factor cost, based on Eurostat and Turkstat data. The PCM values were constructed for the NACE sectors for which data from Turkstat was available. This data includes eight sectors at the one-digit level (Mining and quarrying; Manufacturing; Electricity, gas and water supply; Construction; Wholesale and retail trade; Hotels and restaurants; Transport, storage and communication; Real estate, renting, and business activities), and the 39 two-digit subsections of these sectors. Values for Construction, Hotel and Restaurants, and Electricity, gas and water, are presented only at the one-digit level, due to data availability. The information for the other countries was obtained from Eurostat and was selected to match the sectors and disaggregation level of the Turkstat data.

c. This measure differs from the way the Lerner index is theoretically measured, as it uses variable cost (excluding cost of capital) and not marginal cost. Due to lack of data, costs of capital and land are not included in the variable costs. In this exercise, Turkey is benchmarked against a set of 26 countries: Norway and 25 EU countries (except Malta and Romania), including Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

d. Labor productivity is defined as value added per employee, based on Eurostat and Turkstat data.

e. As the observations are not assumed to be independent within each country and year, the significance levels are computed using standard errors that are clustered at the country and year level. Results are presented for the entire set of countries, for the selected ECA countries within EU, and for Turkey separately (see Table B2).

Appendix B. The 18 low-level PMR Indicators

The 18 low-level indicators of the PMR database cover a wide range of policies, including the following.

State control: Public ownership

- **Scope of public enterprises**: Measures the pervasiveness of state ownership across business sectors as the proportion of sectors in which the state has an equity stake in at least one firm.

- **Government involvement in network sectors**: Measures the percentage of shares owned by the government and the ownership structure of the largest firm in a number of network industries (gas, electricity, rail transport, air transport, and telecommunications)

- **Direct control over business enterprises**: Measures the existence of government special voting rights in privately owned firms, constraints on the sale of state-owned equity stakes, and the extent to which legislative bodies control the strategic choices of public enterprises.

State control: Involvement in business operations

- **Price controls**: Reflects the extent of price controls in specific sectors.

- **Use of command and control regulation**: Indicates the extent to which the government uses coercive (as opposed to incentive-based) regulation in general and in specific service sectors.

Barriers to entrepreneurship: Regulatory and administrative opacity

- **Licenses and permits systems**: Reflects the use of one-stop shops and "silence is consent" rules for obtaining information about and issuing licenses and permits.

- **Communication and simplification of rules and procedures**: Reflects aspects of the government's communication strategy and efforts to reduce and simplify the administrative burden of interacting with government.

Barriers to entrepreneurship: Administrative burden

- **Administrative burdens for corporations**: Measures the administrative burdens on the creation of corporations.

- **Administrative burdens for sole proprietors**: Measures the administrative burdens on the creation of sole proprietor firms.

- **Sector-specific administrative burdens**: Reflects administrative burdens in the road transport and retail distribution sectors.

<u>Barriers to entrepreneurship</u>: Barriers to competition

- **Legal barriers**: Measures the scope of explicit legal limitations on the number of competitors allowed in a wide range of business sectors.

- **Antitrust exemptions**: Measures the scope of exemptions to competition law for public enterprises.

- **Barriers in network sectors**: Measures the legal conditions for entry, the scope of market liberalization, and the degree of vertical integration in infrastructure sectors.

- **Barriers to entry in services**: Measures the licensing and education requirements in services, as well as the regulation pertaining to retail distribution.

<u>Barriers to trade and investment</u>: Explicit barriers

- **Barriers to foreign direct investment (FDI)**: Reflects legal restrictions on foreign acquisition of equity in public and private firms and in the telecommunications and airlines sectors.

- **Tariffs**: Reflects the (simple) average of most-favored-nation tariffs.

- **Discriminatory procedures**: Reflects the extent of discrimination against foreign firms at the procedural level.

<u>Barriers to trade and investment</u>: Other barriers

- **Regulatory barriers: R**eflects other barriers to international trade (such as international harmonization, mutual recognition agreements).

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