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The New R&D Law and Turkey’s Quest for Innovation

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The new law enacted by the Turkish Parliament aims to encourage **innovation** and **design activities** to accelerate **Turkey’s economic growth**. It will provide investment opportunities to firms that have the capacity to improve the business environment in Turkey in search of a value-added economy.

The Turkish Parliament has passed a law that provides greater **incentives for investments in research & development (R&D) and design**. The Law on Supporting R&D Activities is effective as of March 1st. Following points are stated as the main goals in the new law:

- Supporting and encouraging the production of high value-added products.
- Increasing human capital in the R&D sector.
- Commercializing sectorial know-how.
- Supporting the establishment of innovative companies.
- Facilitating university-industry cooperation.

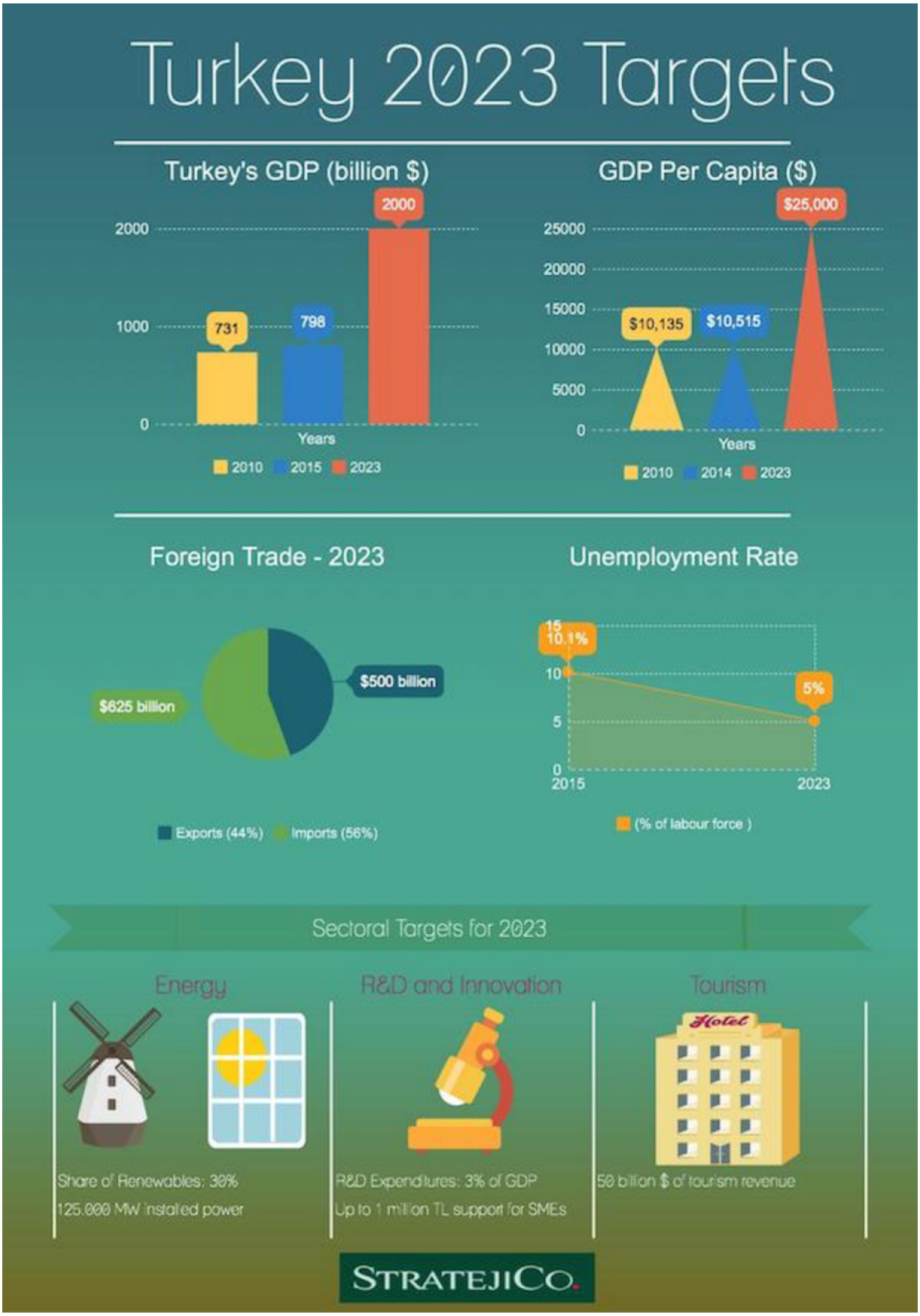
Impact on Business

The law is likely to have positive impact on business opportunities that include R&D and design components. Mujgan Cetin, **an innovation management consultant in Turkey**, tells StratejiCo. that the law could lead to decrease of costs in R&D activities in Turkey, because it is more expensive to employ the qualified staff in developed countries. “This means R&D programs will get more local”, Ms. Cetin argues.

Among other provisions, the law encourages businesses by decreasing the required number of personnel from 30 to 10 to establish an R&D center and increasing the financial share of academicians who are involved in the programs. Industrial and technological design activities will provide further impetus to the R&D activities.

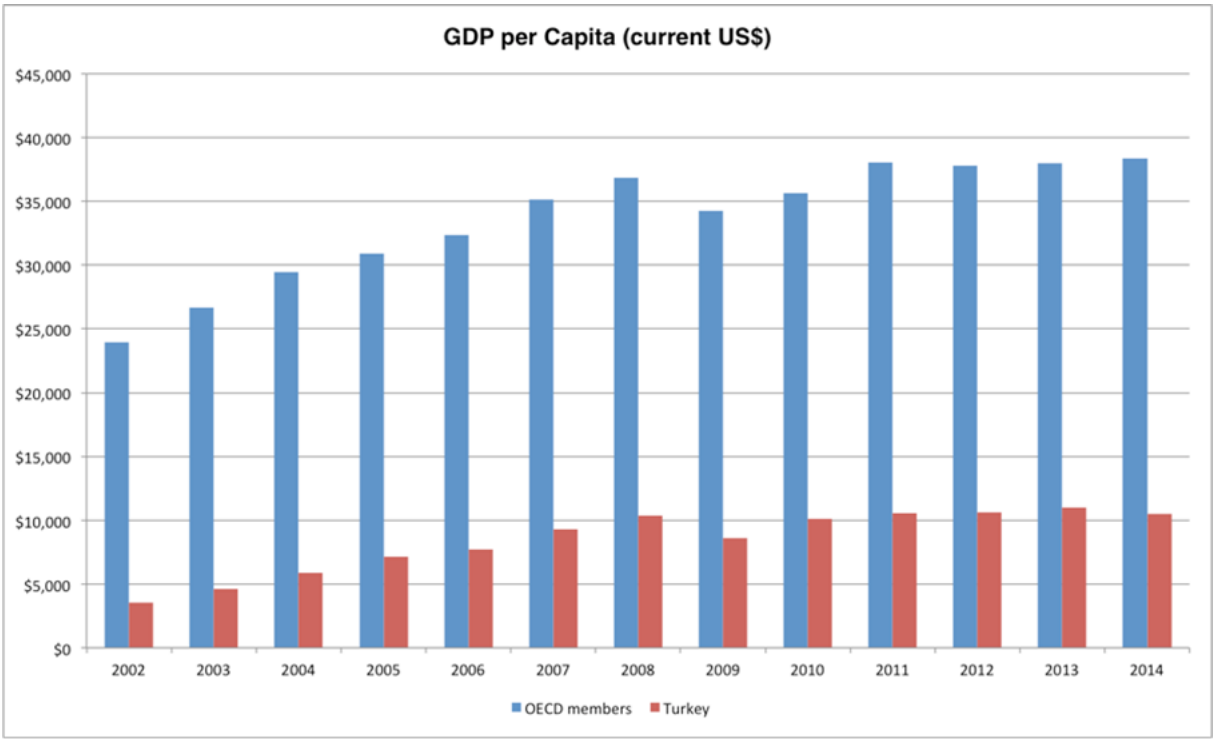
Chairman of the parliamentary commission on industry **Ziya Altunyaldiz asserts** that as a result of the regulatory change, the government will establish specialized technology development zones in biotechnology, nanotechnology, defence, agriculture, aerospace and health to make Turkey an attraction center in R&D. Moreover, the law integrates “design” into the so-called innovation ecosystem, which the government claims will provide competitive advantage to any kind of technological and industrial development. Contribution of authentic design is expected to increase the value of Turkish brands.

The Turkish government asserts that the new law is a milestone to gear up the Turkish economy for achieving the ambitious economic targets set for 2023 (Centennial of the Republic of Turkey). Those targets, inter alia, include increasing GDP to $2 trillion, GDP per capita to $25,000 and exports to $500 billion in less than a decade.



Turkey’s Quest for Innovation

The new law on R&D and design appears to be a timely regulatory initiative by the Turkish government. In all categories, Turkey lags behind its ambitions to reach 2023 targets. Despite the impressive economic growth between 2002 and 2010, the country now faces the risk of being stuck in the middle-income trap. A key indicator of middle-income trap is the indicator of GDP per capita staying between $10,000 and $12,000. Chart – 1 demonstrates that Turkey's GDP per capita remains well below OECD average and has plateaued around $10,000 since 2008.

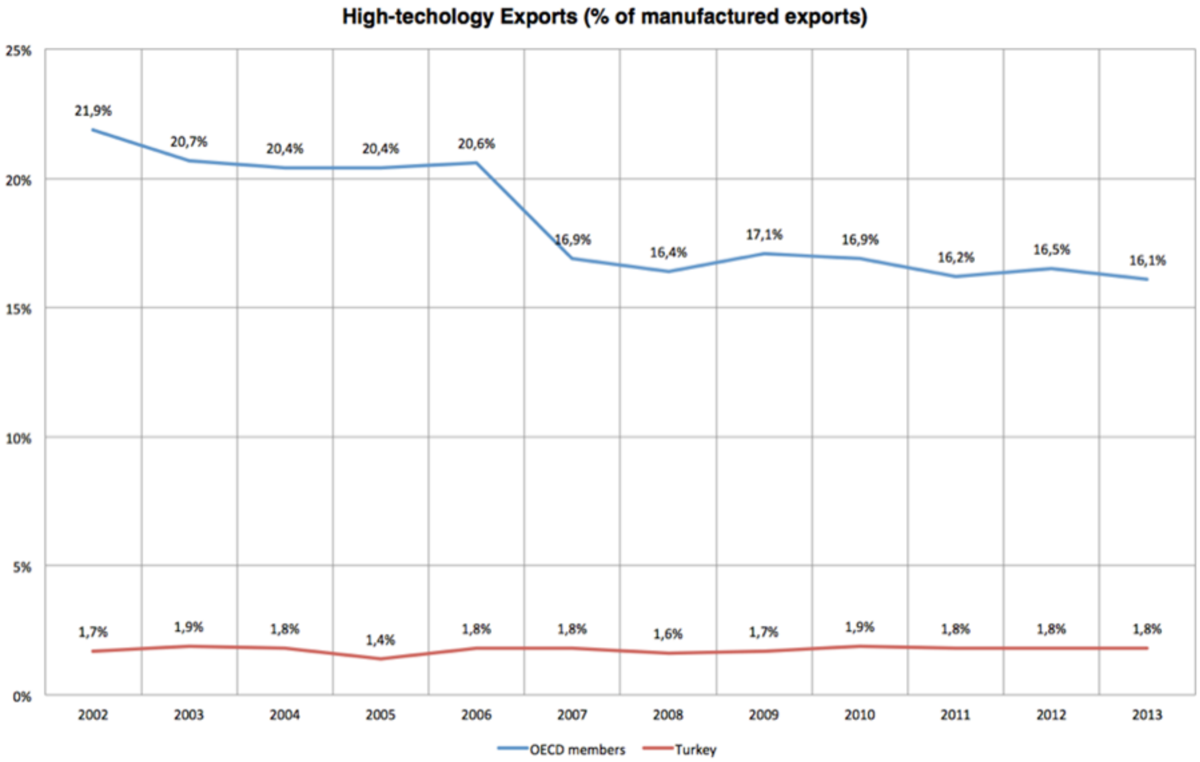


GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.

Source: World Bank national accounts data

Maintaining the export growth is a key tool to avoid the middle-income trap. Therefore, there is a close link between what countries export and how well their economies do. Creating new frontiers of value is possible only when sectors introduce new processes to increase the added value of exported products and services.

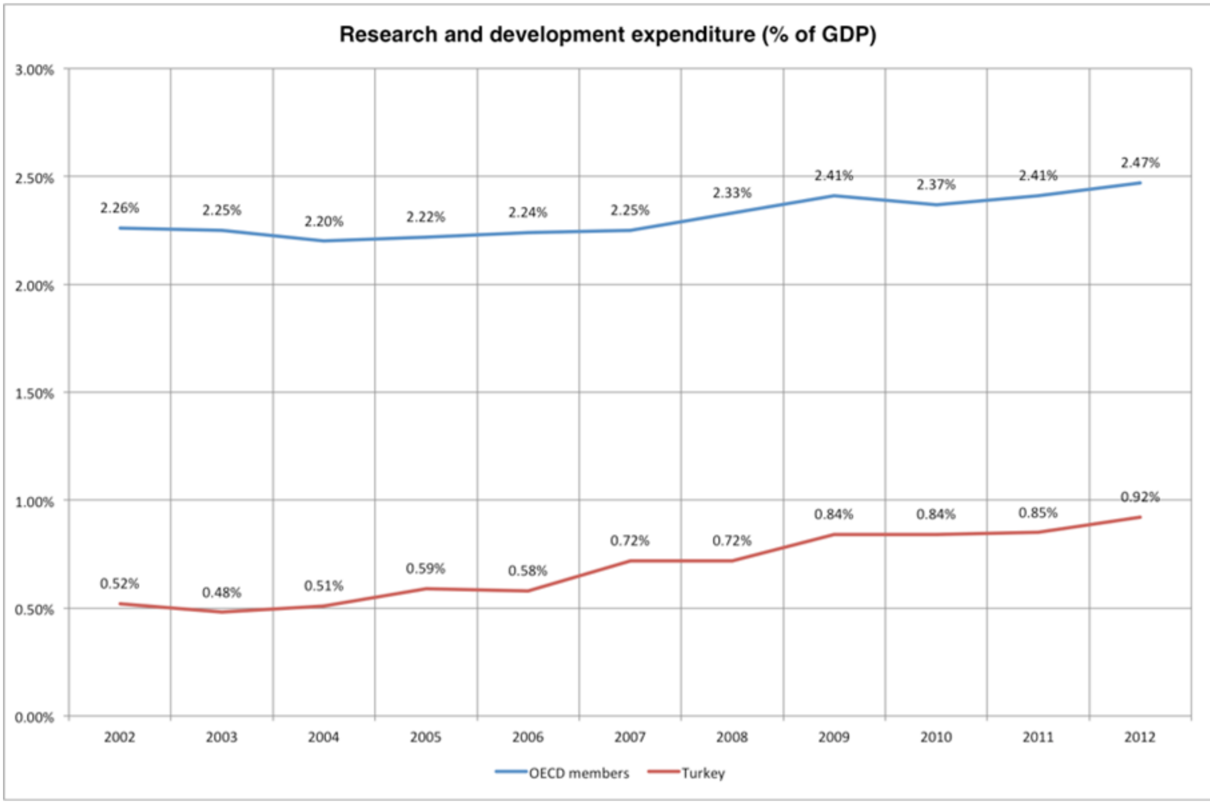
Chart -2 demonstrates the significant gap between Turkey and [**OECD**] average in terms of high technology exports as percentage of manufactured exports. Apparently, Turkey's economic growth over the past decade did not translate into increasing high-tech products in exports, which still remains below 2%. By introducing new incentives, the Turkish government hopes to narrow this gap within the next few years.



High-technology exports are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery.

Source: World Development Indicators, World Bank

One of the main causes of Turkey's stagnating economic development is the sluggish transformation of Turkish industries and services into high value creating sectors. Governments across the world gradually increase R&D expenditure to make that transformation happen. Turkey is no exception. However, as the Chart – 3 shows, Turkey's expenditure of R&D as percentage of GDP still remains below 1%, while the target set for 2023 is 3%.



Expenditures for research and development are current and capital expenditures (both public and private) on creative work undertaken systematically to increase knowledge, including knowledge of humanity, culture, and society, and the use of knowledge for new applications. R&D covers basic research, applied research, and experimental development.

Source: World Development Indicators, World Bank

Undoubtedly, Turkish government would like to increase the expenditure to create an "innovation ecosystem" that encourages structural transformations in critical sectors. Doing so requires attracting investments in R&D and design. The ultimate goal is to increase Turkey's exports to avoid the middle-income trap and maintain sustainable economic growth.

Given the existing economic circumstances, the new law has important provisions for investors.

What the New Law Brings

According to the **Investment Support and Promotion Agency of the Turkish Prime Ministry**, key elements of the package are the following:

- The establishment of design centers that will benefit from the same level of incentives as R&D centers. Design-related activities conducted in technology development zones (TDZs) are also to be supported,

- Tax deductions for companies engaged in R&D and design, including SMEs that contract such services to outside parties,
- A reduced staff requirement to establish an R&D center to 15 persons from 30,
- The state will underwrite a portion – equaling the gross total of the minimum wage in Turkey – of researchers' wages for a duration of two years, provided they are employed by an R&D center and are graduates of basic sciences,
- Tax deduction and grants for pre-competition cooperation projects in order to encourage joint projects,
- Customs duty exemptions for materials obtained from abroad within the scope of R&D, innovation and design projects,
- The establishment of specialized TDZs for priority and strategic sectors (ICT, healthcare, biotech, nanotech, defense and aerospace, etc.) in order to form focused R&D organizations,
- Researchers employed in TDZs, R&D centers and design centers will benefit from exemptions during site studies and postgraduate educational activities abroad,
- Tax deductions for companies who provide venture capital for start-ups established using the Techno-Initiative Capital Support Program in TDZs,
- Increasing the sum of techno-initiative capital support to TRY 500,000 from TRY 100,000, depending on the project while extending the application period to 10 years from the date of the founder's graduation,
- Creating a system of standardization and authorization for software projects,
- Exemption from income tax cuts for faculty members who take part in university-industry cooperation projects. The income tax cut from the university's floating capital is limited to 15 percent with the remaining 85 percent payable to the faculty member.

Comment & Questions We would like to hear your thoughts on this report. Please get in touch with us.

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