ASIAN INFRASTRUCTURE INVESTMENT BANK

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Project Document
of the Asian Infrastructure Investment Bank

Sovereign-Backed Financing

Republic of Turkey
TKYB Renewable Energy and Energy Efficiency On-Lending Facility

Currency Equivalents
(As of Oct. 21, 2019)

Currency Unit – Turkish Lira (TRY)
TRY1.00 = USD0.17
USD1.00 = TRY5.86

Borrower's Fiscal year
Jan. 1-Dec. 31

Abbreviations

AIIB	Asian Infrastructure Investment Bank
BRSA	Banking Regulation and Supervision Agency
CAR	capital adequacy ratio
CEO	chief executive officer
CO_2	carbon dioxide
DA	designated account
DFT	Development Fund of Turkey
E&S	environmental and social
EIB	European Investment Bank
ESMS	environmental and social management system
ESP	environmental and social policy
ESS	environmental and social standards
FI	financial intermediary
FiT	feed-in tariff
FX	foreign exchange
GW	gigawatt
GWh	gigawatt-hour
IBRD	International Bank for Reconstruction and Development
IFI	international financial institution
IFRS	International Financial Reporting Standard
KfW	Kreditanstalt für Wiederaufbau
kWh	kilowatt-hour
MW	megawatt
NPL	nonperforming loan
SA	Sub-loan account
SMEs	small and medium-sized enterprises
TSKB	Türkiye Sınai Kalkınma Bankası; Industrial Development Bank of Turkey
TKYB	Turkiye Kalkınma ve Yatırım Bankası; Development and Investment Bank of Turkey
Treasury	Ministry of Treasury and Finance, Republic of Turkey
YEKA	Yenilenebilir Enerji Kaynak Alanları; Renewable Energy Resource Area
YEKDEM	Yenilenebilir Enerji Kaynakları Destekleme Mekanizması; Renewable Energy Support Mechanism

Contents

1. Summary Sheet

Republic of Turkey
TKYB Renewable Energy and Energy Efficiency On-Lending Facility

Project No.	000141
Borrower	Development and Investment Bank of Turkey (Turkiye Kalkınma ve Yatırım Bankası or TKYB)
Guarantor	Republic of Turkey
Project Implementation Entity	TKYB
Sector/ Subsector	Finance/Financial intermediary
Project Objective	Advance Turkey's renewable energy and energy efficiency infrastructure
Project Description	The project will provide long-term financing (Sub-loans) through TKYB to privately owned companies in Turkey to invest in renewable energy and energy efficiency projects (Sub-projects), including wind, solar, geothermal and biomass Sub-projects.
Implementation Period	Start date: November 2019 End date: November 2023
Expected Loan Closing Date	March 2024
Cost and Financing Plan	Asian Infrastructure Investment Bank (AIIB) loan: USD200 million
Size and Terms of AIIB Loan	USD200 million, tenor of 15 years, including a grace period of three years, with level repayments at AIIB's standard interest rate for sovereign-backed fixed spread loans.
Cofinancing (Size and Terms)	None
Environmental and Social Category	Financial intermediary
Risk (Low/Medium/High)	Medium
Conditions for Effectiveness	- Receipt of legal opinion on the loan agreement - Adoption of the operations manual
Key Covenants/Conditions for Disbursement	<u>Condition for Disbursement</u> - Receipt of evidence, in form and substance satisfactory to AIIB, that at least 80 percent of the proceeds of the immediately preceding withdrawal by the Borrower have been disbursed (except for the first withdrawal), and that 100 percent of the proceeds of all other earlier withdrawals by the

	Borrower have been disbursed to the eligible Sub-borrowers. <u>Key Covenants</u> - Compliance of the Borrower with the applicable prudential regulations of the Republic of Turkey and requirements of the Banking Regulation and Supervision Agency. - Finalization of the Borrower's environmental and social management system, within three months from signing of the Loan Agreement or prior to the disbursement of AIIB's proceeds, whichever comes first. - Adherence to corporate milestones and corresponding deadlines as set out in the corporate strategy development plan.
Retroactive Financing (Loan Percentage and Dates)	Eligible expenditures under the Sub-loan, incurred in compliance with AIIB's procurement policies and guidelines and in respect of which the Sub-loan amounts were paid not more than six months prior to the date of the Loan Agreement, up to an amount of USD40 million (20 percent of the total AIIB loan) may be financed retroactively. AIIB's Environmental and Social Policies (ESP) will be applicable for the retroactively financed expenditures.
Policy Assurance	The Vice President, Policy and Strategy, confirms an overall assurance that the Bank is in compliance with the policies applicable to the project.

President	Jin Liqun
Vice President, CIO	D.J. Pandian
Director General, Investment Operations II	Pang Yee Ean
Manager	Rajat Misra
Project Team Leader	Hari Bhaskar, Senior Investment Operations Specialist
Co-Project Team Leader	Tan Bao Jia, Investment Officer
Team Members	Julius Thaler, Senior Counsel Jessana A. Yanuario, Finance Officer Henri de Branche, Senior Environmental Specialist Giacomo Ottolini, Senior Procurement Specialist Shonell Robinson, Financial Management Specialist
Credit	Nicholas Mant, Head of Credit Risk

2. Project Description

A. Rationale

1. **Country Priority.** The project aims to advance Turkey's renewable energy and energy efficiency infrastructure, which is among the country's top priorities. Turkey's demand for energy and natural resources has been increasing due to economic and population growth and is expected to increase by 50 percent over the next decade. Renewables would help Turkey increase installed capacity and reduce energy import dependency.

2. The Government has committed to the following:

   (1) Increasing the ratio of renewable energy in the energy mix, prioritizing locally produced energy to improve energy security and reduce dependency on energy imports and increasing energy efficiency.

   (2) Increasing the share of power generation from renewable sources to 50 percent and reducing primary energy consumption by 14 percent by 2023.

3. **Institutional Context: Banking Sector.** The banking industry is central to the financial sector, accounting for over 70 percent of all financial services as of 2018, according to Turkey's Investment Office. Banking is supervised by the Banking Regulation and Supervision Agency (BRSA) under Banking Law No. 5411. The Central Bank of the Republic of Turkey is the monetary authority, the Financial Crimes Investigation Board the anti-money-laundering and counter-terrorist-financing authority and the Savings Deposit Insurance Fund the deposit insurance and bank resolution authority.

4. As at October 2019, Turkey had 53 banks inclusive of 32 deposit banks and 13 development and investment banks. By 2016, Turkey's banking laws were fully compliant with Basel III;[1] the Basel Committee's Regulatory Consistency Assessment Program reports state that "the Turkish rules go beyond the minimum Basel standards." Most banks comply with International Financial Reporting Standard (IFRS) 9 requirements.

5. **Renewable Energy and Energy Efficiency Industries.** In 2013, the Government introduced the Renewable Energy Support Mechanism (Yenilenebilir Enerji Kaynakları Destekleme Mekanizması or YEKDEM), allowing renewable energy plants to enjoy United States (US) dollar-based feed-in tariffs (FiTs) for the first 10 years of operation, which shields investors from foreign exchange (FX) risks. Plants that use locally produced equipment enjoy additional subsidies. These policies are scheduled to end in 2020. The Renewable Energy Resource Area (Yenilenebilir Enerji Kaynak Alanları) came into force in 2016 and introduced a competitive "winner-takes-all" auction system that sets the FiT for 15 years. Successful wind and solar tenders

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[1] The Basel Framework requires ratios of minimum capital to risk-weighted assets of 4.5 percent for Common Equity Tier 1, 6.0 percent for Tier 1 and 8.0 percent for Total Capital (Tier 1 and Tier 2). In addition to implementing the Basel minimum capital ratios, the BRSA requires Turkish banks to establish a higher total target capital ratio of 12 percent. Banks that fail to meet it are subject to supervisory actions, including restrictions on growth, dividend payments and branch openings. Banks are required to assess internal capital adequacy to internally calculate the capital adequate to cover current and future risks. In line with Basel III, the BRSA uses two types of liquidity adequacy ratios that banks must comply with: liquidity coverage ratio of 100 percent and foreign exchange liquidity coverage ratio of 80 percent.

in 2017 proved that renewables can compete against coal power generation. Annex 6 describes Turkey's energy strategy and policies.

6. Turkey's aim to reduce its dependency on imported gas for power generation increased the country's reliance on coal-based power generation in 2018. This trend has continued, with local coal constituting the biggest share of energy—57.3 percent or 225 megawatts (MW)—in the increase in installed electricity production in the first quarter of 2019. Turkey's strategy to increase the share of renewables-based power generation to 50 percent by 2023 will help wean the country off fossil fuel-based power generation.

7. The 2017 National Energy Efficiency Action Plan aims to invest USD10.9 billion into the energy efficiency sector by 2023 and decrease primary energy consumption by 14 percent, saving an expected USD30.2 billion by 2033.

8. While policy support for renewable energy and energy efficiency has been strong, long-term financing from banks has been scarce. This is largely because more than half the banking system is funded by relatively stable customer deposits, most of which have maturities of less than three months. The need to limit maturity mismatch to ensure liquidity constrains banks from providing long-term loans. Long-term financing reduces firms' exposure to rollover and interest rate risks so that longer-term fixed investment decisions can be made.

9. **Strategic fit for AIIB.** Increasing the use of renewable energy sources and improving energy efficiency are the key elements of AIIB's energy strategy. The project is well aligned with AIIB's thematic priority to advance sustainable infrastructure.

10. **Value addition by AIIB.** AIIB will contribute to long-term capital, which is scarce now and much needed to construct or expand renewable energy and energy efficiency projects.

11. AIIB's involvement strengthens the environmental and social (E&S) capabilities and experience of TKYB, complementing the reforms it had undertaken. TKYB will incorporate AIIB's E&S policy into its operations manual, which will guide project implementation.

12. The AIIB loan will help TKYB diversify its sources of long-term funding for lending to the infrastructure sector, in line with TKYB's strategy and the AIIB financial consultant's recommendation that TKYB explore more funding sources.

13. **Value addition to AIIB.** AIIB will benefit in the following ways:

(1) The project is the second engagement of AIIB with Turkish banks and will deepen its understanding of Turkey's financial sector. The proposed structure will increase AIIB's experience in credit underwriting in the country and knowledge of opportunities and challenges in its contractual and regulatory regime.

(2) AIIB will be well-placed to tap opportunities in sustainable energy infrastructure. Given Turkey's goals to drastically increase the share of renewables in power generation and to improve energy efficiency by 2023, similar opportunities in the renewables space are expected in the next few years. The project provides a good foundation for potential co-investment, program planning and other collaborations and strengthens AIIB's ability to finance or co-finance large infrastructure projects in Turkey.

B. Project Objective and Expected Results

14. **Project Objective.** The objective of the project is to advance Turkey's renewable energy and energy efficiency infrastructure.

15. **Expected Results.** The project expects to increase installed capacity of renewable energy power generation and to improve the energy efficiency of existing installations in Turkey. The results monitoring framework is in Annex 1. The key result indicators are the following:

(1) Total renewable energy generation capacity installed, MW.

(2) Greenhouse gas emissions reduction, tons of carbon dioxide (CO_2) equivalent per year.

(3) Primary energy consumption saved, gigawatt-hours (GWh).

(4) Amount invested in renewable energy projects, USD million.

(5) Amount invested in energy efficiency projects, USD million.

16. **Expected Beneficiaries.** Energy consumers are expected to benefit from increased renewable energy power generation and the resulting environmental benefits.

C. Description and Components

17. **Overview.** The project will provide long-term financing (Sub-loans) through TKYB to privately owned companies (Sub-borrowers) in Turkey to invest in renewable energy and energy efficiency projects (Sub-projects), including wind, solar, geothermal and biomass energy projects. Energy efficiency projects must have (1) an energy saving ratio of at least 20 percent, (2) CO_2 reduction of 20 percent or more annually or (3) at least 50 percent in cost savings due to reduced energy consumption.

18. **Description of the Borrower.** TKYB is a state-owned investment and development bank established under Law No. 7147[2] (Law on the Establishment of the Development and Investment Bank of Turkey). Under the law, TKYB focuses on four areas:

(1) Conduct development banking by supplying long-term finance to projects that promote sustainable development in Turkey, including small and medium-sized enterprises, especially in less developed regions.

(2) Conduct investment banking and manage the Development Fund of Turkey (DFT) to deepen capital markets.

(3) Operate commercially to achieve operational efficiency.

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[2] TKYB was established under Decree in Force Law No.13 in 1975. On Oct. 14, 1999, Decree in Force Law No.13 became Law No. 4456 (Law on the Establishment of the Development Bank of Turkey) in the General Assembly of Turkish Republic. On Oct. 11, 2018, Law No. 4456 was repealed and replaced by Law No.7147 (Law on the Establishment of the Development and Investment Bank of Turkey). The full law (in English) is at http://english.kalkinma.com.tr/law-on-the-establishment-of-dbt.aspx

(4) Improve funding resources.

19. Turkey's Ministry of Treasury and Finance (Treasury) owns 99.1 percent of TKYB; 0.92 percent is publicly traded on the Istanbul Stock Exchange. Though small, the publicly traded portion of TKYB ensures that the bank's operating activities are transparent and adhere to international compliance questionnaires and audit processes.

20. **TKYB Board of Directors.** The TKYB directors are nominated by the Treasury and appointed by the General Assembly. The board has seven members: four, including the chair, hold government roles; two are independent, are active in academia and have risk management and private banking experience; and the chief executive officer (CEO), who has a private and development banking background. In line with BRSA requirements, the CEO and chair of the board are separate. Treasury representation on the board allows TKYB to align its activities with the country's economic plans. Board meetings are biweekly and primarily serve to guide TKYB's strategies and transformation.

21. **TKYB Executive Management.** Of the executive management team of seven, five are new hires, including the CEO and four executive vice presidents, all with over 20 years' private and development banking experience. TKYB's organizational structure has been reordered (Annex 5).

22. **TKYB Headquarters and Staff.** In June 2019, TKYB moved its headquarters from Ankara to Istanbul, where the agglomeration of private banks is denser. TKYB retained about 10 percent of its staff (60 of 528) and hired more from commercial banks, bringing the total headcount to 211 as of October 2019. The average age of bank staff members was lowered from 48 to 37, average educational levels increased and professional banking experience improved to an average of 13 years. TKYB adheres to private sector hiring regulations.

23. **TKYB Market Position.** TKYB had the fourth-largest assets among the 13 development and investment banks in Turkey, holding USD3.0 billion in total assets (0.4 percent market share) and USD0.3 billion in equity as of the end of 2018. On July 22, 2019, Fitch Ratings downgraded TKYB's long-term foreign-currency issuer default rating to BB- with a negative outlook, following the downgrade of Turkey's sovereign rating by one notch, from BB to BB- (Negative). According to Fitch, "TKYB is equalized with the sovereign rating due to its small size and high, but declining, proportion of Turkish treasury-guaranteed funding." The rating is in line with TKYB's peers, including the Industrial Development Bank of Turkey (Türkiye Sınai Kalkınma Bankası or TSKB) and Turk Eximbank.

24. **TKYB Funding.** As a development and investment bank, TKYB is not authorized to take deposits. Around 88.5 percent of its funding is long term (average of 5.3 years' maturity), of which 84.7 percent is from international financial institutions (IFIs) and guaranteed by the Treasury. In the medium term, TKYB intends to expand its funding sources.

25. **Development Fund of Turkey.** The DFT is headed by a new hire with about 24 years of experience in private equity and investment banking. The DFT aims to allow the Government to use a market-based approach to help grow infant industries, such as those in the technological sector, as is common in other countries. While its internal governing policies are being discussed, the DFT's approving authority is expected to be the TKYB executive management and board. DFT funding will not come from TKYB but from third parties. TKYB will be an umbrella fund manager, establishing different sub-funds, covering six to eight investments per sub-fund and generating management and commission income from this business.

D. Cost and Financing Plan

26. The proposed AIIB support to TKYB is a sovereign-backed USD200million fixed-spread loan with a maturity of 15 years, including a three-year grace period. This amount is comparable to loan facilities provided by other IFIs and is approximately half of TKYB's preliminary pipeline of loans to renewable energy and energy efficiency projects, excluding hydropower plants (Annex 4). This ensures sufficient demand for AIIB's credit for on-lending and resource efficiency for AIIB and TKYB. TKYB may modify the pipeline during project implementation if sub-projects align with the eligibility criteria in the operations manual.

27. The grace period and final maturity of the AIIB loan correspond to those of underlying portfolio projects (i.e., 10-12 years' total maturity with one- to two-year grace periods) and accommodate additional time to build up the pipeline and utilize AIIB funds. The sub-loan pricing and maturity will be determined by TKYB based on the needs of the sub-borrower and Sub-project being financed, with the proviso that the interest rate will be equal to the cost of funds to TKYB (Libor plus AIIB's spread), plus a risk-adjusted spread based on the sub-borrower's and Sub-project's risk classification.

E. Implementation Arrangements

28. **Implementation Period.** The project is expected to be implemented from November 2019 to November 2023.

29. **Implementation Management.** TKYB will be responsible for project implementation. A project implementation unit, with adequate budgetary and human resources, will oversee on-lending to sub-borrowers, including selection, appraisal, monitoring, record keeping and information management, as indicated in the operations manual. The information will then be reported to AIIB at the stipulated frequency. The unit shall ensure TKYB's compliance with BRSA prudential norms and sub-borrowers' compliance with Turkey's legislation and standards. TKYB and its sub-borrowers must comply with AIIB's fiduciary and E&S requirements as stated in AIIB's E&S Policy, the Policy on Prohibited Practices and the Procurement Policy.

30. All sub-loans shall be made in accordance with Council of Ministers Decree No. 32, which regulates FX lending provisions. AIIB's loan will primarily be on-lent in USD but TKYB can make sub-loans in local currency or Euros, if required, through the country's well-developed currency swap market.

31. **Operations Manual**. The operations manual, reviewed and agreed upon by AIIB and TKYB, will guide TKYB. The manual states the criteria for eligibility of Sub-borrowers, Sub-projects and Sub-loans; highlights the processes and key areas for assessments during credit evaluation; and includes E&S requirements for Sub-projects to ensure compliance with AIIB's E&S policy and environmental and social standards (ESS). The manual describes the fund flow for disbursements from AIIB to TKYB and explains the required submissions from TKYB to AIIB for project monitoring.

32. **Funds Flow.** TKYB will receive, maintain and monitor AIIB loan proceeds using its own financial management systems. The AIIB loan proceeds will be deposited into a pooled bank account opened and maintained by TKYB (Designated Account), from which it will withdraw AIIB funds for on-lending to Sub-borrowers. AIIB loan proceeds and payments to eligible Sub-loans will be recorded and tracked in its accounting ledger.

33. TKYB will also open and maintain a separate bank account for all Sub-loans (Sub-loan Account). The bank account will be used for payments to eligible Sub-borrowers and receipt of repayment of interest or other charges and repayment of principal from Sub-borrowers, in Sub-loan currencies. All payments to eligible Sub-loans and repayments from Sub-loans will be recorded and tracked in its accounting ledger. The Sub-loan accounts will be maintained in accordance with policies and procedures satisfactory to AIIB. Exchange gains or losses relating to the transfer of loan proceeds from the designated account to the subaccount will be absorbed by the Borrower.

34. TKYB will separately report the utilization of principal repayments made by Sub-borrowers under the Sub-loans (to the extent that payments are not required to meet TKYB's payment and repayment obligations to AIIB under the Loan Agreement) to finance additional Sub-loans in accordance with the terms stipulated in the operations manual.

35. **Disbursements**. The loan will adopt both the advance and reimbursement methods for payments. Advance payments, if requested, will be based either on the expenditure forecast by the Borrower for the subsequent two quarters or on a ceiling to be decided by AIIB. The minimum limit for disbursement will be USD2 million and the maximum USD50 million.

36. **Retroactive Financing**. All eligible project expenditures, incurred in compliance with AIIB's procurement policies and guidelines and in respect of which payments were made not more than six months prior to the date of the Loan Agreement, up to an amount of USD40 million (20 percent of the loan amount), may be financed retroactively. The project financial statements will clearly indicate the amount claimed under retroactive financing along with the details of the expenditure incurred. Such project financial statements will be subject to audit during the annual project audit. AIIB's Environmental and Social Policies (ESP) will be applicable for the retroactively financed expenditures.

37. **Monitoring and Evaluation.** Throughout the loan implementation period, AIIB retains the right to review all Sub-projects and conduct supervision visits, including on-site visits to the Sub-borrowers and the Sub-projects, at its discretion. TKYB will regularly provide AIIB with reports,

including the project appraisal form prior to allocating AIIB funds to Sub-loans, its audited financial statements and associated management letter from the auditors, a certificate of compliance with national financial regulations and E&S reports, as specified in the operations manual.

38. **Procurement.** AIIB will provide financing to a financial intermediary (FI) to support eligible infrastructure projects through Sub-borrowers, in accordance with the operations manual. The AIIB Private Sector Entities provisions for Financial Intermediaries of the AIIB's Procurement Policy and associated Interim Operational Directive on Procurement Instructions for Recipient apply to this project. TKYB shall demonstrate that procurement is carried out following established commercial practices and appropriate procurement methods and that market prices are achieved. Public entities may not be financed, as provided in the operations manual.

39. **Financial Management.** TKYB is a long-established institution, supervised by the BRSA under the Banking Law No. 5411, which issues specific rules governing internal controls and external audit of Banking institutions in Turkey. The unconsolidated financial statements for the year ended December 31, 2018 were prepared in accordance with the BRSA laws and regulations. The financial statements were audited by the External Auditors KPMG, which issued an unmodified opinion on the financial statements. TKYB has a strong internal control environment that is further enhanced through risk-based audits executed by its Internal Audit Department, which reports directly to an established audit committee.

40. TKYB is experienced in implementing projects of this nature, which have been funded by other IFIs. The financial management responsibility of the project will reside with the Development Finance Institutions Department of TKYB, in coordination with the Financial Affairs and Loan Operations Departments. These departments are staffed with experienced accounting and finance professionals who possessed the requisite skillset to fulfill the financial management responsibilities required by AIIB.

41. An assessment of TKYB was conducted, which concluded that it has a well-established internal control environment and has an adequate financial management system which should provide with reasonable assurance, timely and reliable financial information on the use of funds as required by AIIB.

3. Project Assessment

42. The project team hired an independent financial consultant to assess the Borrower's corporate governance practices, operational capacity and creditworthiness. The following assessment is a joint effort of the team and the consultant.

A. Technical

43. TKYB will be responsible for project implementation, including selection, analysis and monitoring of all Sub-projects. It has demonstrated capacity to implement FI loans funded by IFIs, including those targeting renewable energy and energy efficiency, which make up almost half of its loan book. TKYB's loan business process segregates duties through separate departments

involved in identifying, screening, evaluating and presenting of investment proposal to a credit committee and monitoring and recovering outstanding loans. Staff members were assessed to be professional, attentive to detail and technically capable of loan assessment, monitoring and E&S supervision.

B. Economic and Financial Analysis

44. For the purpose of the financial sustainability of an on-lending credit facility, the analysis of this project was focused on the financial soundness and risk management operations of TKYB rather than on individual Sub-loans. TKYB will evaluate the credit of each Sub-project and Sub-borrower to ensure the viability of the Sub-loan. All Sub-projects must have (1) a debt service coverage ratio of 1.1 and (2) an internal rate of return of eight percent.

45. Due diligence showed that the Borrower, compared with its peers and the rest of the banking sector, takes a more conservative approach to lending, with almost no net open FX position, low nonperforming loan (NPL) ratio, high liquidity, lower interest margin and lower return on assets. These indicate that TKYB is well protected from pressure on the banking sector. Financial administration—policies, procedures, processes and structures—are fully in place; the risk management function is well established; and internal control, compliance and internal and external audits are well structured and monitored.

46. The proportion of AIIB exposure of USD200 million on TKYB's total assets (USD3.0 billion as of end of 2018) is relatively small, at about 6.7 percent. Sovereign guarantee and ongoing support of other reputable institutions such as the European Investment Bank (EIB), International Bank for Reconstruction and Development (IBRD), Japan Bank for International Cooperation and Kreditanstalt für Wiederaufbau (KfW) should provide comfort to AIIB.

47. **Financial Soundness**. Table 1 summarizes the historical financial performance of TKYB against that of the industry average and TSKB. Other key financials are in Annex 2.

(1) The capital adequacy ratio (CAR) of TKYB is lower than the sector and peer (development bank) average but higher than the BRSA threshold of 12 percent, which is higher than Basel requirements.

(2) As TKYB is a state-owned bank with strategic development mandates, the Treasury has committed to ensure its capital adequacy. In April 2019, TKYB received a subordinated debt of EUR150 million (TRY972.8 million), which elevated its CAR to above 18 percent. In June 2019, the Government executed its commitment with planned additional paid-in capital of TRY350 million into TKYB. TKYB expects further capital injections from the Government.

(3) As at 2018, TKYB's NPL ratio was 0.9, lower than the industry average of 3.7. While the NPL ratio was halved from 2017 to 2018 (1.8 to 0.9), however, the NPL size remained largely constant at TRY123 million. The reduction in the NPL ratio was due to the almost-doubling of loan book from TRY6.9 billion to TRY13.6 billion (97 percent increase). Lower than the industry average, the NPL ratio reflects TKYB's conservative lending approach.

Table 1. Historical Financial Performance of TKYB Against TSKB and the Industry Average (%)

	2016	2017	2018
Capital adequacy ratio (%)			
TKYB	13.4	16.7	14.2
TSKB	14.6	17.0	16.2
Industry average	15.6	16.9	17.3
Loan-to-asset ratio (%)			
TKYB	76.8	76.9	86.4
TSKB	72.2	77.1	73.7
Industry average	64.2	65.1	64.5
Nonperforming loan ratio (%)			
TKYB	2.3	1.8	0.9
TSKB	0.3	0.2	2.1
Industry average	3.2	2.9	3.7
Cost-to-income ratio (%)			
TKYB	42.6	30.6	43.2
TSKB	15.0	12.5	10.8
Industry average	40.1	38.2	34.0
Net interest margin (%)			
TKYB	3.4	4.4	2.9
TSKB	3.5	3.9	4.9
Industry average	3.8	4.0	3.9
Return on equity (%)			
TKYB	9.6	12.6	12.0
TSKB	17.6	18.4	16.0
Industry average	13.5	14.9	13.8

48. **Sectoral Concentration.** About half of TKYB's credit portfolio is concentrated in energy, with over 90 percent comprising renewable projects. These projects come with FiT, which provides some level of comfort in terms of the bankability of TKYB's loan portfolio. That said, TKYB intends to diversify away from the energy sector in the medium term.

49. **Risk Management Operations.** Overall, TKYB's risk management is prudent**.** Current and potential risks are monitored by TKYB's Risk Monitoring Department via the following documents, the latest of which were shown to AIIB's project team and adequately cover risks faced by TKYB:

(1) a daily report, which summarizes the balance sheet, analyzes TKYB's exchange risk and interest rate risk and whether limits had been breached, where limits set are more stringent than BRSA requirements;

(2) a weekly report, which covers whether limits have been breached, and domestic and overseas macroeconomic developments to assess macroeconomic risks; and

(3) a monthly report on risk analysis based on selected indicators and risk groups and on risk limit monitoring, which cover liquidity, FX, maturity, credit, interest rate and operational risks, and TKYB's CAR.

50. TKYB's Risk Monitoring Department also prepares an internal capital adequacy assessment process (ICAAP) report to evaluate different scenarios proposed by the BRSA (base, negative and extreme negative), which consider crisis indicators and stress interest and exchange rates. It was concluded that TKYB's key financial indicators (e.g., CAR, liquidity, among others) would be above BRSA prudential norms even in extreme scenarios.

51. **Treasury Operations Policy.** The policy is determined by the Asset-Liability Committee as part of the risk management strategies, policies and application principles approved by the TKYB board. TKYB's Treasury Department ensures that TKYB is not exposed to FX, liquidity or interest rate risks:

(1) **FX risk.** The balance sheet of TKYB is highly dollarized but with well-managed open currency positions as it lends predominantly in hard currency. TKYB's equity denominated in Turkish lira faces FX risks. TKYB's FX position limits are as per BRSA limits, at ±20 percent of equity, while TKYB's internal early warning limit is ±15 percent of equity. The price differentiation of the Turkish lira basket is monitored with a 10 percent difference as early warning limit and is directly reported to TKYB's senior management. Where necessary, forward and swap transactions are used for hedging.

89 percent of the balance sheet consists of assets in foreign currency and ongoing changes in exchange rates of the Turkish lira against the US dollar and the euro present exchange rate risks. That's said, as at the third quarter of 2019, the ratio of foreign exchange net general position to capital base was (+)1.81 percent, well within the regulatory limit of (±20 percent), indicating well-managed treasury operations. Although TKYB is not exposed to currency risk, it is highly sensitive to exchange rate changes. In case of a sharp increase in exchange rates, risk-weighted assets will increase, which may result in the need for capital increase.

(2) **Liquidity risk.** TKYB does not accept deposits and does not, therefore, face a sudden liquidity crunch caused by deposit withdrawals. As contractual liabilities have an agreed repayment schedule, cash flows are stable and easily monitored. In case of any unexpected shortage of liquidity, the Treasury Department can organize funds from the Central Bank and money markets in both FX and Turkish lira on short notice. Considering the next 12-month inflows and outflows, TKYB will have a total cash position of TRY2.1 billion at the end of 2019 and is expected to have TRY3.0 billion and TRY4.0 billion at the end of 2020 and 2021 respectively, (considering stress due to additional NPLs) as a result of appropriate liquidity management.

(3) **Interest rate risk.** As a result of its securities portfolio preference structure, TKYB does not carry a portfolio with high interest rate risk. All loans have floating rates, mitigating interest rate risks for TKYB.

C. Fiduciary and Governance

52. **Procurement.** AIIB is providing financing to an FI for infrastructure projects through Sub-borrowers in accordance with the operations manual. Procurement of goods, works and services financed under these investments is to be conducted in accordance with the provisions of AIIB's Procurement Policy to Private Sector Entities. TKYB shall ensure that procurement provisions are complied with by demonstrating that established commercial practices and appropriate procurement methods are followed and market prices achieved. Public entities may not be financed, as provided in the operations manual.

53. **Financial Management.** The overall financial management risk rating assigned to the project is moderate. While activities of this nature are generally risky, TKYB has experience in implementing activities and projects of this nature. In addition, the entity has an established internal control environment that is adequate to prevent, detect and correct errors in a timely manner, also facilitating the timely and reliable provision of financial information on implementation.

54. Accounting. The financial management arrangements of the project will be integrated into the financial information systems currently utilized by the TKYB's Loan Operations Department. These systems will capture the process commencing from loan application through to approval, monitoring and reporting. A separate project profile account will be created in the accounting system, in which the chart of accounts will be designed by Sub-projects to ensure that funds are properly tracked and accurately reported. The Project's transactions will be recorded and reported on to using the cash basis of accounting.

55. Internal Controls. The daily operations of the project will be guided by the operations manual, which will also incorporate or refer to the financial management procedures. The manual will be updated throughout the life of the project as needed to reflect the current procedures and processes.

56. TKYB also has an established Internal Audit Department which, applies a risk-based approach in conducting audits. The Internal Audit Department reports directly to the Audit Committee which comprises three independent board members. Operations under the project will also be incorporated in the periodic internal audits conducted, and the reports should be shared with the AIIB upon request with the consent of Audit Committee.

57. TKYB has an Internal Control Department which establishes periodic controls over customer loans, with a focus on operational and credit risk. Findings of the Internal Control Department are reported to Audit Committee monthly.

58. Reporting. TKYB is required to provide audited and unaudited financial reports during project implementation. Both TKYB and the Sub-project's audits should be executed by an External Audit Firm deemed to be acceptable by BRSA. Both the audited financial statements and the management letters will be due to the AIIB, within six months of the TKYB financial year end (December of each year). The unaudited financial report will cover a six months period

January-June and July-December of each year, commencing after the first disbursement of funds. The unaudited financial report should be submitted to AIIB, with 45 days of the reporting period end.

59. **Governance and Anti-corruption.** Integrity due diligence was carried out on TKYB's board, executive management and top 10 Sub-borrowers, which did not raise any red flags. To date, no fraud or high-level findings of wrongdoing within TKYB have been reported. TKYB's systems to prevent, detect and report financial crimes were assessed as satisfactory. It will be ensured that TKYB complies with AIIB's policies, including the Policy on Prohibited Practices, the Procurement Policy and Interim Operational Directive on Procurement Instructions for Recipients, the Environmental and Social Policy, Environmental and Social Exclusion List, and where applicable, the Environmental and Social Standards.

60. **Anti-Money Laundering and Counter-Terrorist Financing**. TKYB regularly reports to the Financial Crimes Investigation Board of Turkey. As TKYB does not accept time or on-demand deposits and does not open accounts for individuals or legal entities, its risk profile is limited.

61. **Integrity**. AIIB undertook due diligence on TKYB and its top management to ensure that internal integrity was sound. The review concluded that TKYB has no integrity issues and that the project does not pose unacceptable reputational risk to AIIB.

62. **Reporting and Monitoring.** The project monitoring and reporting processes have been agreed with TKYB and recorded in the operations manual. AIIB may launch implementation support missions to obtain firsthand information on implementation status and to ensure that the processes agreed and laid out in the operations manual are followed. The arrangements as described above are satisfactory to AIIB.

D. Environmental and Social

63. **Environmental and Social Policy (including Standards) and Categorization.** AIIB's ESP is applicable to this on-lending facility. The project is in Category FI, because the financing structure involves providing funds through a Financial Intermediary (FI), whereby AIIB delegates to TKYB the decision-making on the use of AIIB's funds in so far as the sub-projects meets the conditions of the Operations Manual. Decision making covers selection, appraisal, approval and monitoring of Sub-projects and oversight of companies and projects in line with AIIB's ESP requirements. As this is a stand-alone project, AIIB's the Bank's Project-affected People's Mechanism (PPM) will be used.

64. Through environmental and social (E&S) due diligence conducted on TKYB during appraisal, including a review of E&S documentation, interviews with TKYB's E&S specialists, a review of selected portfolio Sub-projects' appraisal and monitoring material and engagement with the consultant supporting TKYB in designing and establishing its Environmental and Social Management System (ESMS), AIIB has helped TKYB ensure that its ESMS is materially consistent with AIIB's ESP and relevant Environmental and Social Standards (ESS). The ESMS is in the final preparation stage with the help of a local consulting firm affiliated with TSKB, AIIB's existing

borrower, which has an extensive track record of supporting Turkey-based FIs on E&S matters. The ESMS shall be in place within three months from signing of the Loan Agreement or prior to disbursement of AIIB proceeds, whichever comes first. Specifications for implementing AIIB E&S requirements are defined in the Operations Manual, including the adoption of the AIIB's E&S Exclusion List.

65. **Environmental and Social Management System.** TKYB's ESMS includes an E&S Policy, an E&S exclusion list and E&S screening, categorization, assessment and monitoring procedures and tools applicable to TKYB's lending operations. TKYB hopes that its existing lenders, such as IBRD, KfW, EIB, among others, will acknowledge the suitability of TKYB's upcoming ESMS and its equivalence to their own E&S policy requirements. The ESMS will reflect not only AIIB's ESP and ESS but also other IFI's E&S policies and standards. AIIB will have to opine on the suitability of the management system being established within the contractually indicated timeline and ensure that TKYB staff members have undergone training to implement the Project. AIIB will encourage TKYB to develop further action plans in line with its commitments to provide equal opportunities, work-life balance and a safe and healthy working environment for its workers, and to reduce its own environmental footprint by minimizing its use of resources and emission of greenhouse gases.

66. TKYB's E&S Policy and Procedure of E&S Risk Evaluation in Credit Process will guide the screening of Sub-projects against the Exclusion List, their E&S categorization, preparation of E&S assessment instruments, E&S disclosure and consultation with stakeholders, including Project Affected People (PAPs) at sub-project level, and monitoring their E&S performance. These processes rest on the outcome of a systematic E&S screening and categorization of all Sub-projects using the proprietary Environmental Risk Evaluation Tool (ERET) Model, established at TKYB by its E&S consultant and which TKYB's E&S team will be trained to use. The outcome of the ERET Model will be presented to TKYB's Loan and Participation Committee and determine the level of E&S due diligence to be conducted on Sub-projects. The scope and depth of E&S instruments to be prepared by Sub-borrowers and of TKYB's due diligence and the frequency of TKYB's monitoring of Sub-projects are indicated by the four-tier (A, B+, B- and C) categorization of Sub-projects.

67. TKYB maintains in-house E&S personnel with experience in renewable energy and energy efficiency and is committed to maintaining them. For all Sub-projects, TKYB requires its clients to provide a regulatory environmental impact assessment (EIA); environmental, health and safety clearance certificates; and land acquisition-related documentation, where applicable. TKYB shall require further "bankable"[3] E&S assessment instruments such as E&S impact assessments (ESIAs), environmental and social management plans (ESMPs), specialist studies and, where applicable, resettlement action plans (RAPs) prepared by independent specialized E&S consultants for all Category A and selected Category B (generally B+) Sub-projects, or ESMPs and specialist studies where applicable for other Sub-projects. Where a Sub-loan proposed to be using AIIB proceeds is approved by TKYB's Credit Committee and/or Board prior to the completion

[3] "Bankable" refers to the E&S policies and standards of AIIB, World Bank (IBRD/International Development Association), International Financial Corporation, European Bank for Reconstruction and Development and EIB.

of bankable E&S instruments, TKYB has indicated that approval will be conditional on the relevant instruments' completion. AIIB requires that TKYB's Credit Committee and/or Board be informed of key findings and further undertakings issuing from these instruments prior to the signing of the Sub-loan agreement or when reporting on the E&S monitoring of Sub-projects. TKYB will include standard E&S covenants and monitoring and reporting requirements in all its Sub-loan agreements and a project-specific E&S action plan (ESAP) when necessary. Lender-specific (e.g., AIIB) E&S requirements shall be annexed to TKYB's loan agreements.

68. TKYB will regularly monitor and supervise the E&S performance of AIIB-supported Sub-projects against the standards defined in the Operations Manual, TKYB's E&S Policy and commitments and requirements indicated in the Sub-projects' ESMPs and E&S action plans, at a frequency reflecting the E&S risks and impacts of the Sub-projects throughout the loan cycle. TKYB will require the appointment by its clients of independent third-party monitoring consultants for all Category A Sub-projects and will conduct regular on-site monitoring for all Category A and B+ Sub-projects throughout the construction phase and at least once after the commissioning of the financed activities. After that, TKYB will require clients to submit annual E&S progress reports during the operation phase of the project throughout the loan cycle. Other Sub-projects (Category B- and selected Category C) are required to provide TKYB with regular monitoring reports against applicable E&S requirements.

69. **Stakeholder Engagement, Consultation and Information Disclosure.** TKYB is committed to disclosing its E&S Policy and an overview of its ESMS on its website. TKYB will require authorization from its Sub-borrowers to publish on its website E&S instruments and a brief project description, including a summary of E&S impacts and mitigation measures, for all AIIB-supported Higher Risk transactions. TKYB will support and supervise its clients in establishing a Sub-project ESMS, including processes to disclose E&S information and engage stakeholders, and in establishing a Sub-project grievance redress mechanism.

70. **Project Level Grievance Redress Mechanism and AIIB's Independent Accountability Mechanism.** TKYB is required to establish an external communication mechanism to address third-party views, enquiries or concerns regarding TKYB's own E&S processes and outcomes, as well as E&S impacts and the performance of TKYB's loan portfolio. The PPM has been established by the Bank to provide an opportunity for an independent and impartial review of submissions from Project-affected people who believe they have been or are likely to be adversely affected by AIIB's failure to implement its ESP in situations when their concerns cannot be addressed satisfactorily through the Project-level GRM or the processes of Bank Management.[4]

71. **Monitoring and Supervision Arrangements.** AIIB will conduct an E&S review of the initial Sub-projects in each subsector (e.g., wind, solar, geothermal and biomass) to be financed using its funds. Subsequently, AIIB will receive all TKYB Sub-project appraisal forms at its request and no later than during TKYB's submission of the semiannual status report to AIIB in an agreed format.

[4] For information on how to make submissions to the project-affected people's mechanism, see AIIB's Policy on the Project-affected People's Mechanism available at https://www.aiib.org/en/policies-strategies/operational-policies/policy-on-the-project-affected-mechanism.html

AIIB will retain the right to conduct an E&S prior review. The report will comprise portfolio breakdown by industry sector and product line, and details on higher-risk transactions. It will highlight all issues arising from noncompliance and explain how the issues have been or are being addressed during project implementation. The report will describe the implementation of and changes to TKYB's ESMS. AIIB will regularly supervise TKYB's activities, including visits to selected Sub-projects.

E. Risks and Mitigation Measures

72. The project is guaranteed by the Republic of Turkey through a sovereign guarantee and will have an economic capital consumption of USD42.55 million.

73. AIIB has assigned an overall "medium" risk rating to the project. Possible risks and mitigation measures are in Table 2.

Table 2. Summary of Risks and Mitigation Measures

Risk Description	Assessment Rating (high, medium, low)	Mitigation Measures
Risk associated with restructuring of TKYB	Medium	**Mitigants:** The strategy for transformation has been documented and approved by TKYB's board, with clear milestones, and reviewed by the delegation. Much of the restructuring is completed in terms of process setting, with expected rollout of a new information technology system and continued hiring of new experienced staff. Staff members were assessed to understand their roles and responsibilities. One loan covenant will be for key corporate milestones to be met in a timely fashion and monitored through periodic reporting to AIIB. AIIB shall have the right to conduct periodic discussions with management and independent members of the TKYB board.
Potential political interference in TKYB's business	Low	TKYB is a state bank with a board that comprises representatives (four members out of seven) from the Ministry of Treasury and Finance. This could subject TKYB's lending program to political pressures. **Mitigants:** Both old and new legislation governing TKYB exempts it from regulations set by the BRSA. However, TKYB has and does follow the prudential norms set by the

		BRSA, including the need to comply with IFRS9 provisioning (from 2019 onwards), with documentation that is registered with the authorities. This will be a key covenant of AIIB's loan. Due to its one percent public listing, TKYB is required to be transparent in its operating activities through annual reports published on its website and its adherence to international compliance questionnaires and audit processes. AIIB will obtain the annual letter to management from external auditors and have the right to examine the dossiers of TKYB's Sub-borrowers. AIIB will be informed when members of the executive management team or the Board of Directors resign and the governing policies of the Development Fund of Turkey are finalized. The decision-making processes within TKYB, especially with regard to utilizing funds for income-generating activities, are distributed among several organizational layers, preventing the misuse of funds based on personal preference. Existing relationships with IFIs and compliance with their financial, social and environmental criteria provide an additional level of comfort.
Macroeconomic risk	Medium	**Mitigants:** The conservative lending approach of TKYB provides comfort in terms of its ability to withstand macroeconomic volatility. Through increased operational efficiency and profit margins from investment banking and DFT business, TKYB should be able to increase its capital base. The Government's commitment to further inject capital into TKYB will provide more buffer. Financial criteria for Sub-borrowers are set in the operations manual to ensure stringent financial assessment of the Sub-projects to receive on-lent funds. These criteria include minimum debt service coverage of the Sub-borrower and analysis of its sensitivity to FX risk. The sovereign guarantee acts as a backstop as Turkey has never defaulted on any loans from IFIs.

FX risk	Medium	TKYB has a well-managed FX position as it lends predominantly in hard currency and uses FX derivatives to hedge the remaining position. The Borrower also has a good CAR which could sustain potential further devaluation, as evidenced in its internal capital adequacy assessment process (ICAAP) report. For Sub-loans, Council of Ministers Decree No. 32 regulates FX lending provisions and restricts FX borrowing to Sub-borrowers that have FX revenue streams.
Deterioration of asset quality	Medium	Due diligence of the financial results of TKYB showed that it takes a more conservative approach to lending and generally has lower-than-industry nonperforming loan ratios.
Implementation risk	Low	**Mitigants**: TKYB has a positive track record in implementing similar facilities of other IFIs. The current pipeline of loans to renewable energy and energy efficiency projects is at USD393 million, double of AIIB's loan, thus ensuring sufficient demand for AIIB's credit for on-lending. Historically, TKYB has largely maintained a portfolio of about 50 percent renewable energy and energy efficiency projects.
Environmental, social and reputational risk	High	TKYB is establishing an integrated environmental and social (E&S) management system (ESMS) in line with AIIB's ESP, recruiting E&S personnel in its Istanbul location and arranging training on the system for all staff members. Residual impacts of TKYB-financed projects can exceed outcomes expected from implementing AIIB's ESP. **Mitigants**: TKYB's institutional capacity building conducted by its ESMS consultant and ongoing E&S support provided by other IFIs and AIIB. TKYB's internal E&S resources and track record in implementing IBRD and other bankable E&S standards for renewable energy Sub-projects, including selected Category A Sub-projects, in the scope of its past and

		current on-lending facilities. Regular reporting to AIIB on TKYB's performance and residual impacts of its projects, verified through AIIB-led supervision.

Annex 1: Results Framework and Monitoring

<table>
<tr><th colspan="10">Project objective: Advance Turkey’s renewable energy and energy efficiency infrastructure</th></tr>
<tr><th rowspan="2">Indicator Name</th><th rowspan="2">Unit of Measure</th><th rowspan="2">Baseline Data Year</th><th colspan="4">Cumulative Target Values</th><th rowspan="2">End Target</th><th rowspan="2">Frequency</th><th rowspan="2">Responsibility for Data Collection</th></tr>
<tr><th>2020</th><th>2021</th><th>2022</th><th>2023 Onward</th></tr>
<tr><td>1. Total renewable energy generation capacity installed</td><td>MW</td><td>2019</td><td colspan="4" rowspan="5">The exact intermediate and end targets will depend on the specific projects to be financed by the Asian Infrastructure Investment Bank loan and will be finalized during the project’s implementation.</td><td>>70</td><td>Annual</td><td>TKYB</td></tr>
<tr><td>2. Reduction of greenhouse gas emissions, in tons of carbon dioxide equivalent per year</td><td>Tons</td><td>2019</td><td rowspan="4">To be defined</td><td>Annual</td><td>TKYB</td></tr>
<tr><td>3. Primary energy consumption saved</td><td>GWh</td><td>2019</td><td>Annual</td><td>TKYB</td></tr>
<tr><td>4. Amount invested in renewable energy projects</td><td>USD million</td><td>2019</td><td>Annual</td><td>TKYB</td></tr>
<tr><td>5. Amount invested in energy efficiency projects</td><td>USD million</td><td>2019</td><td>Annual</td><td>TKYB</td></tr>
</table>

GWh = gigawatt-hour, USD = United States dollar.

Annex 2: Key Financials of TKYB

Financial year ending Dec. 31	2014	2015	2016	2017	2018
Currency	USD million	USD million	USD million	USD million	USD million
TL/USD Exchange Rate[1]	2.3311	2.9233	3.5255	3.7787	5.2905
SUMMARY BALANCE SHEETS					
Liquid Assets and Securities	272	248	417	508	358
Net Customer Loan Portfolio	1,349	1,339	1,539	1,834	2,578
Fixed and Other Assets	58	47	50	36	34
Total Assets	**1,679**	**1,633**	**2,006**	**2,377**	**2,970**
Customer Deposits	-	-	-	-	-
Borrowings	1,357	1,355	1,641	1,936	2,565
Other Liabilities and Provisions	46	38	145	236	137
Total Liabilities	**1,404**	**1,393**	**1,786**	**2,172**	**2,702**
Total Shareholder Funds	**276**	**241**	**220**	**205**	**268**
SUMMARY PROFIT AND LOSS					
Operating Income	78	71	71	104	139
Operating Expenses	(46)	(41)	(39)	(50)	(63)
Provisions	(7)	(3)	(6)	(11)	(29)
Tax	(5)	(6)	(6)	(10)	(16)
Profit After Tax	**20**	**21**	**20**	**34**	**30**
KEY RATIOS					
Total Assets Growth		22.0%	48.1%	27.0%	74.9%
Net Customer Loans Growth		24.4%	38.7%	27.7%	96.9%
Capital Adequacy Ratio — National Regulations	20.4%	17.8%	13.4%	16.7%	14.2%
Tier-1 Ratio — National Regulations	19.8%	17.0%	12.6%	15.8%	10.5%
Net Interest Margin	3.1%	3.1%	2.3%	3.1%	2.9%
Operating Cost / Operating Income	58.9%	57.2%	54.9%	48.1%	45.5%
Return on Average Assets	2.4%	1.5%	1.2%	1.4%	1.0%
Return on Average Equity	14.2%	9.1%	9.3%	10.2%	11.3%
Loan Loss Reserve / Gross Loan Portfolio	1.5%	1.2%	0.9%	1.0%	0.5%
Portfolio at Risk 90 Days / Gross Loan Portfolio	0.0%	2.7%	2.3%	1.8%	0.9%
Provisions / Portfolio at Risk 90 Days	0.0%	43.2%	39.3%	58.9%	59.2%

Note [1]: CBRT exchange rate as of end of the year.

Annex 3: Sovereign Credit Fact Sheet

A. Recent Economic Development

Turkey's economy grew strongly from 2001 to 2013, with GDP (nominal current US$) quadrupling from US$200.252 billion to US$950.579 billion, underpinned by a comprehensive macroeconomic and structural reform program. As a result, Turkey's GNI per capita (Atlas Method, current US$) increased to US$12,560 in 2014, putting Turkey solidly in the upper-middle-income group.[1]

Following the strong performance in 2013, GDP growth slowed from 8.5% in 2013 to 3.2% in 2016, reflecting weaker final demand and investment due to sanctions from Russia and a failed coup attempt in July 2016. Amid the slowdown, a large stimulus package (including increased PPP activity) took effect in mid-2016, and a policy-driven credit program to boost consumption and investment. With the combined effect of the depreciated lira, Turkey's GDP growth rebound to 7.4% and exports increased by 11.95% in 2017. However, the stimulus package also brought volatility to the economy. The current account deficit deepened from 3.8% of GDP in 2016 to 5.6% in 2017.

In 2018, Turkish real GDP growth drastically declined to 2.6%, due to a series of financial and economic shocks. To begin with, the sovereign rating downgrades by rating agencies and an increase in global interest rates led to an increase in risk premiums and significant capital outflow. Then the worsened global financial markets in the second half of 2018 - compounded by a new round of turmoil in Turkey - triggered concerns on Turkey's heavy reliance on external financing sources, and whether the foreign reserves are adequate to cover the short-term debt obligation.

The Turkish Lira depreciated against US dollars from 3.75 in January to 6.52 in August of 2018[2]. Following the FX depreciation, inflation surged to 16.3% in 2018, which further dampened market expectations. To stabilize the exchange rate, the Turkish central bank raised the benchmark policy rate substantially to 24% in September. As a result, the FX rate stabilized at 5.2 in the last quarter of 2018. In October 2018, the Turkish government implemented the "New Economic Program (NEP)[3]" and the "Comprehensive Plan Against Inflation[4]" to restore market confidence and ease inflation pressure, which seems to be effective since the July 2019 WEO report recorded that Turkish inflation has dropped below historical averages in Q2 2019.

B. Economic Indicators

Selected Macroeconomic indicators (2015-2020)

Economic Indicators	2015	2016	2017	2018	2019*	2020*
Real GDP growth	*6.1*	*3.2*	*7.4*	*2.6*	*0.25***	*2.5*
CPI Inflation (average, % change)	*7.7*	*7.8*	*11.1*	*16.3*	*14.0***	*14.1*
Current account balance (% of GDP)	*-3.7*	*-3.8*	*-5.6*	*-3.6*	*0.7*	*-0.4*

[1] Income level use World Bank criteria and GNI per capita data, details seen: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519
[2] Monthly data from Thomson Reuters.
[3] Minister of Finance announced on 20 September 2018 a New Economic Program for the period 2019 to 2021.
[4] Minister of Finance introduced "A Comprehensive Plan Against Inflation "on 9 October 2018, freezing administrative prices on certain goods including energy, temporary suspension/cuts on VAT for certain goods and services and accelerating VAT refunds, and cuts on high interest rate loans.

Central government overall balance (% of GDP)	-1.5	-2.0	-2.2	-3.1	-3.3	-2.9
Nominal gross public debt (% of GDP)	27.6	28.3	28.5	27.8	27.9	27.9
Public gross financing needs (% of GDP)	4.7	5.3	5.1	5.6	5.1	5.7
External debt (% of GDP, end period)	46.1	46.9	53.2	54.1	54.6	54.3
Gross external financing need (% of GDP)	23.7	22.9	24.9	25.1	26.3	26.5
Gross international reserves (USD billions)	110.5	106.3	107.7	107.7	107.7	107.7
Broad money growth (M2, %)	17.1	18.3	15.7	--	--	--
Exchange rate (TRY/USD, EOP) ***	2.92	3.53	3.79	5.29	5.90	--

Note: * denotes projected figures. Italic data from IMF WEO April 2019;
** IMF Staff Concluding Statement of the 2019 Article IV Mission for Turkey published on Sep 23, 2019;
*** FX rate from Thomson Reuter, 2019 FX data as of October 14, 2019.
Source: IMF Country Report No. 18/110.

C. Economic Outlook and Risks

The government's "New Economic Program"[5] provides a solid foundation to tackle Turkey's economic challenges. Together with the expansionary fiscal policy, rapid state bank credit provision, a strong contribution of net exports, and more favorable market sentiment, the economy registered positive growth in the first half of 2019 and the growth is expected to be positive in 2019. Import compression and a strong tourism season have led to a remarkable current account adjustment. As market pressures have abated, the lira has recovered. A decline in inflation is expected due to the combined effects of high real policy rates, lira stability, and favorable base effects.[6]

Turkey's public debt ratio was 27.8% of GDP in 2018, and its government debt is sustainable under different shock scenarios.[7] The overall deficit is projected to gradually fall below 3 percent of GDP by 2024, and that debt will remain below 30% of GDP over the medium term.[8] In addition, a strong corporate debt restructuring framework is critical to supporting the deleveraging process - the absence of which could mean the difference between an orderly adjustment for the economy and a hard landing.

Downward risks for future development include a deterioration in sentiment towards emerging markets, possible policy implementation risks, and adverse domestic or geopolitical developments.[9]

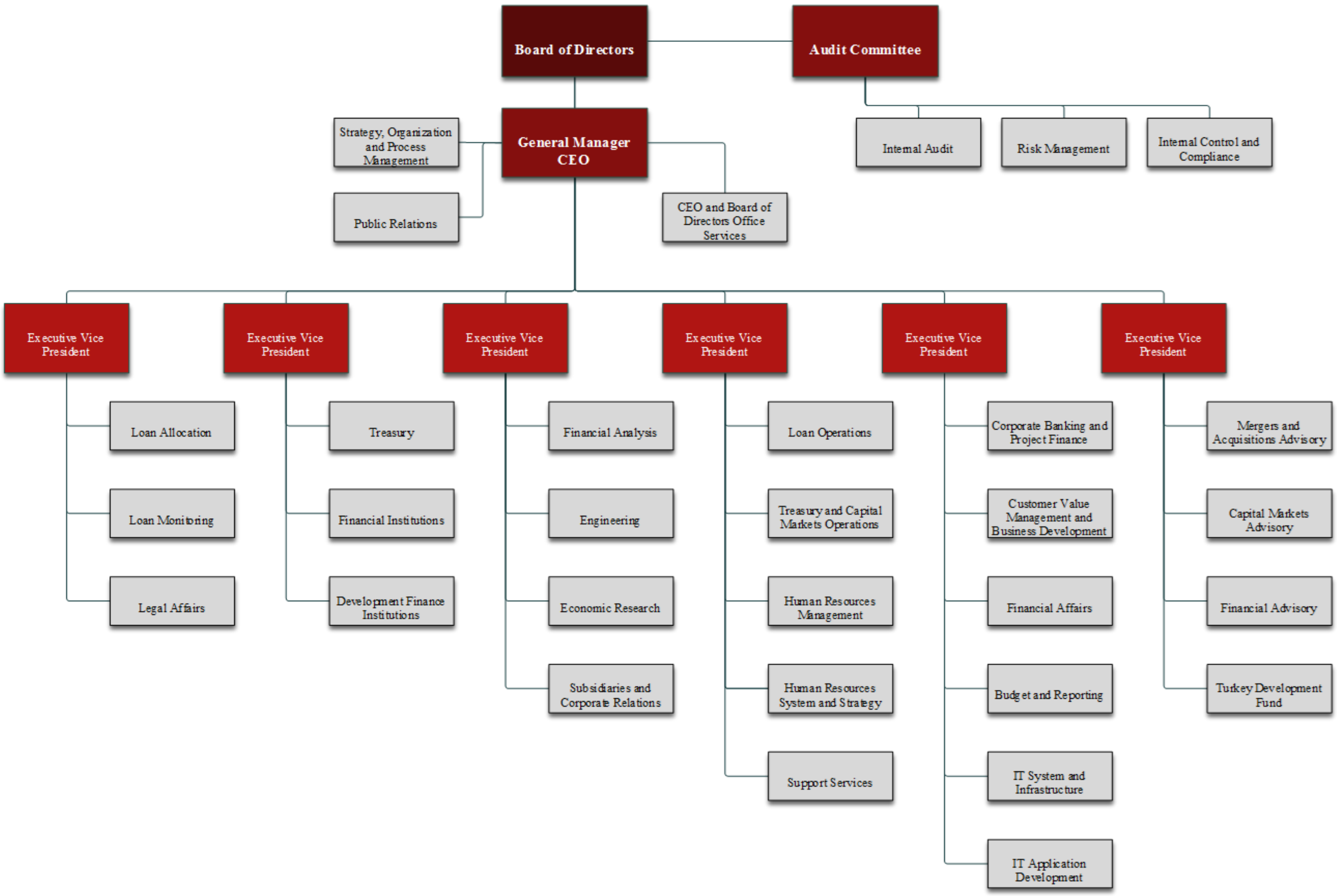
[5] The NEP aims at supporting sustainable growth and employment, ensuring price stability and financial stability, improving current account balance and preserving central government budget deficit/GDP as the key anchor. In this regard, some of the measures to achieve these goals are as follow: Industrial Strategy Document, National Productivity Plan, Judicial Reform, revision of employment incentives, improving credit channels, deepening capital markets, performance based budgeting, tax reform, export master plan, localization of imported intermediate goods, coordination of monetary and fiscal policies, increasing competition and productivity in goods and services markets.
[6] IMF Staff Concluding Statement of the 2019 Article IV Mission for Turkey published on Sep 23, 2019.
[7] International Monetary Fund (IMF), 2018, Country Report No. 18/110– 2018 Article IV consultation—Press release; Staff report; and Statement by the Executive Board for Turkey, April 2018.
[8] IMF Fiscal Monitor Curbing Corruption April 2019.
[9] IMF Staff Concluding Statement of the 2019 Article IV Mission for Turkey published on Sep 23, 2019.

Annex 4: Preliminary Project Pipeline

No.	Investment Type	Total Project Cost	Total Loan	AIIB's Portion (estimate)	Tenor	Other Potential Cofinanciers
		USD million	USD million	USD million	Years	
1	Solar farm	20	17	17	10-12	-
2	Rooftop solar	4.5	4	4	10-12	-
3	Wind power plant	130	98	30	10-12	
4	Biogas	18	15	15	10-12	-
5	Geothermal Power plant	54	45	30	10-12	International Bank for Reconstruction and Development (IBRD)
6	Geothermal power plant	86	65	30	10-12	IBRD
7	Wind power plant	36	30	30	10-12	-
8	Wind power plant	50	43	30	10-12	Black Sea Trade and Development Bank
9	Biogas	25	21	21	10-12	-
10	Solar farm	40	30	30	10-12	
11	Wind power plant	20	16	16	10-12	
12	Rooftop solar	5	4	4	10-12	
13	Solar farm	6.5	5	5	10-12	
	TOTAL	**495**	**393**	**262**		

Annex 5: Changes in TKYB's Organizational Structure

Figure: Development and Investment Bank of Turkey (Türkiye Kalkınma ve Yatırım Bankası) Organizational Chart (as of July 31, 2019)



The Development and Investment Bank of Turkey (Turkiye Kalkınma ve Yatırım Bankası [TKYB]) has segregated its functions and emphasized areas crucial to refresh its image and strategy. Key highlights of the new organization are as follows:

(1) To ensure that TKYB continues to follow its corporate strategy and markets itself accurately to the public, the chief executive officer created departments for strategy, organization and process management and public relations and placed them directly under his charge.

(2) Funding now has an executive vice president (EVP) and is divided into financial institutions and development finance institutions.

(3) To enhance loan operations, including apex institutional lending, development lending and investment banking, the following will be implemented:

(a) **Apex institutional lending.** This will be managed by the Corporate Banking Department. An online internal and external platform will be set up for marketing of, applying for, monitoring of and management of all apex institutional loans.

(b) **Development lending.** Loan marketing (under customer value management and business development) is separate from the loan operations section, which evaluates the loan. The evaluation is handed over to loan allocation, under a different EVP, which presents the case to the credit committee. This separation of duties in the loan process ensures that proper checks and balances are done prior to loan proposal.

(c) **Investment banking.** This will be part of the mergers and acquisition advisory, capital advisory and financial advisory business, under an EVP. This arm of TKYB will focus on the new mandate and enhance the profitability of TKYB through fees and commissions.

(4) To enhance overall operational effectiveness, the information technology (IT) system (hardware) is separate from IT application (software). The separate functions will increase efficiency by improving customer relationship management and storage and accessibility of information and allow automated reporting to internal and external stakeholders.

Annex 6: Turkey’s Renewable Energy Strategy and Policies

1. Turkey’s demand for energy and natural resources has been increasing due to economic and population growth, and the country’s average annual energy demand growth of 5.5 percent since 2002 is the highest among Organization for Economic Co-operation and Development members. As of end of July 2019, Turkey’s installed capacity reached 90.4 gigawatts (GW), representing a threefold increase in 15 years. Rising oil prices caused energy import costs to increase by 37 percent in 2017 to more than USD37 billion, or 16 percent of total import value. The Government must meet rising energy demand—expected to increase by 50 percent over the next decade (the electricity demand is expected to grow at 3.5-5.5 percent per year in the medium to long run)—while reducing import dependence. Renewables will play a large role in achieving this goal.

A. Turkey’s Renewable Energy Framework

2. In 2009, the Electricity Energy Market and Supply Security Strategy Paper introduced the Government’s plan to increase the share of renewable energy in the power sector. This was translated into concrete targets in Turkey’s 2010-2014 Strategic Plan, where the Government committed to its first major national renewable energy target: for renewables to account for 30 percent of total electricity production by 2023 (the centennial of the Republic of Turkey).

3. In 2013, the Government introduced the Renewable Energy Support Mechanism (Yenilenebilir Enerji Kaynakları Destekleme Mekanizması [YEKDEM]) based on Law No. 5346 (Use of Renewable Energy Resources for Generating Electric Energy). YEKDEM allows renewable energy plants to enjoy USD-based feed-in tariffs (FiTs) for the first 10 years of operations, thus shielding investors from market risks. Plants that make use of locally produced equipment also enjoy additional subsidies. Table 3 shows the FiT under YEKDEM.

Table 3. USD-Based FiTs as Part of the YEKDEM Renewable Energy Support Mechanism

Type of Generation	Premium for local Generation (US cent/kilowatt-hour)	Applicable Prices (US cent/kilowatt-hour)
Hydroelectric	1.0-1.3	7.3
Wind	0.6-1.3	7.3
Geothermal	0.7-1.3	10.5
Biomass	0.4-2.0	13.3
Solar	0.5-6.8	13.3

4. In 2015, the 2015-2019 Strategic Plan was announced and held the 30 percent target constant. However, the plan was significant for introducing the Renewable Energy Resource Area (Yenilenebilir Enerji Kaynak Alanları [YEKA]) regulations, which came into force on Oct. 9, 2016. YEKA is defined as an area, on property either belonging to the public or the Ministry of Treasury and Finance or privately owned, which has high potential for at least one renewable energy resource. The purpose of the regulation was to create large-scale YEKAs for the efficient use of renewable energy resources. The regulation aimed to determine YEKAs, allocate their connection

capacity, determine the conditions of the tender for participating legal persons and the license application process for tender winners and determine the procedures for the sale of electricity generated in YEKAs. Essentially, the regulation provided for a “winner-takes-all” auction system, which would be an important development platform for large-scale big-ticket projects. The 2015-2019 Strategic Plan added short-, medium- and long-term targets for individual energy technologies, and stressed connectivity of discontinuous energy resources such as wind and solar in a grid and a monitoring system to keep track of project investments based on renewable energy.

5. Tenders were successfully held for solar and offshore wind farms under the YEKA system in 2017. A consortium of Siemens Gamesa Renewable Energy and two Turkish firms—Kalyon Enerji and Türkerler Holding—won a USD1 billion tender to develop a 1,000 megawatt (MW) onshore wind farm across multiple sites at a tariff of 3.48 US cents/kilowatt-hour (kWh), significantly below the FiT of 7.3 US cents/kWh under YEKDEM and below the global average cost of 6 US cents/ kWh for onshore wind farms in 2017. A solar tender worth USD1.4 billion to construct a 1 GW project at a tariff of 6.99 US cents/kWh (YEKDEM: 13.3 US cents/kWh; global average levelized cost of utility-scale solar: 10 US cents/kWh) was won by Hanwha Q Cells of Korea in partnership with Kalyon Enerji. These results proved that energy costs realized through the auction system would be competitive against coal generated power, which were backed by the Government as solutions to energy security concerns. A major lignite coal tender for a project in Çayırhan in 2017 produced electricity at an agreed cost of 6.04 US cents/kWh, only slightly less expensive than the solar auction and costlier than the wind auction.

6. In August 2018, Turkey revised upward its renewable target to 50 percent of all electricity production by 2023 after the Energy Markets Regulatory Authority announced that Turkey had exceeded the 30 percent renewable energy generation target in mid-2018. While hydroelectric power is the largest clean energy resource in the country’s power mix, accounting for around 20 percent in August 2018, other renewables accounted for roughly 15 percent. The Government announced its intention to tender 10 GW of solar and 10 GW of wind tenders over the next decade, which are likely to take place as part of the YEKA program.

B. National Energy Efficiency Action Plan 2017-2023[1]

7. The promotion of energy efficiency is captured in the National Energy Efficiency Action Plan, announced in 2017, after the Energy Efficiency Law was adopted in 2007 and the Energy Efficiency Strategy issued in 2012. The action plan intends to invest USD10.9 billion by 2023 and contains 55 actions in six categories: buildings and services, energy, transport, industry and technology, agriculture and cross-cutting areas. Expected energy savings are 23.9 million-tons equivalent of petroleum, equivalent to decreasing primary energy consumption by 14 percent in 2023. The savings from improving energy efficiency in the sectors above are expected to be USD30.2 billion by 2033.

[1] A full English explanation of the action plan can be accessed here: http://www.yegm.gov.tr/document/20180102M1_2018_eng.pdf

C. Existing Regulations

8. The following are regulations relating to Turkey's electricity and energy markets:

(1) The **New Electricity Market Law (Law No. 6446)** governs the electricity market system. It states that the maximum installed capacity for a renewable energy plant to operate without a license is 1 MW, which may go up to 5 MW by decree of the Council of Ministers without changing the law.

(2) The **Law on the Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy (Law No. 5346)** regulates the renewable energy sources for electricity and defines renewable energy resources as non-fossil energy resources such as wind, solar, geothermal, biomass, biogas, including landfill gas, wave, drift, tide and hydroelectric power plants that are channel or river types or whose reservoir areas are less than 15 square kilometers.

(3) The **Law Amending the Law on the Utilization of Renewable Energy Resources in Electricity Generation (Law No. 6094)** introduces significant amendments to improve the incentive mechanism under the Renewable Energy Law and encourage renewable energy investment opportunities in Turkey. Some of the regulations are the following:

(a) A supplier that sells electricity to consumers has an obligation to pay a renewable energy fee proportional to the amount of electricity that the supplier has sold to its consumers, divided by the total electric energy that all suppliers have sold to all consumers in the country. In other words, suppliers are indirectly obliged to purchase electricity generated from renewable resources.

(b) An FiT based on the USD subject to escalation for licensed and unlicensed facilities generating electricity from renewable energy, which are operational currently or will become operational before Dec. 31, 2020.

(c) The local equipment bonus is to be added to the FiT plan, for a term of five years from the starting date of operation of the generation facility.

(d) Until 2020, a discount of 85 percent on permission, lease, easement rights and servitude right fees for renewable energy generation facilities will be applicable for the first 10 years, including the period of investment and operation.

(4) The **Energy Efficiency Law (Law No. 5627)** aims to increase efficiency in using energy sources by avoiding waste, easing the burden of energy costs on the economy and protecting the environment. The law covers principles and procedures applicable to increasing and promoting energy efficiency in the energy generation, transmission, distribution and consumption phases at industrial establishments, buildings, power generation plants, transmission and distribution networks and transport. The law raises the public's energy awareness.

The **Environmental Law (Law No. 2872)** was amended in 2006 and states that industrial plants may receive a reduction of up to 50 percent of their electricity bills if they set up their own waste treatment facilities.