TUNISIA ECONOMIC MONITOR

Renewed energy to the economy

Spring 2024

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Renewed Energy to the Economy

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The Tunisia Economic Monitor (TEM) is a report that provides information on recent economic developments and policies in Tunisia, as well as the country's economic outlook and challenges to its development. The report is aimed at a diverse audience, including policy makers, business leaders, financial market actors, and analysts and professionals working on or in Tunisia. It is produced by the North Africa and Middle East department of the World Bank Group's Macroeconomics, Trade and Investment (MTI) global practice.

Each issue of the TEM contains a section on recent economic developments and a discussion on the economic outlook, followed by a special section based on the World Bank's analysis of Tunisia. The report was originally published in English with the title "Renewed energy to the economy" and was first published in 2024. In case of any discrepancy, the original English language version prevails.

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The opinions and conclusions expressed in this report are those of the World Bank staff and do not necessarily represent the views of members of the World Bank Board of Directors or the countries they represent.

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LIST OF ACRONYMS

GDP	Gross Domestic Product
CAD	Current Account Deficit
FDI	Foreign Direct Investment
SOEs	State-Owned Enterprises
CCDR	Climate Change Development Report
US	United States
OdC	Office des Céréales
TD	Tunisian Dinar
IMF	International Monetary Fund
CBT	Central Bank of Tunisia
STEG	Société Tunisienne de L'électricité et du Gaz
STIR	Société tunisienne des industries de raffinage
CPI	Consumer Price Index
VAT	Value-Added Tax
UGTT	Union Générale Tunisienne du Travail
OECD	Organisation for Economic Co-operation and Development
INS	National Institute of Statistics
Mtoe	Million Tonnes of Oil Equivalent
MW	Megawatt
GW	Gigawatt
TD/TOE	Tunisian Dinar/Tonnes of Oil Equivalent
SDDP	Stochastic Dual Dynamic Programming
UNDP	United Nations Development Programme
BAU	Business As Usual

EXECUTIVE SUMMARY

Tunisia's already modest economic recovery came to an abrupt halt in 2023 amidst a severe drought, tight financing conditions, and a modest pace of reform

Tunisia's already modest economic recovery almost halted in 2023, amidst a severe drought, tight financing conditions and the modest pace of implementing reforms. With this slowdown, the Tunisian economy in 2023 was still below its pre-Covid level, marking one of the slowest recoveries in the Middle East and North African region. Agriculture was the main driver of the 2023 economic slowdown, declining by 11 percent as the drought forced the government to introduce irrigation restrictions. This highlights the urgency for Tunisia to adapt to climate change. The weak domestic demand and the fiscal consolidation appear to have added to the drought-related losses, with the declines in construction and commerce sectors offsetting some of the gains from export markets, particularly tourism. The growth slowdown–especially in labor-intensive sectors–translated into higher unemployment and lower labor force participation.

The growth slowdown amplifies the challenges Tunisia faces in covering its significant external financing needs despite an improving external balance

Boosted by favorable changes in international prices, Tunisia's merchandise trade deficit improved in 2023, declining to 10.8 percent of GDP from 17.5 percent in 2022. At the same time, the energy deficit widened despite more favorable prices, continuing to account for the bulk of the merchandise trade deficit. The narrowing trade deficit along with the rebounding of tourism exports lowered the current account deficit (CAD) in 2023. While the lower CAD eases the pressure on external financing needs, these remain significant, especially due to the burdensome debt service. Tunisia continues to depend on sovereign lending to finance its external needs, as it cannot access international capital markets, and Foreign Direct Investment (FDI) and portfolio flows remain limited. These limited capital inflows are consistent with a high degree of controls on capital outflows, which the government is currently planning to revise.

Tunisia's increasing reliance on domestic sources to fill the external financing gap may put pressure on the Dinar, on prices, and on the domestic banking system

With declining external financing, the government has turned increasingly to monetary financing to cover external needs, notably through the use of foreign reserves from the Central Bank. While both the Dinar and foreign reserves have proven resilient so far, the continued use of monetary financing of the external needs could have adverse impacts on currency and price stability.

The reimbursement of the latest Eurobonds consolidated the recent hike in Tunisia's bond prices, which reflects the perceived reduced risk of default on public external debt to private markets in the short term. The drying up of external financing sources along with the rising public debt have resulted in the growing role of the domestic banking system (along with monetary policy) for debt financing. At the same time the sustained use of local funding to finance the public debt continues to crowd out credit to the economy.

Shortages of basic products persist amidst import compression and declining agricultural production

As external financing conditions remain tight, imports continue to be compressed particularly for those products imported by increasingly indebted state-owned enterprises (SOEs). This import compression along with the drop in domestic agriculture production translated into protracted shortages of some basic products, such as flour, dairy products, sugar, rice, and coffee.

Inflation moderated from the record levels of early 2023 but it remains elevated, particularly for food

Inflation started to moderate since the peaks of February 2023 on the back of lower global prices and weak domestic demand. Inflation is now lower than the nominal interest rate for the first time since July 2021. However, inflation is still high, particularly for food, as the drought and import compression reduced the supply in domestic food markets. The recent government measures to contain food prices focused on hoarding behavior and enhancing price controls but food inflation remains elevated. New analysis shows that most of the recent inflation episode is driven by rising profits and import prices, pointing to the important role of competition and trade policy to fight inflation.

The budget continues to be under pressure as the low growth affects tax revenues

The budget deficit was stable in 2023 (6.7 percent of GDP) following a more modest increase in tax revenues than expected, dragged by the slowdown in economic growth, and the moderate increase of public expenditures. The latter was the product of rising transfers and interest payment, moderated by relatively contained wage bill growth and stalled capital expenditures. Reversing the decline in public capital expenditures by re-orienting less productive recurrent expenditures continues to be key to revive economic growth.

We expect a moderate growth rebound in 2024-25 assuming drought conditions ease, but economic prospects remain uncertain

After the significant slowdown in 2023, we expect a moderate rebound of the economy with a 2.4 percent growth rate in 2024, and a 2.3 percent growth in 2025–26. These growth forecasts are subject to significant downside risks related to the external financing conditions, the evolution of the drought and the pace of fiscal and pro-competition reforms. Tunisia's public finance and external account will remain precarious in the absence of sufficient external financing. The financing of the deficits will require a significant scale-up of the external financing in the face of the heavy debt reimbursement schedule. If the pace of reforms and the level of financing remain sufficient, we project growth to be maintained over the medium run along with some stabilization of the macro and fiscal imbalances.

Accelerating the transition of the power sector to renewable energy could help address Tunisia's macro-fiscal challenges and boost the economy

As Tunisia's macro-fiscal challenges deepen, the government's target of generating 35 percent of energy from renewable sources by 2030 becomes even more important. The country has grown more dependent on fossil fuel imports, which undermine the sustainability of the current account. Eventually, if this dependence were to continue, Tunisia's current account deficit and financing conditions may limit its ability to import the energy it needs to meet its growing demand, thus stifling economic activity. This dependence on fossil fuels weighs heavily also on the fiscal balance given the high costs of fossil energy generation. By increasing the demand for energy, global warming is exacerbating the challenges of energy dependence and undermining the security of energy supply.

In fact, Tunisia's energy sector does not have to depend on fossil fuels as the country has a rich untapped renewable energy potential. Renewable energy could significantly reduce the cost of electricity production especially in the context of high and volatile international energy prices. Exploiting Tunisia's renewable energy potential is even more important in light of the ongoing development of the electric connection between Tunisia and Italy. The recent World Bank's Tunisia Climate Change and Development Report (CCDR) shows that renewable energy generation is projected to play a dominant role in power generation in Tunisia as it is the least cost energy source. The benefits of expanding renewable energy production would extend to the whole of economy, with significant gains in terms of economic growth already by 2030.

The CCDR estimates large investment needs to enable this green energy transition (around US$ 27–35 billion by 2050). The bulk of these investments are expected to be covered by the private sector given the significant cost advantage of renewables over fossil fuel in Tunisia. However, an adequate regulatory framework should be in place to favor such investments. Strengthening the regulatory framework would also accelerate Tunisia's ambitious renewable energy development program, which would move the country closer to its 2030 renewable target.

RÉSUMÉ EXÉCUTIF

La reprise économique — déjà limitée — de la Tunisie s'est fortement ralentie en 2023 dans un contexte de sécheresse sévère, de conditions de financement strictes et d'un rythme de réformes peu soutenu.

La reprise économique — déjà limitée — de la Tunisie s'est ralentie en 2023, dans un contexte de grave sécheresse, de conditions de financement strictes et un avancement peu soutenu de la mise en œuvre des réformes. Avec ce ralentissement, l'économie tunisienne en 2023 était encore en dessous de son niveau d'avant Covid, marquant l'une des reprises les plus lentes de la région du Moyen-Orient et de l'Afrique du Nord. L'agriculture a été le principal frein à la croissance économique en 2023, avec un déclin de 11 pour cent alors que la sécheresse a contraint le gouvernement à introduire des restrictions à l'irrigation. Ce contexte met en évidence l'urgence pour la Tunisie de s'adapter au changement climatique. Par ailleurs, la faiblesse de la demande intérieure et l'assainissement budgétaire, semblent avoir contribué à aggraver les pertes liées à la sécheresse. En effet, le déclin des secteurs de la construction et du commerce semble avoir annulé une partie des gains réalisés sur les marchés d'exportation, en particulier dans le tourisme. Le ralentissement de la croissance – en particulier dans les secteurs à forte intensité de main-d'œuvre – s'est traduit par une hausse du chômage et une baisse du taux de participation au marché du travail.

Le ralentissement de la croissance amplifie les défis auxquels la Tunisie est confrontée pour couvrir ses besoins de financement extérieur, qui demeurent importants malgré une amélioration du solde de la balance courante.

Stimulé par l'évolution favorable des prix internationaux, le déficit commercial de la Tunisie s'est amélioré en 2023, passant à 10,8 pour cent du PIB contre 17,5 pour cent en 2022. Alors que sur la même période, le déficit énergétique s'est creusé malgré des prix plus favorables, continuant de représenter l'essentiel du déficit commercial. L'amélioration du déficit commercial ainsi que le rebond des exportations touristiques ont réduit le déficit du compte courant (DCC) en 2023. Même si la baisse du DCC atténue la pression sur les besoins de financement extérieur, ceux-ci restent importants, notamment en raison de l'importance du service de la dette. La Tunisie continue de dépendre des prêts souverains pour financer ses besoins extérieurs, car elle ne peut accéder aux marchés de capitaux internationaux sachant que les investissements directs étrangers (IDE) et les flux de portefeuille demeurent limités. Ces entrées limitées de capitaux sont en cohérence avec le degré élevé de contrôle des sorties de capitaux, que le gouvernement prévoit actuellement de réviser.

La dépendance croissante de la Tunisie à l'égard des sources de financement intérieures pour combler le déficit de financement extérieur pourrait exercer une pression sur la valeur du dinar, sur les prix et sur le système bancaire national.

Face à la diminution des financements extérieurs, le gouvernement s'est tourné principalement vers le financement monétaire pour couvrir les besoins extérieurs, en utilisant les réserves de change de la Banque Centrale. Même si le dinar et les réserves de change ont jusqu'à présent fait preuve de résilience, le recours continu au financement monétaire pour répondre aux besoins extérieurs pourrait avoir des effets négatifs sur la stabilité de la monnaie et des prix.

Le remboursement des dernières euro-obligations a consolidé la récente hausse des prix des obligations tunisiennes, qui reflète la perception d'un risque réduit de défaut sur la dette extérieure publique envers les marchés privés. Le tarissement des sources de financement externes ainsi que l'augmentation de la dette publique ont amené les autorités à plus solliciter le système bancaire national (en conjonction avec la politique monétaire) dans le financement de la dette. Alors que, le recours soutenu aux financements locaux pour financer la dette publique continue d'évincer les crédits à l'économie.

Les pénuries de certains produits de base persistent dans un contexte de compression des importations et de baisse de la production agricole

Alors que les conditions de financement extérieur restent serrées, les importations continuent d'être comprimées, en particulier pour les produits importés par des entreprises publiques (EP) de plus en plus endettées. Cette compression des importations, conjuguée à la baisse de la production agricole nationale, s'est traduite par des pénuries prolongées de certains produits de base, tels que la farine, les produits laitiers, le sucre, le riz et le café.

L'inflation s'est atténuée par rapport aux niveaux records du début 2023, mais elle demeure élevée, en particulier dans le secteur alimentaire.

L'inflation a commencé à ralentir depuis les sommets atteints en février 2023, en raison de la baisse des prix mondiaux et une demande intérieure limitée. L'inflation est désormais inférieure au taux d'intérêt nominal pour la première fois depuis juillet 2021. Cependant, l'inflation reste élevée, en particulier dans le secteur alimentaire, car la sécheresse et la compression des importations ont réduit l'offre sur les marchés alimentaires intérieurs. Les récentes mesures gouvernementales visant à contenir les prix des produits alimentaires se sont concentrées sur la lutte contre la monopolisation et le renforcement du contrôle des prix, mais l'inflation des produits alimentaires reste élevée. Une nouvelle analyse par la Banque Mondiale montre que l'essentiel du récent épisode d'inflation est dû à la hausse des bénéfices et des prix des importations, soulignant le rôle important de la concurrence et de la politique commerciale dans la lutte contre l'inflation.

Le budget reste sous pression car la faible croissance affecte les recettes fiscales

Le déficit budgétaire est resté stable en 2023 (6,7 pour cent du PIB) suite à une augmentation des recettes fiscales plus modeste que prévu, entraînée par le ralentissement de la croissance économique et l'évolution modérée des dépenses publiques. Cette dernière est la résultante de la hausse des transferts et des paiements d'intérêts, mais qui est atténuée par une croissance relativement contenue de la masse salariale et par une stagnation des dépenses d'investissement. Inverser la baisse des dépenses publiques d'investissement en réorientant les dépenses récurrentes moins productives reste essentiel pour relancer la croissance économique.

Nous prévoyons un rebond modéré de la croissance en 2024-26, en supposant que les conditions de sécheresse s'atténuent, mais les perspectives économiques restent incertaines.

Après le ralentissement significatif de 2023, nous prévoyons un rebond modéré de l'économie avec un taux de croissance de 2,4 pour cent en 2024 et de 2,3 pour cent en 2025-26. Ces prévisions de croissance sont soumises à des risques baissiers importants liés aux conditions de financement extérieur, à l'évolution de la sécheresse et au rythme des réformes budgétaires et pro-concurrentielles. Les finances publiques et l'équilibre extérieur de la Tunisie resteront précaires en l'absence de financement extérieur suffisant. Le financement des déficits nécessitera une augmentation significative du financement extérieur face au lourd calendrier de remboursement de la dette. Si le rythme de mise en œuvre des réformes et le niveau de financement sont suffisants, nous prévoyons un maintien de la croissance à moyen terme ainsi qu'une certaine stabilisation des déséquilibres macroéconomiques et budgétaires.

Accélérer la transition du secteur électrique vers les énergies renouvelables pourrait aider à relever les défis macro-budgétaires de la Tunisie et à stimuler l'économie.

Au fur et à mesure que les défis macro-budgétaires de la Tunisie s'accentuent, l'objectif du gouvernement de produire 35 pour cent d'énergie à partir de sources d'énergie renouvelable d'ici 2030 devient encore plus important. Le pays est devenu plus dépendant des importations de combustibles fossiles, ce qui compromet la viabilité du compte courant. À terme, si la dépendance aux combustibles fossiles se poursuit, le déficit du compte courant de la Tunisie et les conditions de financement pourraient limiter sa capacité à importer l'énergie dont elle a besoin pour répondre à la demande croissante, étouffant ainsi l'activité économique. Cette dépendance aux combustibles fossiles pèse également lourdement sur l'équilibre budgétaire étant donné les coûts élevés de la production d'énergie fossile. En augmentant la demande d'énergie, le réchauffement climatique exacerbe les défis de la dépendance énergétique et compromet la sécurité de l'approvisionnement énergétique.

En fait, le secteur énergétique tunisien pourrait ne plus dépendre des combustibles fossiles car le pays dispose d'un riche potentiel d'énergies renouvelables inexploité. Les énergies renouvelables pourraient réduire considérablement le coût de la production d'électricité, en particulier dans le contexte de prix internationaux de l'énergie élevés et volatils. L'exploitation du potentiel d'énergies renouvelables de la Tunisie est encore plus importante à la lumière du développement en cours de la connexion électrique entre la Tunisie et l'Italie. Le récent Rapport sur le Climat et le Développement en Tunisie (CCDR) de la Banque mondiale montre que la production d'énergie renouvelable devrait jouer un rôle dominant dans la production d'électricité en Tunisie, car il s'agit de la source d'énergie la moins coûteuse. Les avantages de l'expansion de la production d'énergies renouvelables s'étendraient à l'ensemble de l'économie, avec des gains significatifs en termes de croissance économique dès 2030.

Le CCDR estime que d'importants investissements seront nécessaires pour permettre cette transition énergétique verte (environ 27 à 35 milliards de dollars américains d'ici 2050). La majeure partie de ces investissements pourrait être couverte par le secteur privé étant donné l'avantage significatif en termes de coûts par rapport aux combustibles fossiles en Tunisie. Cependant, un cadre réglementaire adéquat devrait être mis en place pour favoriser de tels investissements. Le renforcement du cadre réglementaire accélérerait également l'ambitieux programme de développement des énergies renouvelables de la Tunisie, ce qui rapprocherait le pays de son objectif de 2030 en matière d'énergies renouvelables.

موجز تنفيذي

تعثّر الانتعاش الاقتصادي المتواضع في تونس بشكل مفاجئ في عام 2023 وسط جفاف شديد، ظروف تمويل ضيقة ووتيرة منخفضة من الإصلاحات

كاد الانتعـاش الاقتصـادي المتواضـع في تونـس أن يتوقـف في عـام 2023، وسـط جفـاف شـديد، وظـروف تمويـل ضيقـة، ووتـيرة منخفضـة لتنفيـذ الإصلاحـات. أدّى هـذا التباطـؤ إلى جعـل الاقتصـاد التونـسي في عـام 2023 أقـل مـن مسـتواه قبـل جائحـة كوفيـد، مسـجلا واحـدا مـن أبطـأ حـالات الانتعـاش في منطقـة الـشرق الأوسـط وشـمال أفريقيـا. وانخفـض نمـو القطـاع الفلاحـي، وهـو السـبب الرئيـسي لهـذا التباطـؤ الاقتصـادي في عـام 2023، بنسـبة 11 في المائـة، مـما أجـبر الحكومـة عـلى فـرض قيـود عـلى الـري، وهـو مـا يؤكـد عـلى الحاجـة الملحـة لتونـس للتكيـف مـع تغـير المنـاخ. كـما أن ضعـف الطلـب المحـلي وضبـط الأوضـاع الماليـة العامـة قـد أديـا إلى زيـادة الخسـائر المتصلـة بالجفـاف، حيـث أضر الانخفـاض في قطاعـي البنـاء والتجـارة ببعـض المكاسـب التي تحققـت مـن أسـواق التصديـر، لا سـيما السـياحة. وقـد ترجـم تباطـؤ النمـو - وخاصـة في القطاعـات كثيفـة العـمال - إلى ارتفـاع معـدلات البطالـة وانخفـاض نسـبة المشـاركة في سـوق الشـغل.

يضاعف تباطؤ النمو من التحديات التي تواجهها تونس في تغطية احتياجاتها الكبيرة من التمويل الخارجي على الرغم من تحسن التوازنات الخارجيّة

تحسـن العجـز التجـاري في تونـس في عـام 2023، وذلـك بفضـل التغـيرات المناسـبة للأسـعار الدوليـة، ، حيـث انخفـض إلى 10.8 في المائـة من اجمالي الناتـج المحـلي مـن 17.5 في المائـة في عـام 2022. وفي الوقـت نفسـه، اتسـع العجـز في الطاقـي عـلى الرغـم مـن التطـور الملائـم للأسـعار، وظـل يمثـل الجـزء الأكـبر مـن العجـز التجـاري. أدى تحسـن العجـز التجـاري، إلى جانـب انتعـاش الصـادرات السـياحية، إلى خفـض عجـز الحسـاب الجـاري في عـام 2023. في حـين أن انخفـاض الـدولار يخفـف الضغـط عـلى احتياجـات التمويـل الخارجـي الكبـيرة، خاصـة بسـبب خدمـة الديـون الثقيلـة. لا تـزال تونـس تعتمـد عـلى الإقـراض السـيادي لتمويـل احتياجاتهـا الخارجيـة، حيـث لا يمكنهـا النفـاذ إلى الأسـواق الماليـة الدوليـة، ولا يـزال الاسـتثمار الأجنبـي المبـاشر والإسـتثمارات في السـوق الماليـة محـدودة. جـزء هـام مـن الاسـتثمارات المحـدودة في السـوق الماليـة يرجـع إلى درجـة عاليـة مـن الضوابـط عـلى تدفقـات رأس المـال مـن الخـارج ، والتـي تخطـط الحكومـة حاليـا لمراجعتهـا.

إن اعتماد تونس المتزايد على المصادر المحلية لسد فجوة التمويل الخارجي قد يضع ضغوطا على الدينار والأسعار والنظام المصرفي المحلي

مـع تراجـع التمويـل الخارجـي، تحولـت الحكومـة بشـكل متزايـد إلى التمويـل النقـدي لتغطيـة الاحتياجـات الخارجيـة، لا سـيما مـن خـلال اسـتخدام احتياطيـات البنـك المركـزي مـن العملـة الأجنبيـة. وفي حـين أثبـت كل مـن الدينـار والاحتياطيـات الأجنبيـة صمـودا حتـى الآن، فـإن اسـتمرار اسـتخدام التمويـل النقـدي للاحتياجـات الخارجيـة يمكـن أن يكـون لـه آثـار سـلبية عـلى اسـتقرار العملـة والأسـعار.

وقـد عـزز آخـر سـداد سـندات اليـورو الارتفـاع الأخـير في أسـعار السـندات التونسـية، مـما يعكـس الانخفـاض الملحـوظ في مخاطر التخلـف عـن سـداد الديـون الخارجيـة العامـة إلى الأسـواق الخاصـة عـلى المـدى القصـير. وقـد أدى نضـوب مصـادر التمويـل الخارجيـة إلى جانـب ارتفـاع الديـن العـام إلى تنامـي دور النظـام المـصرفي المحـلي (إلى جانـب السياسـة النقديـة) في تمويـل الديـون. وفي الوقـت نفسـه، لا يـزال الاسـتخدام المسـتدام للتمويـل المحـلي لتمويـل الديـن العـام يزاحـم الاسـتثمارات المقدمـة إلى الاقتصـاد.

لا يزال النقص في المنتجات الأساسية قائما في ظل تقلص الواردات وانخفاض الإنتاج الفلاحي

ومـع اسـتمرار ضيـق شروط التمويـل الخارجـي، لا تـزال الـواردات مضغوطـة، لا سـيما بالنسبـة للمنتجات المسـتوردة مـن قبـل الـشركات العموميـة التـي تـزداد مديونيتهـا .هـذا الضغـط عـلى الـواردات جنبـا إلى جنـب مـع انخفـاض الإنتـاج الزراعـي المحـلي ترجـم إلى نقـص طويـل الأمـد في بعـض المنتجـات الأساسـية؛ مثـل الدقيـق ومنتجـات الألبـان والسـكر والأرز والـبن.

تراجع التضخم عن المستويات القياسية في أوائل عام 2023، لكنه لا يزال مرتفعا، لا سيما بالنسبة للأغذية

بـدأ التضخـم في الانخفـاض منـذ أعـلى مسـتوياته في فبرايـر 2023 عـلى خلفيـة انخفـاض الأسـعار العالميـة وضعـف الطلـب المحـلي. التضخـم الآن أقـل مـن سـعر الفائـدة الاسـمي لأول مـرة منـذ يوليـو 2021. ومـع ذلـك، لا يـزال التضخـم مرتفعـا، ولا سـيما بالنسـبة للأغذيـة، حيـث أدى الجفاف وانخفـاض الـواردات إلى شـح المعروضـات في أسـواق الأغذيـة المحليـة. وركـزت التدابـير الحكوميـة الأخـيرة لاحتـواء أسـعار المـواد الغذائيـة عـلى سـلوك الإحتـكار وتعزيـز مراقبـة الأسـعار، لكـن التضخـم الغـذائي لا يـزال مرتفعـا. يظهـر تحليـل جديـد للبنـك الـدولي أن معظـم حلقـة التضخـم الأخـيرة مدفوعـة بارتفـاع الأربـاح وأسـعار الـواردات، مشـيرا إلى الـدور المهـم لسياسـات المنافسـة والتجـارة في مكافحـة التضخـم.

ولا تزال الميزانية تتعرض لضغوط لأن النمو المنخفض يؤثر على المداخيل الجبائية

كان عجـز الميزانيـة مسـتقرا في عـام 2023 (6.7 في المائـة مـن إجـمالي الناتـج المحـلي) بعـد زيـادة متواضعـة في المداخيـل الجبائيـة المتوقّعـة، بسـبب تباطـؤ النمـو الاقتصـادي، والزيـادة المعتدلـة في النفقـات العامة. وكان هـذا الأخـير نتـاج زيـادة التحويـلات ودفـع الفوائـد، التـي أدارهـا نمـو الأجـور المحتـواة نسـبيا وتوقـف نفقـات الإسـتثمار. ولا يـزال عكـس اتجـاه الانخفـاض في نفقـات الإسـتثمار العموميـة عـن طريـق إعـادة توجيـه النفقـات الأقـل إنتاجيـة عامـلا أساسـيا لإنعـاش النمـو الاقتصـادي.

نتوقع انتعاشا معتدلا للنمو في عامي 2024–25 بافتراض تخفف ظروف الجفاف، لكن التوقعات الاقتصادية لا تزال غير مؤكدة

وبعـد التباطـؤ الكبـير في عـام 2023، نتوقـع انتعاشـا معتـدلا للاقتصـاد بمعـدل نمـو قـدره 2.4 في المائـة في عـام 2024، ونمـو بنسـبة 2.3 في المائـة في الفـترة 2025-26. وتخضـع توقعـات النمـو هـذه لمخاطـر كبـيرة تتصـل بظـروف التمويـل الخارجـي، وتطـور الجفـاف، ووتـيرة الإصلاحـات الماليـة والإصلاحـات الداعمـة للمنافسـة. سـتظل الماليـة العامـة والحسـاب الخارجـي في تونـس غـير مسـتقرين في غيـاب التمويـل الخارجـي الـكافي. وسـيتطلب تمويـل العجـز زيـادة كبـيرة في التمويـل الخارجـي في مواجهـة جـدول سـداد الديـون الثقيـل. وإذا ظلـت وتـيرة الإصلاحـات ومسـتوى التمويـل كافيـين، فإننـا نتوقـع الحفـاظ عـلى النمـو عـلى المـدى المتوسـط إلى جانـب بعـض الاسـتقرار في الاختـلالات الكليـة والماليـة.

من شأن تسريع عملية انتقال قطاع الطاقة إلى الطاقة المتجددة أن يساعد في معالجة التحديات المالية في تونس وتعزيز الاقتصاد

ومـع تعمـق التحديـات الماليـة في تونـس، يصبـح هـدف الحكومـة المتمثـل في توليـد 35 في المائـة مـن الطاقـة مـن مصـادر متجـددة بحلـول عـام 2030 أكـثر أهميـة. أصبحـت البـلاد أكـثر اعتـمادا عـلى واردات الطاقـة الأحفوريـة، مـما يقـوض اسـتدامة الحسـاب الجـاري. وفي نهايـة المطـاف، قـد يحـد عجـز الحسـاب الجـاري وظـروف التمويـل في تونـس مـن قدرتهـا عـلى اسـتيراد الطاقـة التـي تحتاجهـا لتلبيـة الطلـب المتزايـد عليهـا، وبالتـالي خنـق النشـاط الاقتصـادي. هـذا الاعتـماد عـلى الوقـود الأحفـوري يؤثـر بشـكل كبـير أيضـا عـلى التـوازن المـالي نظـرا لارتفـاع تكاليـف توليـد الطاقـة الأحفوريـة. ومـن خـلال زيـادة الطلـب عـلى الطاقـة، يـؤدي الاحتبـاس الحـراري العالمـي إلى تفاقـم تحديـات الاعتـماد عـلى الطاقـة وتقويـض أمـن إمـدادات الطاقـة.

وبالفعـل، لم يعـد بإمـكان قطـاع الطاقـة في تونـس الاعتـماد عـلى أنـواع الوقـود الأحفـوري، حيـث تمتلـك البـلاد إمكانـات وافـرة مـن الطاقـة المتجـددة غـير المسـتغلة. ويمكـن للطاقـات المتجـددة أن تقلـل إلى حـد كبـير مـن تكلفـة إنتـاج الكهربـاء، لا سـيما في سـياق أسـعار الطاقـة الدوليـة المرتفعـة والمتقلبـة. ويكتسـب اسـتغلال إمكانـات تونـس في مجـال الطاقـة المتجـددة أهميـة أكـبر في ضـوء التطـورات الجاريـة لمـشروع الربـط الكهربـائي بـين تونـس وإيطاليـا. ويُظهـر تقريـر البنـك الـدولي الأخـير حـول المنـاخ والتنميـة في تونـس أن توليـد الطاقـة المتجـددة مرشـح للعـب دور أسـاسي في توليـد الكهربـاء في تونـس، حيـث أنهـا تعتـبر أرخـص مصـدر للطاقـة. وسـتنتشر فوائـد التوسـع في إنتـاج الطاقـة المتجـددة في جميـع أنحـاء الاقتصـاد، مـع تحقيـق مكاسـب كبـيرة في النمـو الاقتصـادي في وقـت مبكـر بحلـول عـام 2030.

ويقـدّر تقريـر المنـاخ والتنميـة في تونـس الحاجـة إلى اسـتثمارات كبـيرة لتحقيـق هـذا التحـول الطاقـي الأخـضر تقـدّر بحـوالي 27 إلى 35 مليـار دولار أمريـكي بحلـول عـام 2050. ويمكـن تغطيـة معظـم هـذه الاسـتثمارات مـن قبـل القطـاع الخـاص، نظـراً للميـزة الكبـيرة مـن حيـث التكلفـة مقارنـة بالوقـود الأحفـوري في تونـس. ومـع ذلـك، سـيتعين وضـع إطـار تنظيمـي مناسـب لتشـجيع هـذه الاسـتثمارات. تعزيـز هـذا الإطـار التنظيمـي مـن شـأنه أيضـاً أن يـسرّع برنامـج تونـس الطمـوح لتطويـر الطاقـة المتجـددة في تونـس، مـما يقـرب البـلاد مـن تحقيـق هدفهـا في هـذا المجـال لعـام 2030.

PART A

RECENT ECONOMIC DEVELOPMENTS

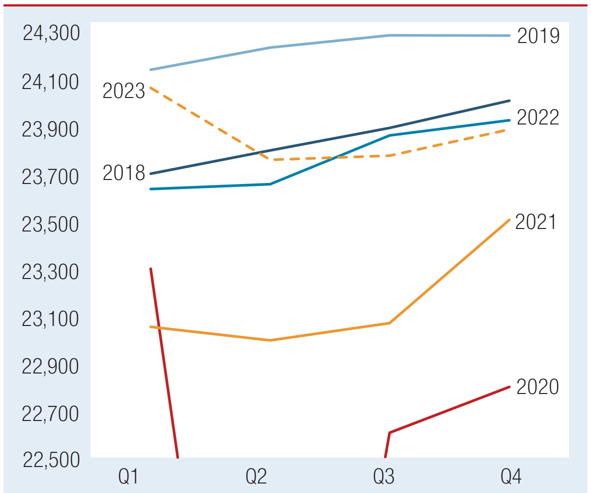
1. Tunisia's already modest economic recovery came to an abrupt halt in 2023 amidst a severe drought, tight financing conditions, and the modest pace of reform

Tunisia's already modest economic recovery almost halted in 2023, amidst a severe drought, tight financing conditions, and the modest pace of implementing reforms. The economy grew by 0.4 percent in real terms during 2023, with a significant deterioration since the second quarter linked to the effects of the drought (figure 1). The 4th consecutive year of below than average rainfall led the government to ration water usage since March. This negative shock has compounded a difficult recovery, marred by tight external financing and continued regulatory barriers to growth, such as authorizations to access many sectors, strict and discretionary controls on foreign exchange and regulatory capture of incumbents, which have not yet been addressed by reforms (see the 2022 and 2023 issues of the Tunisia Economic Monitor). This performance has widened the gap in post-Covid economic growth vis-à-vis Tunisia's peers in the region (figure 2). In 2023 Tunisia was the only country among its regional peers with real GDP still below pre-pandemic level.

Agriculture was the main driver of the 2023 economic slowdown, as the drought exposed the deficiencies of a sector that needs to adapt to climate change. The lack of rainfall throughout 2023 aggravated the dry conditions prevailing in Tunisia over the previous 4 years, forcing the government to introduce irrigation restrictions since March. This resulted in reduced harvest and a significant loss of production. That is the case for instance for wheat, which is one of the key staples in Tunisians' diet. The dry conditions precipitated the production losses, as the bulk of cereal production is rainfed. Hence, domestic cereal production in 2023 dropped by 61 percent compared to 2022, reaching just over 22 percent of the level in 2019.[1] As a result, in 2023 agricultural value added fell by 11 percent in real terms, aggravating the declining trend since 2019 (figure 3). Had agriculture and agro-industry grown at the (modest) rate of 2022 (1.7 percent), the economy would have expanded by 1.8 percent in 2023, slightly below the 2022 rate (2.6 percent). As rainfall conditions are expected to deteriorate further in the future because

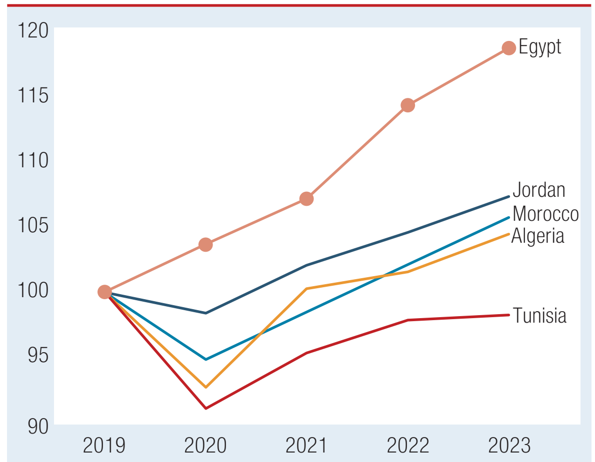
[1] That is based on sales data from OdC.

FIGURE 1 • Tunisia's Elusive Economic Recovery *(Quarterly GDP, constant 2015 TD)*



Source: Tunisia's National Statistics Institute (INS).

FIGURE 2 • Tunisia' Economic Recovery has Been Slow *(GDP, constant prices; 2019=100)*



Source: World Bank Macro-Poverty outlooks.

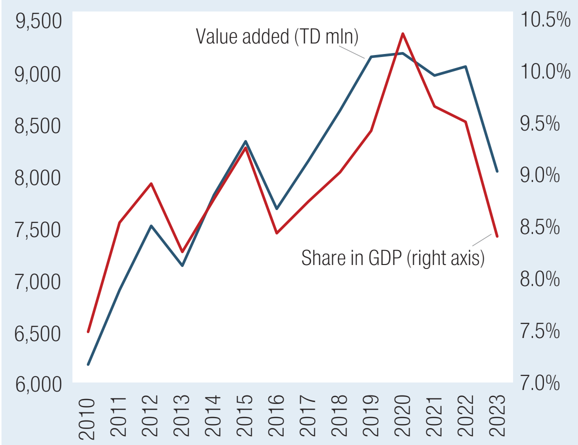
of climate change, Tunisia needs to act swiftly to ensure its food security, building the resilience of agriculture as well as the water sector as a whole. To that end, some of the priority measures include: managing water demand, promoting the use of nature-based solutions, expanding non-conventional water sources, improving irrigation efficiency, increasing uptake of climate-smart practices, developing disaster risk financing and insurance.[2]

The weak domestic demand and the fiscal consolidation appear to have added to the drought-related losses, offsetting some of the gains from export markets. The compression of public wages—with the public administration sector growing only by 0.7 percent in real terms—and of public investment compounded the agriculture-related losses. These trends likely depressed domestic demand, penalizing sectors such as construction services and materials (–4.0 percent) and commerce (–0.4 percent). The former may have also been affected by some labor shortages as many sub-Saharan African workers, who had comprised a large share of construction workers, departed Tunisia in 2023 (see the Fall 2023 edition of the Tunisia Economic Monitor). The difficult international financing conditions also likely contributed to the slowdown by affecting the economy's ability to import, particularly for manufacturing sectors, which shrank by 1.1 percent in the second semester (figure 4). These factors offset the gains from export markets, including for hotels and restaurants (+12.8 percent), which benefited from the continued tourism recovery driving the overall positive contribution of services, and for mechanic and electric sectors (+ 5.8 percent).

The growth slowdown—especially in labor-intensive sectors—translated into worsening labor market outcomes. As labor-intensive sectors (i.e., agriculture and construction) were particularly hit by the slowdown, unemployment grew to 16.4 percent in Q4 2023 up from 15.8 percent in the previous quarter and 15.2 percent a year earlier. This was the third consecutive quarter of year-on-year increases in the unemployment rate, reversing the declining post-Covid trend (figure 5). Additionally, the labor force participation rate continued the decline that had started during the Covid period, suggesting persistent growth in the number of discouraged workers. The average participation rate in 2023 (45.8 percent) was 1.3 percentage point below the average pre-Covid. As a result, the net job creation relative to the previous year was negative in the second half of 2023, with over 83,000 net jobs lost in Q4 alone (figure 6). Most of the losses were for female workers, adding to the already large penalty that women experience in the Tunisian labor market, with a higher unemployment (22.2 percent versus 13.8 percent in Q4) and a lower participation rate than men (27.1 versus 65.1 percent).

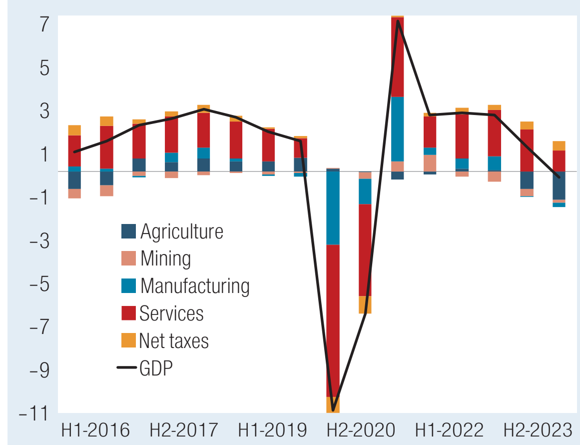
[2] See World Bank (2023) Tunisia: Climate Change and Development Report.

FIGURE 3 • Value Added in the Agricultural Sector Fell Sharply in 2023
(Agriculture value-added, TD mln constant prices and share in GDP)



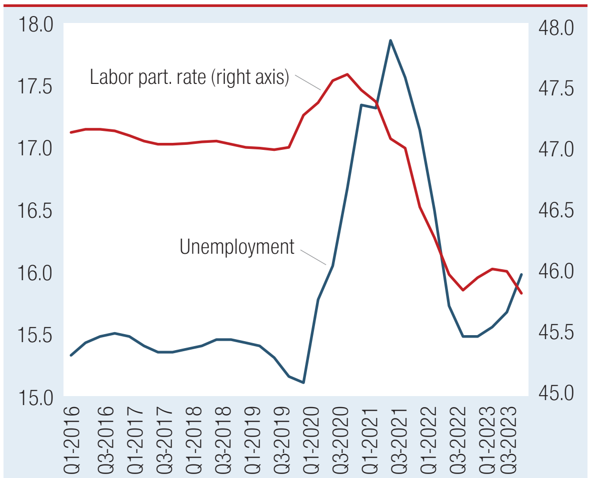
Source: INS and World Bank calculations.

FIGURE 4 • Agriculture Drove the Slow-Down in Growth in 2023
(half-yearly GDP growth by decomposed by sector)



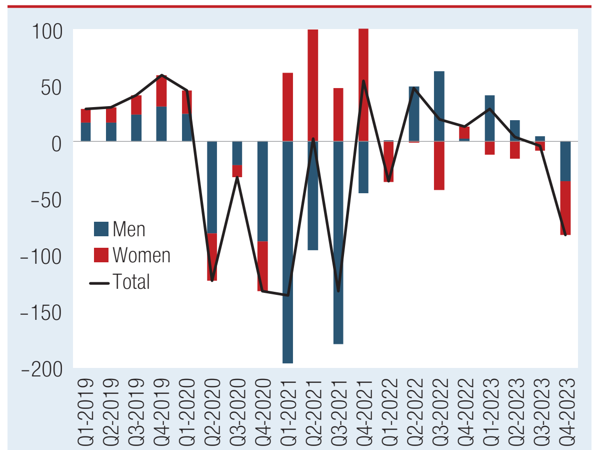
Source: INS and World Bank calculations.

FIGURE 5 • Labor Participation Down, Unemployment Up
(Percent, 4-quarter moving average)



Source: World Bank staff calculations based on INS.

FIGURE 6 • Tunisia Experienced Net Job Losses in 2023, Particularly among Women
(Quarterly year-on-year net change in jobs, '000)

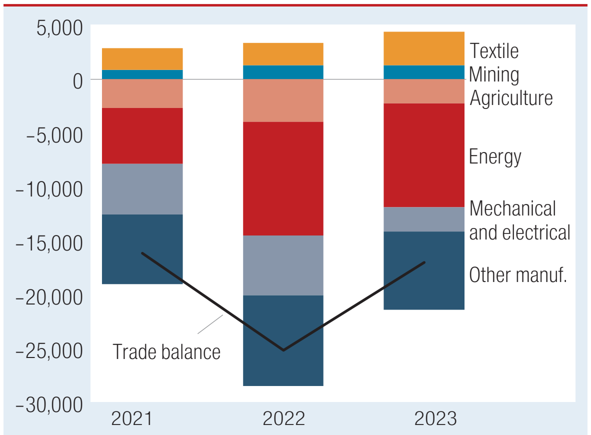


Source: World Bank staff calculations based on INS.

2. The growth slowdown amplifies the challenges Tunisia faces in covering its significant external financing needs despite the improvement in the external balance

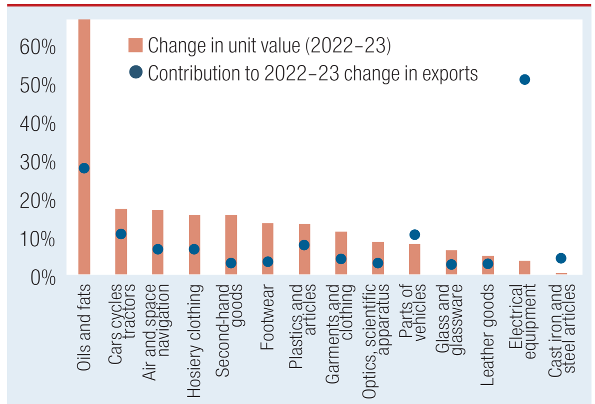
Tunisia's merchandise trade deficit improved in 2023, boosted by favorable changes in international prices. After the adverse terms of trade shock induced by the war on Ukraine in 2022, more benign global prices helped reduce the trade deficit to TD 17.1 billion in 2023 (10.8 percent of 2023 GDP) from TD 25.2 billion (17.5 percent of GDP) in 2022 (Figure 7). This reduction was driven by the shrinking trade deficit of mechanic industries and the expanding surplus of textile and garments, both of which benefited from significant increases in prices. For instance, unit values of exported electric equipment, which accounted for half of the merchandise export growth, increased year-on-year by 3.5 percent and hosiery (6.5 percent of export

FIGURE 7 • Mechanic Industries Led the Moderation of the Merchandise Trade Deficit in 2023
(trade balance by sector, TD million)



Source: World Bank staff elaboration based on INS data.
Note: Contribution to 2022–23 change in export adds to more than 100 percent as some sectors contribute negatively to export change.

FIGURE 8 • The Main Tunisian Exports Benefited from Price Hikes in 2023
(2022-23 percent change in unit value and contribution to 2022-23 change in merchandise exports)



Source: World Bank staff elaboration based on INS data.
Note: Contribution to 2022–23 change in export adds to more than 100 percent as some sectors contribute negatively to export change.

growth) by 15 percent (Figure 8). The price hike was even larger for oil and fats (+65 percent accounting for 27 percent of goods' export growth), which benefited from the tightening of the global olive oil supply. Despite a 15 percent reduction in quantities, Tunisia's oil and fats exports increased by 40 percent, contributing to a significant shrinking of the agricultural and agro-industrial trade deficit (–43 percent).

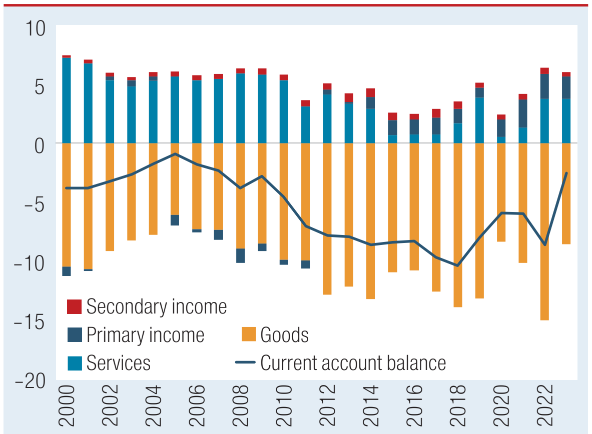
The energy deficit widened despite more favorable prices, continuing to account for the bulk of the merchandise trade deficit. As a net energy importer, Tunisia benefited from a reduction in global energy prices in early 2023 as the global impact of the Russian invasion of Ukraine dissipated. The average price of hydrocarbons imported by Tunisia declined by 14.4 percent in 2023 compared to 2022. Yet, imported quantities increased by 4 percent as Tunisia's production of oil and gas declined.[3] Thus, energy imports declined only by 10.8 percent in value. On the other hand, energy exports declined by 16.6 percent along with production. As a result, the energy trade balance deteriorated further, accounting for 56.6 percent of the merchandise trade deficit in 2023. That share has more than doubled since 2017, reflecting the delay in developing alternative sources of energy, particularly renewables (see part B).

The narrowing trade deficit along with the rebounding of tourism exports lowered the current account deficit (CAD) in 2023. The significant reduction in the merchandise deficit was accompanied by the continued recovery of tourism, which benefited from a robust summer season. Receipts grew by 28.1 percent in 2023, reaching TD 6.9 billion, or 4.4 percent of GDP up from 3.8 percent of GDP in 2022. In early 2024, there are signs of stabilization. By March 20th, tourism receipts were up 8.8 percent compared to the same period last year. In 2023, the contribution to tourism in GDP returned almost to its pre-Covid level (4.6 percent), while the total number of foreign visitors (8.1 million) was slightly higher than in 2019 (7.9 million). Tourism receipts were almost on par with remittance inflows (TD 7.3 billion or 4.6 percent of GDP), which recorded a more modest increase (+1.4 percent) but which remain a key source of foreign exchange for Tunisia. As a result, the CAD fell by two-thirds, from TD 12.4 billion in 2022 (8.6 percent of GDP) to TD 4.1 billion (2.6 percent of GDP) in 2023 (figure 9).

While the lower CAD eases the pressure on external financing needs, the latter remain significant especially due to the burdensome debt

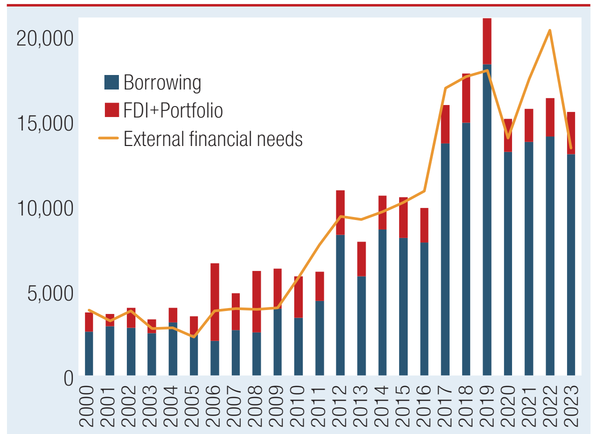
[3] In the first six months the production of oil declined by 8 percent while that of natural gas by 11 percent (source: Ministry of Industry, Mining and Energy (2023) Conjoncture Energétique, June).

FIGURE 9 • The Trade Deficit Along with Tourism Receipts Helped Reduce the Current Account Deficit
(Percent GDP)



Source: Central Bank of Tunisia.

FIGURE 10 • With Weak FDI and Portfolio Flows, Tunisia Relied on Sovereign Borrowing to Cover its External Needs
(TD million current)



Source: Central Bank of Tunisia.

service. Despite the reduced CAD, external financing needs remained significant in 2023 (TD 13.4 billion, or 8.4 percent of GDP) with amortization accounting for 70 percent of them.[4] These needs are expected to rise further to TD 16.4 billion in 2024 (9.4 percent of GDP), most of which (59 percent) again due to debt reimbursement. Securing these large needs continues to present a pressing challenge for Tunisia, further amplifying the pressure on the economy.

3. Tunisia's increasing reliance on domestic sources to fill the external financing gap raises concerns about the stability of the Dinar and of prices

In the absence of private sources of capital, Tunisia continues to depend on sovereign lending to finance its external needs amidst tight financing conditions. Tunisia depends mainly on sovereign financing to cover its external financing needs as other sources of funding are either inaccessible (international private financing)[5] or cover only a small share of the external financing needs, as is the case for foreign direct investments and portfolio flows (figure 10). Foreign sovereign financing however has been declining over the past couple of years and there are no expectations that it could cover a larger share of external financing needs in 2024 than it did in 2023, particularly in the absence of an IMF loan agreement.[6] **The draft new foreign exchange code recently submitted by the government to Parliament could address some of the restrictive capital controls which limit FDI and portfolio flows.** According to the most common indicators, Tunisia is a relatively closed economy in terms of capital controls. According to the Chinn-Ito de-jure financial openness indicator, Tunisia was ranked 116 out of a sample of 176 countries in 2021 in terms of the openness of its capital account.[7] This is consistent with a study by Fernandez et al. (2016), which classifies Tunisia as one of the 5 closed economies in terms of capital controls out of the 26 comparable economies

[4] External financing needs are defined as current account deficit + debt (public + private) reimbursement.

[5] The Tunisian government has not been able to issue foreign-denominated bonds since 2019, as its sovereign credit rating has been consistently assessed as noninvestment grade (including by Moody's, Fitch Ratings and Rating and Investment Information).

[6] In fact, the 2024 budget indicates that 71 percent of the external budget support needed to cover the external financing was not identified (versus only 37 percent in the 2023 budget).

[7] The Chinn-Ito indicator is based on Chinn, Menzie D. and Hiro Ito (2006). "What Matters for Financial Development? Capital Controls, Institutions, and Interactions," Journal of Development Economics, Volume 81, Issue 1, Pages 163–192 (October).

BOX 1: THE NEW CENTRAL BANK FINANCING FACILITY AND ITS POSSIBLE MACRO-FISCAL RISKS

On February 6, 2024, the Tunisian Parliament approved a government bill authorizing the BCT to finance the budget up to TD 7 billion in 2024, including also for the reimbursement of foreign denominated debt. The loan would bear zero interest and would be reimbursable over 10 years with a 3-year grace period. The amount is equivalent to 4 percent of GDP, a quarter of total financing needs and 42 percent of the budget external financing needs forecast by the government for 2024.

In the context of limited alternative financing sources, this facility could fund much of the external financing gap in 2024, i.e., TD 10.3 billion according to the 2024 Budget Law. That could pose some risks to the stability of the Dinar. The brief periods of reserve losses since 2020 have been associated with some depreciation of the Dinar, e.g., May-Nov 2022 (Figure 11). If the entire facility were used to fund external debt service (and reserves were not accumulated through additional external financing), reserves would decline by 27 percent, double the maximum peak-to-trough reserve loss since 2020 (Figure 12). Should the entire external financing gap be covered by reserves, the loss would be 40 percent, bringing the import coverage to only 70 days. The Dinar depreciation would also put pressure on inflation, which remains high (7.5 percent in February).

This is the second time Parliament is approving a bill for direct financing by the BCT, following the one in December 2020, when it authorized a TD 2.8 billion financing facility to cover exceptional budgetary needs due to the Covid pandemic. Using monetary financing under non-exceptional circumstances could reduce fiscal discipline. This would establish a regime of fiscal dominance over monetary policy, reducing BCT's effectiveness at controlling inflation and at maintaining financial stability.

analyzed.[8] The bulk of Tunisia's regulatory restrictions on capital are applied to outflows and dates back to the original foreign exchange code of 1976. The generally cumbersome application of these measures exacerbates the uncertainty around access to foreign exchange created by the code, thus contributing to stifle capital inflows. The government recently approved a draft new foreign exchange code, which should eventually be discussed by the Parliament. However at this stage it is unclear to what extent it will be able to strike the right balance between financial openness and capital and financial accounts stability.[9] **With shrinking sovereign financing, the government has turned to monetary financing to cover its external needs, notably through the use of foreign reserves**. The government borrowed from the domestic banking system to reimburse a Euro 500 million Eurobond last October. In February 2024 the Parliament approved a bill authorizing the BCT to finance the budget up to TD 7 billion (4 percent of GDP) in 2024, including from its foreign exchange reserves (see box 1). The loan was used a few weeks later to reimburse a Euro 850 million Eurobond (TD 2.9 billion), the largest reimbursement in 2024.

While foreign reserves and the Dinar have proven resilient so far, the continued use of monetary financing of the external needs could have adverse impacts on currency and price stability. The recent use of reserves to reimburse foreign denominated bonds decreased their level to TD 23.3 billion (US$ 7.5 billion) as of the end of March, the lowest level since July 2023, and considerably lower than the peak of October 2023 (TD 26.8 billion, or US$ 8.6 billion). This level of reserves still provides sufficient buffer vis-à-vis imports (108 days of coverage) and short-term external debt repayment, which helps explain why the Dinar has remained stable in the face of the large Eurobond reimbursements (Figure 11). However, the continued use of monetary financing could significantly erode reserves already in 2024 (figure 12), posing risks to currency and price stability (box 1).

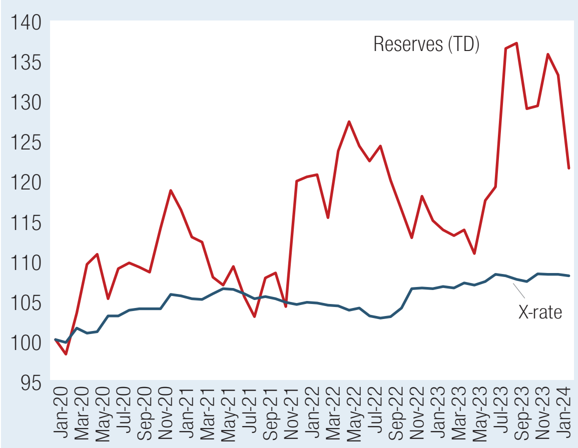
4. The rising role of domestic financing of the public debt heightens the pressure on the domestic banking system

The reimbursement of the latest Eurobonds consolidated the recent hike in Tunisia's bond prices,

8 See Fernandez, Andres, Michael Klein, Alessandro Rebucci, Martin Schindler, and Martin Uribe, ''Capital Control Measures: A New Dataset,'' IMF Economic Review 64, 2016, 548–574.

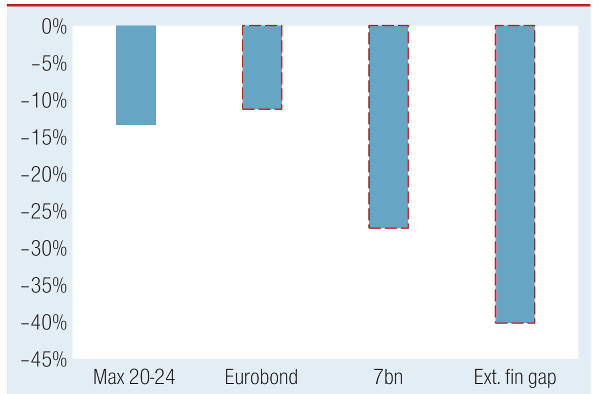
9 Potentially important measures included in the revised code comprise a review of the notion of residency for investors, the freedom to open foreign currency accounts for exporters, and the possibility of opening accounts that enable sales on online platforms.

FIGURE 11 • Rising Reserves, Stable Dinar
(Foreign exchange reserves in TD and EUR-TD X-rate, Jan 2020=100)



Source: World Bank staff estimation based on Central Bank of Tunisia data. Scenarios in Figure 12 of the extent of possible drop in foreign reserves in 2024: Max 20–24: the maximum drop in the period 2020–24; Eurobond: value of Eurobond reimbursement; 7bn: value of the entire Central Bank facility (TD 7 billion); Ext. fin. gap: value of the external financing gap identified in the 2024 budget.

FIGURE 12 • The Large Potential for Reserve Losses in 2024
(% change in forex reserves in 2024 in different scenarios, compared to maximum loss in 2020-24)



Source: World Bank staff estimation based on Central Bank of Tunisia data. Scenarios in Figure 12 of the extent of possible drop in foreign reserves in 2024: Max 20–24: the maximum drop in the period 2020–24; Eurobond: value of Eurobond reimbursement; 7bn: value of the entire Central Bank facility (TD 7 billion); Ext. fin. gap: value of the external financing gap identified in the 2024 budget.

reflecting the perceived reduced risk of default on public external debt to private markets. By early March 2024, two weeks after the repayment of the February Eurobond, Tunisia's US$ denominated bonds maturing in 2025 were trading at 93 percent of their issuance price. That is their highest level since July 2021, marking a rebound of 80 percent from their lowest price in May 2023. This jump reflects the increased trust in Tunisia's ability to repay its external public debt to capital markets given its shrinking level. As Tunisia has been unable to borrow from international capital markets since 2019, the share of private creditors in both total public debt and public external debt is the lowest in decades (Figure 13). And the level of foreign reserves (US$ 7.4 bn) would be sufficient to cover the external debt to capital markets, which was around US$ 3.0 billion as of February 2024.

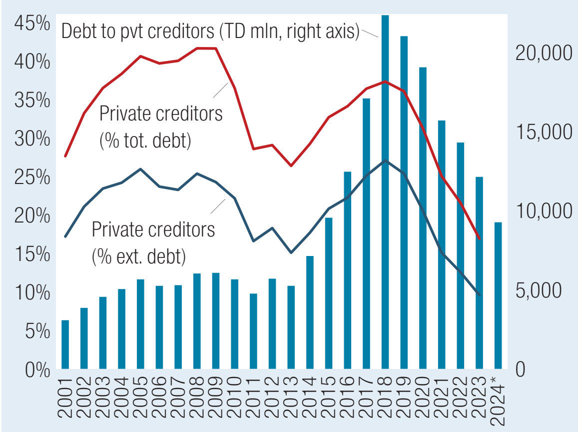
The drying up of external financing sources along with the rising public debt have resulted in the growing role of the domestic banking system for debt financing. The challenging external financing environment has translated into the slow growth of the nominal external debt stock over the past few years (Figure 14). In parallel, public debt grew rapidly (from 66.9 percent to 80.2 percent of GDP between 2017 and 2023), reflecting rising public expenditures and the deceleration of the economy.[10] As a result, Tunisia has increasingly tapped into local markets as a financing source so that the share of external debt in total debt decreased from 73 (2018) to 57 percent (2023) (figure 14). This domestic financing necessitated a high level of refinancing to local banks by the Central Bank.[11]

The sustained use of local funding to finance public debt continues to crowd out credit to the economy. The injection of liquidity through refinancing operations is directing bank liquidity towards government lending, which is likely to crowd out credit to the rest of the economy. The banking sector's exposure to the State continues to grow at an annual rate of more than 17 percent, while the share of loans to

[10] The debt figure covers only the central government's but not SOEs' debt, much of which is guaranteed by the State as well as payment arrears to public and private companies.

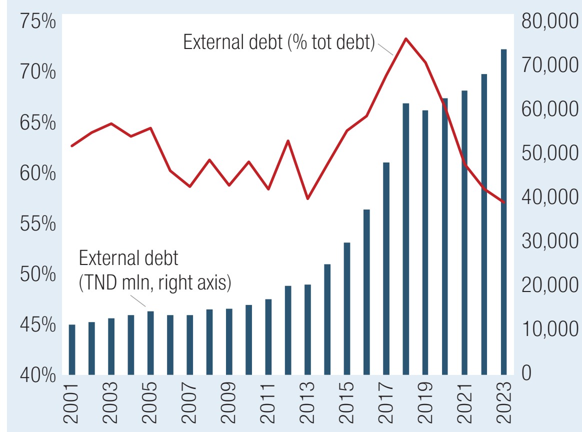
[11] Refinancing consists of the Central Bank lending money to banks with liquidity needs, generally short-term. They are carried out on the initiative of central banks (through tenders) or banks (lending facilities). While refinancing is associated with money creation, the relation is not one-to-one as it depends on the terms of the reimbursement and the loan maturities.

FIGURE 13 • The Rapid Decline of Private Capital Markets in Tunisia's Debt Financing *(external debt to private creditors, % tot debt, % external debt and TD mln)*



Source: World Bank staff estimation based on Ministry of Finance data.
* Up to February.

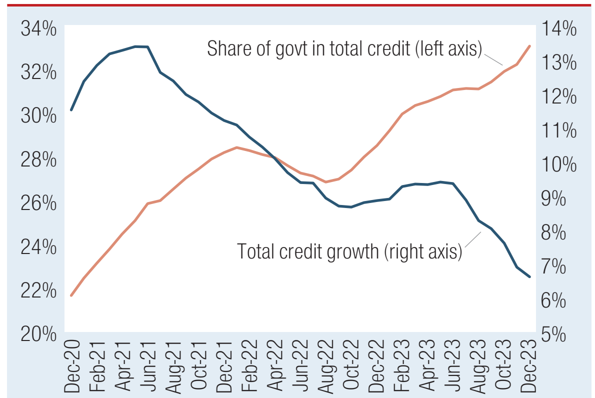
FIGURE 14 • Tunisia Increasingly Relies on Domestic Financing of the Debt *(external debt, % of total debt and TD mln)*



Source: World Bank staff estimation based on Ministry of Finance data.

the economy is decreasing with a growth rate of 3 percent. As a result, the share of central government in total claims of the banking sector increased from an average of 14.4 percent in 2015 to 32 percent in 2023 (Figure 15). In a context of limited credit growth, this pattern has displaced credit to the rest of the economy. And this pattern does not account for the crowding out of the rising credit to SOEs vis-à-vis private credit (see Tunisian Economic Monitor, Fall 2023 edition).

FIGURE 15 • The Share of Net Government Receivables in Total Credits Continues to Increase as Credit Growth Falters *(year-on-year percent increase, six month moving average)*



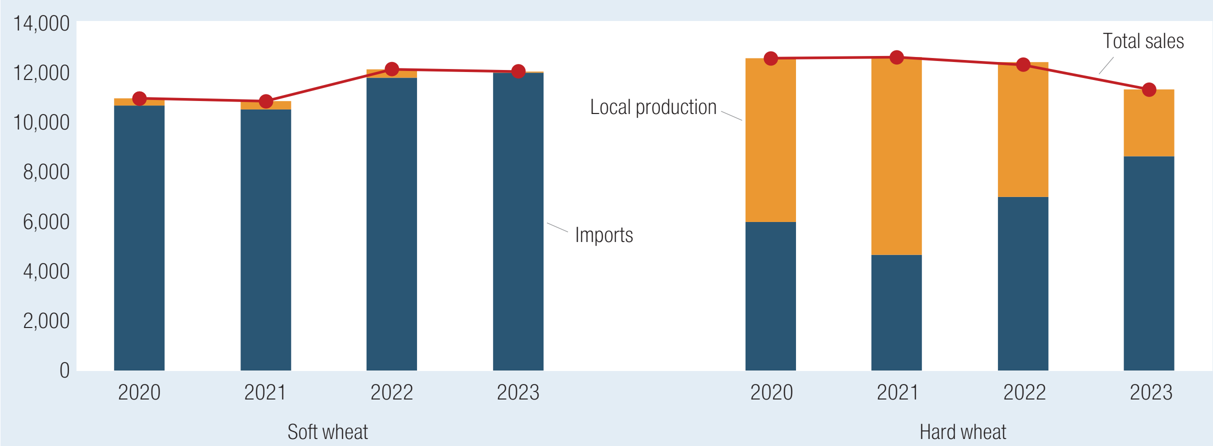
Source: Central Bank of Tunisia.

5. Shortages of basic products persist amidst import compression and declining agricultural production

As external financing conditions remain tight, imports continue to be compressed particularly for the increasingly indebted state-owned enterprises (SOEs). Compressing imports has remained an important strategy to achieve the external balance, given the challenging external financing environment. That is particularly the case for SOEs, as their increasing debt stifle their access to credit, particularly in foreign currency.[12] Several of these SOEs hold the monopoly over the import and distribution of specific products, such as the Office des Céréales (OdC) for wheat, the Pharmacie Centrale for medicines, the Office du Commerce for coffee and sugar, the Tunisian Company of Electricity and Gas (STEG) for gas and the Tunisian Company of Refining Industry (STIR) for petrol (see part B). As discussed in the Fall 2023 edition of the Tunisia Economic Monitor, the system of price control that regulates the markets of these basic

12 SOEs' net debt to the state for instance grew from TD 1.4 to TD 3.6 billion in 2020–2022.

FIGURE 16 • Hard Wheat Imports Did Not Increase Sufficiently to Compensate the Drop in Domestic Production
(thousands of tonnes sold by OdC in Tunisia by source)



Source: Office des Céréales.

products is the main cause of the increasing indebtedness of SOEs and hence of the current shortages.

This import compression has translated into shortages of basic products, exacerbated by the drop in domestic agricultural production. The increasing constraints to imports faced by SOEs has affected several basic products, including coffee, tea, vegetable oils, wheat (soft and hard), medicines, causing repeated shortages in key markets since 2022. For cereals, as the drought decimated Tunisia's hard wheat harvest in 2023, the OdC was unable to step up its imports sufficiently to compensate for the shortfall, in spite of the lower international prices (Figure 16). In the absence of sufficient wheat stocks, the quantity of hard wheat supplied to the market dropped by 8 percent in 2023 compared to 2022. This contributed to the shortages of hard wheat products, notably semolina. Given the substitutability between hard and soft wheat, the shortfall seems to have also affected products usually made with soft wheat, particularly flour and its derivatives, including bread.

6. Inflation moderated from the record levels of early 2023 but it remains elevated, particularly for food

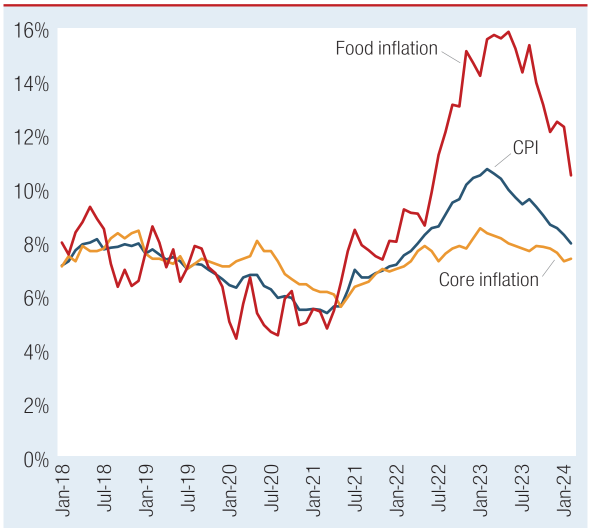
Inflation started to moderate since the peak of February 2023 on the back of lower global prices and weak domestic demand. Year-on-year price inflation continued its gradual decline from the record level of February 2023 (10.4 percent), reaching 7.5 percent in February 2024 (Figure 17). This followed the reduction in core inflation to 6.9 percent (February 2024) from 7.9 percent (February 2023) driven in part by the weak domestic demand given the slowdown in economic growth.[13] The decline in international prices compounded this effect, helping reduce the pressure on domestic prices. Driven by the drop in international prices of energy, cereals and iron and steel, Tunisia's merchandise import prices declined on average by 4.4 percent in 2023.[14] That allowed Tunisia to implement a price freeze of energy products with electricity and gas inflation declining from 14.9 percent in February 2023 to 0.2 percent in February 2024.

Inflation is lower than the nominal interest rate for the first time since July 2021. With declining inflation, the Central Bank (CBT) maintained its key policy rate unaltered at 8 percent since the beginning of 2023. As a result, real interest rates became positive as of January 2024 after more than 2 years of having been negative. The challenge for the authorities continues

[13] Core inflation is computed by excluding energy and food products from the CPI.

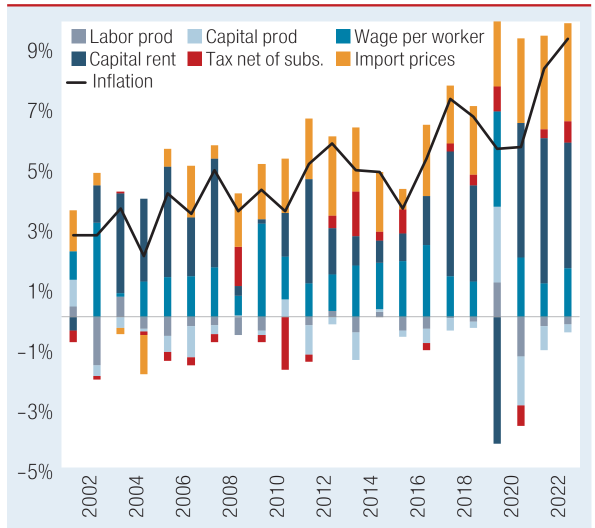
[14] That is an average obtained by weighing each 2-digit sector level price change by the corresponding share in total Tunisian merchandise import in the first 7 months.

FIGURE 17 • Inflation Started to Decline in 2023 but it Remains High
(Year-on-year percent increase)



Source: Central Bank of Tunisia.

FIGURE 18 • Profits (Driven by Capital Rent) are Driving the Recent Inflation Hike
(Percentage point change, y-o-y)



Source: World Bank staff estimates based on INS and OECD.

to be to avoid inflationary pressures fueled by a price-wage spiral. The effectiveness of this policy depends on accompanying measures to pursue macroeconomic stabilization and adopt the structural reforms needed to resume a sustainable growth trajectory. Maintaining a strong and independent Central Bank will continue to be a central pillar in the pursuit of price stability.

However, inflation is still high, particularly for food, as the drought and import compression reduced the supply in domestic food markets. Despite the decline, inflation remains well above the 2021–2022 average (7 percent) and food inflation is particularly high (10.2 percent). While the rate of price increases for food have been historically higher than average inflation, the gap has been growing in the past year as the drought and import compression reduced the domestic supply of agricultural products. This presents a significant challenge particularly for lower income households, for which food accounts for a relatively greater share of expenditures.[15]

The recent government measures to contain food prices focused on combating hoarding behavior and enhancing price controls but food inflation remains elevated. The government has taken several measures since 2022 to reduce food inflation, including through a new law punishing hoarding and new regulations controlling food prices and distribution channels. However, these measures do not appear to have yielded the desired effect, as other factors, including the shortfall in supply and imports linked to the drought and the monopoly of highly indebted SOEs, seem more important drivers of inflation to date.

New analysis shows that most of the recent inflation episode is driven by rising profits and import prices, pointing to the important role of competition and trade policy against inflation. The analysis is based on a novel decomposition of Tunisia's consumer price inflation into factors of production (labor and capital), net taxes and

15 According to the 2021 Household Budget survey, the share of food in total expenditures is 35.5 percent for the bottom quintile of the income distribution and 27.2 percent for the top quintile.

16 This decomposition is proposed by a recent paper by Hansen, N.-J., Toscani, F. and J. Zhou (2023). "Euro Area Inflation after the Pandemic and Energy Shock: Import Prices, Profits and Wages", IMF Working Paper 23/131. The decomposition needs four sets of data: (i) sectoral nominal and real GDP; (ii) sectoral nominal wages and profits; (iii) the share of gross value added in sectoral consumption; (iv) the sectoral taxes net of subsidies. For Tunisia, data for (i) and (ii) comes from the INS national account data; data for (iii) comes from the OECD Trade in Value Added dataset; and data for (iv) is taken from various rounds of the social accounting matrix from the INS.

import prices.[16] The decomposition shows that after the Covid pandemic in 2020, profits (driven by capital rent) accounted for the lion's share of annual inflation—61 percent on average (Figure 18). Import prices were responsible for around 40.9 percent and wages only accounted for 21.9 percent.[17] Increased profits were responsible for a hike in prices of 4.9 and 4.2 percentage points in 2022 and 2023 respectively. That is double the effect of profits in the Euro area in 2022 estimated by Hansen et al. (2023). This major role of profits along with imports is not new in the last two decades (Figure 18) and it suggests that policies to promote open competition and trade, such as through reducing barriers to entry and trade across sectors, would be key to keep inflation in check.

7. The budget continues to be under pressure as the low growth affects tax revenues

The budget deficit was stable in 2023 (6.7 percent of GDP) following a more modest that expected increase in tax revenues pulled down by the slowdown in growth. The provisional 2023 budget—ectifying the 2023 budget law—shows that tax revenues are expected to have grown by 11.4 percent in 2023 compared to 2022. That is significantly below both the initial projections in the 2023 Budget Law (15.3 percent) and the 2022 growth rate (16.6 percent), but higher than nominal GDP (Figure 19). The comparatively modest performance of indirect taxes, particularly VAT (6.8 percent growth) and customs (4.8 percent), weighted down overall tax revenues. That is consistent with the effect of the economic growth slowdown, with lower demand for consumption and investments, including for imports. On the other hand, direct taxes showed greater resilience (+12.4 percent) as their largest component—labor income taxes—is less responsive to short-term variations in growth.

The growth in public expenditures was due mainly to rising transfers and interest payments but moderated by relatively contained wage bill growth and stalled capital expenditures. The public wage bill—the largest expenditure item—grew by 8 percent in 2023, slightly below the inflation rate and nominal GDP. While Tunisia still has one of the highest public wage bills in the world relative to the size of its economy, it declined from 16.1 percent of GDP in 2020 to 14.4 percent in 2023 and from 47.0 percent to 40.6 percent of total public expenditures. The slow decline of the wage bill follows the agreement between the government and the trade union (UGTT) in October 2022 and the continued freeze of public sector recruitment. The relatively moderate growth of the wage bill helped keep overall expenditure growth in check (+11 percent) despite the significant expansion of transfers (+30 percent, growing from 4.1 percent to 4.8 percent of GDP) and interest payments (+25 percent, from 3.2 to 3.7 percent of GDP). Capital expenditures continued to grow below the rate of overall expenditure (+2 percent) and its share in GDP declined further to 3 percent (from 3.2 percent in 2022).

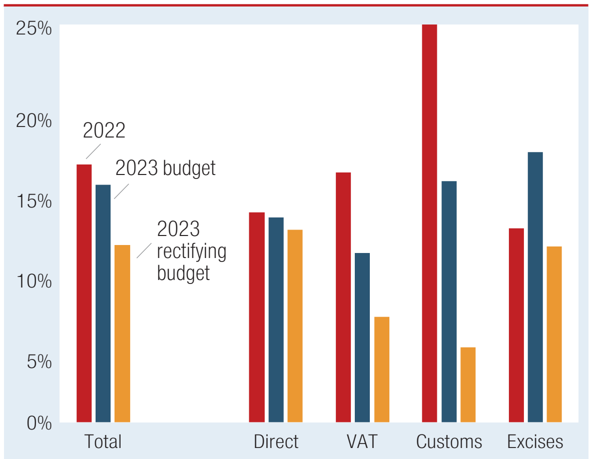
Reversing the decline in public capital expenditures by re-orienting less productive recurrent expenditures continues to be key to revive economic growth. With slowing economic growth and employment creation, successive governments over the past decade have increased recurrent public expenditures to provide public employment and to keep market prices for basic goods and services below cost recovery. Expenditures on subsidies (for energy and food products) grew from 2 percent to 7.2 percent of GDP between 2016 and 2023 (figure 20). These measures crowded out public investments, which declined from 6 percent to 3 percent of GDP over the same period. Reversing this decline in capital expenditures is crucial to revive Tunisia's growth trajectory.

8. Assuming drought conditions ease, we expect a moderate growth rebound in 2024-25 assuming but economic prospects remain uncertain

After the significant slowdown in 2023, we expect a moderate rebound of the economy in 2024–26.

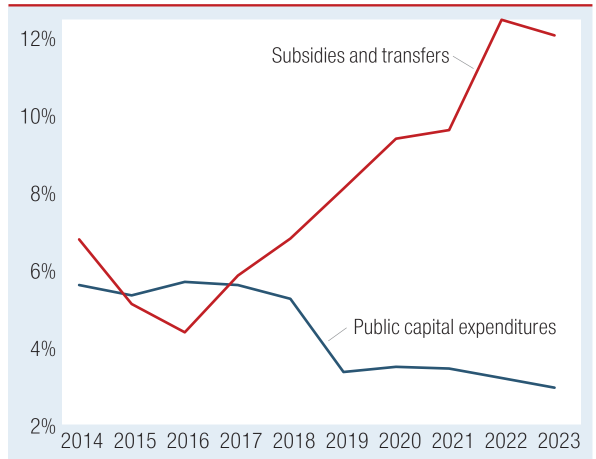
[17] At the same time productivity (both of labor and capital) increased marginally and hence resulted in only a small inflation reducing effect. This inflation reducing effect explains why the sum of the positive contributors to inflation, i.e. profit, wage costs and import prices, is greater than 100 percent.

FIGURE 19 • Tax Revenues Under-Performed in 2023
(Yearly percent growth)



Source: World Bank staff elaboration on data from Tunisia's Ministry of Finance.

FIGURE 20 • A Tale of Two Expenditures: Subsidies Versus Capital Expenditures
(Percent of GDP)



Source: World Bank staff elaboration on data from Tunisia's Ministry of Finance.

Assuming a moderation of the ongoing drought and slightly more benign financing conditions, growth is forecast to reach 2.4 percent in 2024 and 2.3 percent in 2025–26. With this growth rate, real GDP in 2024 would eventually reach its pre-Covid 19 level, a full four years after the pandemic started. This modest growth is due to challenging conditions linked to water scarcity, the uncertainty around debt financing and the weak momentum of reforms to address structural impediments to growth.

The 2024–26 growth forecast is subject to significant downside risks. Growth projections could be even lower should Tunisia not implement fiscal and pro-competition reforms and/or should available financing not be sufficient to cover Tunisia's external needs. If these conditions were to materialize, it may be challenging to secure sufficient foreign currency in the economy, which could lead to pressures on exchange rate and prices, exerting a negative impact on economic activity and employment. In addition, should the drought conditions persist, the projections could be revised downwards given the negative impact on agriculture and the trade balance.

Tunisia's public finance and external account will remain precarious in the absence of sufficient external financing. The budget deficit is expected to decline somewhat to 6.1 per cent of GDP in 2024. That is mainly driven by a decline of subsidies and wage bill in real terms and a moderate increase in tax revenues. The CAD is projected to remain stable at 2.4 percent of GDP in 2024 with continued growth in travel exports and stable terms of trade. With FDI projected to be relatively stable and minimal portfolio investments, foreign lending would still have to shoulder the financing of the CAD.

The financing of the deficits will require a significant scale-up of the external financing in the face of the heavy debt reimbursement schedule. Despite the lower deficits, gross financing needs are expected to rise further at 16.1 percent of GDP in 2024 (from 13.8 percent in 2023) due to significant external debt service. In fact, almost two-thirds of the financing is expected to be amortization. It also increases Tunisia's reliance on external funding sources, which should account for around 57 percent of total financing. With FDI projected to be stable and minimal portfolio investments, sovereign lending would still have to cover the external financing needs as Tunisia continues to be cut off from international capital markets.

If the pace of reforms and the level of financing remain sufficient, we project growth to be sustained at the 2024 level over the medium run along with some stabilization of the macro and fiscal imbalances. We expect the economy to maintain its pace of growth to 2.3 percent in 2025–26. That would entail the alignment with the long-run growth path, from which the economy deviated during

TABLE 1 • Key Macroeconomic Indicators, 2020–26
(year-on-year percent changes, unless otherwise indicated)

	2020	2021	2022	2023	2024	2025	2026
Real GDP growth. at constant market prices	−8.6	4.6	2.6	0.4	2.4	2.3	2.3
Private consumption	−2.1	2.4	2.2	1.4	2.7	2.9	3.4
Government consumption	−1.0	1.5	−1.2	1.9	−0.5	−1.0	−1.8
Gross fixed capital formation	−20.0	3.2	1.7	−10.7	5.6	8.5	3.2
Exports. goods and services	−20.0	11.9	17.3	9.8	2.1	4.0	4.1
Imports. goods and services	−16.6	10.9	11.5	6.6	2.7	5.2	4.6
Real GDP growth. at constant factor prices	−8.5	4.8	2.5	0.0	2.4	2.3	2.3
Agriculture	0.4	−2.3	1.0	−11.0	5.9	5.0	5.0
Industry	−10.4	9.8	0.9	−1.5	−0.3	−0.3	0.9
Services	−9.1	4.1	3.4	2.4	2.9	2.9	2.4
Inflation (Indice de Prix à la Consommation)	5.6	5.7	8.3	9.3	7.0	6.0	5.0
Current account balance (% of GDP)	−6.0	−6.0	−8.7	−2.7	−2.4	−2.3	−2.4
Foreign exchange reserves (months of imports)	5.4	4.0	4.1	3.9	3.8	3.7	3.5
Central government overall fiscal balance (% of GDP)	−8.7	−7.6	−6.7	−6.4	−5.6	−4.6	−3.2
Primary fiscal balance (% of GDP)	−5.6	−4.7	−3.4	−3.1	−2.2	−1.1	0.2
Fiscal revenues (% of GDP)	25.5	25.7	28.5	28.5	28.0	26.1	26.3
Fiscal expenditures (% of GDP)	34.2	33.3	35.2	34.9	33.7	30.9	29.6
Financing needs of the Central Government (% GDP)	13.3	10.9	12.7	13.8	16.1	15.9	16.3
Central Government Debt (% of GDP)*	77.8	79.9	79.9	80.0	79.7	79.1	81.5
Interest payments (on CG debt; % of GDP)	3.1	2.8	3.2	3.3	3.5	3.6	3.4

* The figures for 2020–2023 are based on government data; 2024–26 are based on World Bank staff forecast.

the Covid-19 crisis. We expect inflation to decrease somewhat due to the relatively large post-Covid output gap and the mild increases in public wages following the government-UGTT agreement at the end of 2022. These conditions along with economic reforms should help Tunisia reduce its current account and budget deficits, easing financing conditions. Furthermore, the slight increase in real economic growth should lead to a decrease in the poverty rate below pre-Covid levels by 2025.[18] However, these medium-term prospects are conditional on an ambitious pace of reforms, sufficient financing, and the stability of international energy prices, oil in particular.

[18] The finding applied whether using lower-middle or upper-middle income country poverty line (equivalent respectively to US$3.65/person/day and US$6.85/person/day in 2017 purchasing power parity terms).

PART B

ACCELERATING THE POWER TRANSITION TO RENEWABLE ENERGY

Summary

As Tunisia's macro-fiscal challenges deepen, the government's target of generating 35 percent of energy from renewable sources by 2030 becomes even more important. In the last two decades, the country has grown more dependent on fossil fuel imports, which undermine the sustainability of the current account. This dependence weighs heavily also on the fiscal balance given the high costs of energy subsidies when international oil and gas prices are high. By increasing the demand for energy, global warming is exacerbating the challenges of energy dependence and undermining the security of energy supply.

Tunisia's energy sector does not have to depend on fossil fuels as the country has a rich untapped renewable energy potential. Renewable energy could significantly reduce the cost of electricity production, especially in the context of high and volatile international energy prices. New analysis shows that renewable energy generation could play a dominant role in power generation in Tunisia as it is the least cost energy source. To fulfill this potential the Government would need to address various impediments including the weak energy sector financial performance and the integration of the grid. The benefits of expanding renewable energy production would extend to the whole of economy, with significant gains in terms of economic growth materializing already by 2030.

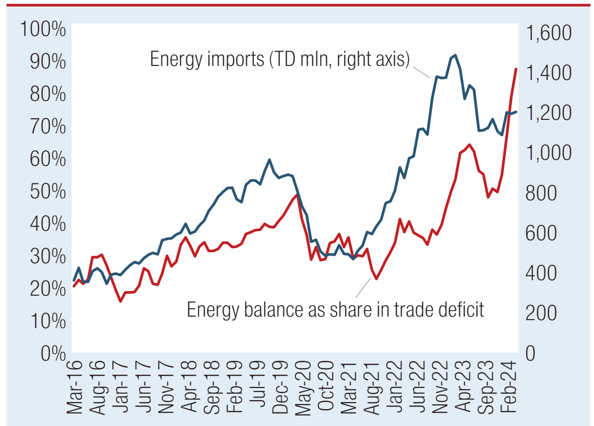
The World Bank's Tunisia Climate Change and Development Report (CCDR) estimates large investments needed to enable this green energy transition, to the amount of US$ 27–35 billion by 2050. The bulk of these investments are expected to be covered by the private sector given the significant cost advantage of green energy investments over thermal energy and fossil fuels in Tunisia. However, adequate conditions should be in place to favor such investments and accelerate the implementation of Tunisia's ambitious renewable energy program towards its 2030 renewable energy target.

As Tunisia's macro-fiscal challenges deepen, the government's target of generating 35 percent of energy from renewable sources by 2030 becomes even more important. The increasingly challenging external financing environment has put more pressure on Tunisia's energy sector, which is at the core of its external deficit. Ninety-seven percent of Tunisia's electricity is generated from natural gas, more than half of which is imported due to rising demand and declining local resources since the early 2000s. The significant role of energy subsidies in Tunisia's fiscal deficit (22 percent of budget expenditures in 2022–23) compounds this dependence. The development of renewable energy, which is a local, abundant, and lower cost resource, could reduce the dependence on imported fossil fuels, the fiscal deficit, and the cost of electricity production. As such, the government's target of 35 percent of energy from renewable sources is crucial not only for emission reduction but also for economic development goals.

The country has grown more dependent on fossil fuel imports, which undermine the sustainability of the current account. This increasing dependence has translated into an increase in energy imports as well as of the share of energy in the trade deficit (figure 21). The latter has grown from an average of 15–20 percent in 2017 to 86 percent in the last six months of data (Sep. 2022–Feb. 2023). The increased dependence on imports of fossil fuels is illustrated by the increase in the primary energy balance deficit which reached 4.7 Mtoe in 2023 and by the deterioration of the energy independence rate, the ratio of primary energy resources to primary consumption, which stood at 48 percent in 2023 compared to 80 percent in 2012 and 59 percent in 2015.[19]

Eventually, Tunisia's current account deficit and financing conditions may limit its ability to import the energy it needs to meet growing demand, thus stifling economic activity. With a large structural current account deficit and limited capital inflows (see Part A), Tunisia is expected to maintain large external financing needs over the next years. Recent evidence has shown that financing these needs without accessing international capital markets will become increasingly challenging, limiting Tunisia's ability to import energy and other inputs for its industrial activities. The recent World Bank's Tunisia Climate Change and Development Report (CCDR) projects that Tunisia's energy imports would have to be reduced by 3.5 percent to preserve a level of foreign exchange reserves covering at least two months of imports. This energy supply constraint would significantly affect production across all sectors. An analysis in the CCDR based on World Bank Enterprise Survey data suggests that doubling the number of power outages would reduce the value added by Tunisian manufacturing and service companies by 8.7 percent. For households, it would mean reduced mobility and comfort, since energy is a critical input for transport, cooking, heating, and lighting. An energy shortage would also generate large losses and inflation at the macro level.

FIGURE 21 • Energy Account for an Increasingly Dominant Share of the Trade Deficit *(energy trade balance as a share of total merchandise trade deficit and energy imports (TD mln), six-monthly moving average)*



Source: INS

The dependence on imported fossil fuels also weighs heavily on the fiscal balance given the high energy products' subsidy rate when international oil and gas prices are high. Despite some tariff increases in recent years (lastly in 2022), the price of electricity and gas for consumers are still well below production costs. The average tariff for electricity covers around 62 percent of the costs, while that of natural gas only 46 percent.[20] This gap continues to generate large losses for STEG, which complicates its financial position and hence its ability to meet the growing demand.

By increasing the demand for energy, global warming is exacerbating the challenges of energy dependence and undermining the security of

[19] Source: Ministère de l'Industrie, des Mines et de l›Energie.

[20] Source: Ministère de l'Industrie, des Mines et de l›Energie (2023), Conjoncture énergétique, Tunis: December.

energy supply. Warming temperatures are causing a rapid increase in demand for energy, particularly during the summer season. Peak electricity demand reached 4,825 MW in the summer of 2023, a 3 percent increase over the same period in 2022, mainly as a result of the rising usage of air conditioning. This peak demand forced STEG to resort to load shedding in certain areas of the country as the system was unable to fully cover the peak. The load shedding strategy may also disrupt water supply in certain regions as the water transfer stations require electricity to operate. The heightened demand also resulted in the direct purchase of electricity and additional gas import from Algeria as well as in the use of marginal gas power plants, all of which further increased the cost of electricity.

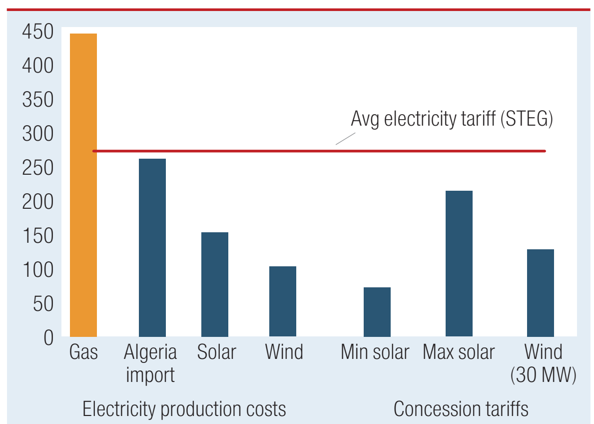
In fact, Tunisia's energy sector does not have to depend on fossil fuels as the country has a rich untapped renewable energy potential. With its high solar irradiation and wind resources, Tunisia has a potential of up to 280 GW of solar and 90 GW of wind power, far exceeding the current electricity peak demand of 5GW. This potential would even allow for the development of energy exports, especially given Tunisia's strategic location near the large European market.

Based on this huge potential, the government has set the ambitious target of generating 30 percent of electricity from renewables by 2030. This is an increase compared to the original 30 percent target, which was set as part of the Tunisian solar plan approved in 2014. The achievement of the 2030 target would require the development of a capacity of 4.8 GW renewable energy and an investment to the tune of US$ 4.5 billion.[21] The National Low-Carbon Strategy is even more ambitious with a target of 50 percent of electricity from renewables (6 GW) by 2035 and 80 percent by 2050. While ambitious, such targets are achievable. A capacity expansion model developed by the World Bank indicates that renewable energy is part of the least-cost solution to serve fast-increasing demand in Tunisia, resulting in a capacity level of 12.6 GW by 2040 (with wind accounting for 70 percent of the renewable capacity).

To achieve the renewable energy target, Tunisia has set up an ambitious renewable energy development program based on public-private partnerships. The implementation of the first 500 MW in the program is progressing after some delays due to rising prices and financing costs in the wake of the Covid and Ukrainian crises. In addition, in December 2022, the government announced projects for a further 1,700 MW to be implemented over the period 2022–2025, with bids for the first round of solar projects due by May 30, 2024. This overall 2,200 MW program would require a US$ 2 billion private investment. Once implemented, it will increase the share of renewable energy in the electricity mix from 3 to 17 percent, with estimated savings of 1 million ton of oil equivalent of imported gas and a significant reduction in production costs.

Renewable energy could significantly reduce the cost of electricity production especially in the context of high and volatile international energy prices. The cost of natural gas accounts for over 70 percent of the cost of electricity produced. With the rise in oil prices in 2022, the electricity produced from natural gas (whose price is indexed to that of crude oil) became increasingly expensive, and its cost far exceeded that of electricity produced from renewable energy (Figure 22). In 2022, the average cost per MWh produced by STEG

FIGURE 22 • The Cost Advantage of Renewables for Electricity Production
(Costs and tariffs: TD per MWh of electricity in 2022)



Source: STEG, Ministère de l'Industrie, des Mines et de l'Energie.
Note : Algeria import refers to the direct import of electricity from Algeria ; Concession tariffs are the current maximum tariffs according to the source of energy production.

[21] Source: Ministère de l'Industrie, des Mines et de l›Energie and UNDP (2023), Stratégie énergétique de la Tunisie à l'horizon 2035, Tunis: April.

BOX 2: TUNISIA CCDR SCENARIOS FOR THE ELECTRICITY SYSTEM SIMULATIONS

The electricity system analysis carried out in the context of the CCDR simulates three illustrative scenarios based on different types of government actions relatively to a business as usual scenario where renewable energy is set to grow at the same rate as in previous years.

Scenario 1: Least-cost scenario. This is an unconstrained optimized scenario in which the capacity expansion plan is developed with no constraints on emissions. In this scenario, optimization starts in 2026, with projects in the pipeline implemented between 2023 and 2026. Electricity demand grows following a BAU trajectory, without additional energy efficiency and decarbonization of end-use sectors.

Scenario 2: Green scenario. In this scenario, constraints are imposed to decarbonize the electricity sector by 2050 (net CO_2 emissions reach zero). Electricity demand is the same as in Scenario 2.

Scenario 3: Green hydrogen and deep decarbonization (net zero) scenario. This scenario assumes increased electricity penetration and deployment of green hydrogen in the building, industrial, and transport sectors, which displaces the use of fossil fuels.[a] This scenario also assumes that the switch to electricity prompts energy-efficiency improvements because electric equipment is typically more efficient than fossil-fuel-driven equipment. This improvement in end-use efficiency offsets the increase in electricity demand. Electricity demand (excluding electricity use for green hydrogen production) is therefore projected to grow at the same rate as BAU, although the penetration of electricity is 54 percent of final energy demand in 2050 (compared with 29 percent under BAU).

[a] The scenario has been conservative in assuming only green hydrogen production for domestic use. Exports of green hydrogen could develop in the longer term if Tunisian production proves to be competitive on world markets. This possibility requires further investigation.

was TD 441 (with an import price for natural gas of 1335 TD/TOE).[22] This is two third higher than the average electricity tariff and three and four times as high as the average cost of electricity generated through solar and wind power respectively. It also far exceeds the maximum tariffs for the electricity produced with solar power in Tunisia's concession regime (large scale Independent Power Producers).

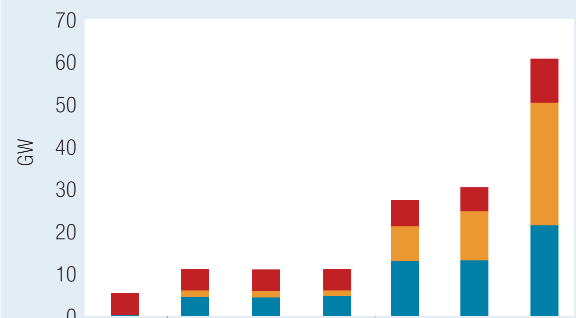
Exploiting Tunisia's renewable energy potential is even more important in light of the ongoing development of the electric connection between Tunisia and Italy. This project—named Elmed interconnector—aims to create by 2028 a 600 MW sub-marine link between Tunisia and Italy (Sicily), allowing the bi-directional exchange of electricity between the two countries. Connecting the Tunisian power system to the larger European power system could reduce the dependence on natural gas and enable large-scale development of the renewable energy potential by increasing the power system flexibility. This in turn could reduce the overall generation cost in Tunisia, hence enhancing the sector's financial viability, and lowering the need for natural gas imports. In the long term, as the country develops its renewable energy potential on a large scale, Tunisia could become a net electricity exporter to Europe and thereby structurally improve its balance of payments.

New analysis shows that renewable energy generation is projected to play a dominant role in power generation in Tunisia as it is the least cost energy source. Analysis carried out in the CCDR uses a capacity expansion model (OPTGEN) and a dispatch model (SDDP) to prepare projections of power generating capacity and electricity production by type of technology until 2050 for three scenarios (described in Box 2). In all scenarios, there is a massive switch from natural gas to renewable energy because solar and wind are part of the least-cost solution for producing electricity. By 2050 renewables would account between 77 and 84 percent of total installed capacity (Figure 23).[23] Some natural gas capacity is added for the latter part of the forecast period, at which point some gas plants would have been retired and additional gas-fired generation will likely be needed to enhance the flexibility of the power system. Given the higher electricity demand for hydrogen production in Scenario 3, the installed capacity is double that of Scenario 2. It also favors solar PV energy due to lower investment costs and the possibility of shifting hydrogen production to hours with avail-

[22] Source: Ministère de l'Industrie, des Mines et de l›Energie (2023), Conjoncture énergétique, Tunis: December.

[23] That is in line with the government's target of 80 percent.

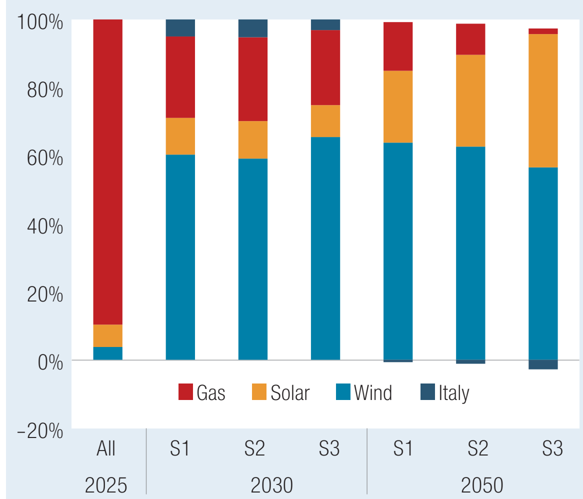
FIGURE 23 • The Projected Growth of Renewable Energy in Installed Capacity…
(installed capacity in gigawatts)



	2022	2030			2050		
	All	S1	S2	S3	S1	S2	S3
Gas	5.1	4.9	4.9	4.9	6.3	5.6	10.2
Solar	0.0	1.5	1.6	1.4	8.0	11.5	28.9
Wind	0.2	4.4	4.3	4.7	12.9	12.9	21.1

Note: See box 2 for a description of the 3 scenarios. Source: World Bank Tunisia CCDR (2023).

FIGURE 24 • …and in Power Generation
(Power generation mix, percentage)

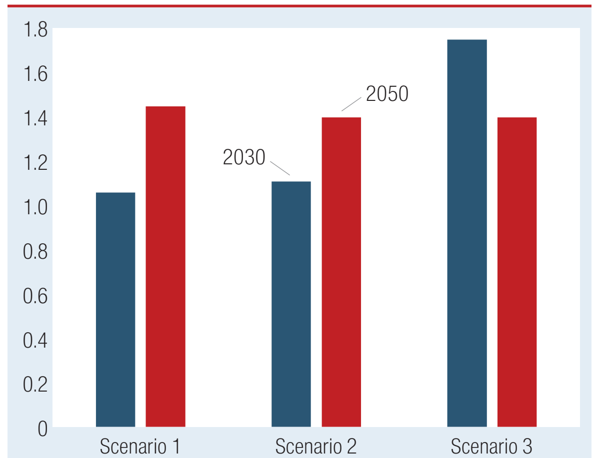


Note: See box 2 for a description of the 3 scenarios. Source: World Bank Tunisia CCDR (2023).

able sunlight. In all scenarios, natural gas accounts for an increasingly smaller share of generation, down to less than 2 percent in the most ambitious scenario 3 (figure 24). The Elmed interconnection could initially be used to import electricity until the renewable energy potential is sufficiently developed. Towards the end of the forecast horizon, Tunisia would become a net exporter of electricity under all scenarios.

The benefits of expanding renewable energy production would extend to the whole of economy, with significant gains in terms of economic growth already by 2030. Macro-economic modelling developed for the CCDR shows the impacts of the 3 scenarios of renewable energy transition described above. The modelling shows that all scenarios lead to sizable economic gains relative to business as usual, with the economy expected to be larger by between 1.1 percent (scenario 1: least-cost scenario) and 1.75 percent (scenario 3: deep decarbonization) by 2030 (figure 25). Scenario 3 is particularly beneficial for the economy in the short term because end-user sectors are likely to benefit from enhanced decarbonization policies, resulting in lower energy costs. While all sectors benefit, industry and agriculture perform particularly well given their greater energy dependence compared with services. Public debt increases in all scenarios, but not significantly because most decarbonization investments are expected to be shouldered by the private sector.

FIGURE 25 • The Transition to Renewable Energy is Projected to Yield Large Economic Gains
(Percentage point change in GDP relative to business as usual under different scenarios)



Note: See box 2 for a description of the 3 scenarios.
Source: Tunisia CCDR, World Bank (2023).

The bulk of the large investments needed for the green energy transition could come from the private sector if an adequate regulatory framework is put in place. The CCDR estimates large investments across all green energy transition scenarios, ranging between US$ 11 and 12 billion by 2030 and going up to US$ 27–35 billion by 2050. Around 60–65 percent of the investment needs are expected to be covered by the private sector. That is because the investments in renewable energy production are commercially viable given the significant cost advantage over fossil fuel in Tunisia. Such massive development of renewable energies, driven by the private sector, will require a favorable regulatory and financial environment and a highly flexible power system.

Tunisia needs to accelerate the green transition to achieve its ambitious renewable energy target. The Tunisian government has started to undertake regulatory reforms to improve the performance of the Tunisian electricity sector and the attractiveness of the renewable energy program to private investors. Accelerating these efforts would be crucial to achieve the ambitious renewable energy objectives and reap the related economic benefits. This would require various measures including (i) strengthening the coordination between the various parties involved in the projects, and the monitoring of program implementation, (ii) accelerating the implementation of ongoing programs, which is important for the country's credibility ; (iii) strengthening the governance of the renewable energy sector; (iv) clarifying the approval process and limiting the number of permits required; (v) simplifying the procedures for land access ; (vi) speeding up the establishment of an independent regulator to reassure investors and ensure a transparent and fair access to the grid; and (vii) modernizing STEG and restoring its financial viability.

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