

Green Finance and Investment



# Financing Uzbekistan's Green Transition

CAPITAL MARKET DEVELOPMENT  
AND OPPORTUNITIES FOR GREEN BOND ISSUANCE





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# Foreword

Like in many countries, the scale of Uzbekistan's green transition requires a marked increase in private financing to fill the existing spending gap. However, compared to other countries, the outsized role of the state in Uzbekistan's economy and its underdeveloped domestic capital market are particularly significant constraints to the mobilisation of private finance. Since 2021, Uzbekistan has made green bonds a central part of its strategy to fill the financing gap and mobilise new sources of capital for its domestic green infrastructure projects. This report provides a stock-take of the market and institutional set-up in Uzbekistan, the reforms that have led to recent issuances of both sovereign and corporate thematic bonds, and the remaining barriers to further uptake of the instrument. The report covers information available as of October 2023, although given the rapidly evolving situation in Uzbekistan some changes to market conditions and additional bond issuances may not be included. The report also provides policy recommendations related to the market's institutional set up, Uzbekistan's regulatory framework for debt capital markets and emerging opportunities for further green bond use aimed at key stakeholders, including policy makers and market participants. It contributes to the growing body of OECD work on thematic bonds in the emerging markets of Eastern Europe, the Caucasus and Central Asia (EECCA).

The lead author of the report is Mr. Douglas Herrick under the guidance of Ms. Virginie Marchal and Ms. Nelly Petkova (all OECD Environment Directorate) with background research carried out by Mr. Stanislav Dubko (external consultant). Ms. Natalia Ciumacenco translated the report into Russian. Mr. Jonathan Wright and Ms. Soojin Jeong (both OECD Environment Directorate) provided logistical support during the report's fact-finding missions, and Ms. Ria Sandilands (OECD Environment Directorate) prepared the report for publication.

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# Abbreviations and acronyms

<b>ADB</b>	Asian Development Bank
<b>AFD</b>	Agence française de développement (French Development Agency)
<b>AMD</b>	Armenian dram
<b>APF</b>	Accumulative pension fund
<b>BRI</b>	Belt and Road Initiative
<b>CMDA</b>	Capital Market Development Agency
<b>DFI</b>	Development finance institution
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EECCA</b>	Eastern Europe, the Caucasus and Central Asia
<b>ESG</b>	Environmental, social and governance
<b>FAO</b>	Food and Agriculture Organisation
<b>FDI</b>	Foreign direct investment
<b>FMO</b>	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (Development Bank of the Netherlands)
<b>GCF</b>	Green Climate Fund
<b>GDP</b>	Gross domestic product
<b>GEF</b>	Global Environment Facility
<b>GEFF</b>	Green Economy Financing Facility
<b>GHG</b>	Greenhouse gas
<b>GHI</b>	Global horizontal irradiance
<b>GSSS</b>	Green, social, sustainability and sustainability-linked
<b>GVC</b>	Global value chain
<b>ICD</b>	Islamic Corporation for the Development of the Private Sector
<b>IFCA</b>	Investment Facility for Central Asia
<b>IFI</b>	International finance institution
<b>IMF</b>	International Monetary Fund
<b>IOSCO</b>	International Organisation of Securities Commissions
<b>IPO</b>	Initial public offering
<b>JPY</b>	Japanese yen
<b>JSC</b>	Joint stock company

<b>MDB</b>	Multilateral development bank
<b>MJ</b>	Megajoule
<b>MW</b>	Megawatt
<b>NBU</b>	National Bank of Uzbekistan
<b>NDC</b>	Nationally determined contribution
<b>ODA</b>	Official development assistance
<b>OOF</b>	Other official flows
<b>PPA</b>	Power purchase agreement
<b>QQB</b>	Qishloq Qurilish Bank
<b>SDG</b>	Sustainable Development Goal
<b>SMEs</b>	Small- and medium-sized enterprises
<b>SOE</b>	State-owned enterprise
<b>SPO</b>	Second party opinion
<b>SQB</b>	SanoatQurilishBank
<b>Sukuk</b>	Shariah-compliant fixed-income instrument comparable to a bond
<b>TPES</b>	Total primary energy supply
<b>UNDP</b>	United Nations Development Programme
<b>USD</b>	United States dollar
<b>UZS</b>	Uzbek sum
<b>UZSE</b>	“Toshkent” Republican Stock Exchange
<b>WBG</b>	World Bank Group

# Executive summary

After decades of relative inactivity in international financial markets, Uzbekistan has emerged as a dynamic albeit small player that has made green finance a central component of its development strategy. Following its inaugural bond issuance on the international market in 2019, three thematic bonds have been issued in short order: a sovereign sustainability bond (labelled “Sustainable Development Goals bond”) in 2021 and two green bonds – one sovereign, one corporate – in 2023. These achievements establish Uzbekistan as a frontrunner in the region of Central Asia, where thematic bonds remain a novel financial instrument.

Uzbekistan’s interest in green bonds stems from the growing gap between investment needs, particularly in sustainable infrastructure, and actual expenditure, currently derived in large part from the state budget. This gap, estimated conservatively at USD 6 billion per year, cannot be filled with public funds alone, and the government therefore seeks to mobilise both domestic and foreign private capital for investment in projects that contribute to its environmental and development objectives. On the environmental front, Uzbekistan faces a considerable challenge in transforming its energy system, which relies almost exclusively on natural gas and is by far the largest emitter of greenhouse gases. The government has committed to reducing greenhouse gas emissions by 35% per unit of gross domestic product compared to 2010 levels by 2030 through accelerated integration of renewable energy sources into the power grid and electrification of transport networks. Uzbekistan has so far succeeded in reducing greenhouse gas emissions per unit of output by approximately 14% but is still off track from meeting its 2030 goal.

Uzbekistan also faces challenges in terms of its financial markets themselves. The economy, including the banking sector, is dominated by a small number of state-owned enterprises and banks that rely on subsidised support from the government budget rather than debt finance. Domestically, Uzbekistan lacks institutional investors active in debt markets, and trading volumes remain low. In terms of financial market infrastructure, transactions are split across two platforms, although ongoing efforts seek to harmonise the two platforms and facilitate trading. The country’s first issuances and focus on thematic bonds to funnel capital towards sustainable projects are important milestones in Uzbekistan’s debt capital market development, but there is still considerable untapped potential in Uzbekistan, which the present publication seeks to explore.

This publication provides a snapshot of Uzbekistan’s capital market development and activity in green bond issuance. After a brief overview chapter (Chapter 1), the publication focuses on identifying barriers to further progress posed by the country’s development strategies and programmes (Chapter 2), capital availability (Chapter 3), institutional set-up and regulatory framework (Chapters 4 and 5). The key messages and recommendations of each chapter are laid out in brief below.

## Key findings

- Given the potential for renewable power generation, particularly solar, there is considerable scope for Uzbekistan to cut its GHG emissions in line with its revised Nationally Determined Contribution (NDC) by rapidly increasing the share of renewable energy sources as well as boosting energy security and improving and greening infrastructure in the energy, transport and other sectors.

- Uzbekistan has set 2030 targets for *inter alia* reducing the GHG intensity of the economy (-35% compared to 2010 levels) and renewable energy integration (25% of TPES). It also aims to reduce the state's share in the national economy and develop the domestic capital market. However, Uzbekistan's strategies lack credible costing information and financing strategies.
- Given the magnitude of the investments needed (at least USD 6 billion annually), domestic public financing is insufficient for Uzbekistan to achieve the SDGs and its climate and development ambitions.
- Recent large-scale solar and wind power generation projects have been implemented with investment capital. Although such projects have been financed to date through “vanilla” loans rather than green loans or green bonds, debt instruments could be useful in refinancing the loans. Future projects in a similar vein and of a similar scope represent low-hanging fruit for inclusion in a green bond issuance.
- Recent institutional, legal and regulatory reforms such as the Programme for Capital Market Development 2021-23 have liberalised Uzbekistan's financial sector, but it continues to suffer from ineffective market facilitation as well as limited supply of and demand for securities.
- Uzbekistan's soon-to-be privatised state-owned banks are increasingly interested in green bonds as a way to improve domestic and international reputation, attract financing from institutional investors with mandates to increase ESG compliant instruments in their portfolios. SanoatQurilishBank (SQB) issued Uzbekistan's first corporate green bond in August 2023.
- There is currently no regulatory framework for Islamic finance in Uzbekistan, but there are indications that considerable demand for Islamic financial products exists. Green sukuks, a Shariah-compliant bond-like instrument, could be an additional financing tool for the government and corporate entities alike.

## Key recommendations

- Uzbekistan should develop and adopt a comprehensive economy-wide net-zero target and supporting long-term low-emission development strategy.
- Uzbekistan should simplify the opaque and fragmented legislative and regulatory framework governing the financial system and adopt a consolidated law on capital markets.
- Uzbekistan should adopt a coordinated long-term development financing strategy, continue to develop the pool of domestic qualified capital market experts and harmonise the country's two securities trading platforms.
- Uzbekistan should build on its experience with its first two sovereign thematic bonds, drawing on line ministries' lists of priority infrastructure projects.
- Uzbekistan should seek to incorporate emerging good practices internationally in its refinement of its recently adopted domestic green taxonomy, which will help standardise and streamline project selection and evaluation.
- The Budget Code currently forbids subnational governments to issue debt instruments. Given the large share of spending carried out at the subnational level, Uzbekistan should consider gradually removing this restriction to allow selected subnational governments with sufficient capacity to finance green projects through green bond issuances.
- The government should encourage banks to seek out capacity development and peer learning opportunities, particularly with peer banks experienced in green bond issuances.

The government should develop the necessary regulatory framework and capacity to enable issuance of green sukuks.

# 1 Assessment and recommendations

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This chapter provides an overview of the economic, environmental, and capital market-related challenges that Uzbekistan faces and the arguments for diversifying sources to finance the green transition. The scale of Uzbekistan's green transition requires a marked increase in private financing to fill the existing spending gap. The outsized role of the state in Uzbekistan's economy and its underdeveloped domestic capital market act as significant constraints and call for a diversification of sources to finance the green transition. Uzbekistan's three thematic bond issuances point to an emerging opportunity to use green bonds to finance projects related to the country's climate and development goals while the government continues its efforts to facilitate capital market development. Although green bonds are not free of risks nor are they a panacea, they offer important advantages, such as the appetite of international investors for green investment projects and the transparency that their use-of-proceeds requirements encourage.

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Uzbekistan's economy has liberalised rapidly since 2017 and has sustained strong growth even in the face of recent external shocks, including the COVID-19 pandemic and Russia's 2022 full-scale invasion of Ukraine. Reforms have focused on the liberalisation of prices and trade, opening the economy to private initiative, privatising large state-owned companies, reforming the energy sector (including unbundling the electricity market and tariff reform) and streamlining taxation policies. The government recognises, however, that its current economic model, powered by the country's large but shrinking natural gas reserves and dominated by state-owned enterprises (SOEs), is not sustainable economically or environmentally. Consequently, transitioning to a low-emission and climate-resilient path of economic development in line with the Sustainable Development Goals and the Paris Agreement on Climate Change has emerged as an overarching policy objective. In recent years, green transition considerations have become central components of the country's main strategic planning documents, including the New Uzbekistan Development Strategy 2022-2026 and the Strategy for the Transition to a Green Economy 2019-2030.

The achievement of these goals requires an unprecedented mobilisation of both public and private resources. The gap between the financing currently mobilised and the financing needed is immense, and the government must consequently seek to unlock additional private financial flows. Given the outsized role that the state has played in the economy in general and the financial system in particular, Uzbekistan's underlying challenge to enable the transition is the development of a larger, more liquid and more active domestic capital market.

On this count, the government of Uzbekistan has a crucial role to play in defining the necessary legal, regulatory and institutional frameworks that will ween domestic entities off generous state subsidies and encourage participation in the domestic capital market. The government's push for wide-scale privatisation of SOEs and state-owned banks is an important component of Uzbekistan's strategy in this regard.

Government-led reforms will also be necessary to provide appropriate incentives and motivate different market participants to prepare projects that bring Uzbekistan's economic activities into alignment with its climate and development goals. Given the growing appetite among investors, particularly international institutional investors, for environmental, social and governance (ESG) compliant financial products, there is an opportunity for Uzbekistan's government, banks and corporate entities to mobilise the financing that they need for their transition using green financial instruments. Using these instruments will, in turn, also contribute to the dynamism, depth and, through their reporting and monitoring requirements, governance of the domestic capital market.

### 1.1. The potential of green bonds for Uzbekistan's green transition

Green bonds have emerged as important tools for financing the transition towards more sustainable economies, particularly in developed countries but increasingly in emerging countries like Uzbekistan as well. Green bonds and other thematic bonds related to sustainability (e.g. social and sustainability bonds) are similar to conventional bonds, which are fixed-income debt instruments that raise money (debt) for the bond issuer from bond holders against the obligation to repay the debt in regular payments over a defined period of time at a set interest rate, but their proceeds are explicitly earmarked for investment in areas such as renewable energy, energy efficiency, clean transport, recycling and waste management. Bonds can be issued by public authorities (depending on the jurisdiction, both national and subnational governments, including municipalities), credit institutions, companies and supranational institutions in the primary markets.

Bonds are among the key instruments of the capital market traditionally used to raise debt for projects which need a significant amount of financing, such as infrastructure projects. Green bond finance is a

natural fit for low-carbon infrastructure assets, such as renewable energy infrastructure, which is characterised by high upfront capital costs and long-term income streams. Compared to bank lending, bonds provide an alternative and often competitive source of finance for non-financial companies. Bonds often offer a lower cost of capital, can have longer maturities and are more liquid. The absence or the relatively low level of collateral requirements is yet another attractive feature of bonds.

Globally, the green bonds market has grown exponentially over the last 10 years. The first green bond was issued by the European Investment Bank back in 2007. Since then, green bonds have matured from a niche instrument into a recognised and growing financing tool in the mainstream debt capital market. According to the Climate Bonds Initiative, volumes of new thematic bond issuances surpassed USD 1 trillion for the first time in 2021, with green bonds (49%, USD 523 billion) accounting for the largest share (Climate Bonds Initiative, 2021<sup>[1]</sup>). Many actors, such as international finance institutions (IFIs), governments (sovereign, sub-national and municipal) and corporates (financial and non-financial), participate in the domestic and international green bond markets and raise funds to finance or re-finance green investments. Although developed economies account for the majority of green bond issuances, a number of countries in Africa, Latin America and Southeast Asia are making progress and issuers are preparing to tap into this increasingly important source of green finance.

Eastern Europe, the Caucasus and Central Asia (EECCA) has lagged behind other regions in the world in tapping into bonds markets to finance green investments. Private sources of finance, such as equity or bonds, that can leverage bank financing, have been used to only a limited extent so far in the region. Among EECCA countries, thematic bonds have only been issued in Armenia, Georgia, Kazakhstan, Ukraine and, starting in 2021, Uzbekistan. Apart from these first issuances, capital markets in the region, including Uzbekistan, have remained poorly developed, which acts as a major constraint for wider use of the instrument.

Following its first sovereign issuance of a conventional bond in 2019, Uzbekistan began experimenting with thematic bonds, issuing its first sovereign sustainable bond (a so-called “Sustainable Development Goals bond”) in late 2021. A sovereign green bond was issued in late 2023. Two SOEs and three state-owned banks, several of which are slated for privatisation in the coming years, have followed the government’s lead and issued conventional bonds. The country’s first corporate green bond was issued in a private placement in August 2023 by SanoatQurilishBank (SQB), a large state-owned bank (UzReport, 2023<sup>[2]</sup>).

Establishing a green securities market is often seen as one of the major steps that can enable the transition to a green economy. In more advanced markets, green bonds are also seen as a vehicle for an inter-agency and intra-governmental debate around issues related to financing the low-carbon transition. They encourage dialogue between the financial and environmental communities, which can in turn raise the profile of climate and clean energy policies in the national agendas, improve cooperation between the two communities and help develop mutually beneficial solutions to problems that inhibit higher demand for green finance.

However, the success of green bonds is contingent on the smooth functioning of bond markets as a whole. They are subject to the same risks, including exchange currency risk, as well as risks related to their underlying projects, such as a lack of market-ready green projects and, for the issuer, reputational risks if the projects are found to differ from the criteria laid out in the bond’s framework. Although bonds and other fixed-income debt instruments are perceived as low-risk investments, the market’s appetite for them varies depending on various factors, most notably the interest rate and inflation. When interest rates and inflationary pressures rise as they did in 2022, the market’s appetite for fixed-rate debt instruments – including green and conventional bonds alike – tends to dwindle, as investors seek higher returns. In short, adding a “green” label to poorly functioning financial instruments will not solve the fundamental structural problems in the market.



Experience from other regions demonstrates that increased demand for green bonds can become a driver and source for the expansion of the bonds market in a country more generally, gradually improving the wider debt capital market. Moreover, green bonds have an established and growing investor base, as a growing number of investors adopt green portfolio requirements. Green bonds with credible monitoring and reporting mechanisms could attract more capital from such investors, offering a much-needed alternative source of financing projects related to the green transition.

## 1.2. Recommendations from the OECD's assessment of Uzbekistan's readiness for green bond issuances

The present report explores the current economic and environmental situation and direction of travel established in Uzbekistan's strategies and development plans (Chapter 2), the existing sources of financing to achieve these plans and the remaining gap between current spending and investment needs (Chapter 3), the institutional set-up, market actors and legal and regulatory frameworks of the financial system (Chapter 4) and opportunities to expand the use of green bonds by different issuers and across several sectors (Chapter 5).

Based on these assessments and consultations with various state and non-state stakeholders in Uzbekistan, the OECD has identified a set of reforms that could support green bond issuance and their contribution to Uzbekistan's climate, development and capital market-related goals. Conclusions and recommendations relevant to the areas outlined above are presented in their corresponding chapters. Below the key recommendations have been reorganised into two categories: recommendations aimed at the government officials related to legislative, regulatory and policy reforms that would facilitate green bond market development and those aimed at other actors, particularly corporate entities.

### 1.2.1. Recommendations for policy makers and government officials

The government of Uzbekistan has already made great strides in addressing the most pressing economic, environmental and capital market-related problems that the country faces. Efforts in these areas should continue and accelerate, given the scale of the transition at hand and the annual financing gap. Delayed spending on Uzbekistan's green transition will lead to greater cumulative costs, whereas early action will allow Uzbekistan to build on its growing experience to seize additional opportunities as its market develops and chosen policy directions mature.

#### *Strategies*

Uzbekistan's 2030 targets related to reducing greenhouse gas emissions, integrating renewable power generation, boosting energy efficiency and encouraging electrification of end-use sectors are a good first step. Uzbekistan should complement these medium-term targets with a **comprehensive, economy-wide net-zero target and an accompanying long-term low-emission development strategy**. Such a strategy, called for by the Paris Agreement to which Uzbekistan is a signatory, would provide the government's vision beyond the 2030 targets laid out in Uzbekistan's Nationally Determined Contribution (NDC) and establish the necessary stages for Uzbekistan to achieve more ambitious, long-term targets, and ideally net-zero emissions.

Given the outsized role that infrastructure plays in shaping long-term emissions, Uzbekistan's first step would be to adopt a strategy focused on its key infrastructure projects, charting their life-cycle emissions against Uzbekistan's emission reduction targets. Sector-specific emission pathways can be useful tools to plan the investments required for each sector's transition and help avoid locking in emissions. A credible long-term low-emission development strategy will help the government correct its course of action and ratchet up ambition on GHG abatement.

To effectively marshal the domestic and international, public and private financing sources available, Uzbekistan should adopt a **coordinated long-term development financing strategy**. Building on preliminary work by the International Finance Corporation (IFC) and other development partners, Uzbekistan should clearly define the gap between current spending and the financing necessary for Uzbekistan to meet its climate commitments and wider development goals. Based on this gap assessment, Uzbekistan's development financing strategy can identify the sources of financing that are most appropriate for each component of the transition. For instance, renewable energy projects, which are essential for Uzbekistan's transition from a highly energy- and GHG-intensive economy, are good candidates to attract private financing.

### *Capital market development*

Uzbekistan should **adopt a consolidated law on capital markets**, simplifying the current legislative and regulatory framework consisting of multiple laws, presidential decrees and regulations. A less opaque legislative and regulatory framework will reduce unnecessary complexity, avoid contradictions between legislative acts, improve the market's overall functioning and remove barriers to potential market participants, both domestic and international. A 2021 presidential decree included this as a priority action for further market development (Government of Uzbekistan, 2021<sup>[31]</sup>).

The government's **current privatisation efforts should be reinvigorated** with appropriate safeguards and transparency regarding auctions. External factors, including Russia's invasion of Ukraine, quashed some early efforts to privatise Uzbekistan's SOEs and state-owned banks, but the government should continue its efforts to deliver on its objective to reduce the state's role in the economy and particularly in the banking sector. **Developing domestic capacity on capital markets and securities as well as improving corporate governance and transparency in state-owned banks** will help prepare them for privatisation and their growing need to mobilise alternative sources of financing as they are weaned off of government subsidies. International experience and peer-to-peer exchanges, particularly from other transition economies, will be valuable in managing their privatisation smoothly.

**Uzbekistan's securities market, currently divided between two exchange platforms, should be harmonised** to reduce transaction costs and other barriers to potential market participants. Seamless integration of the platforms for government and corporate securities will address some of the demand-side problems facing Uzbekistan's capital market, encouraging wider participation in the market, increasing transaction volumes and developing the market's liquidity. Working with recognised international exchanges and allowing double placement could help both improve Uzbekistan's stock exchanges' practices as well as attract more investors.

### *Green bonds and related instruments*

Uzbekistan has tasked its Ministry of Economy and Finance with attracting additional domestic and international private financing to green infrastructure projects in the country through the issuance of green bonds. Uzbekistan should build on its experience with its first sovereign sustainability bond and explore opportunities for sovereign green issuances.

Green bonds are best suited to projects with high up-front capital costs and long-term fixed income streams, such as renewable energy generation projects. The large-scale wind and solar generation plants financed by loans from international firms, like those promoted by ACWA Power and Masdar, could be refinanced using a green bond, potentially at more competitive rates. The development of future projects of a similar size could be excellent candidates for inclusion in green bond issuances.

Uzbekistan's line ministries, including the Ministry of Energy, Ministry of Investments, Industry and Trade, and the Ministry of Transport, regularly publish lists of priority infrastructure projects in need of financing. The selection process for projects for inclusion in Uzbekistan's first sovereign sustainability bond was

supposed to include consultation with line ministries, but according to the results of OECD fact-finding meetings with ministry representatives in 2022 their involvement in the process was limited. For future issuances, Uzbekistan can **draw on the existing priorities of its line ministries to develop bankable pipelines of high-impact infrastructure projects.**

As part of its push for the use of green bonds, Uzbekistan **tasked its Ministry of Economy and Finance with the development of a national green taxonomy, which was adopted in October 2023.** As experiences of other countries have shown, the development of a functioning green taxonomy is an iterative process of gradual improvements, revisions and expansions. The Ministry should seek to draw on emerging good practices from jurisdictions that have already been developed and seek to clearly classify economic activities that align with Uzbekistan's environmental and development goals. Ideally, the taxonomy would continue to be developed with future more ambitious climate objectives taken into account such as, for instance, a net-zero target and long-term low-emission develop strategy. In a similar vein, the government could consider **expanding its existing SDG Bond Framework.**

Uzbekistan should **remove legislative and regulatory barriers to the adoption of more financial instruments and potential issuers of green bonds.** Such barriers include the Budget Code's stipulation that subnational governments cannot issue debt instruments and the lack of legal framework for Islamic financial instruments, which prevents the development of green sukuks.

- In the case of subnational bonds, Uzbekistan could consider granting the ability to issue debt to a limited number of regional governments with sufficient capacity (i.e. City of Tashkent) under the supervision of the Ministry of Economy and Finance. Kazakhstan adopted this approach, and its subnational governments are now active participants in debt markets, under the strict control of the Ministry of Finance.
- In the case of Islamic finance and green sukuks, in addition to defining a legislative framework, Uzbekistan should draw on international experience from Islamic finance leaders (e.g. Indonesia, Malaysia, Gulf Cooperation Council countries) and adopt policies that facilitate the instrument's adoption.

### **1.2.2. Recommendations for other market actors**

Uzbekistan's **soon-to-be privatised banks and SOEs should build on experience from the country's first conventional corporate bond issuances and SQB's first green bond.** Uzbekistan's large state-owned banks and enterprises, many of which are slated for privatisation in the coming years according to the Strategy for the Reform of the Banking System 2020-2025 (Government of Uzbekistan, 2020<sup>[41]</sup>), need to adapt to the green transition to remain viable. They could use green bonds to finance components of their own transformation. For instance, UzAuto Motors, a state-owned car manufacturer that issued one of Uzbekistan's first corporate bonds, could seek to use a green bond to support the domestic production of electric vehicles, which the government has identified as a priority for the transition of its transport sector.

**State-owned banks and SOEs should seek peer-learning opportunities with experienced issuers of green bonds.** An OECD-organised peer-learning workshop between SanoatQurilishBank (SQB), a large Uzbek state-owned bank, and Ameriabank, a pioneering Armenian bank in green bond issuances, provided an opportunity for bankers operating in countries with shared history and challenges but different levels of market maturity to exchange on practical, real-life solutions. This workshop, organised following a request from SQB, could be replicated with banks' own funds or donor financing to encourage high-impact capacity development. SQB's first green bond issuance in a private placement in August 2023 is an encouraging first step for the country's banks.

As reforms expand the types of green financial instruments admissible on the market, corporate entities should seek to adopt those that are best suited to their needs. Given the latent demand for Islamic finance

in Uzbekistan, they should **consider Islamic alternatives to traditional debt instruments, such as green sukuks.**

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- UzReport (2023), *O'zsanoatqurilishbank 100 million AQSH dollarlik obligatsiyalarni xususiy joylashtirishni muvaffaqiyatli amalga oshirdi [Uzsanoatqurilishbank has successfully implemented a private placement of bonds worth 100 million US dollars]*, <https://uzreport.news/finance/o-zsanoatqurilishbank-100-million-aqsh-dollarlik-obligatsiyalarni-xususiy-joylashtirishni-> [2]

## **2** Uzbekistan's net-zero challenge: Macroeconomic and environmental state of play

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This chapter provides the necessary context to understand the scale of the challenges that Uzbekistan faces in pursuing its green transition and the gap between available financing and the estimated sums required. Uzbekistan's economy is dynamic and growing, but also highly energy- and GHG-intensive. The Government of Uzbekistan has set ambitious targets for the country in terms of economic development and climate change mitigation, but the scale of the economic transformation required to meet these targets requires sizeable investments, particularly in infrastructure. This transition will necessitate a major shift in Uzbekistan's existing infrastructure systems, especially its fossil fuel-reliant energy sector. By facilitating private investment, including from international sources, in projects that satisfy growing demand for infrastructure services without exacerbating existing environmental problems, Uzbekistan has an opportunity to establish itself as a regional leader in sustainable development. Such projects could, for instance, seek to harness Uzbekistan's large renewable energy potential.

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### Box 2.1. Key conclusions and recommendations

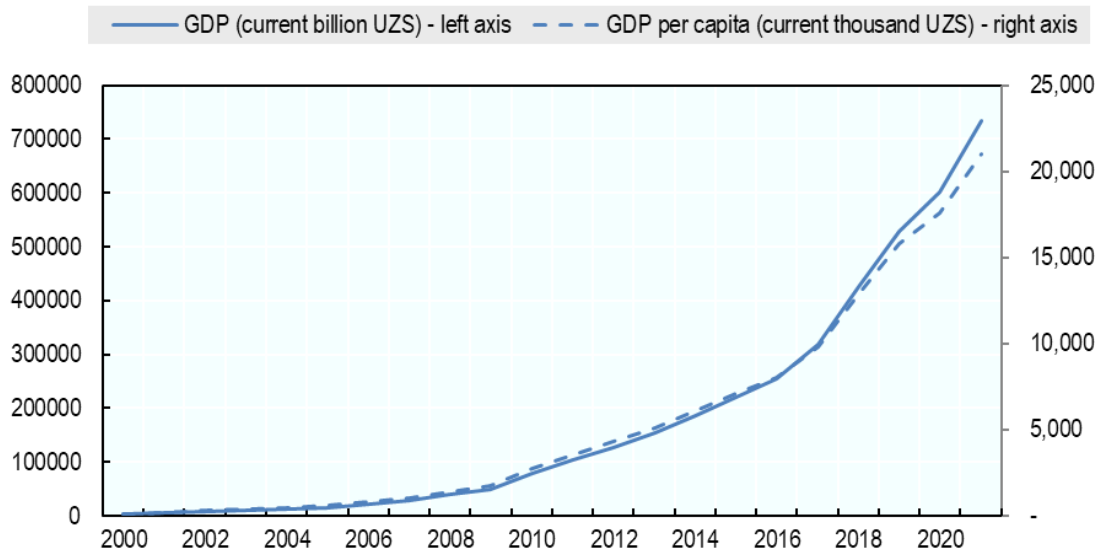
- Uzbekistan’s economy is growing rapidly and has proven resilient to recent external shocks, including the COVID-19 pandemic and Russia’s invasion of Ukraine. Prudent debt management and market reforms have improved the country’s investment climate.
- Uzbekistan’s economy is highly energy-intensive and, given the reliance of Uzbekistan’s energy system on fossil fuels, GHG-intensive. The economy is dominated by large state-owned enterprises, and the country is highly reliant on natural gas, its domestic reserves of which are nearing exhaustion.
- Given the potential for renewable power generation, particularly solar, there is considerable scope for Uzbekistan to cut its GHG emissions in line with its commitments under the Paris Agreement (-35% reduction in GHG intensity of the economy compared to 2010 levels) by rapidly increasing the share of renewable energy sources as well as boosting energy security and improving and greening infrastructure in the energy, transport and other sectors.
- Uzbekistan has set 2030 targets for *inter alia* reducing the GHG intensity of the economy (-35% compared to 2010 levels) and renewable energy integration (25% of TPES). It also aims to reduce the state’s share in the national economy and develop the domestic capital market. However, Uzbekistan’s strategies lack credible costing information and financing strategies.
- Uzbekistan has not yet adopted a comprehensive economy-wide net-zero target and supporting long-term low-emission development strategy.
- Given the magnitude of the investments needed (at least USD 6 billion annually), domestic public financing is insufficient for Uzbekistan to achieve the SDGs and its climate and development ambitions.

## 2.1. The challenge of Uzbekistan’s green transition

### 2.1.1. Macroeconomic overview

Uzbekistan’s economy has experienced rapid, sustained growth since achieving independence from the Soviet Union in 1991, with GDP and GDP per capita increasing by about 3.7 and 2.6 times respectively since 2010 (see Figure 2.1). Its economy, the second largest in Central Asia after neighbouring Kazakhstan’s, grew by over 6% on average annually between 2010 and 2019 (World Bank, 2023<sup>[1]</sup>) driven by growth in commodity exports, foreign investment, industry, services and the private sector as well as stable demographic growth of about 1.7% on average since 2000 (UNECE, 2020<sup>[2]</sup>). Rapid growth returned in 2021 (+7.4%) following brief dip due to the COVID-19 pandemic in 2020 (+1.9%). Since 2017, Uzbekistan has undertaken a raft of ambitious reforms, opening the country up to foreign trade, liberalising prices, abandoning the long-held peg on the Uzbek *sum* (UZS)’s value on foreign exchange markets and granting greater operation independence to the Central Bank of Uzbekistan (Al Rasasi and Cabezon, 2022<sup>[3]</sup>).

Figure 2.1. Uzbekistan's economy has grown consistently despite external shocks



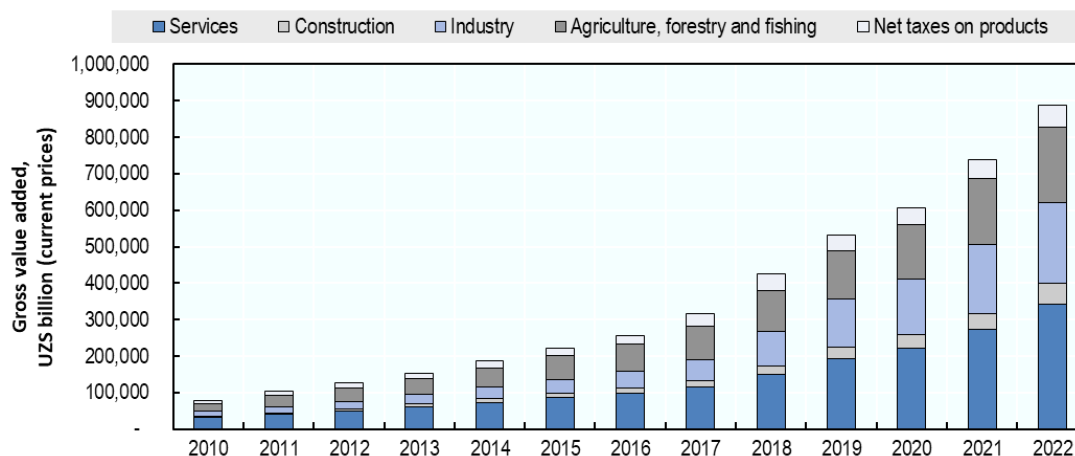
Source: World Bank (2023<sup>[1]</sup>), World Bank Indicators Database, <https://data.worldbank.org/indicator>

State dominance is a central characteristic of Uzbekistan's economy. 2 800 state-owned enterprises (SOEs) are under direct central government control, and they are responsible for 18% of employment, 20% of exports and approximately 50% of GDP. The outsized role played by SOEs across most sectors of the economy, including the energy, finance, transport and agriculture sectors, stifles competition and the emergence of more innovative firms, leads to misallocations of labour and capital, slows private sector development and burdens the state budget. Uzbekistan has made progress on strengthening corporate governance with a view to privatise many of its SOEs in the coming years, notably through the introduction of governance by supervisory boards including independent board members. However, the central government still maintains the power to appoint and dismiss SOE CEOs and civil servants are overrepresented in supervisory boards (World Bank, 2021<sup>[4]</sup>).

Services account for the largest share (39%) of Uzbekistan's GDP followed by industry (25%) and agriculture (23%). The service sector's share of GDP has remained broadly stable over the past two decades, while industry's share has grown (from 16% in 2010) and agriculture's has declined slightly (from 27% in 2010) (see Figure 2.2). Uzbekistan's industrial sector includes several greenhouse gas (GHG)-intensive industries, such as natural gas production, cement production and chemicals production (including ammonia and nitric acid, primarily used in fertilisers). Agriculture employs about 27% of Uzbekistan's population, particularly in rural areas where the figure is closer to 60%. As a whole, the agricultural sector in Uzbekistan has been progressively modernised, with increasing productivity thanks to crop diversification (notably away from cotton monocultures), land rehabilitation and increased mechanisation (Uzhydromet, 2021<sup>[5]</sup>). The informal sector plays a large role in Uzbekistan's economy, particularly the service and agriculture sectors; it is estimated that in 2019 the informal economy was equal to 40-50% of the country's GDP (Hamidov and Davletov, 2020<sup>[6]</sup>).



Figure 2.2. Industry's share of Uzbekistan's GDP has risen, while agriculture's share has declined

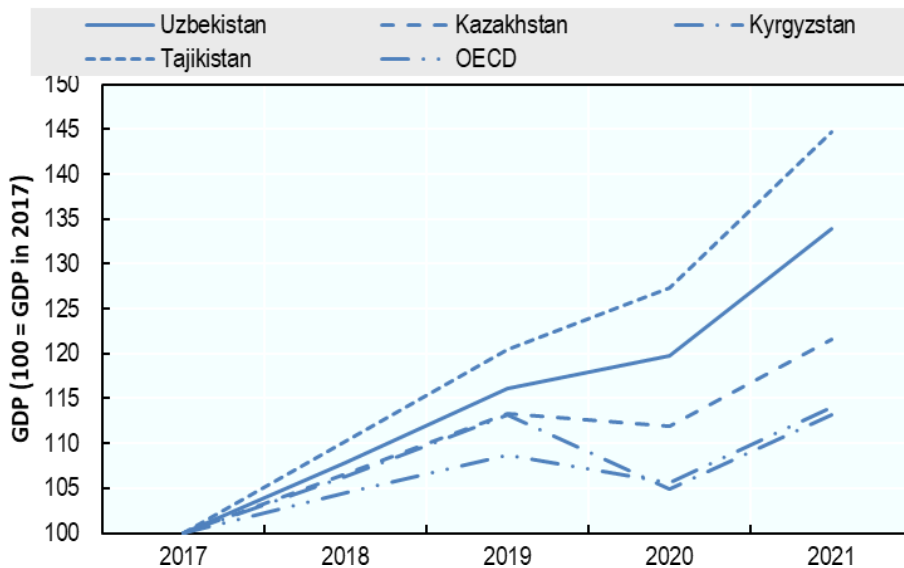


Source: UzStat (2023<sup>[7]</sup>), "Volume of gross domestic product by types of economic activities", <https://www.stat.uz/en/official-statistics/national-accounts>.

Since Uzbekistan began opening its economy more to foreign trade, the country's trade balance has been negative and declining, reaching USD 11.4 billion in 2022. Uzbekistan's primary trade partners are China and Russia, each of which accounts for approximately 15% of exports and 20% of imports. Other important trading partners are Kazakhstan, Turkey, Korea and Kyrgyzstan. Gold is Uzbekistan's single largest export product, accounting for 21% of exports. The largest category of exports, however, is industrial goods – including cotton yarn for textiles – (23%), followed by services (21%), food products (8%) and fuels and lubricating products, including natural gas (6%). While most of Uzbekistan's export products are raw materials or basic manufactures, many of which are emissions-intensive, Uzbekistan has a growing car and bus manufacturing industry, including for electric vehicles. Manufactures and finished products account for the majority of Uzbekistan's imports, primarily machinery and transport equipment (31%), industrial goods (19%) and chemicals (19%) (UzStat, 2022<sup>[8]</sup>).

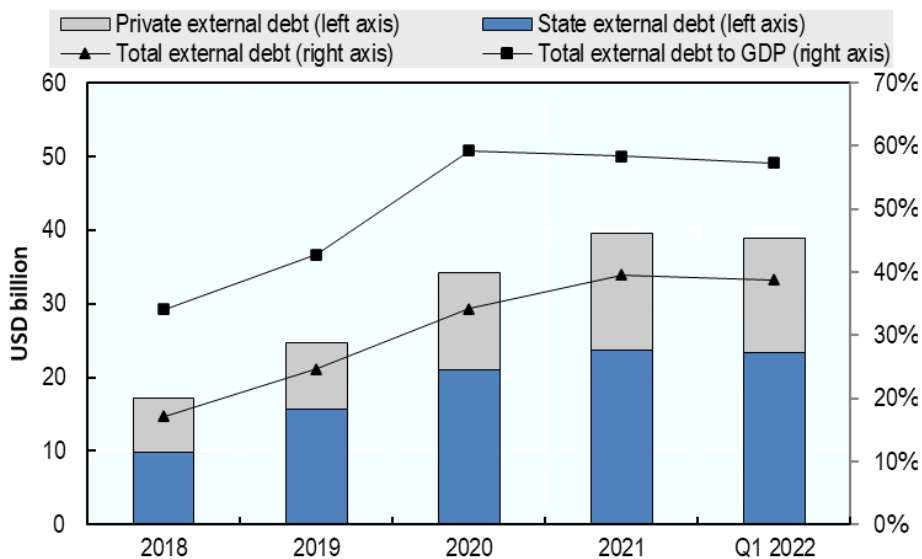
According to the IMF, Uzbekistan's economy is expected to continue growing at rates of about 4.5-5% until at least 2027 (IMF, 2022<sup>[9]</sup>). The economy has proved resilient to recent external shocks, notably the COVID-19 pandemic and the effects of Russia's invasion of Ukraine (see Figure 2.3), in part thanks to its low levels of government and external debt (see Figure 2.4 and Figure 2.5), a low and declining budget deficit (about 4.8% in 2022), sizeable international reserves (USD 33.5 billion for 2023-24), sizeable domestic energy resources and its somewhat limited integration in international financial markets. The government has also continued to bolster resilience to economic shocks through fiscal consolidation (including through formalisation of the country's large informal economy and improvements to tax efficiency) and strict controls on public debt (e.g. the Law on Public Debt, which introduces a public debt ceiling of 60% of GDP, annual borrowing limits and required corrective measures if debt rises above 50% of GDP). Uzbekistan's competent debt management strategy has contributed to the country's rise to a BB-sovereign credit rating (as of 2023, according to Standard and Poor's and Fitch Ratings, both with stable outlooks). Although a BB- rating classifies Uzbekistan's credit worthiness as non-investment grade speculative, it places Uzbekistan in the same category as Brazil, Georgia and Greece (Investment Promotion Agency, 2023<sup>[10]</sup>).

**Figure 2.3. Uzbekistan’s economy fared better than others in Central Asia and the OECD on average during the COVID-19 pandemic**



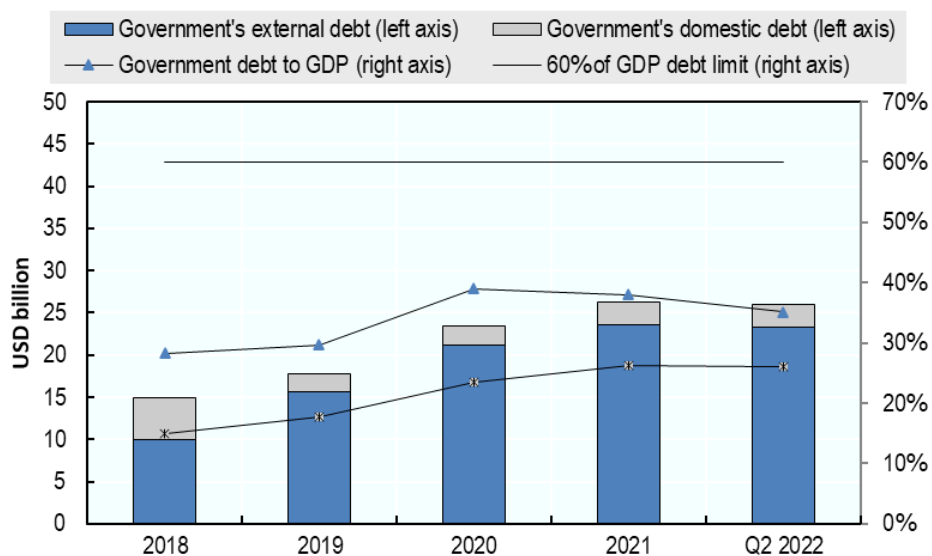
Source: World Bank (2023<sub>[11]</sub>), World Bank Indicators Database, <https://data.worldbank.org/indicator>.

**Figure 2.4. Uzbekistan’s total external debt levels have remained low**



Source: Ministry of Finance of Uzbekistan (2022<sub>[11]</sub>), The State Debt of the Republic of Uzbekistan for the 1st Quarter of 2022, [https://api.mf.uz/media/post\\_attachments/1kv\\_2022\\_eng.pdf](https://api.mf.uz/media/post_attachments/1kv_2022_eng.pdf).

**Figure 2.5. External and domestic debt of Uzbekistan’s government has remained comparatively low**

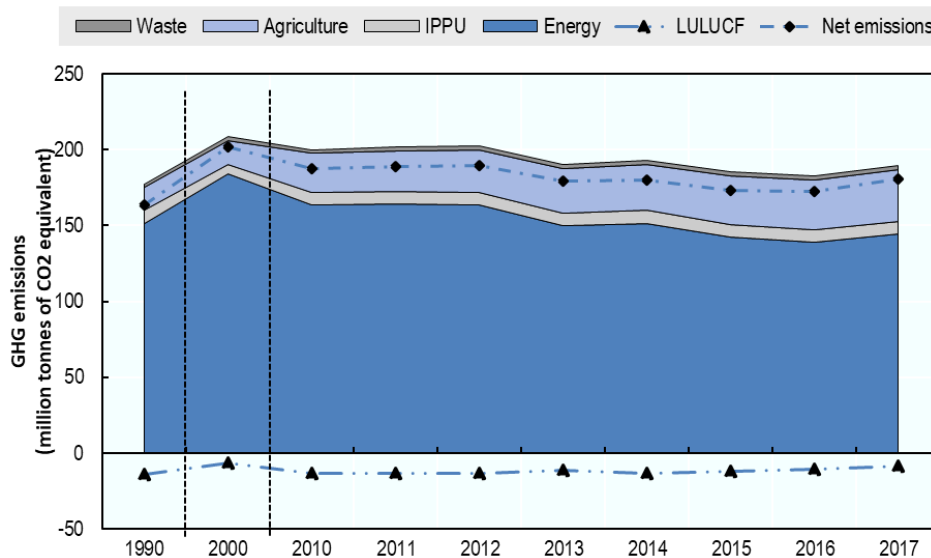


Source: Ministry of Finance of Uzbekistan (2022<sup>[11]</sup>), The State Debt of the Republic of Uzbekistan for the 1st Quarter of 2022, [https://api.mf.uz/media/post\\_attachments/1kv\\_2022\\_eng.pdf](https://api.mf.uz/media/post_attachments/1kv_2022_eng.pdf).

### 2.1.2. Environmental challenges

Uzbekistan's economic successes have come at great environmental cost. Uzbekistan's total greenhouse gas (GHG) emissions are the second largest in the region after Kazakhstan, and its emissions per unit of GDP are the fifth largest in the world (World Bank, 2022<sup>[12]</sup>). Uzbekistan's economy is also highly energy-intensive (8.36 MJ per 2017 USD PPP according to 2019 IEA data, the second highest in the region after Turkmenistan) (IEA, 2022<sup>[13]</sup>). Consequently, energy accounts for the vast majority of Uzbekistan's GHG emissions, led by electricity generation from Uzbekistan's primarily gas-fired thermal power plants (see Figure 2.6). Natural gas accounts for 82.7% of the country's total energy supply (TES), followed by oil (9.5%) and coal (6.4%). Hydroelectric power plants make up only 0.9%, and although Uzbekistan has accelerated the development of renewable energy projects harnessing solar and wind, their share of TES remains negligible (IEA, 2022<sup>[14]</sup>). This is further aggravated by generous fossil-fuel subsidies provided to oil, gas and electricity consumers. In 2021, total fossil-fuel subsidies amounted to 19.3% of GDP, the highest among all countries in the IEA dataset (IEA, 2023<sup>[15]</sup>).

Figure 2.6. Energy accounts for the majority of Uzbekistan's greenhouse gas emissions

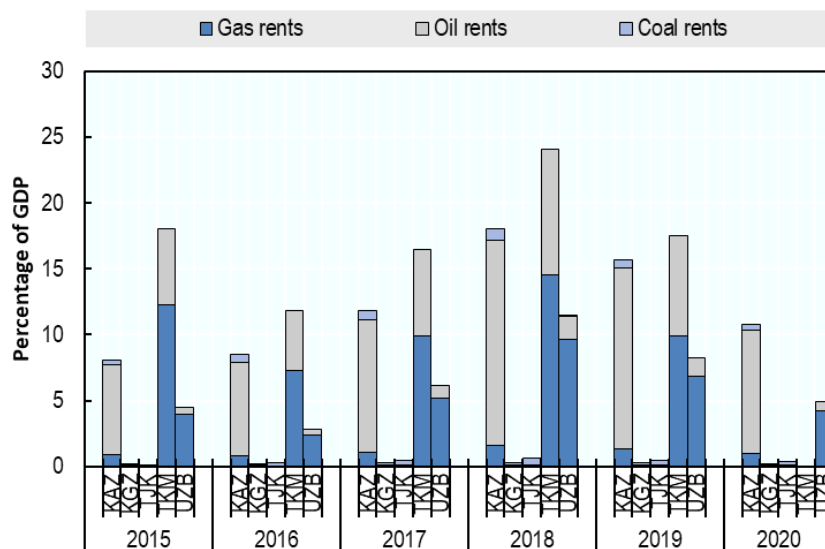


Source: Centre of Hydrometeorological Services of Uzbekistan (Uzhydromet) (2021<sup>[5]</sup>), First Biennial Update Report to the United Framework Convention on Climate Change, <https://unfccc.int/documents/283216>.

Uzbekistan is the 13<sup>th</sup> largest producer of natural gas worldwide and is home to the 24<sup>th</sup> largest reserves (IEA, 2022<sup>[14]</sup>). While fossil fuel rents, especially from natural gas, account for a significant portion of the country's GDP, Uzbekistan is less reliant on fossil-fuel revenue than neighbouring Kazakhstan and Turkmenistan (see Figure 2.7). On average between 2010 and 2019, Uzbekistan exported approximately 21% of its gas production, amounting to 10 billion cubic metres, to China, Kazakhstan and Russia (IEA, 2022<sup>[14]</sup>). However, with rising domestic demand for gas products and a shift in government strategy towards domestic production of petrochemicals using natural gas, the share of exports has declined (6% in 2020), and the government plans to stop all exports of gas by 2025. At current rates of production (approximately 55-57 billion cubic metres per year), Uzbekistan's reserves are at risk of significant depletion by 2030. (IEA, 2022<sup>[14]</sup>). In early 2023, a spike in demand during the harsh winter exceeded domestic supply, leading to widespread gas shortages for electricity and heating (Lillis, 2023<sup>[16]</sup>). This episode and the wider context of Russia's invasion of Ukraine have brought energy security to the top of the policy agenda for Uzbekistan's government. Given the country's more modest oil reserves, Uzbekistan has already become a net importer as a result of dwindling production and rising domestic demand (Uzhydromet, 2021<sup>[5]</sup>).

## Figure 2.7. Uzbekistan benefits from large natural gas rents

Natural gas, oil and coal rents in Central Asian countries as a percentage of GDP, 2015-20.



Note: No Turkmenistan data available for 2020.

Source: World Bank (2023<sup>[1]</sup>), World Bank Indicators Database, <https://data.worldbank.org/indicator>.

Uzbekistan is already feeling the effects of climate change. Average air temperatures are rising faster in Uzbekistan than the global average. Between 1950 and 2013, temperatures rose by 0.27°C per decade on average with significant regional variation (World Bank Group and ADB, 2021<sup>[17]</sup>). Although these impacts are dependent on global emissions, of which Uzbekistan is only responsible for a relatively small share, Uzbekistan has considerable scope to contribute to global efforts and reduce its domestic emissions in line with its nationally determined contribution (NDC). Uzbekistan, a Party to the United Nations Convention on Climate Change and signatory of the Paris Agreement, has adopted emissions-reduction objectives through national strategies and international commitments.

Water scarcity, which has long been a challenge for the arid country, could worsen due to climate change as glaciers in Uzbekistan and Central Asia more broadly continue to shrink (UNECE, 2020<sup>[2]</sup>). This could have direct impacts on human quality of life through decreased water availability and quality from increased salinisation of water sources. Water scarcity, erosion and salinisation are expected to negatively impact soil quality and, as a result, crop yields in the agricultural sector (UNECE, 2020<sup>[2]</sup>). The Aral Sea, which straddles the border between Kazakhstan and Uzbekistan, is the most striking example of human impact on the environment in the region. Since 1960, water volumes have reduced by over 90%, due to diverted water from the Amu Darya and Syr Darya rivers for mass irrigation of crops in Central Asia, primarily for water-intensive cotton production in Uzbekistan. An increasing area of land formerly covered by water or river deltas has transformed into desert, and storms carrying 43 million tonnes of dust annually pass through the dry seabed, leading to further pollution of surface water and health impacts as far as 200 km from the sea itself. Since the Aral Sea is an endorheic body of water (i.e. with no outflowing rivers), its salt and agricultural pollutant concentrations continue to rise. As a result, local populations suffer from myriad health impacts, including lower fertility, poor organ function and potentially higher rates of cancer (Wæhler and Dietrichs, 2017<sup>[18]</sup>).

### 2.1.3. Infrastructure challenges and opportunities

Infrastructure lies at the heart of Uzbekistan's green transition challenge. In its current state, Uzbekistan's infrastructure constrains the growth of the economy due to ageing infrastructure stock, unreliable service delivery, higher transport and logistics costs for exporters and disruptions to production. Regular service interruptions to electricity, gas and water supplies, leading to output losses of approximately 24% among large firms and 38% among smaller firms (World Bank, 2022<sup>[19]</sup>). Uzbekistan stands to benefit economically from investment in projects to replace its ageing infrastructure assets, and it can seize the opportunity to transition towards lower-carbon alternatives.

#### *Energy sector*

Uzbekistan would garner the largest benefits in terms of emissions reduction from transforming its energy infrastructure. Uzbekistan's thermal power plants and co-generation plants have been in operation for 42 and 63 years on average respectively, and the country's hydroelectric power plants were commissioned on average 46 years ago (IEA, 2022<sup>[14]</sup>). The infrastructure stock is therefore inefficient, largely obsolete and due for decommissioning. To cope with increasing demand for electricity, which amounted to 63 terawatt-hours in 2018 and is projected to grow by 4% annually to 2030, Uzbekistan needs not only to replace existing power plants but build new generation capacity (World Bank, 2022<sup>[19]</sup>). Given these pressures, timely action to renew and expand generation capacity is necessary to ensure the economy continues to function.

There is an urgent need for Uzbekistan to diversify its energy mix, and doing so through renewables integration would allow Uzbekistan to address its GHG emissions and energy security concerns simultaneously. As Uzbekistan's existing power plants are decommissioned and replaced, the country has an opportunity to reduce its reliance on natural gas and bolster energy security. Natural gas fuels 88% of domestic electricity generation, 50% of transportation (in the form of compressed natural gas) and the majority of district heating (IEA, 2022<sup>[14]</sup>). Current domestic production rates would exhaust Uzbekistan's natural gas reserves by 2030, and imports are increasingly required to supplement domestically produced natural gas, increasing vulnerability to external supply shocks.

Solar power, even from a purely economic perspective, offers a promising alternative to gas-fired electricity in Uzbekistan, given the growing affordability of solar panels and Uzbekistan's favourable conditions. Uzbekistan's median global horizontal irradiance (GHI), a measure of solar potential, is estimated at 4.52 kWh per square metre per day, higher than the levels in Spain (4.46 kWh/m<sup>2</sup>/day) and Italy (4.07 kWh/m<sup>2</sup>/day) (IEA, 2022<sup>[14]</sup>). In addition to solar, Uzbekistan has untapped potential for wind power and other renewable energy sources. In fact, the potential for electricity generation from renewable energy sources is three times larger than current fossil fuel consumption (179 million tonnes of oil equivalent using modern technology) (Uzhydromet, 2021<sup>[5]</sup>).

However, Uzbekistan's outdated electricity transmission and distribution system represents a significant barrier to increased renewables integration. Over half of the network was built 30 years ago or more, and it leads to significant losses (14-16% of generation according to 2019 data) (Regional Electrical Networks, 2019<sup>[20]</sup>). Although Uzbekistan's grid is linked to neighbouring Central Asian countries' networks and, via Kazakhstan, to Russia and Afghanistan's networks, the electricity markets of Central Asian countries are less integrated than they were during the Soviet Union. In 1990, cross-border electricity trade amounted to 25 billion kilowatt-hours (kWh) between Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, but by 2016 trade had decreased by over 90% to 2 billion kWh (ADB, 2019<sup>[21]</sup>). Although the current low levels of variable renewable power integration do not pose a threat to network performance, there is a pressing need for the modernisation of the domestic transmission and distribution system and improved integration with neighbouring countries to prepare for higher levels of supply variability in the future.

## Transportation

Uzbekistan lies at the confluence of several regional cross-border transport projects, including transport corridors under China's Belt and Road Initiative and two of the six corridors under the Central Asia Regional Economic Cooperation (CAREC) programme, and stands to benefit from better integration into the emerging Middle Corridor (or Trans-Caspian International Transport Route) running from China via Kazakhstan and the Caucasus to Europe. Uzbekistan's existing transport network, consisting of the highest density of roads in Central Asia (41km per 100km<sup>2</sup>) and a reasonably developed public railway network (4 642 km of rail, including 1 646 km of operational electrified segments and 719 km of high-speed rail (Uzhydromet, 2021<sup>[5]</sup>), does not have sufficient capacity to handle projected increases in volume while maintaining current levels of network performance. The International Transport Forum (ITF) estimates that Uzbekistan road infrastructure capacity would need to increase by 486% by 2030 and 1365% by 2050, while rail capacity would need to increase by 459% by 2050 (ITF, 2019<sup>[22]</sup>).

The greening of Uzbekistan's transport sector is closely linked to the energy challenges listed above. Currently, most passenger and freight transport in Uzbekistan occurs via road, and over half of the vehicle fleet is fuelled by compressed natural gas. Given these interlinkages, the modernisation and expansion of Uzbekistan's transport infrastructure needs to be carried out in tandem with the transformation of the energy sector.

## 2.2. Government strategies and priorities

Uzbekistan's government recognises the scale of the green transition challenge. The government of Uzbekistan has already laid out its vision for the first phase of the transition, up to 2030, summarised in Table 2.1, which focuses on reducing the GHG emissions intensity of GDP via renewables integration and electrification and shrinking the state's role in the financial system as well as the economy as a whole. A component of the vision aims at reducing the state's role in the economy, develop the domestic capital market and improve investment conditions to attract private capital domestically and from abroad. Uzbekistan has identified green bonds as a priority instrument for attracting private capital and has tasked the Ministry of Economy and Finance with improving the relevant regulatory framework.

The credibility of the targets, many of which are ambitious, is weakened by patchy information on costs and how the required actions would be financed. Available information on the progress towards the targets suggests that Uzbekistan is not on track to achieve them by 2026 (in the case of the New Uzbekistan Strategy) and 2030 (in the case of the Strategy for the Transition to a Green Economy and the revised Nationally Determined Contribution).



Table 2.1. Summary of Uzbekistan’s environmental and capital market development targets

Strategy Title	Main objectives	Means of implementation	Current status
Revised Nationally Determined Contribution (NDC) → by 2030	<u>Climate change</u> : 35% reduction in GHG emissions per unit of GDP compared to 2010 levels	- Target not costed but relies on international support	<u>Climate change</u> : Off track: slight drop of GHG emissions per unit of GDP between 2010 (3.58 kt CO <sub>2e</sub> ) and 2020 (3.07 kt CO <sub>2e</sub> )
“New Uzbekistan” Development Strategy for 2022-2026 → all objectives by 2026	<u>Renewable energy</u> : 25% renewable energy sources in TPES <u>Energy efficiency</u> : increase energy efficiency by 20% <u>Transport</u> : electrify 60% of railways; incentivize EV production and uptake <u>Domestic capital market development</u> : increase turnover on the stock market from USD 200 million to USD 7 billion <u>Investment</u> : attract USD 120 billion in investments, of which USD 70 billion from foreign sources <u>Privatisation</u> : increase private share of banking system’s assets to 60%	2022 activities under the Strategy to be funded by: - State budget and special purpose funds: UZS 35 trillion + USD 165 million - Recovery and development funds: UZS 200 billion + USD 100 million - Bank funds: UZS 19.2 trillion + USD 5.8 million - Funds from IFIs: UZS 323 billion + USD 5.56 billion 2023-2026 activities have not been costed	<u>Renewable energy</u> : Off track: renewables accounted for 0.9% of TPES in 2022. <u>Transport</u> : Approximately 35% of railways electrified by 2021. <u>Domestic capital market development</u> : 310% increase in stock market activity between 2021 and 2022, up to UZS 4.7 trillion (approx. USD 442 million)
Strategy for the Transition to a Green Economy 2019-2030 → all objectives by 2030; Strategy updated in 2022	<u>Energy intensity</u> : 30% reduction in energy intensity compared to 2021 levels <u>Renewable energy</u> : 30.5% renewable energy sources in TPES; 1500 MW of installed small-scale photovoltaic panels <u>Energy efficiency</u> : increase energy efficiency in industry by 20%	- Targets not costed	<u>Renewable energy</u> : Off track: renewables accounted for 0.9% of TPES in 2022; installed photovoltaic capacity negligible in 2022

Source: Government of Uzbekistan (2022<sup>[23]</sup>), О Стратегии развития Нового Узбекистана на 2022-2026 годы [On the New Uzbekistan Development Strategy 2022-2026], <https://lex.uz/ru/docs/5841077>; Government of Uzbekistan (2022<sup>[24]</sup>), О мерах по повышению эффективности реформ, направленных на переход Республики Узбекистан на «зеленую» экономику до 2023 года [On measures to improve the efficacy of reforms aimed at transitioning the Republic of Uzbekistan to a green economy by 2030], <https://lex.uz/ru/docs/6303233>; IEA (2022<sup>[14]</sup>), Uzbekistan 2022 Energy Policy Review, <https://doi.org/10.1787/be7a357c-en>; Toshkent Republican Stock Exchange (2023<sup>[25]</sup>), 2022 Exchange Review, [https://uzse.uz/system/analytics/pdfs/000/000/154/original/Exchange\\_review\\_for\\_full\\_year\\_2022.pdf](https://uzse.uz/system/analytics/pdfs/000/000/154/original/Exchange_review_for_full_year_2022.pdf); World Resources Institute (2023<sup>[26]</sup>), Climate Watch Historical GHG Emissions (1990-2020), <https://www.climatewatchdata.org/ghg-emissions>

Uzbekistan still lacks a credible strategy to guide the transition in the long term (i.e. to 2050 and beyond). Ideally, such a strategy would chart the holistic transformation of Uzbekistan’s economy, taking into account the interplay between sectors as well as environmental and social impacts, and the reduction of GHG emissions towards a net-zero goal. Among Central Asian countries, Kazakhstan was the first country to adopt a Strategy for Achieving Carbon-Neutrality by 2060 (Government of Kazakhstan, 2023<sup>[27]</sup>) in early 2023, and it is now embarking on a process of translating its broad objectives into actionable reforms.

The government of Uzbekistan has made the Sustainable Development Goals (SDGs) a central part of its development planning. To increase the effectiveness of ongoing reforms and create conditions for ensuring sustainable development, the government of Uzbekistan defined a national SDG Roadmap and framework for the use of its economic resources in accordance with sustainability criteria. In 2018, the government developed its own sustainability model which adopts 16 National SDGs and their 125 corresponding targets that align with goals included in the United Nations’ 2030 Agenda for Sustainable Development. Simultaneously, an inter-agency Coordination Council for implementing the national SDG Roadmap was established, along with the creation of a bicameral Parliamentary Commission on SDGs.

### 2.2.1. Sectoral reforms and strategies

As part of this wider reform effort, several incentives for green investment projects are planned or have been introduced, including many sector-specific incentives.

#### *Energy sector*

Uzbekistan announced in February 2021 its aim to achieve carbon neutrality in its power generation sector by 2050, although this objective has not been enshrined in a policy document or binding legislation. Uzbekistan has strengthened its collaboration with the European Bank for Reconstruction and Development (EBRD), which supported the Ministry of Energy's development of a low-carbon energy strategy and produced guidance on achieving net-zero emissions in Uzbekistan's electricity sector. The strategy envisions early retirement of older, inefficient generation capacity and replacement with higher-efficiency gas-fired power plants in the short term, and a rapid scale-up of renewable energy in the medium to long term. Multilateral development banks have supported or are supporting the elaboration of a raft of medium-term strategies focusing on different aspects of the power generation sector such as the Transmission Network Development Plan to 2030 (developed with support from the World Bank) and the Distribution Network Development Plan (under development with support from the Asian Development Bank).

The government of Uzbekistan has implemented sweeping reforms of the energy sector in recent years. In 2019, the government of Uzbekistan split Uzbekenergo, a state-owned vertically integrated energy company, into four distinct joint stock companies (JSC) responsible for the development and operation of thermal power plant generation (JSC Thermal Power Plants); the development and operation of hydroelectric generation capacity (JSC Uzbekhydroenergo); the transmission, interstate transit, import and export of electricity (JSC National Electric Grid) and local electricity distribution and the management of 14 territorial JSCs in charge of sales to end-use consumers (JSC Regional Power Grids) (Government of Uzbekistan, 2019<sup>[28]</sup>). The creation of an independent gas and electricity regulator is expected in the near future (Turkstra, 2021<sup>[29]</sup>).

A project office headed by the Deputy Minister of Energy in charge of the electricity sector was created under the Ministry of Energy. It serves as the working body of the Commission on the Reform of the Electric Energy Sector (Government of Uzbekistan, 2019<sup>[28]</sup>). The project office has mapped out a three-step plan to transform Uzbekistan's electricity market into a competitive wholesale market by 2025. The first phase focuses on liberalising the energy market and granting licences to more private firms wishing to sell electricity. The second phase foresees the creation of a system operator for power distribution and a transfer to energy suppliers of the right to sell to consumers on the basis of licences. Consumers will be able to select suppliers through an online trading platform, encouraging competition and innovation. The third phase envisions the establishment of intraday and hourly sales on the wholesale market (Kun.Uz, 2021<sup>[30]</sup>).

In 2020, Uzbekistan's Ministry of Energy adopted a Concept Note for Ensuring Electricity Supply in Uzbekistan in 2020-2030, which aims to reduce the existing electricity deficit while simultaneously promoting balanced development and paying due attention to sustainability and the green economy. The Concept Note also stipulates the need to reconstruct and modernise existing power generation, distribution and transmission infrastructure to increase energy efficiency, to improve the power metering systems, and to diversify fuel sources and further promote and develop the use of renewable energy. The note sets out both medium-term and long-term targets for the power sector. Specifically, it sets out the following objectives:

- the satisfaction of the country's electrical power demand in full through domestic generation, avoiding dependence on energy imports and ensuring energy security;

- the improvement of the energy efficiency of the economy and a reduction in its energy intensity, including through the creation of economic mechanisms to stimulate rational use of electrical power by consumers;
- an increase in the energy efficiency of the generation, transmission and distribution of electrical power to satisfy the growing demand;
- a reduction of power equipment wear-and-tear through constant renewal and an increased reserve of generation and transmission assets;
- the development and expansion of the use of renewables and their integration into the unified power system;
- the development of an efficient basic electricity market model.

The Concept Note calls for the development of 62 energy projects by 2030, including the construction of 35 hydroelectric power plants (1 537 MW) and the modernisation of 27 existing hydroelectric power plants. It also envisions the addition of 3 GW of wind power and 5 GW of solar power capacity by 2030. In addition to these large-scale projects, several small-scale solar power plants, which are not connected to the central grid, are to be constructed in remote areas. The plan also calls for the construction of medium-scale solar power facilities to cover the power needs of individual producers and industrial hubs. Residential renewable energy installations supplying individual houses and residential complexes are expected to be constructed in the form of independent power units. In order to achieve these targets, solar plants will be equipped with large storage systems. Aware that attracting foreign direct investment (FDI) will be instrumental in reaching the targets, the government is working on promoting FDI in the renewable energy sector through the introduction of competitive bidding processes. The government is dedicated to working with the IFIs during the initial stages of the implementation process in order to identify potential investors under the Build-Own-Operate framework and to sign long-term Power Purchase Agreements (PPAs) for the supply of renewable energy.

The pace of renewable energy development in Uzbekistan has begun to accelerate markedly, although is currently at extremely low levels. Since 2019, the government of Uzbekistan, with support from the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD) and the World Bank Group, have been launching competitive bidding processes for the construction and operation of large-scale solar photovoltaic generation projects. Contracts amounting to 1 300 MW of new generation capacity have been awarded to international companies, and projects representing a further 750 MW of capacity are open to tender (IEA, 2022<sup>[31]</sup>). The government and the International Finance Corporation (IFC) have signed an agreement on advisory services for the preparation of 500 MW of wind farm projects for tender through public-private partnerships (Djunisic, 2022<sup>[32]</sup>).

However, compared to the installed capacity of thermal power stations and combined heat power plants (14 520 MW in 2020) and hydroelectric power stations (2 023 MW in 2020) (UzStat, 2023<sup>[33]</sup>), the planned renewable capacity is modest in size. The development of solar power, where Uzbekistan's relatively high global horizontal irradiance (GHI) gives the country a distinct advantage, faces several barriers. In addition to capacity constraints (e.g. lack of qualified workforce and local knowledge, poor quality and availability of data), prospective developers of solar energy face market barriers (e.g. elevated fossil fuel subsidies, non-cost-reflective energy pricing, inadequate accounting of social and environmental externalities), complex policies lacking transparency, "stop-and-go" policy approaches that undermine investor confidence, restrictive local content requirements paired with insufficient available local technologies and an electricity market design unsuitable for large-scale integration of variable renewable energy sources (IEA, 2022<sup>[31]</sup>). To address some of the non-economic barriers related to in-country capacity for the development of renewable energy projects, the government established the National Renewable Energy Research Institute under the Ministry of Energy in 2022 (Government of Uzbekistan, 2022<sup>[34]</sup>). It is charged with designing training programmes for renewable and hydrogen energy. New master's programmes are set for introduction into six leading Uzbek universities (Government of Uzbekistan, 2021<sup>[35]</sup>).

### *Energy efficiency and industry*

Recent legislation has introduced several incentives for investment in energy efficiency-related projects, including deductions of up to 50% of import tariffs for energy-efficient equipment, preferential credit under government guarantee for state-owned firms financing state, sectoral and regional energy efficiency programmes and lower tariffs on energy resources for firms producing products with lower energy consumption than the established standards. An energy saving fund was created in August 2020, sourced from annual payments of 5% of net revenue from the oil, gas and energy sectors, income from higher energy tariffs on excess energy consumption, and fines for infractions related to energy use. The fund aims to support firms and individuals undertaking energy audits, capacity building, the introduction of energy saving technologies and the development of renewable energy and financing energy saving and renewable energy projects (Energy Charter, 2022<sup>[36]</sup>).

Several policies were also introduced to incentivise the adoption of more energy-efficient industrial processes, including energy tariff reductions for industrial firms using energy efficient technology. Since 2020, firms have been obliged to set energy saving targets to 2023, although the targets are only indicative and no mechanism is in place to encourage their achievement. Industrial firms are also eligible to apply for financial support (from the state budget and loans from international financial institutions) to carry out mandatory energy audits. State-owned enterprises must comply with more stringent regulations on energy efficiency than private firms (Energy Charter, 2022<sup>[36]</sup>).

### *Transport sector*

The Ministry of Transport submitted a draft Strategy for the Development of Uzbekistan's Transport System to 2035 for public consultation in 2019, but the Strategy has not yet been adopted by the government. The Strategy calls for the construction of new rail lines (525.2 km by 2035 compared to 129.2 km in 2018; increasing density to 16.5 km / 1000 km<sup>2</sup>), roads (756 km by 2035 compared to 130 km in 2018), urban transport services (including metro lines and bus routes) and airport runways. It also sets objectives for alternative fuels in automobiles (80%), electric and hybrid vehicles in the national motor vehicle fleet (20%) and GHG reductions per unit of transported cargo (Government of Uzbekistan, 2019<sup>[37]</sup>).

The government has also adopted incentives for the domestic production of hybrid and electric vehicles, including exemption from recycling fees as well as customs duties on imported parts, and their purchase by individuals in the form of partial credit reimbursement for loans (Government of Uzbekistan, 2022<sup>[38]</sup>). Uzbekistan aims to increase the domestic production of electric vehicles to 15-25 thousand units per year (Kapital.Kz, 2022<sup>[39]</sup>), which is roughly equivalent to average monthly purchases of domestically produced vehicles (approx. 19 thousand) (Centre for Economic Research and Reforms, 2023<sup>[40]</sup>).

## **2.3. Uzbekistan's needs and the investment gap**

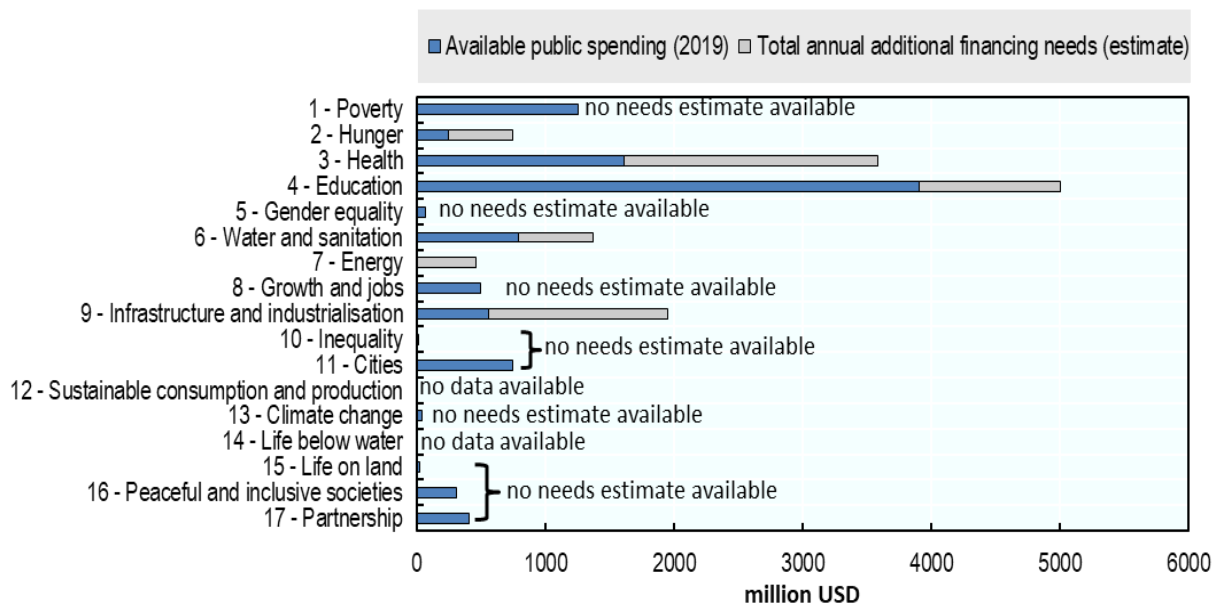
Despite Uzbekistan's progress on socioeconomic development, the investment requirements for Uzbekistan to achieve its development and climate goals are vast. Uzbekistan needs to tap into all possible sources of finance, particularly by attracting more capital from the private sector. While some development objectives and SDGs are inherently more reliant on public funding, such as education, health and some environmental goals, others offer opportunities to attract private capital, notably in the electricity sector, which is Uzbekistan's largest contributor to GHG emissions.

There is no assessment of the investments required for Uzbekistan to achieve the targets in its development strategies. The investment needs estimates that do exist vary widely in their scope and projected spending requirements, but each provides a partial picture of the scale of financing required.

One such estimate relates to the investments required for Uzbekistan to achieve some of the SDGs. Given that the UNDP has judged Uzbekistan's domestic development objectives outlined in its strategies and development programmes to be in full alignment with the SDGs in a number of areas, including the SDGs related to poverty reduction (SDG 1), the elimination of hunger (SDG 2), education (SDG 4), water (SDG 6), energy (SDG 7), reducing inequalities (SDG 10) and cities (SDG 11), they can act as a relatively good partial proxy for Uzbekistan's overall development and climate goals. However, other government objectives, notably on climate change, are not yet fully compatible with the SDGs (UNDP, 2021<sup>[41]</sup>).

According to the SDG assessment, the gap between current annual public spending and the financing required each year to achieve the goals by 2030 are considerable. In a pre-COVID-19 IMF assessment, it was estimated that Uzbekistan would need to mobilise capital equivalent to USD 6 billion in additional annual spending to achieve the SDGs in social and infrastructure sectors alone (SDGs 2, 3, 4, 6, 7 and 9) (see Figure 2.8). Compared to 2019 levels of public spending, this would amount to a 57.6% increase. This only represents a partial picture of Uzbekistan's SDG financing needs, since no estimates were available for the remaining SDGs, including those related to cities (11) and climate change (13). Moreover, additional spending needs, estimated at USD 4 billion, emerged as a result of the COVID-19 pandemic (UNDP, 2021<sup>[41]</sup>). Global estimates confirm the widening gap in developing countries due to increased financing needs and reduced available financing flows brought on by the pandemic. The OECD estimates that the annual SDG financing gap increased by 56%, from USD 2.5 trillion to USD 3.9 trillion, across developing economies (OECD, 2022<sup>[42]</sup>).

**Figure 2.8. Uzbekistan faced at least a USD 6 billion gap between its annual spending on SDGs and estimated needs prior to the COVID-19 pandemic**



Note: No needs estimates available for SDGs 1, 5, 8, 10-17.

Source: UNDP (2021<sup>[41]</sup>), Development Finance Assessment of the Republic of Uzbekistan, <https://www.undp.org/uzbekistan/publications/development-finance-assessment-republic-uzbekistan>.

Another partial needs estimate focuses more squarely on the issues of climate change mitigation and resilience, although it limits its scope to the power sector. Looking beyond 2030, the European Bank of Reconstruction and Development (EBRD) estimates that Uzbekistan could achieve carbon neutrality in its



power sector by mobilising less than 2% of annual GDP between 2030 and 2050 (EBRD, 2021<sup>[43]</sup>). Regional analysis covering emerging Eastern European and Central Asian countries by the World Bank estimates that 8.8% of regional GDP could be sufficient to achieve low-emission, climate-resilient infrastructure systems by 2030, but no country-level needs assessment for Uzbekistan is available. This estimate includes projected costs of renewable energy and energy efficiency investments, a mobility shift towards rail, public transport and electric vehicles, the provision of safe water supply and sanitation and flood protection (World Bank, 2019<sup>[44]</sup>).

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# **3** Financing the transition: Capital availability

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This chapter outlines the public, private, domestic and international capital that Uzbekistan could use to finance its ambitions to boost living standards and swiftly reduce GHG emissions as well as the estimated gap between current spending and the flows that are needed. Public domestic financial flows, primarily from the state budget, and public international finance flows, from multilateral and bilateral donors, have been essential sources of Uzbekistan's development and climate finance, but there are increasing opportunities to harness the country's developing securities market and attract domestic and international financiers. Given budget constraints, the scale of the transition cannot be achieved without increased private sector financing and more efficient use of available resources.

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### Box 3.1. Key conclusions and recommendations

- Uzbekistan depends on public spending more than its peers in the lower middle-income category. Although domestic private financing has increased, Uzbekistan needs to tap into greater volumes of domestic and international private finance.
- Uzbekistan’s investment climate has improved since it launched its currency and market liberalisation reforms in 2017. Since then, domestic private financial flows and international private financial flows have increased substantially.
- Recent large-scale solar and wind power generation projects have been implemented with investment capital. Although such projects have been financed to date through “vanilla” loans rather than green loans or green bonds, debt instruments could be useful in refinancing the loans. Future projects in a similar vein and of a similar scope represent low-hanging fruit for inclusion in a green bond issuance.
- Since 2019, Uzbekistan has issued 10 bonds on international markets, including a sovereign sustainability bond with underlying projects supporting the Sustainable Development Goals (SDGs), a sovereign green bond and a corporate green bond. Compared to other sources of foreign capital, portfolio investments make up only a small fraction, and there is considerable scope for growth through further debt instrument issuances.

## 3.1. Capital availability in Uzbekistan

Domestic public finance, although it represents a significant portion of total available finance for development and climate goals, is not the only source of finance at Uzbekistan’s disposal. Between 2017 and 2020, domestic public sources accounted for 40% of financial resources at Uzbekistan’s disposal, supplemented by domestic private sources (33%), international private sources (18%) and international public sources, both multilateral and bilateral (9%) (UNDP, 2021<sup>[1]</sup>).

The sections below provide an overview of capital availability from these four categories in Uzbekistan and how they could best contribute to Uzbekistan’s sustainable transition. In particular, the facilitation of domestic private finance flows through targeted reforms offers an opportunity not only to close the financing gap but also to further develop Uzbekistan’s domestic capital market (see Chapter 4: Composition and regulatory set-up of Uzbekistan’s financial sector).

### 3.1.1. Domestic public financial flows

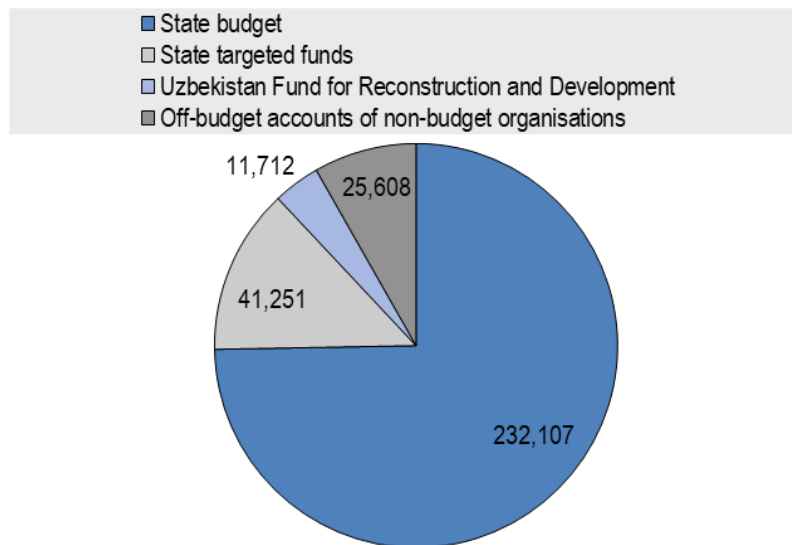
Uzbekistan’s public spending is higher than many of its peers. Compared to other lower middle-income countries, Uzbekistan’s consolidated government spending was about seven percentage points higher reflecting the state’s comparatively large role in the country’s economic model. Consolidated government spending as a share of GDP in 2020 was 35%, about seven percentage points higher than other lower-middle income countries on average (World Bank, 2021<sup>[2]</sup>).

Uzbekistan’s available public finances derive from state budget revenues (taxes and other revenues), 24 targeted state funds, the Uzbekistan Fund for Reconstruction and Development and off-budget funds and organisations. Uzbekistan also has a dedicated environmental fund, the Fund for Ecology, Environmental Protection and Waste Management, created in 2017 (Government of Uzbekistan, 2017<sup>[3]</sup>). Uzbekistan’s consolidated state budget is expected to be UZS 310.7 trillion in 2023 (or approximately USD 27 billion), UZS 353.7 trillion (USD 31 billion) in 2024 and UZS 397.2 trillion (USD 35 billion) in 2025. In 2023, three quarters of the budget derive from state budget revenues, with state targeted funds (13%), off-budget

accounts of budget organisations (8%) and the Uzbekistan Fund for Reconstruction and Development (4%) making up the remainder (see Figure 3.1). According to the 2023 budget, Uzbekistan plans to run a budget deficit of about 10% for the next three years (Government of Uzbekistan, 2023<sup>[4]</sup>). As a result of ambitious tax reforms supporting more efficient collection, Uzbekistan has gradually expanded its consolidated budget revenue in recent years. The 2020 budget portfolio was equivalent to 26.9% of GDP, whereas it reached 28% of GDP in 2021 (UNDP, 2021<sup>[1]</sup>).

### Figure 3.1. Uzbekistan’s public finances consist of revenues from the state budget and a large number of state-owned funds

Uzbekistan’s estimated consolidated state budget in USD, 2023



Source: Government of Uzbekistan (2023<sup>[4]</sup>), О государственном бюджете Республики Узбекистан на 2023 год [On the state budget of the Republic of Uzbekistan for 2023], <https://lex.uz/ru/docs/6333242>.

The Uzbekistan Fund for Reconstruction and Development, created in 2006, is tasked with providing government-guaranteed loans and equity investments to strategically important sectors of Uzbekistan’s economy. It plays a particularly important role in the provision of grants, zero-interest loans debt finance, including concessional finance, to Uzbekistan’s state-owned enterprises (SOEs) and capitalisation for state-owned banks, the largest financial institutions in Uzbekistan’s domestic market. SOEs, which dominate key sectors of Uzbekistan’s economy, benefit from generous off-budget government support that amounts to over a third of total consolidated government expenditure. Starting in 2019, Uzbekistan launched a wide-reaching privatisation programme of SOEs, which is expected to yield significant revenue for the Privatisation Fund. Annual revenue from the gradual privatisation of over 400 companies is expected to increase from UZS 223 billion (approximately USD 19.6 million) in 2020 and 2021 to UZS 273 billion (USD 23.9 million) by 2025 (UNDP, 2021<sup>[1]</sup>).

Uzbekistan is highly centralised and its subnational governments<sup>1</sup> have limited autonomy from the central government. They play a crucial role in providing public services in Uzbekistan, implementing about 34% of national public spending, or 56% of total national spending excluding extrabudgetary accounts. Their spending is concentrated on education (43%), healthcare (21%), and public services (15%). Capital spending, in contrast, accounted for only 7% of total subnational expenditure. Transfers from the central government, mostly derived from shared tax revenues, account for about 70% of subnational revenues, and the volumes are decided annually to fill local budget gaps. As a result of Uzbekistan's largely centralised budget allocation, local authorities lack accountability about efficient expenditure, and perverse incentives may emerge to underestimate locally collected revenue and overestimate expenditure (World Bank, 2019<sup>[5]</sup>).

Subnational governments are not permitted to run budget deficits. They can increase their expenditures only if their revenue collections exceed the forecasted amount adopted in national government's budget decree. They also cannot provide guarantees in favour of third parties or grant budget loans to non-governmental entities or individuals. Subnational governments can attract short-term loans from the upper level of government, to be repaid by the end of the fiscal year; they cannot borrow from other sources. These restrictions have stymied attempts by some subnational governments in Uzbekistan to adopt debt instruments like bonds to finance their projects (see 5.3 Subnational bonds).

Only a portion of the state budget is realistically available to finance progress on Uzbekistan's development and climate goals. In 2022, nearly half of the budget was allocated to social expenditures (e.g., health and education), while development programmes writ large and expenditures on the real economy accounted for 12.5% and 11.3% respectively (UNDP, 2020<sup>[6]</sup>). Given the size of the financing gap to achieve Uzbekistan's development and climate goals, Uzbekistan will need to seek financing outside of the domestic public sphere. However, there is still scope for improving the efficiency and impact of domestic public spending to meet national priorities.

Starting in 2022, Uzbekistan began introducing green budgeting and SDG budgeting into the country's public financial management system (UNDP, 2022<sup>[7]</sup>). According to SDG tagging of the 2022 budget, Uzbekistan estimates that 71% of the state's budget spending directly related to the financing of SDGs. Notably, while social SDGs, such as SDG 1 (Poverty), SDG 3 (Health) and SDG 4 (Education), were well supported (UZS 5.1 trillion, UZS 14.9 trillion and UZS 33.1 trillion respectively), SDGs related to the green transition benefited from much lower levels of funding. Uzbekistan allocated only UZS 99 billion to projects in support of SDG 13 (Climate Change), UZS 196 billion to SDG 15 (Life on Land) and UZS 25 billion to SDG 7 (Energy). Some infrastructure-related SDGs, like SDG 6 (Water and Sanitation, UZS 5.6 trillion), SDG 9 (Infrastructure and Industrialisation, UZS 5.1 trillion) and SDG 11 (Cities, UZS 9.4 trillion) received larger shares of public funds (UNDP, 2020<sup>[6]</sup>). While climate- and environment-related SDGs – and Uzbekistan's climate ambitions – require significant additional financing, certain aspects of Uzbekistan's transition strategy could attract private financial flows, particularly infrastructure projects in renewable energy and clean transportation, rather than placing additional strain on the national budget.

### **3.1.2. Domestic private financial flows**

Domestic private financial flows are an increasingly important source of development finance in Uzbekistan. They increased from about UZS 20 trillion (approximately USD 1.8 billion), about 18.5% of GDP, in 2013 to UZS 140 trillion (USD 12.3 billion), over 21% of GDP, in 2018. The government's market liberalisation and reform efforts explain part of the surge, but over half of the investment in 2018 derived from credit lent by state-owned banks at preferential terms (UNDP, 2021<sup>[11]</sup>).

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<sup>1</sup> Uzbekistan's subnational governments include the administrations of Tashkent city, twelve regions (*viloyat*) and one autonomous republic (Republic of Karakalpakstan) as well as 40 cities or urban districts and 162 rural districts.

Uzbekistan's commercial banks, most of which are subject to complete or partial state ownership, have expanded their loan portfolios in recent years. Between 2018 and 2019, loan volumes grew by 52.5%, from UZS 135 trillion (approximately USD 11.8 billion) to UZS 224 trillion (USD 19.6 billion). Uzbekistan's banks have the capacity to invest domestically, and several banks, most notably SanoatQurilishBank (SQB), have begun investing in green projects. However, the banking sector is reputed to be excessively bureaucratic and risk-averse, and it often encourages entrepreneurs and smaller firms to seek other sources of private finance on informal lending markets (UNDP, 2021<sup>[11]</sup>).

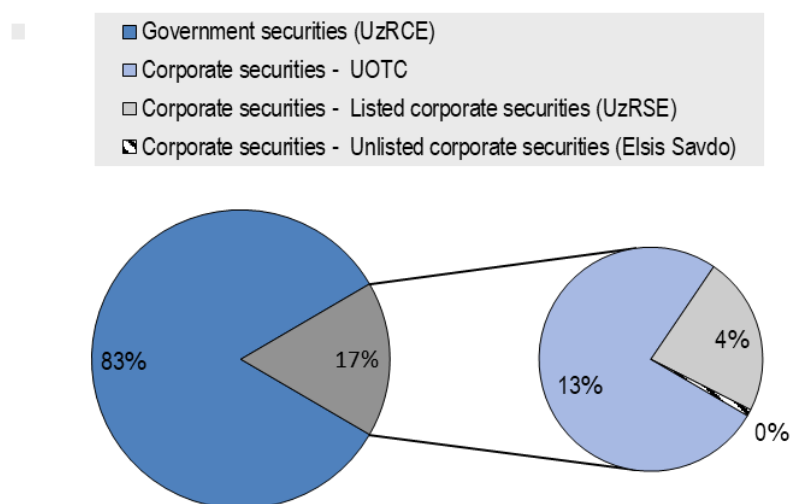
Domestic private financial flows are further constrained by Uzbekistan's underdeveloped domestic capital market. In 2018, market capitalisation in Uzbekistan stood at only USD 3.2 billion, at approximately the same level as Estonia (USD 2.9 billion), despite the country's much smaller economy (about half the size of Uzbekistan's GDP) and population (just under 4% of Uzbekistan's population). Uzbekistan's market capitalisation is also much shallower than neighbouring Kazakhstan (USD 45.4 billion), but significantly deeper than other Central Asian countries such as Kyrgyzstan (USD 0.3 billion) and Tajikistan (USD 0.5 billion) (EBRD, 2018<sup>[8]</sup>). The government plans to further develop the local capital market by achieving market capitalisation equal to 5% of GDP and UZS 3.94 trillion (approximately USD 345.6 billion) in corporate bonds (0.5% of GDP) by 2023. The government also aims to finance 5% of territorial investment programmes by issuing securities (Government of Uzbekistan, 2021<sup>[9]</sup>).

Uzbekistan's security market is divided across two platforms. Government securities – 71% of trading volume in 2022 – trade on the Republican Currency Exchange, while the “Toshkent” Republic Stock Exchange (UZSE) manages trade in listed equities and corporate bonds. Elsis Savdo, a third smaller over-the-counter trading platform, until recently traded unlisted securities, but its licence was revoked in early 2023 to prepare for the development of an over-the-counter trading platform as part of UZSE (Yerzikov, 2023<sup>[10]</sup>). However, the majority of corporate securities in Uzbekistan (76% of corporate securities trading and 11% of total securities trading in 2022) are traded on an unorganised, decentralised over-the-counter market via informal broker-dealer networks (see Figure 3.2).



### Figure 3.2. Government securities dominate Uzbekistan’s security market and most corporate securities are traded over the counter

Securities trading in Uzbekistan, January-September 2022.



Source: Central Securities Depository (2022<sup>[11]</sup>), <https://deponet.uz>.

As of October 2022, outstanding treasury bills and government domestic bonds totalled UZS 25.3 trillion (USD 2.3 billion) of which only UZS 3.9 trillion (USD 0.35 billion) have a tenor exceeding one year. The corporate bond market is subsequently small and narrow, constituting less than 0.2% of GDP, with only 24 corporate bond issuers outstanding for an aggregate nominal value of UZS 1 trillion (USD 90 million) as of 1 October 2022. Demand for financial instruments is weak. There are few investors, mostly state-owned commercial banks, in the fixed income market, primarily purchasing government securities through auctions held on the Uzbekistan Republican Currency Exchange and/or corporate bonds through private placements (Central Securities Depository, 2022<sup>[11]</sup>).

On the demand side, Uzbekistan lacks institutional investors. Financial actors that act as institutional investors in other countries (such as insurance companies and pension funds) have a limited role in financing government and corporate bonds because of a lack of investible funds. Only nine investment funds, including two privatisation investment funds, are active on the market, and no pensions funds or private equity funds participate in capital markets (Central Securities Depository, 2022<sup>[11]</sup>).

In Uzbekistan, insurance companies prefer bank deposits and real estate due to high interest rates and because their investment horizon is limited to the average duration of their liabilities (i.e., insurance products and policies), which averages 12 months, even for life insurance products. The insurance sector is small and inactive on capital markets.

The national Pension Fund is off-balance sheet and a pay-as-you-go defined benefit pension system operated by the Ministry of Economy and Finance. State-owned Halk Bank is the only bank in Uzbekistan that has the right to receive, accumulate and manage the funds of the accumulative pension fund (APF) of individuals in accordance with the 2004 law “On the accumulative pension fund” (Government of Uzbekistan, 2004<sup>[12]</sup>). The pension fund has limited investment capability with only about USD 5 trillion

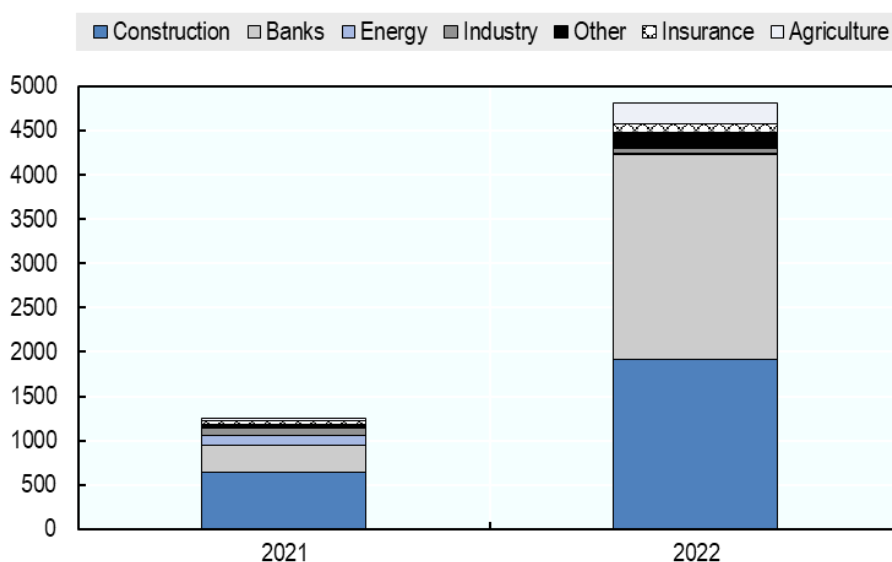
(USD 0.483 bn) of “free funds”. The type and the amount of investments to be made are determined by the Ministry of Economy and Finance and the Central Bank. As of 1 January 2022, Halk Bank had allocated the accumulated capital of the pension fund mostly to government securities (53.9%), term deposits (29.4%) and loans (16.6%). The average interest rate of allocations is 14% (EY, 2022<sup>[13]</sup>).

The major investment destination of local institutional investors is short-term government securities and state-owned commercial banks, with investment in the form of short-term, 6-month bank deposits, thereby limiting the contribution to financial market development. Institutional investors promote the growth of market capitalisation in the equity market, and their participation across the maturity spectrum of the government bond market yield curve is critical to support market development. A diverse investor base also lowers debt cost and volatility in market yields.

In November 2020, capitalisation of the Toshkent Republican Stock Exchange (UZSE), the largest stock exchange in the country, exceeded USD 5 billion, and the rate of new listings on the exchange has increased (41 new companies listed stocks in the first ten months of 2020 compared to only 23 over the same period in 2019) (UzReport.News, 2020<sup>[14]</sup>). 110 companies participated in trades on UZSE by 2022 (Toshkent Republican Stock Exchange, 2023<sup>[15]</sup>). Although the market remains small, the number of trading deals has increased rapidly (see Figure 3.3), but compared to stock exchanges of neighbouring Kazakhstan and Russia, trading activity on UZSE has been sluggish (Dettoni, 2019<sup>[16]</sup>). Moreover, although there have been more trades, aggregate trading volume has increased only marginally and most activity is concentrated in just a handful of sectors, mostly construction and banking (see Figure 3.4). State-owned banks, which are obliged to list on the exchange, account for the majority of banking-related deals (Dettoni, 2019<sup>[16]</sup>).

**Figure 3.3. The number of deals on UZSE has increased rapidly, particularly in the construction and banking sectors**

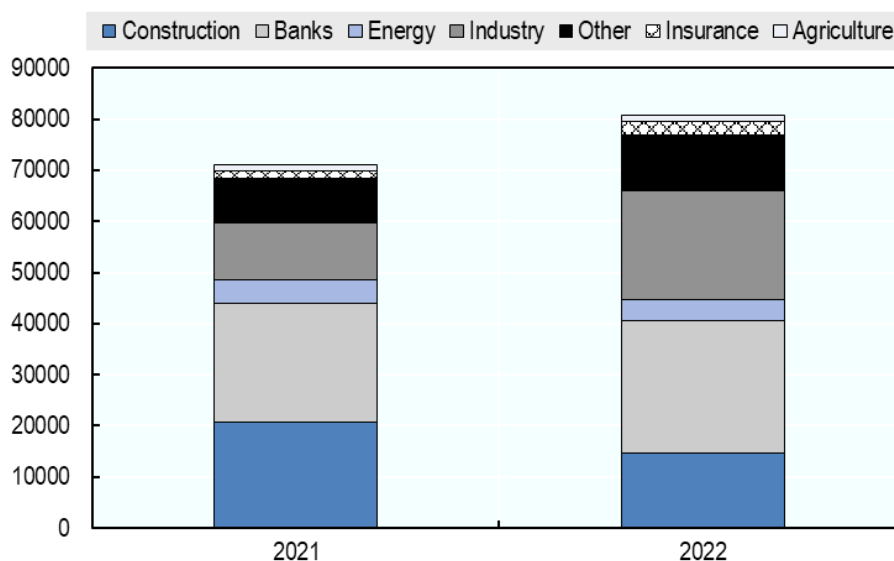
Number of deals by sector, 2021-22.



Source: UZSE (2023<sup>[15]</sup>), Trade Statistics, <https://www.uzse.uz/abouts/itogitorg>.

**Figure 3.4. Trade volumes have increased slightly on UZSE but remain concentrated in the construction, banking and industry sectors**

Volume of trade by sector in billion UZS, 2021-22.



Source: UZSE (2023<sup>[15]</sup>), Trade Statistics, <https://www.uzse.uz/abouts/itogitorg>.

Energy, transport and industry, sectors with a large impact on Uzbekistan's GHG emissions, account for only a fraction of total trading volume on the exchange (1.9%, 0.001% and 2.5% respectively) (Toshkent Republican Stock Exchange, 2023<sup>[15]</sup>). As the UZSE develops, corporate securities issued by companies in high-impact sectors for Uzbekistan's green transition could offer an additional source of financing for green projects.

### 3.1.3. International public financial flows

International public financial flows, from multilateral development banks (MDBs) and bilateral donors, are an essential source of finance for Uzbekistan's development projects. Uzbekistan is eligible for both grants and loans under concessional development financing terms. Given the international community's renewed interest in Uzbekistan following the recent wave of reforms, Uzbekistan's efforts to develop its private sector and usher in a green transition stand to benefit from policy advice and technical assistance from the international development finance institutions, particularly in public finance management.

Uzbekistan benefits from both official development assistance (ODA) and other official flows (OOF). The OECD DAC defines ODA as flows to territories on the DAC List of ODA Recipients from official agencies that promote economic development and contain a grant element determined by the recipient country's income level. For Uzbekistan, a lower-middle income country, 15% of a bilateral loan would be structured as a grant to qualify as ODA. OOF are transactions that do not meet these criteria, either due to a smaller grant component or a focus on export facilitation rather than economic development. Since 2012, OOF has overtaken ODA as Uzbekistan's main source of international public financing. MDBs accounted for 85% of total OOF from 2002 to 2018, with the Asian Development Bank (45%) as the largest lender, followed by the International Bank for Reconstruction and Development (15%), the Islamic Development

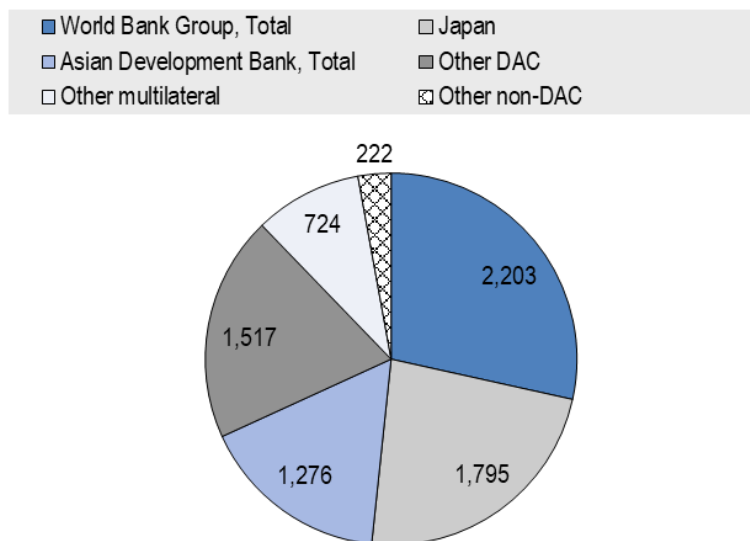
Bank (12%), the International Development Association (9%) and the European Bank for Reconstruction and Development (4%). Over the same period, Korea was the only bilateral source of OOF, representing 15% of total flows (UNDP, 2021<sup>[11]</sup>).

As of October 2022, concessional loans (ODA and some OOF) from international finance institutions accounted for USD 11.3 billion (49%) of Uzbekistan's total state external debt, while debt to bilateral creditors – including China, a major donor not included in the DAC database – amounted to USD 9.3 billion (40%). The state external debt, composed primarily of loans from multilateral and bilateral donors, is used primarily for budget support (USD 6.6 billion in 2022), as well as targeted support to key sectors: oil and gas (USD 2.9 billion), electric power (USD 2.7 billion), agriculture and water (USD 2.5 billion) and transport (USD 2.4 billion) (Ministry of Finance, 2022<sup>[17]</sup>).

According to the OECD's Development Assistance Committee (DAC) database, Uzbekistan's largest multilateral donors between 2010 and 2021 were the World Bank Group (USD 2.2 billion) and the Asian Development Bank (USD 1.3 billion), while Japan is its most significant bilateral donor (USD 1.8 billion) (see Figure 3.5). Other major DAC donors include France (USD 451 million), Korea (USD 384 million), Germany (USD 250 million) and EU Institutions (USD 249 million). Among non-DAC donors tracked by the OECD DAC database, Türkiye (USD 81 million), Kuwait (USD 64 million) and the United Arab Emirates (USD 62 million) were the largest over the same period. Among multilateral donors, the United Nations institutions provided USD 190 million in ODA, the International Monetary Fund provided USD 128 million and the Islamic Development Bank provided USD 12 million (OECD, 2023<sup>[18]</sup>).

**Figure 3.5. The World Bank Group, Asian Development Bank and Japan are Uzbekistan's largest international donors**

Net ODA disbursements to Uzbekistan in million USD, 2010-2021



Source: OECD (2023<sup>[18]</sup>), DAC statistics, <https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/idsonline.htm>.

MDBs have been an important source of development finance in Uzbekistan, particularly on climate-related projects. Uzbekistan has been the main recipient of climate finance from MDBs in Central Asia, receiving 49% (USD 4.4 billion) of the total disbursed in the region between 2015 and 2019. The World Bank and Asian Development Bank have focused their climate-related efforts on energy efficiency, renewable energy, rural housing, sustainable agriculture, climate mitigation, water supply, transportation and the modernisation of hydrometeorological services. The European Bank of Reconstruction and Development (EBRD) supports solid waste management and water reforms in Tashkent, and three Uzbek banks (Ipak Yuli Bank, SanoatQurilishBank (SQB) and Hamkorbank) have already joined the EBRD's pilot Green Economy Financing Facility (GEFF). Within the frame of the GEFF program, all three banks signed up as the local partners, receiving in total USD 60 million EBRD credit line for on-lending to private companies. Loans will cover investments in green technologies, such as thermal insulation, photovoltaic solar panels, geothermal heat pumps and water efficient irrigation systems (UNDP, 2021<sup>[11]</sup>). Since 2016, Uzbekistan has launched four projects worth USD 105.9 million with support from the Green Climate Fund (GCF) (GCF, n.d.<sup>[19]</sup>).

Several international organisations are also active in Uzbekistan on donor-funded climate-related projects. The United Nations Development Programme (UNDP) mainly supports medium-sized projects and small grants through the Global Environment Facility (GEF) and the Adaptation Fund, focusing on energy efficiency in buildings. The UNDP also delivered a pre-feasibility study on the use of Islamic finance for the green transition, which helped identify barriers to the adoption of green Islamic finance instruments like green *sukuk*. The Food and Agriculture Organisation (FAO) supports projects on forests, agriculture and climate (UNDP, 2021<sup>[11]</sup>).

EU institutions have increased their presence as a donor in Uzbekistan. They provided EUR 168 million of financing to support sustainable development between 2014-2020. The EU's focus has centred on rural development and the agriculture sector, but they have also worked closely with the Uzbek government to improve sector governance and public administration reform. Through the EU's Investment Facility for Central Asia (IFCA) the European Investment Bank (EIB) and bilateral partners fund key infrastructure projects. In Uzbekistan, IFCA co-funds sovereign loans along with the EIB as well as the *Agence française de développement* (AFD) in water management, energy, solid waste management and environmental infrastructure projects, including technical assistance and capacity building for the national authorities. EU IFCA grants amounting to EUR 33.5 million leveraged EUR 780 million in loans from the EIB and the AFD between 2014 and 2019. Through IFCA, the EU seeks to contribute to the SDGs related to clean water and sanitation, affordable clean energy and climate action (UNDP, 2021<sup>[11]</sup>).

To date, the European Bank for Reconstruction and Development (EBRD) has invested a cumulative EUR 3.8 billion in Uzbekistan. Its current portfolio amounts to EUR 2.6 billion, spread over 84 active projects. Strategic priorities for the EBRD's engagement in Uzbekistan are i) enhancing competitiveness by strengthening the private sector's role in the economy; ii) promoting green energy; and, iii) support regional and international co-operation and integration (EBRD, 2023<sup>[20]</sup>).

Japan, Uzbekistan's largest DAC donor, provides over 90% of its support in the form of loans. It has three priority interests in Uzbekistan. First, it aims to support development of Uzbekistan's economic infrastructure, particularly in the energy and transport sectors. Second, it supports human capital and institutional development for the transition towards a market-based economy as well as economic and industrial development. Third, it focuses on agriculture, regional development and healthcare (Government of Japan, 2017<sup>[21]</sup>).

China, which is not included in the DAC database, has also emerged as a major bilateral donor in Uzbekistan. Between 2000 and 2017, China committed USD 12.7 billion of financing to support Uzbekistan. USD 8.9 billion (70%) of the financing took the form of OOF-like financial flows, while 20% (USD 2.5 billion) was comparable to ODA in terms of concessional conditions. The conditions of the remaining financing could not be determined (USD 1.7 billion, or 10%). State-owned policy banks (e.g.

China Development Bank, Export-Import Bank of China, Industrial and Commercial Bank of China) provided the majority of the support across all categories (89% of ODA-like financing, 74% of OOF-like financing and 87% of the unclassified flows). Official flows from China have concentrated in the industry, mining and construction sector (USD 4.1 billion, or 32.6%), followed by the energy sector (USD 1.9 billion, or 15.1%) and the banking sector and financial services (USD 1.7 billion, or 13.5%). The distribution of support by sector is broadly similar across the different types of support, but the transport and storage sector received a larger proportion of ODA-like support (24.3% of total ODA-like financing). The projects vary considerably in their environmental impacts, from emissions-intensive projects related to support to coal mining and the natural gas industry and construction of several cement plants to the expansion of Uzbekistan's new hydroelectric generation capacity and improvements to energy efficiency and the reliability of the country's electrical grid (AidData, 2021<sup>[22]</sup>).

### 3.1.4. International private financial flows

#### *Foreign direct investment*

Uzbekistan's more open stance to trade and foreign investment since 2017 has made it a more attractive destination for international capital. In 2017 Uzbekistan abolished its long-standing exchange rate peg, allowing the Uzbek *som* to float freely on the foreign exchange market, and in 2020 it adopted a new investment law that strengthened other protections for foreign investors. There have also been marked improvements in Uzbekistan's overall business environment, including the simplification of procedures to approve investments and register businesses (Jivraj, 2023<sup>[23]</sup>). As a result of these reforms, annual foreign direct investment (FDI) inflows have increased. Average FDI inflows between 2010 and 2016 equalled USD 1.2 billion, but inflows increased to USD 2.3 billion in 2019, USD 1.7 billion in 2020 and USD 2.0 billion in 2021, despite the COVID-19 pandemic (UNCTAD, 2022<sup>[24]</sup>). China has emerged as Uzbekistan's largest provider of FDI, accounting for 22.3% of inflows in 2021. Other major investors include Russia (21.5%), Türkiye (7.5%) and Germany (7.3%) (UzStat, 2021<sup>[25]</sup>).

The number of total foreign investments Uzbekistan reached USD 56.3 billion by the end of Q2 of 2022. Of this total, USD 12.5 billion or 21.8% were in the form of direct investments. Over the past five years, the number of operating enterprises with foreign capital has increased by 2.8 times, from 5 370 in 2017 to 14 546 in August 2022. Russian capital is of particular importance in this development: 2 705 enterprises (18.6% of all Uzbek companies with foreign capital) rely fully or partially on Russian capital. After Russia, Türkiye (14.1% of the total number of operating enterprises with foreign capital in the country), China (14.0%), Kazakhstan (8.1%) and Korea (6.2%) are the largest sources (UzStat, 2022<sup>[26]</sup>).

Foreign investors are taking a growing interest in Uzbekistan's green transition, particularly the transition towards renewable energy. Saudi Arabia's ACWA Power has invested in the USD 2.4 billion 1.5 GW wind power project in Karakalpakstan, the largest onshore wind project in the world, and it has since expanded its portfolio to include other wind and renewable projects (Jivraj, 2023<sup>[23]</sup>). Masdar, a company from the United Arab Emirates, has signed a joint development agreement with Uzbekistan's Ministry of Energy and Ministry of Investments, Industry and Trade to develop 2 GW of solar and wind projects as well as 500 MWh of battery energy storage (Masdar, 2023<sup>[27]</sup>). Several OECD country-based companies, including EDF, Siemens, Mitsubishi, Orano, Siemens, Sumitomo, Total Eren, Toyota Tsusho, Veolia and Volitalia, have taken stakes in solar, wind and energy infrastructure modernisation projects across the country (Jivraj, 2023<sup>[23]</sup>).

Large-scale renewable power generation projects, like those championed by ACWA Power and Masdar, have been financed through loans. However, given the growing interest from international investors in Uzbekistan's dynamic renewable power sector, such large projects could form the basis of green bond issuances. Representatives of the Tashkent Republican Stock Exchange, during a 2023 OECD visit to

Tashkent, identified large-scale renewable energy projects as “low-hanging fruit” for financing through green bonds.

### *Portfolio investments and bonds on international exchanges*

Portfolio investment reached USD 4 billion, making up 7.2% of total foreign investments in Uzbekistan. More than half (55.1%) of portfolio investment is allocated in government securities. The share of foreign investors in domestic corporate debt market is still small (2.9% as of October, 2022). Government debt instruments are the largest and main destination of foreign investments, constituting 26.9% of all foreign investments into the country (Central Bank of Uzbekistan, 2022<sup>[28]</sup>). Portfolio investments emerged as an important source of capital in 2019, when Uzbekistan issued its first-ever sovereign bond on the London Stock Exchange in two tranches of USD 500 million with 5- and 10-year tenors. The bond performed well, raising USD 1 billion on global market. As bond prices rise, their effective yield goes down. Investors at issuance were promised annual interest payments of 4.75 percent for a 10-year bond and 5.375 percent for a 5-year one. But the current effective yield (November, 2022) is 7.22 percent for the 10-year bond and 7.12 percent for the 5-year bond, which indicates that the cost of borrowing has raised for Uzbekistan.

Following this move from the government, there has been a flurry of activity in Uzbekistan on international markets with 10 sovereign and corporate bond issuances between 2019 and 2023 (see Table 3.1). All corporate issuances were carried out by state-owned enterprises or banks. The second and third sovereign issuances included tranches denominated in UZS. Notably, after the 2020 issuance of its second sovereign bond (“Development Finance Institution (DFI) Bond”), in 2021 Uzbekistan became the first country in the former Soviet Union to issue a so-called “SDG Bond”, a sustainability bond, in 2021 (see Chapter 5: State of play of green finance in Uzbekistan). In 2023, two green bonds were issued: one by SanoatQurilishBank (SQB) in a private placement, which became the first commercial bank in Uzbekistan to issue a green bond (UzReport, 2023<sup>[29]</sup>), and one sovereign green bond (Ministry of Economy and Finance, 2023<sup>[30]</sup>).

**Table 3.1. Uzbekistan has issued 10 bonds on international markets since 2019**

Issuer	Type	Issued value	Date of issuance	Maturity	Issuance yield
<b>I. Sovereign bonds</b>					
Uzbekistan*	conventional bond	USD 500 million	20/02/2019	5 years	4.75%
		USD 500 million		10 years	5.375%
Uzbekistan*	conventional, so-called “DFI bond”	USD 555 million	25/11/2020	10 years	3.7%
		UZS 2 trillion		3 years	14.5%
Uzbekistan*	sustainability, so-called “SDG bond”	USD 635 million	19/07/2021	10 years	3.9%
		UZS 2.5 trillion		3 years	14.0%
Uzbekistan*	conventional tranche	USD 660 billion	06/10/2023	5 years	8.125%
	green bond tranche	UZS 4.25 trillion		3 years	16.25%
<b>II. Corporate bonds (issued by banks)</b>					
SanoatQurilishBank (SQB)	conventional bond	USD 300 million	12/2019	5 years	5.75%
National Bank (NBU)	conventional bond	USD 300 million	10/2020	5 years	4.85%
Ipoteka Bank	conventional bond	USD 300 million	11/2020	5 years	5.50%
SQB	green bond	USD 100 million	08/2023	5 years	Not disclosed
<b>III. Corporate bonds (issued by industrial firms)</b>					
Uzautomotors	conventional bond	USD 300 million	04/2021	5 years	4.85%
Uzbekneftegaz	conventional bond	USD 700 million	06/2021	7 years	4.75%

Note: \*Uzbekistan’s sovereign bonds were each issued with two tranches. The last three issuances included tranches in UZS.  
Source: Author’s compilation.

Most issuances, however, have been for conventional rather than green or other thematic bonds. Uzbekistan's planned large privatisation programme and sovereign bond issuances, as well as recent tax incentives for foreign investors are expected to increase portfolio inflows in the coming years as foreign investors acquire equity securities, including shares, stocks and direct purchases of shares in local stock markets. Continued financial market development will be vital to help the country absorb potentially large capital flow fluctuations and the economic shocks that come with them. Strong regulatory frameworks are essential to this effort. Building foreign reserves and, where feasible, allowing exchange rates to adjust and absorb shocks can help insulate economies from the impact of capital flow volatility.

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# 4 Composition and regulatory set-up of Uzbekistan's financial sector

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This chapter describes the institutional set-up and market infrastructure of Uzbekistan's financial sector as well as the institutional, legislative and regulatory barriers that have impeded the development of the country's capital market. Uzbekistan's domestic financial system is underdeveloped, dominated by state-owned banks and underutilised by the country's citizens and potential investors. An opaque amalgamation of fragmented legislative and regulatory acts and the lack of a centralised platform for securities trading reduce the accessibility of the market to potential participants, and the products permitted by current legislation do not correspond with emerging demands. Although recent reforms have addressed some of the problems that have stunted the development of Uzbekistan's capital market, there are several opportunities available to the government to boost the supply of and demand for securities on the domestic market and, in so doing, encourage the development of a healthier, more dynamic capital market.

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#### Box 4.1. Key conclusions and recommendations

- Uzbekistan’s financial sector remains dominated by large state-owned banks despite the emergence of a wider array of banks and non-bank credit institutions since Uzbekistan’s economy began liberalising in 2017. High levels of employment in the informal sector and predominantly cash-based economy act as barriers to financial market development.
- The government has embarked on a sweeping privatisation programme and aims to increase the private sector’s share in the banking sector to 60% by 2026. Initial attempts at bank privatisation have been delayed due to external factors, but the government should continue to pursue its privatisation goal.
- Recent institutional, legal and regulatory reforms such as the Programme for Capital Market Development 2021-2023 have liberalised Uzbekistan’s financial sector, but it continues to suffer from ineffective market facilitation as well as limited supply of and demand for securities.
- Uzbekistan should simplify the opaque and fragmented legislative and regulatory framework governing the financial system and adopt a consolidated law on capital markets.
- Uzbekistan should adopt a coordinated long-term development financing strategy, continue to develop the pool of domestic qualified capital market experts, harmonise the country’s two securities trading platforms and remove legislative and regulatory barriers to the adoption of more financial instruments, notably Islamic financial instruments, and potential issuers of green bonds, including subnational governments.

#### 4.1. Uzbekistan’s financial sector: structure and actors

The number of actors active in Uzbekistan’s financial sector has expanded markedly in recent years, but the state still accounts for the vast majority of assets and provides most long-term financing, which is particularly important for the infrastructure investments necessary for Uzbekistan’s green transition. Since market liberalisation began in 2017, the number of financial institutions operating in Uzbekistan has gradually expanded (see Table 4.1). Non-bank credit organisations, mainly microcredit organisations, have emerged particularly quickly, while new private banks and insurance companies more gradually. Currently, there are 33 commercial banks in Uzbekistan, of which 4 are purely state-owned, 8 are partially state-owned, 10 are joint-stock commercial banks, 6 are banks with foreign ownership and 5 are private banks. Compared to other countries in Central Asia, Uzbekistan has more operating banks than all other countries in the region. 23 banks operate in Kyrgyzstan, 14 in Tajikistan and 11 in Turkmenistan. Kazakhstan, even though it has a larger economy than Uzbekistan, has only 22 operating banks, although the level of state participation in Kazakhstan’s banking system is considerably smaller. Only one of Kazakhstan’s banks is purely state-owned, while 14 have foreign participation. Although Uzbekistan is home to the most banks in Central Asia, given its population of over 35 million, there are relatively few banks in the country.

**Table 4.1. The number of financial institutions in Uzbekistan has grown since 2017**

Type of financial institution	2017	2018	2019	2020	2021	2022*
<b>Total commercial banks</b>	28	29	30	32	33	33
- of which state-owned banks	11	13	13	13	12	12
- of which other banks	17	16	17	19	21	21
<b>Total non-bank credit organisations</b>	<b>76</b>	<b>92</b>	<b>117</b>	<b>128</b>	<b>144</b>	<b>154</b>
- of which microcredit organisations	30	37	56	63	70	75
- of which pawnshops	46	55	61	64	73	78
- of which mortgage refinancing organisations	0	0	0	1	1	1
<b>Actively engaged leasing companies</b>	<b>55</b>	<b>32</b>	<b>29</b>	<b>30</b>	<b>24</b>	<b>25</b>
<b>Insurance companies</b>	<b>27</b>	<b>30</b>	<b>36</b>	<b>40</b>	<b>42</b>	<b>42</b>
- of which general insurance companies	27	24	28	32	34	34
- of which life insurance companies	0	6	8	8	8	8
<b>Stock exchanges</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Pension funds</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Total</b>	<b>190</b>	<b>187</b>	<b>216</b>	<b>233</b>	<b>247</b>	<b>258</b>

Note: Data from 2022 reflects the situation in August 2022.

Source: Central Bank of Uzbekistan (2022<sup>[1]</sup>), Statistical Bulletin: January-September 2022, [https://cbu.uz/upload/medialibrary/fee/1yi6xtrrd5nj9gi78h3wbzqlno4hrw7/Statistical-bulletin-January\\_September-2022.pdf](https://cbu.uz/upload/medialibrary/fee/1yi6xtrrd5nj9gi78h3wbzqlno4hrw7/Statistical-bulletin-January_September-2022.pdf).

However, while the government has announced plans to increase the private sector's share in the economy and begun privatising state-owned banks, several obstacles remain. Uzbekistan's economy is characterised by high levels of informality. As much as 34.5% percent of the working population was employed informally in 2022 (Ministry of Employment and Poverty Reduction, 2023<sup>[2]</sup>), and as of 2021 only 70% of the adult population had bank or mobile-money accounts (Central Bank of Uzbekistan, 2022<sup>[1]</sup>), leading to the emergence of a predominantly cash-based economy. This high level of informality represents a significant barrier to the development of the financial market, including capital markets, which by nature need to be highly regulated. The share of informal securities exchange market in country's total capital market is very high (76.1% in 2022). Moreover, the high level of inflation has led to a high degree of dollarisation of the economy, since it has incentivised economic agents to hold foreign currency (mostly USD), rather than local currency-based financial instruments, as a protection against inflation and the devaluation of the local currency. High inflation also makes capital markets too expensive for issuers, whereas state-owned banks provide loans at subsidised rates. State-owned enterprises (SOEs) are still the primary actors in many sectors of Uzbekistan's economy.

#### 4.1.1. Banking sector

Uzbekistan's banking sector accounted for 69.7% of country's GDP<sup>2</sup> by the end of September 2022. Large state-owned and state-controlled banks continue to dominate the country's banking sector. In fact, just five state-owned banks manage 61% of all assets in the banking sector. The National Bank of Uzbekistan alone accounts for almost a quarter (23.6%) of assets, with the remaining four managing about a tenth of total assets each (SanoatQurilishBank, 11.2%; Asaka Bank, 9.2%; Agrobank, 8.5%; Ipoteka Bank, 8.5%). In recent years, state-owned banks' share of assets, loans and total capital has decreased slightly. As of October 2022, they accounted for 79% of total assets (compared to 84% in 2019), 78% of capital (87% in 2019) and 84% of all loans (88% in 2019) (Central Bank of Uzbekistan, 2022<sup>[1]</sup>).

The Ministry of Economy and Finance and the Uzbekistan Fund for Reconstruction and Development control and subsidise Uzbekistan's state-owned banks, which in turn support the government's economic

<sup>2</sup> GDP for 2022 is projected as 105,4% of GDP of 2021

priorities primarily through government-guaranteed loans and equity investments offered to specific sectors, particularly to SOEs. This has disincentivised Uzbekistan's banks from providing commercial services to the private sector (UNDP, 2021<sup>[3]</sup>). The state-owned banks are largely disconnected from the capital markets and their dominance in the sector has contributed to low levels of financial intermediation, which constrains access to finance in Uzbekistan.

As a result of high inflation following Uzbekistan's abolishment of its exchange rate peg in 2017, the financial system has come to rely heavily on foreign currencies, particularly USD. Dollarisation of loans reached 62.3% in December 2017 but has gradually fallen since (47.9% by July 2022). Credit lines from foreign banks and international finance institutions have funded most foreign currency lending resulting in high external borrowing rates (estimated at 20% of total liabilities and 35% of banks' foreign currency liabilities as of April 2022). The repayment of external borrowings is manageable for most banks, as maturities are linked to schedules of sub-loans (Central Bank of Uzbekistan, 2022<sup>[1]</sup>).

In Uzbekistan, like in many countries worldwide, the ratio of non-performing loans to total gross loans in the banking sector surged during the pandemic from a pre-pandemic rate of just over 1% to reach 5.8% in October 2021, but the ratio has since decreased (4.9% by August 2022). Even in these conditions, banks continue to grow quickly. Nominal lending grew 11% over the first nine months of 2022, and banks have increasingly focused on expanding long-term financing. The bulk of new corporate loans was issued with grace periods for investment purposes and are not amortising yet, which means that asset quality is largely untested at most banks (Central Bank of Uzbekistan, 2022<sup>[1]</sup>).

The dominance of state-owned banks restricts financial intermediation and the development of the financial sector more broadly. To encourage the emergence of a more diversified, dynamic banking sector, Uzbekistan has embarked on a large-scale privatisation process and broad reforms to the country's banking sector. Following the removal of currency controls in 2017, the government amended banking legislation in 2017 to redefine the Central Bank's role, emphasising price stability and oversight, and allow foreign investors to own up to 5% of domestic banks. Rules relating to anti-money laundering, currency transactions, settlements and increased availability of banking services were also adopted (Miroshnikova, 2022<sup>[4]</sup>).

In 2020, Uzbekistan approved the Strategy for the Reform of the Banking System 2020-2025, which focuses on reducing the state's role in banking and increase the share of assets held by private banks from 21% to 60% by 2025. The government aims to attract strategic investors to some state-owned banks and divest from others. Governance of state-owned banks is also being improved with the appointment of independent, professional supervisory board members. According to the strategy, the National Bank of Uzbekistan, Agrobank and Mikrokreditbank will remain state-owned banks to ensure regional availability of banking services during the transformation and implement mechanisms to support investment projects (Government of Uzbekistan, 2020<sup>[5]</sup>).

The strategy identifies 9 state-owned banks for full or partial privatisation. The state aimed to divest its entire stake in two small state-owned banks, Poytaxt Bank and UzAgroExport Bank, through an open tender process. Seven larger state-owned banks – Ipoteka Bank, SanoatQurilishBank (SQB), Asaka Bank, Aloqa Bank, Asia Alliance Bank, Qishloq Qurilish Bank (QQB) and Turon Bank – are also slated for privatisation in the coming years (Government of Uzbekistan, 2020<sup>[5]</sup>).

In September 2021, Expobank, a Russian bank, signed a memorandum with a view to acquire Poytaxt bank. The acquisition of UzAgroExport Bank by Sovkombank, another Russian bank, for USD 4 million in February 2022 was cancelled due to international sanctions resulting from Russia's invasion of Ukraine (UzDaily, 2022<sup>[6]</sup>).

In March 2022, a presidential decree set an ambitious timeline for the launch of initial public offerings (IPOs) and sale of state shares of some of these banks. Qishloq Qurilish Bank's IPO was scheduled to take place by October 2022 but has been delayed by uncertain market conditions. According to the

schedule, shares of other state-owned banks, including SQB and Asaka Bank (the two largest state-owned banks slated for privatisation), are to be sold over the course of 2023 (Government of Uzbekistan, 2022<sup>[7]</sup>).

Preparations have already begun for the privatisation of SQB. The International Finance Cooperation (IFC) has been cooperating with SQB since 2018. In 2022, the IFC and the European Bank of Reconstruction and Development (EBRD) issued pre-privatisation convertible loans to SQB, which can be converted into an equity stake (Aris, 2021<sup>[8]</sup>; AkiPress, 2022<sup>[9]</sup>; EBRD, 2022<sup>[10]</sup>). SQB is seeking to position itself as Uzbekistan's 'green bank', focusing on investments in sustainable infrastructure and climate solutions. In this regard, SQB has received support from the *Agence française de développement* (AFD), which has begun financing the development of SQB's green portfolio with a EUR 30 million loan (AFD, 2022<sup>[11]</sup>).

Other privatisation efforts have been marked by stops and starts. OTP Bank, a Hungarian bank, offered to acquire the government's 75% stake in Ipoteka Bank in September 2021, but later shelved the deal due to Russia's invasion of Ukraine. In November 2022, OTP Bank announced that it had restarted the acquisition process (Lillis, 2022<sup>[12]</sup>).

#### **4.1.2. Other actors: Non-bank credit institutions, lessors, insurance companies and pension funds**

The number of non-bank credit institutions has doubled since 2017. The market segment consists of microfinance organisations, pawnshops and the Uzbekistan Mortgage Refinancing Company, which was created by the Ministry of Finance (now the Ministry of Economy and Finance) in 2019 to provide long-term funding to mortgage lenders and increase the availability and affordability of mortgage loans to low- and middle-income households.

Although these institutions, particularly microcredit organisations, play an important role in providing access to credit for individuals and small- and medium-sized enterprises (SMEs), they are not involved in the long-term financing of infrastructure projects that underpins the transformation of Uzbekistan's energy, transport and industry sectors. In the near future, the Uzbekistan Mortgage Refinancing Company plans to issue mortgage-backed securities on the domestic capital market, which could contribute to the fledgling market's development (UNDP, 2021<sup>[3]</sup>).

The leasing and insurance markets are poorly developed and often the entities of these markets are subsidiaries of banks or otherwise connected to them. In many countries, insurance companies are important institutional investors and buyers of securities and other investment assets. In Uzbekistan, however, the insurance sector is in a fledgling state, providing relatively short-term protection policies rather than long-term investment policies. Due to a lack of long-term investable capital, insurance companies therefore prefer bank deposits, real estate and bank shares and eschew long-term investments in other financial instruments. Uzbekistan's national pension fund is similarly inactive in long-term investments, allocating most of its capital to government securities, term deposits and loans (UNDP, 2021<sup>[3]</sup>).

#### **4.1.3. Stock exchanges and trading platforms**

In Uzbekistan, securities trade on two distinct exchanges. The fragmented nature of the market leads to higher transaction costs since investors are faced with two trading platforms with different regulators and platform interfaces to trade in different assets (ADB, 2021<sup>[13]</sup>). Government bonds and foreign currencies, by far the largest category by trading volume, trade on the Uzbekistan Republican Currency Exchange subject to regulatory oversight from the Central Bank, which also acts as the settlement bank. Listed equities and corporate bonds, on the other hand, trade on the "Toshkent" Republican Stock Exchange (UZSE), regulated by the Ministry of Economy and Finance. The National Bank for Foreign Economic Activity of Uzbekistan, a commercial bank, serves as the settlement bank for trades on the UZSE. Until recently, a third much smaller over-the-counter platform, Elsis Savdo, traded unlisted securities, but it had

its licence revoked in early 2023 in preparation for the launch of UZSE's over-the-counter trading platform (Yerzikov, 2023<sup>[14]</sup>).

To comply with the International Organisation of Securities Commissions (IOSCO) and the Bank for International Settlement's *Principles for financial market infrastructures*, money settlements should be conducted in central bank money rather than commercial bank money, unless credit and liquidity risk are strictly controlled and minimised (Bank for International Settlements and IOSCO, 2012<sup>[15]</sup>). According to the Programme for Capital Market Development 2021-2023, the Central Bank, by providing the Uzbekistan Central Securities Depository with access to its Real-Time Gross Settlement system, will soon become the settlement bank for corporate securities as well, bringing settlements procedure in line with international principles (Government of Uzbekistan, 2021<sup>[16]</sup>).

There is no harmonised platform or combined depository for trading in government and corporate securities, since the UZSE and the Republican Currency Exchange maintain separate systems. This dual-track market infrastructure raises transaction costs for investors and hampers capital market development (ADB, 2021<sup>[13]</sup>). To address this, the Programme for Capital Market Development 2021-2023 foresees stronger programmatic links between UZSE and the Republican Currency Exchange to better harmonise market infrastructure while bolstering the market surveillance system to prevent manipulative or illegal trading practices (Government of Uzbekistan, 2021<sup>[16]</sup>). Ideally, a shared or seamlessly linked platform should be developed to reduce transaction costs for potential market participants. Moreover, the Uzbekistan Central Securities Depository should be reorganised and strengthened to consolidate all capital market assets (including shares, government and corporate bonds, equities and other financial instruments) to streamline both pre- and post-trade infrastructure across the capital market.

## 4.2. Capital market institutional, legal and regulatory framework

### 4.2.1. Legal and regulatory reforms

In addition to recent institutional reforms, Uzbekistan has sought to reform its capital market regulations. Uzbekistan's existing capital market legal framework is limited in scope, and does not align with international standards, such as the IOSCO Principles of Securities Regulation. The government frequently issues presidential and ministerial decrees to fill in gaps in the current Securities Market Law, resulting in fragmented, unwieldy amalgamation. The Asian Development Bank identified the country's "opaque legal and regulatory framework" as a major contributor to ineffective market facilitation in Uzbekistan (ADB, 2021<sup>[17]</sup>). A raft of 2020 reforms aimed to compile existing laws, acts and decrees into a comprehensive capital markets code and to remove barriers to prospective foreign and domestic investors in domestic securities (Dettoni, 2019<sup>[18]</sup>). Uzbekistan's Programme for Capital Market Development 2021-2023 identifies the large number of legal and regulatory acts as one of the barriers to the development of the capital market. The Programme tasks the Ministry of Finance (now the Ministry of Economy and Finance), the Central Bank and the Ministry of Investments and Foreign Trade (now the Ministry of Investments, Industry and Foreign Trade) to consolidate existing legislative and regulatory acts into a draft Capital Markets Law based on IOSCO principles (Government of Uzbekistan, 2021<sup>[16]</sup>).

Uzbekistan's financial ecosystem also lacks an effective interbank money market. Since the country's dominant state-owned banks receive subsidised public funds and the smaller private banks depend predominantly on deposit funding, there are few open-market operations to act as market-based benchmarks to indicate money market prices. In their absence, the Central Bank's refinancing rate is the only money market price indicator. In addition to the ongoing privatisation process, which will reduce the state's role in subsidising the largest banks, the government should seek to introduce appropriate instruments, such as repurchase agreements and currency swaps, to foster the development of the capital market (ADB, 2021<sup>[13]</sup>).



Similarly, the debt capital market is immature and lacks liquidity and a sufficient volume of issuances and trades. Most of Uzbekistan's government bonds are short-dated, with only three longer-term issuances to date. Moreover, bond issuances occur without a pre-announced auction calendar, which prevents potential bidders from participating, and auction cut-off yields follow the Central Bank's policy rate, which implies that bidding is not market-based. All of these factors impede the formation of a credible government bond yield curve, which in turn hinders the appropriate pricing of corporate bonds (ADB, 2021<sup>[13]</sup>). The Programme for Capital Market Development 2021-2023 addresses some of these concerns by establishing an auction calendar that schedules regular issuances of 3- and 5-year bonds to support the emergence of an effective yield curve.

The Programme for Capital Market Development 2021-2023 sets targets aimed at increasing the total volume of free securities to 5% of GDP by 2023. To increase supply, the government aims to boost the capitalisation of the capital market to UZS 45 trillion and increase the share of securities in the financing of national- and regional-level investment programmes to 5%. To increase demand, the government is focusing on the accessibility of the capital market through active integration with international financial markets, extensive use of modern information and communication technologies and the use of advanced approaches successfully tested abroad. Legislative and regulatory reforms will aim to create the necessary conditions for the active financing of investments aimed at the development of the stock market through the introduction of international best practices, the elimination of unnecessary barriers, restrictions and excessive regulation of the sphere and the development. Legislative changes will also seek to ensure the integrity of capital market regulation, prevention of systemic risks with the introduction of appropriate international criteria and experience (Government of Uzbekistan, 2021<sup>[16]</sup>).

An additional binding constraint on demand for Uzbekistan's capital market is the lack of qualified personnel. The Programme for Capital Market Development 2021-2023 targets the participation of 40 thousand people in activities aimed at improving financial literacy and skills among minority investors, other capital market participants and the general population. The introduction or improvement of training and retraining programmes for capital market specialists and the strengthening of conditions to attract domestic and foreign specialists to the market are also envisioned (Government of Uzbekistan, 2021<sup>[16]</sup>).

A 2022 package of capital market reforms also set rules on the issuance of securities on local and foreign stock markets aimed at increasing the number of placements on the "Toshkent" Republican Stock Exchange. Beginning in April 2022, issuers could place shares on foreign stock exchanges only after a preliminary placement on UZSE or as part of a simultaneous placement on domestic and international exchanges (Government of Uzbekistan, 2022<sup>[19]</sup>).

### *Expanding the range of available financial products*

Contributing to the lack of supply of securities, Article 96 of Uzbekistan's Civil Code and the law "On the Securities Market" narrowly define securities as promissory notes (bills of exchange), shares, bonds, savings (deposit) certificates, receipts, depository receipts and treasury obligations. Recent reforms have introduced new categories of securities, including exchange bonds and certain derivative securities, but other potential instruments still have no legal basis in Uzbekistan. Current legislation does not include mortgage-backed securities nor Islamic financial instruments, such as sukuk, a bond-like instrument. In Uzbekistan, a predominantly Muslim country, approximately 27% of citizens do not have a bank account for reasons related to their religion (UNDP, 2021<sup>[20]</sup>), indicating that there could be significant demand for Islamic financial instruments, including sukuks (see 5.4 Sukuks). OECD discussions in 2022 with representatives of the Central Bank, the Ministry of Finance and UZSE confirmed that there is considerable demand for the introduction of Islamic finance instruments on the domestic market. Such an untapped market could help Uzbekistan stimulate domestic demand in securities. The Programme for Capital Market Development 2021-2023 calls for reforms leading to the introduction of mortgage-backed securities, sukuks and other financial instruments.

Although subnational governments in Uzbekistan account for 56% of total national spending, Article 142 of the Budget Code forbids them from issuing debt instruments (Government of Uzbekistan, 2013<sup>[21]</sup>). In 2020, an exception was issued for the City of Tashkent to issue a USD 500 million debt instrument on the local market (Gazeta.Uz, 2020<sup>[22]</sup>), but the pilot project did not materialise because the Ministry of Finance refused to underwrite the issuance. On the supply side, this restriction reduces the number of potential issuers of securities, and on the demand side, it prevents local residents from investing directly in projects managed by their subnational governments.

### *Expanding the pool of potential investors and market participants*

Until recently, Uzbekistan's tax policies disincentivised participation in securities trading. Uzbekistan levied a tax on dividends and interest accrued from investment in securities, which reduced available return for potential investors. In 2022, the taxation rules regarding dividends were amended, exempting accrued interest on bonds and dividends from some shares and setting a 5% tax rate on income derived from dividends from other shares. In place of profit or income tax, the seller instead pays a fee amounting to 0.3% of the total transaction amount (Government of Uzbekistan, 2022<sup>[19]</sup>).

Uzbekistan only has a small pool of institutional investors (see 3.2.2 Domestic private financial flows) and they largely do not participate in Uzbekistan's capital market. The Programme for Capital Market Development 2021-2023 seeks to increase their participation through a number of legislative and regulatory reforms. The government plans to encourage the participation of Uzbekistan's pension fund by establishing a new pension fund development and regulation agency. It also plans to divest from state insurance companies, bring their regulations in line with international principles and broaden their investment mandates (Government of Uzbekistan, 2022<sup>[19]</sup>).

#### **4.2.2. Institutional set-up**

An overarching shortcoming is a lack of strategic direction from the government. Uzbekistan has taken a growing interest in the development of the domestic capital market, particularly with the adoption of the Programme for Capital Market Development 2021-2023. However, there is still no coordinated long-term strategy that sets out the state's priorities for capital market development and guides the implementation of financial market development reforms.

In terms of institutional set-up, rapid and occasionally contradictory institutional reforms have also been undertaken. Notably, the Capital Market Development Agency (CMDA) was established in 2019, only to be abolished two years later, with its functions transferring to the Department for Capital Market Development of the Ministry of Economy and Finance. The Department is now tasked with implementing policies on the development and regulation of the securities market, protecting the rights of investors and monitoring legal compliance of the market. According to a 2021 Resolution, Uzbek companies will be allowed to list their shares on foreign stock exchanges by 2023 provided that the initial placement occurs on a domestic stock exchange (Grata International, 2021<sup>[23]</sup>). This change, along with proposed changes to the securities exchange platforms in Uzbekistan (see 4.1.3 Stock exchanges and trading platforms), could partially address concerns about ineffective market facilitation and the limited supply of securities.

The number of state institutions involved in the regulation of the financial sector has decreased following the 2021 subordination of the Capital Market Development Agency's functions to the Ministry of Economy and Finance and the 2022 transfer of the Insurance Market Development Agency's mandate to the same ministry. This has reduced the fragmentation of regulatory oversight among Uzbekistan's state bodies, but regulatory functions remain split between the Ministry of Economy and Finance and the Central Bank, and their mandates overlap on the regulation of government securities, by far the largest asset class. Following the recent institutional changes, the Ministry of Finance regulates the pension system, auditing, the insurance market and corporate securities (and therefore the "Toshkent" Republican Stock Exchange). The Central Bank, on the other hand, regulates the banking sector, the currency market (and therefore the

Uzbekistan Republican Currency Exchange) and non-bank credit organisations (Nazirov, 2020<sup>[24]</sup>). Given that the Ministry of Economy and Finance has an ownership stake (ranging from 10% in Asaka Bank to 97% in Ipoteka Bank) in all but one major state-owned bank, conflicts of interest could arise. The remainder of the state's ownership stake in Uzbekistan's bank falls to the Uzbekistan Fund for Reconstruction and Development (ranging from 24% in Qishloq Qurilish Bank to 88% in Turon Bank, with stakes in all but one major state-owned bank), which does not have a regulatory role (Miroshnikova, 2022<sup>[4]</sup>).

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# **5**

## **State of play of green finance in Uzbekistan: Opportunities for and barriers to green bond issuance**

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This chapter presents the potential role of green bonds in financing Uzbekistan's green transition, the priority sectors for green bond issuance and barriers that potential issuers face. Non-sovereign issuers, notably subnational governments and corporate entities, face barriers in terms of the country's existing regulatory requirements and persistent knowledge and expertise gaps, but there is considerable potential for the use of the instrument to finance these issuers' green projects. Other bond-like instruments, such as green sukuks, an Islamic fixed-income instrument, could prove effective at mobilising domestic demand and offer an alternative financing mechanism if regulatory hurdles to the development of Islamic finance in Uzbekistan are removed. The energy sector, particularly renewable power generation projects, is the sector with the most potential for green bond issuances, but agriculture, transport, housing and water management projects could benefit as well.

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### Box 5.1. Key conclusions and recommendations

- Green bonds offer a viable additional source of financing Uzbekistan’s green transition, particularly to support market-ready projects in renewable power generation, but also in other high-impact sectors. Given global trends towards a larger sustainable finance market, greater demand for sustainable financial instruments and mandatory climate risk disclosure among financial institutions in several jurisdictions, Uzbekistan’s issuers could diversify its pool of investors by attracting them to green bonds supporting its national transition objectives.
- Uzbekistan should build on its experience with its first two sovereign thematic bonds, drawing on line ministries’ lists of priority infrastructure projects. The government should seek to incorporate emerging good practices internationally in its refinement of its recently adopted domestic green taxonomy, which will help standardise and streamline project selection and evaluation.
- The Budget Code currently forbids subnational governments to issue debt instruments. Given the large share of spending carried out at the subnational level, Uzbekistan should consider gradually removing this restriction to allow selected subnational governments with sufficient capacity to finance green projects through green bond issuances.
- Uzbekistan’s soon-to-be privatised state-owned banks are increasingly interested in green bonds as a way to improve domestic and international reputation, attract financing from institutional investors with mandates to increase ESG compliant instruments in their portfolios. SanoatQurilishBank (SQB) issued Uzbekistan’s first corporate green bond in August 2023. The government should encourage banks to seek out capacity development opportunities, particularly with peer banks experienced in green bond issuances.
- There is currently no regulatory framework for Islamic finance in Uzbekistan, but there are indications that considerable demand for Islamic financial products exists. Green sukuks, a Shariah-compliant bond-like instrument, could be an additional financing tool for the government and corporate entities alike. The government should develop the necessary regulatory framework and capacity to enable issuance of green sukuks.

As outlined in Chapter 3, Uzbekistan needs to mobilise financing from additional sources, especially the private sector, to achieve its climate and development goals. Uzbekistan can use green financial instruments, including green bonds, to finance key components of its green transition while strengthening and deepening its domestic capital market. There is an opportunity to expand the range of potential issuers of green bonds and the types of instruments available on the market and harness them to finance the green transition. Uzbekistan should seek to build on the experience of Uzbekistan’s first three thematic bond issuances, improve the enabling framework to facilitate corporate issuances, remove legislative hurdles for subnational governments and tap into domestic and international demand for green Islamic financial instruments like sukuks.

## 5.1. Role of and demand for green bonds in Uzbekistan’s green transition

Bonds are a potential solution to one of the major barriers to the financing of some sustainable infrastructure: maturity mismatch. Infrastructure projects, and particularly sustainable infrastructure projects, are characterised by high up-front capital costs and long-dated income streams. Unlike direct financing from banks and corporate entities, bonds can provide longer-term debt capital to finance infrastructure projects or refinance shorter-term loans at potentially more beneficial terms. Although they

hardly offer a ‘silver bullet’ solution to the financing gap, bonds can complement other forms of infrastructure financing for long-term capital-intensive projects (OECD, 2017<sup>[1]</sup>).

Uzbekistan could choose to finance infrastructure projects using conventional (or ‘vanilla’) bonds, which have looser restrictions on the use of proceeds by the issuer. However, green bonds, part of a wider ecosystem of thematic bonds, including green, social and sustainability bonds, have a few distinct advantages for Uzbekistan as it seeks to finance its green transition. Like conventional bonds, thematic bonds are debt instruments issued by governments (sovereign bonds) or banks, other corporate entities or supranational institutions (corporate bonds) that offer regular payments at a fixed interest rate (coupon rate) to debtholders until the bond reaches maturity. They differ from traditional ‘vanilla’ bonds in that, in the case of green, social and sustainability bonds, the use of their proceeds is restricted to green projects, social projects or a mix of green and social projects (for sustainability bonds) (OECD, 2021<sup>[2]</sup>).

Although these restrictions make the issuance of thematic bond more complicated since the proceeds need to be ringfenced and their use and impact carefully monitored and reported, the assurance they provide about the use of proceeds make them particularly attractive to investors with ESG portfolio requirements. Among investors there is a growing awareness that non-financial sustainability risks could have a significant impact on risk-adjusted returns in the long term, and they therefore seek investments with lower exposure to climate-related and other ESG risks. Several jurisdictions, including Brazil, Canada, the EU, New Zealand, Switzerland, the UK and the USA, have already made climate risk disclosures mandatory for some financial institutions, and other markets, including China, India and Japan, are expected to follow suit (Jonson, 2022<sup>[3]</sup>). Growing consumer demand has led to a rapid expansion of the global sustainable finance market. Across five major financial markets (Australia and New Zealand, Canada, Europe, Japan and the United States), total sustainable assets increased by 30% between 2016 and the end of 2019 to reach USD 30 trillion. Sustainable funds have expanded their assets under management globally, nearing USD 1 trillion in 2019, with 75% held by institutional investors and 25% by retail investors (OECD, 2020<sup>[4]</sup>). By offering financial instruments like green bonds, which are designed to guarantee low climate risk exposure and meaningful impact on environmental criteria, Uzbekistan’s government or other potential Uzbekistan-based issuers could tap into an additional source of financing.

Issuers also stand to reap additional benefits from the issuance of green or other thematic bonds. Green bonds can also have a positive impact on the reputation of the issuer and aid in clarifying the entity’s environmental strategy and displaying commitment to environmental sustainability (OECD, 2016<sup>[5]</sup>). There is also emerging (albeit limited) evidence that thematic bonds can have cost advantages over traditional bonds, notably in sovereign bond issuances in Chile, Egypt, Germany, Indonesia and Thailand. This comparative advantage, known as the green premium or “greenium”, results from lower yields in the secondary market compared to equivalent conventional bonds (OECD, 2021<sup>[2]</sup>). Recent evidence suggests that emerging market sovereign issuers may benefit from a more robust “greenium” effect than their developed market peers (OECD, 2023<sup>[6]</sup>).

Globally, the sovereign thematic bond market – as well as the market for sustainability-linked bonds – has developed rapidly in recent years, with record issuance of USD 1 151 billion in 2021, over half of which was strictly green (World Bank, 2022<sup>[7]</sup>). Emerging countries are small but growing players in the market (see Figure 5.1), accounting for about 15% of total issuance volume. Financial (41%) and corporate entities (37%) have issued the bulk of such bonds, while national governments (13%) and subnational governments, government agencies and development banks (8%) account for most of the remainder. Most emerging market bond issuances have been placed on international exchanges (76%) and in hard currency like USD, EUR and JPY (74% of bond issuances and 76% by volume) (World Bank, 2022<sup>[7]</sup>). A World Bank survey of 32 sovereign issuers of thematic and sustainability-linked bonds revealed that the main motivation behind their choice of a thematic rather than a conventional bond issuance was the desire to diversify their investor base. Other most-cited motivations were to signal commitment to sustainability and raise the funding needed for sustainable investments (World Bank, 2022<sup>[7]</sup>).

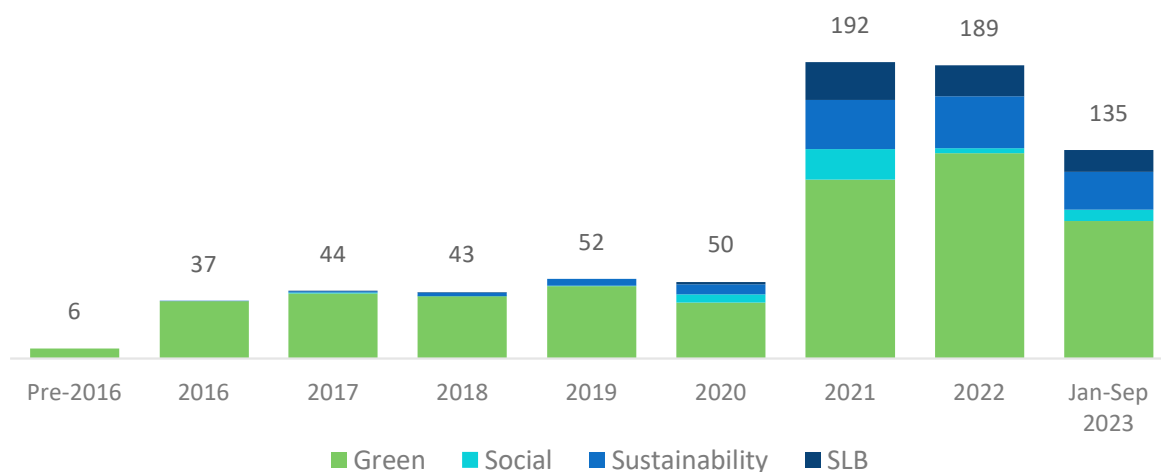


Uzbekistan has identified green bonds as a priority instrument for attracting domestic and international finance for the green transition. As part of a packet of measures adopted to accelerate the country's transition towards a green economy, Uzbekistan tasked the Ministry of Economy and Finance with designing proposals to attract private capital through green bond issuances for green infrastructure.

In addition to support for potential issuers, the ministry is expected to develop a national green taxonomy and improve the regulatory framework to facilitate green bond issuance (Government of Uzbekistan, 2022<sup>[8]</sup>). A green taxonomy is a framework that classifies economic activities or financial products based on specific environmental (and sometimes also social and governance) criteria. In October 2023, Uzbekistan adopted a national green taxonomy, which defines 7 categories of green economic activity. Starting on 1 October 2024, the taxonomy's definitions will be applied on an experimental basis to all green bonds and loans in the country (Government of Uzbekistan, 2023<sup>[9]</sup>). As experiences of other countries have shown, the development of a functioning green taxonomy is an iterative process of gradual improvements, revisions and expansions. Uzbekistan should seek to draw on emerging good practices from jurisdictions that have already been developed and seek to clearly classify economic activities that align with Uzbekistan's environmental and development goals. Several jurisdictions, including China, the European Union, Indonesia, Mongolia and Kazakhstan, have adopted such taxonomies, which differ considerably in their coverage, number of categories and underlying methodologies (OECD, 2020<sup>[10]</sup>). As Uzbekistan continues to refine its taxonomy, it should aim to align with future more ambitious climate objectives taken into account such as, for instance, a net-zero target and long-term low-emission development strategy. Corporate reporting requirements may need to be strengthened to ensure that information on activities' sustainability is disclosed and credible.

### Figure 5.1. Issuances of sovereign thematic bonds and sustainability-linked bonds in emerging markets have accelerated sharply in recent years

Billion USD, pre-2016, 2016-22 and January-September 2023.



Note: The World Bank classifies some OECD countries (Chile, Colombia, Mexico and Poland) as “emerging markets”. SLB = sustainability-linked bond.

Source: World Bank (2023<sup>[11]</sup>), “Green, Social, Sustainability, and Sustainability-linked (GSSS) Bonds Market Update October 2023”, <https://thedocs.worldbank.org/en/doc/3d313e4819de8d6bcb4238f253874b0f-0340012023/original/GSSS-Quarterly-Newsletter-Issue-No-5.pdf>.

## 5.2. Potential types of green bond issuance

### 5.2.1. Sovereign bonds

Across emerging markets, both countries eligible for official development assistance (ODA) and those that are not, corporate thematic bond issuances have predominated to date. However, among ODA-eligible countries like Uzbekistan, public sector issuances – mostly sovereign bonds – account for over half of issuances (OECD, 2021<sup>[2]</sup>). Given the size of governments' budgets and the role sovereign issuances play in providing benchmarking instruments for local market development, sovereign issuers are well placed to promote the development of a national thematic bond market (OECD, 2021<sup>[2]</sup>). As such, the fact that initial forays into thematic bond financing in Uzbekistan have been led by the government in the form of sovereign bonds is in line with its peer ODA-eligible countries.

Although Uzbekistan's first (conventional) sovereign bond issuance dates only from 2019, it has been quick to experiment with sovereign thematic bonds. In November 2020, Uzbekistan offered a two-tranche bond (a so-called "development finance institution (DFI) bond") consisting of a 10-year USD 555 million tranche and a 3-year UZS 2 trillion tranche. The bond attracted a broad base of investors resulting in an oversubscription ratio of 2.5. A portion of the DFI bond's proceeds are benefiting several development projects relevant to social Sustainable Development Goals (SDGs), including the construction of schools (SDG 4), health institutions (SDG 3), potable water and sewage pipelines (SDG 6) as well as roads (SDG 9). It also funds social welfare programmes to support women (SDG 5), children and the unemployed (SDGs 1 and 8) (UNDP, 2022<sup>[11]</sup>).

In July 2021, Uzbekistan issued its first sovereign thematic bond (a so-called "SDG bond"), a sustainability bond aimed at supporting social and climate-related SDGs (SDGs 1-9, 11, 13 and 15). In preparation for the SDG Bond issuance, the government of Uzbekistan developed the SDG Bond Framework with support from the United Nations Development Programme (UNDP). Sustainalytics provided a second-party opinion on the Framework finding it to be in alignment with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021 and Social Bond Principles 2021. Given its alignment with international standards on thematic bonds, the SDG Bond Framework can also be used to issue green bonds, and in October 2023 a second sovereign thematic bond – this time a green bond – was issued (Ministry of Economy and Finance, 2023<sup>[12]</sup>). Information on this second issuance is still forthcoming, and the remainder of this chapter will instead focus on the first sovereign thematic issuance.

Under the SDG Bond Framework, the 'procedures for project evaluation and selection' defines a four-step process whereby key ministries develop a list of potentially financeable socio-economic, environmental and infrastructure projects that are then screened by the Ministry of Economy and Finance's State Debt Department (and the UNDP acting as an observer and partner evaluator) and reviewed against the Framework's eligibility criteria and SDGs by the Ministry of Economy and Finance's Department on Working with International Ratings and Indices and the SDG Coordination Council, headed by the Deputy Prime Minister. OECD consultations with Uzbekistan's line ministries during a 2022 visit indicated that their input into the project selection process for the 2021 issuance was limited. For future issuances, Uzbekistan's line ministries, which regularly publish lists of priority infrastructure projects in need of financing in their respective sectors, could add value to the project selection process by feeding their priority projects into the pipelines of high-impact projects to be financed.

In terms of use of proceeds, Uzbekistan's SDG Coordination Council decided to narrow the focus of the UZS bond's proceeds predominantly on public transport (54%), health (22%), education (17%) and water (7%), including sustainable water supply and sanitation and flood defence systems. According to the bond's allocation report, only the proceeds from the UZS-denominated tranche were earmarked for SDG-related expenditure, while the USD-denominated tranche's proceeds contributed to general budgetary purposes. The 145 projects financed or co-financed by the UZS bond tranche's proceeds were selected

because of their high impact on priority areas for Uzbekistan's achievement of the SDGs and their bankability (UNDP, 2022<sup>[13]</sup>).

Like the DFI bond, the SDG bond was structured as a two-tranche bond consisting of a USD 635 million tranche at 3.9% over 10.25 years and a UZS 2.5 trillion (approximately USD 235 million) tranche at 14% over 3 years. Both tranches were oversubscribed at rates of 3.5 for the USD-denominated tranche and 1.5 for the tranche in UZS. The USD tranche attracted investors mostly from the United States (56%), the United Kingdom (19%) and Continental Europe (23%), while only 2% of investors came from Asia, the Middle East and North Africa (2%). For the UZS tranche, the United Kingdom accounted for the largest share of investors (43%), followed by Continental Europe (24%) and the United States (23%). Investors in Asia, the Middle East and North Africa accounted for a larger share of investors for the UZS tranche (10%). Asset managers and funds made up 92% of investors, with insurance and pension funds (4-5%) and banks (3-4%) making up the remainder across both tranches (UNDP, 2022<sup>[13]</sup>).

### **5.2.2. Sub-sovereign bonds: subnational governments, public agencies and state-owned enterprises**

National governments are not the only public entities that can issue thematic bonds. Globally, sovereign governments issue most thematic bonds in ODA-eligible countries, but subnational governments and public agencies, including state-owned enterprises (SOEs), have the potential to use thematic bonds as an effective tool in the green transition. In developed and non-ODA eligible emerging countries, sub-sovereign bonds make up a larger share of issuances than sovereign bonds (OECD, 2022<sup>[14]</sup>).

In Uzbekistan, subnational governments must maintain balanced budgets and cannot issue debt, which prevents them from accessing capital markets and using conventional or thematic bonds to finance their needs. Despite this, the City of Tashkent announced plans to issue a USD 500 million bond on the local market after the government granted an exception to the city's balanced budget rule in 2020. The planned issuance would have financed upgrades to the city's water and waste management systems as well as broader infrastructure improvements. The plan, however, failed to materialise. In OECD consultations with representatives of the Hokimiyat of the City of Tashkent, officials stated that they were unable to secure the Ministry of Finance as a guarantor for the debt instrument and that further legislative and regulatory changes would be necessary for the Hokimiyat to pursue bond issuances in the future. Given that subnational governments account for 56% of total national spending, sub-sovereign issuances from subnational governments could provide a way for local residents to invest directly in the development of their community.

Kazakhstan, which initially had a similar restriction on subnational debt, gradually extended exceptions to select regional governments with sufficient capacity to manage bond issuances. Starting in 2016, the Budget Code has allowed 14 *oblast* governments to issue bonds under strict surveillance from the Ministry of Finance regarding debt management and the use of proceeds (OECD, 2016<sup>[15]</sup>). As of May 2023, three bonds issued by subnational governments are being traded on the Kazakhstan Stock Market. Their cumulative volume accounts for only about 1% of the total government securities market (Kazakhstan Stock Exchange, 2023<sup>[16]</sup>), but their proceeds have provided a vital additional source of financing to regional governments. Uzbekistan could adopt a similar approach, extending exceptions to the Budget Code for selected subnational governments with sufficient capacity (e.g. City of Tashkent), with the Ministry of Economy and Finance acting as guarantor and supervisor for the process. Provided initial issuances are successful and well managed, Uzbekistan could gradually lift debt restrictions across a wider range of regions and eventually reform its Budget Code to facilitate subnational bond issuances.

Two SOEs, vehicle manufacturer UzAuto Motors and oil and gas industry holding company Uzbekneftegaz, have issued conventional bonds on international markets to date. Unlike subnational governments, Uzbekistan's SOEs have not faced the same barriers in terms of budget rules and securing guarantees from the state.

Proceeds from the bond issuances were not directed towards activities relevant to the green transition. Given that SOEs account for nearly half of economic output and 80% of public investments in sectors critical to the green economy including renewable energy generation, energy efficiency and water management, thematic bonds could be a viable way to finance the green transformation of high-impact companies while also allowing them to diversify their creditors and lowering their financing costs. In the case of UzAuto Motors, a thematic bond could help the company respond to the government's push for the increased domestic production of electric vehicles while attracting new investors and developing its international reputation.

Although neither company is listed in Uzbekistan's plans for privatisation, bond issuances – particularly the issuance of convertible bonds, which bond holders can convert into a predetermined number of shares – can be useful to gradually privatise state-owned enterprises. Such issuances demonstrate the government's willingness to dispose of its shares, can boost expectations of a company's share value, bolster corporate governance reform and foster stricter financial discipline. However, since investors choose if and when to convert the bond into shares and poor stock performance can lead to no conversion and slower privatisation, governments tend to prefer more predictable privatisation methods (OECD, 2019<sup>[17]</sup>).

### **5.2.3. Corporate bonds**

To date, all of Uzbekistan's corporate bond issuances have been carried out by SOEs (see above) or state-owned banks, namely the National Bank of Uzbekistan, SanoatQurilishBank (SQB) and Ipoteka Bank. The government plans to privatise these latter two in the coming years, although privatisation has been delayed by unstable market conditions.

Given the government's stated priority to attract domestic and international capital through green bonds, Uzbekistan's state-owned banks are increasingly interested in organising issuances. In November 2022, the OECD organised a 2-day peer-learning workshop between representatives of SQB, one of Uzbekistan's largest state-owned banks, and Ameriabank, a leading Armenian bank that has emerged as a pioneer in the adoption of green bonds in the region of Eastern Europe, the Caucasus and Central Asia (EECCA) (see Box 5.2). Many large state-owned banks in Uzbekistan, which account for most of the country's banking sector, are slated for privatisation in the coming years and are increasingly interested in debt instruments as they will come to rely more on markets than state subsidies. Banks do not face the same legislative and regulatory constraints as other potential issuers such as subnational governments, but instead lack practical expertise in developing and using debt instruments and particularly thematic bonds, which require stronger transparency, monitoring and compliance mechanisms. Peer-learning exercises between banks and especially banks operating in financial ecosystems with similar challenges and levels of development can help develop capacity and identify opportunities to adopt green bonds and other financial instruments.

#### **Box 5.2. Ameriabank's experience with green bonds and advice to SQB**

Ameriabank became the first bank in the region to issue a green bond denominated in EUR in 2020, which was privately issued on the Armenia Securities Exchange with the Development Bank of the Netherlands (FMO) acting as an anchor investor. Ameriabank followed up with a second issuance in 2022, with tranches denominated in both USD and Armenian dram (AMD), the local currency. Given the shared Soviet-era history between the banking systems of Armenia and Uzbekistan, Ameriabank's experience of transforming from a state-owned bank to a private bank and subsequent adoption of

green financial instruments makes the bank's perspective on challenges faced and lessons learned particularly relevant to SQB.

Ameriabank's Green Bond Framework, the underlying document that defines eligible green assets and a taxonomy of exclusionary criteria, was adopted in 2020 and determined in a Sustainalytics second-party opinion (SPO) to adhere to the 2018 Green Bond Principles and Green Loan Principles. In the 2022 OECD workshop, Ameriabank representatives emphasised the importance of defining measurable impact targets for defined eligibility criteria, such as quantified greenhouse gas emissions targets. Due to certain green projects lacking sufficient measurement criteria, Ameriabank opted to focus proceeds from its first issuances on renewable energy projects, sustainable buildings, energy and resource efficiency and sustainable transport. In the future, as measurement techniques improve and the bank gains further experience, it aims to include other green categories listed in its Green Bond Framework. Crucially, a credible Green Bond Framework must define criteria for exclusion from receiving green bonds' proceeds. In Ameriabank's case, fossil fuel-fired electricity generation (including combined renewable and fossil fuel installations), large (>20 MW) hydroelectricity plants and nuclear power generation facilities are explicitly excluded in the bank's Green Bond Framework.

Although Ameriabank has benefited from its experience with green bonds, establishing its domestic and international reputation as a trusted sustainable financial institution and expanding its market share to become the country's largest bank, it cautioned against proceeding hastily with green bond issuances. Ameriabank representatives stressed that banks should seek international guidance and support, prepare a high-quality framework in line with international standards and the bank's own development strategy and shore up measurement, surveillance, transparency and compliance mechanisms to ensure that the issuance is successful and beneficial. Prior to its first private bond listing, Ameriabank had been working with FMO and other international institutions since 2009 to develop its environmental and social monitoring system. Green bonds come with potential reputational risks if breaches with rules laid out in the Framework are identified, and poorly screened and monitored projects can lead to greenwashing accusations.

Ameriabank representatives recommended that SQB should seek to secure the buy-in of upper and middle management within the bank and ensure that they are properly briefed about the benefits and potential risks of green bonds. While a "greenium" may emerge with later issuances, it should not be used as a selling point, and Ameriabank did not observe a "greenium" effect in its issuances. Instead, banks should pursue green bonds as part of a wider, comprehensive sustainability strategy and to position themselves as a credible actor in sustainable finance.

The developing market for green mortgages in Uzbekistan could offer another opportunity for green bond issuances. These mortgages, primarily provided by Quishloq Qurilish Bank and Ipoteka Bank, offer lower rates for homes designed to reduce water and energy consumption. These banks, as well as the Uzbekistan Mortgage Refinancing Company, could develop green mortgage-backed bonds in the domestic capital market.

#### **5.2.4. Sukuks**

Most Uzbek citizens identify as Muslims and approximately 27% of citizens do not have bank accounts citing reasons related to their faith. This indicates that there could be considerable pent-up demand for Islamic financial services and products within the country. Islamic finance differs from traditional finance in that it conforms to Islamic legal tenets such as the prohibition of interest (*riba*). At present, Uzbekistan lacks a regulatory framework for Islamic finance, and there are significant awareness and knowledge gaps about Islamic finance in the country (UNDP, 2021<sup>[18]</sup>). In consultations with the OECD in 2022, several key market players, notably the Ministry of Finance, Central Bank and the "Toshkent" Republican Stock

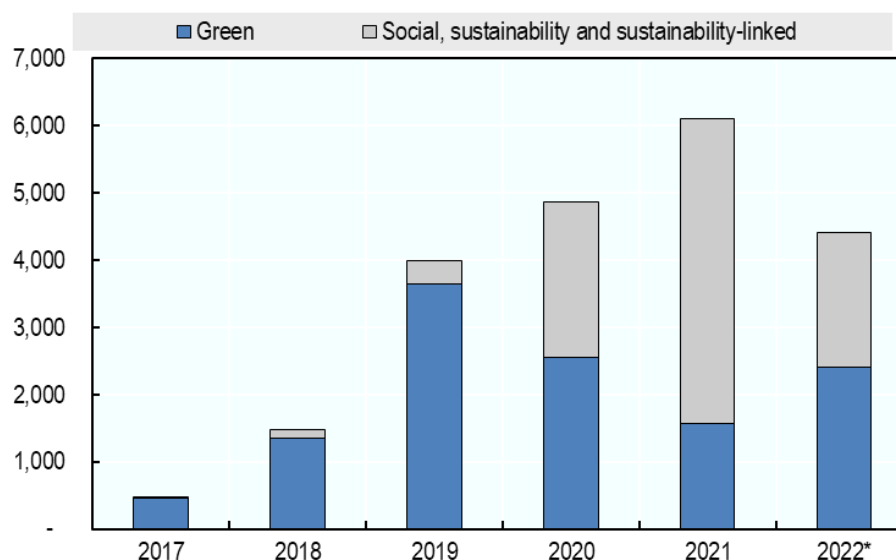
Exchange, noted that Islamic finance could be a viable way to attract domestic and foreign investors and develop the domestic capital market.

One Islamic financial instrument of particular interest is the sukuk, a Shariah-compliant fixed-income instrument comparable to a bond. Unlike bonds, sukuks do not pay interest, which is prohibited under Islamic law, but instead offer a comparable stream of payments over a fixed maturity period in the form of profit or rent. To achieve this, broadly speaking, sukuks represent partial ownership of real tangible assets or a contract with an underlying entity, although the ownership and payments cease once the instrument achieves maturity. Sukuks can be structured according to several different contracts, including ijara (lease) sukuks and wakala (principal-agency) sukuks, the two most commonly used structures in green sukuks. The choice of structure depends on factors such as the nature of the underlying assets, tax and regulatory considerations, tradability considerations, the return (fixed or floating), the type of issuer (sovereign or corporate), the targeted investor base and the Sharia approach of the scholars who approve the sukuk issue. In all cases, proceeds from sukuks, like green bonds, cannot be used to finance certain activities. In the case of conventional sukuks, excluded activities include alcohol and pork production; under a green sukuk, additional exclusionary criteria for environmentally harmful activities and eligibility criteria for green products are included (Refinitiv, 2022<sup>[19]</sup>).

Sukuks, like bonds, can be issued by sovereign or corporate entities, and they can be conventional or thematic, including green, social, sustainability and sustainability-linked sukuks. Following Malaysia's first issuance in 2017, the market has expanded rapidly (see Figure 5.2). Most issuances have occurred in Indonesia (27%), Malaysia (20%), Saudi Arabia (13%) and the United Arab Emirates (8%), with supranational institutions (24%), notably the Islamic Development Bank, accounting for a large share as well. Central Asian countries have so far been absent from the green sukuk market, although the Development Bank of Kazakhstan issued a conventional sukuk in 2012 and the Astana International Finance Centre has been positioning itself as an Islamic finance hub, offering Islamic financial products and services in Kazakhstan since 2018 and attracting a cross-listing of a sukuk issued by the Qatar International Islamic Bank. Uzbekistan could stand to benefit from the expertise of these countries' institutions as it seeks to facilitate the adoption of green sukuks (Refinitiv, 2022<sup>[19]</sup>).

**Figure 5.2. The market for green, social, sustainability and sustainability-linked sukuk has expanded more than tenfold since 2017**

Green, social, sustainability and sustainability-linked sukuk issuances in million USD, 2017-21 and the first half of 2022.



Note: \*2022 covers only the first half of the year.

Source: Refinitiv (2022<sup>[19]</sup>), Green and sustainability sukuk report 2022, [https://www.refinitiv.com/content/dam/marketing/en\\_us/documents/gated/reports/green-sustainability-sukuk-report-2022.pdf](https://www.refinitiv.com/content/dam/marketing/en_us/documents/gated/reports/green-sustainability-sukuk-report-2022.pdf).

International institutions are supporting the government of Uzbekistan in its efforts, expressed in its Programme for Capital Market Development 2021-2023, to create the necessary regulatory and market conditions for the introduction of Islamic finance and green sukuk. The United Nations Development Programme (UNDP) and the Islamic Development Bank have launched a technical assistance project aimed at developing relevant legislative and regulatory framework as well as to elaborate the National Green Sukuk Framework for Uzbekistan. The UNDP, the Ministry of Finance (now the Ministry of Economy and Finance), the Islamic Corporation for the Development of the Private Sector (ICD) and Ansher Capital LLC delivered a webinar in 2022 aimed at raising awareness and interest in Islamic finance instruments and determining priority areas for further work.

### 5.3. Potential sectors for green bond financing

Thematic bonds, such as green, social and sustainability bonds, and thematic sukuk are potentially useful instruments for financing part of Uzbekistan's green transition, and certain sectors, due to their high share in Uzbekistan's greenhouse gas emissions and the market-ready nature of the projects they can offer, are particularly good candidates for early exploration of the instrument's potential.

The most critical sector is energy, as it has the greatest environmental impact and consequently the largest potential for the implementation of projects related to the transition. The transport, agriculture, housing and water sectors can also be identified as areas with vast potential for promoting a green economy, as a



number of green projects have been launched and implemented in the areas of construction and water management.

- **Energy:** In Uzbekistan's natural gas-dominated energy sector, the renewable energy market growing more attractive to investors thanks in part to government support and incentive programmes. By 2030, Uzbekistan plans to diversify its power generation system, integrating more solar photovoltaic plants (8%) and wind power plants (7%). With maturing renewable markets globally and strengthening mandates for investors to invest in environmental, social and governance (ESG) compliant financial products, Uzbekistan's public and soon-to-be private institutions could package market-ready renewable electricity projects into attractive debt market instruments. Energy efficiency projects, notably in the country's housing sector, could also contribute to a bond's project portfolio. Both types of projects were already included in Uzbekistan's sovereign SDG bond issuance, demonstrating their viability.
- **Transport:** Uzbekistan's government has made the domestic production and uptake of electric vehicles a priority for the green development of the transport sector. UzAuto Motors, one of the two SOEs to have issued a bond in Uzbekistan to date, and other vehicle manufacturing companies in Uzbekistan could contribute to the government's electric vehicle push and diversify their financing sources by issuing green bonds based on projects for development of the sector.
- **Agriculture:** Agriculture employs about a quarter of Uzbekistan's population, and the sector is important for both domestic food supply and exports. A number of environmental concerns, including water management and biodiversity loss, remain to be addressed, and some aspects of the sector's green transition could be financed through green bond issuances. Projects to improve water supply, which is currently conducted through an extensive and inefficient grid of dams, canals and pumping stations, and irrigation as well as introduce sustainable methods of farming, pasturing and waste management, could be eligible for inclusion in green bond issuances from the government, banks or relevant corporate entities.
- **Housing:** A nascent market for green mortgages exists in Uzbekistan, whereby banks are beginning to offer lower rates for homes designed to reduce water and energy consumption. Although banks currently face regulatory restrictions against issuing mortgage-backed securities, banks and the Uzbekistan Mortgage Refinancing Company could develop mortgage-backed green bonds in the future.
- **Water supply and sanitation:** Uzbekistan already included a number of water supply and sanitation projects in its first sovereign SDG bond issuance. Similar approaches could be taken for sub-sovereign bond issuances, provided that legislative and regulatory barriers are removed.

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## Green Finance and Investment

# Financing Uzbekistan's Green Transition

## CAPITAL MARKET DEVELOPMENT AND OPPORTUNITIES FOR GREEN BOND ISSUANCE

The scale of Uzbekistan's green transition requires a marked increase in private financing to fill the existing spending gap. The outsized role of the state in Uzbekistan's economy and its underdeveloped domestic capital market act as significant constraints and call for a diversification of sources to finance the green transition. Since 2021, Uzbekistan has made green bonds a central part of its strategy to fill the financing gap and mobilise new sources of capital for its domestic green infrastructure projects. This publication explores the current market and institutional set-up in Uzbekistan, the reforms that have led to recent issuances of both sovereign and corporate thematic bonds, and the remaining barriers to further uptake of the instrument. The report also provides policy recommendations related to the market's institutional set up, Uzbekistan's regulatory framework for debt capital markets and emerging opportunities for further green bond use aimed at key stakeholders, including policy makers and market participants.



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