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for Reconstruction and Development

Armenia diagnostic

2024

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Country diagnostics are a European Bank for Reconstruction and Development (EBRD) tool for identifying the main obstacles to entrepreneurship and private-sector development and shaping the Bank's strategic priorities and project selection in new country strategies. Each diagnostic informs the EBRD's policy engagement with the authorities in that country.

Diagnostics assess the progress and challenges of developing a sustainable market economy in the country in question. Private-sector development and entrepreneurship are at the heart of the Bank's mandate in the regions where the Bank operates, but the private sector in all EBRD economies faces a range of problems and obstacles. The diagnostic highlights the key challenges facing private companies and shows where each country stands in relation to its peers in terms of six qualities of transition – competitive, well governed, resilient, integrated, green and inclusive – pointing out the main deficiencies and gaps in each.

The diagnostics draw on a range of methodologies and best practices for assessing the size of different obstacles. Extensive use is made of in-house expertise across the EBRD, along with surveys such as the Business Environment and Enterprise Performance Survey (BEEPS) and the Life in Transition Survey, as well as other cross-country surveys and reports from institutions such as the World Bank, World Economic Forum and Organisation for Economic Co-operation and Development (OECD). For some larger countries, the diagnostics also draw on specially commissioned studies of selected issues that are critical to private-sector development in that country.

The diagnostics are led by the EBRD's Country Economics, Strategy and Policy team, drawing substantially on the expertise of sector, governance and political experts in the Policy, Strategy and Delivery department (PSD) and consulting widely with relevant experts across the EBRD when preparing the final product. The diagnostics are shared with the EBRD Board during the Country Strategy process and published during the public consultation period.

The views expressed in the diagnostic papers are those of the authors only and not of the EBRD.

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Executive summary

Over the past decade, Armenia's economy has seen strong gross domestic product (GDP) growth despite global and regional challenges, such as Covid-19, military conflict with Azerbaijan, and Russia's war on Ukraine. Low value-added products (minerals and metals) account for a large share of exports, and Russia remains the country's main trading partner. Labour productivity in key sectors has stagnated, however, and the stock of foreign direct investment (FDI) remains low. Efforts are underway to transition Armenia to a services-led economy by capitalising on its vibrant information and communications technology (ICT) sector. Remittances have declined recently, but continue to play a crucial role in reducing poverty in low-income households. Government revenues have been growing at a consistent pace, primarily due to tax reform, enhanced tax administration and medium-term debt management planning. These factors, combined with strong output growth and more robust fiscal rules, have contained the fiscal deficit and kept public debt at a sustainable level around 50 per cent of GDP.

Armenia's **competitiveness** is constrained by its position as a small, landlocked economy, with two of its four borders closed due to geopolitical challenges. The country is in a unique position, however, thanks to its membership of the Eurasian Economic Union (EAEU) and its Comprehensive and Enhanced Partnership Agreement (CEPA) with the European Union (EU). Nevertheless, trade remains highly concentrated geographically and mainly consists of primary goods. Competitiveness may be enhanced in the medium term by ongoing efforts to diversify production and exports to higher value-added products and new markets.

The Covid-19 pandemic and the country's military hostilities with Azerbaijan have held back reform in the area of economic **governance**. Weak administrative institutional capacity is impeding the government's ability to address key challenges and implement a coherent reform agenda. In recent years, the authorities have made progress on reducing corruption, improving transparency and setting up anti-corruption institutions. Efforts to digitalise government services are starting to reap rewards. However, there needs to be further reform of state-owned enterprises (SOEs), which often fail to implement good governance practices. The lack of SOE progress has hindered performance and accountability, and places a continued fiscal burden on the government.

Progress on the **green** economy transition is slow. Economic growth remains coupled with greenhouse gas (GHG) emissions growth. Armenia's high dependence on relatively cheap natural gas imported from Russia is

delaying the transition to low-carbon technologies and investments in energy efficiency. Natural gas is the country's primary source of energy. The authorities pledged in their Nationally Determined Contribution (NDC) to reduce CO₂ emissions by 40 per cent by 2030 compared with 1990 levels. Weak climate resilience makes the country highly vulnerable to climate change, as it is exposed to floods and landslides. More robust natural-disaster risk management is needed to mitigate these risks.

Armenia faces many human capital development challenges, including high levels of youth unemployment, skills mismatches and the impact of the proliferation of digital technology on the workforce. **Inclusion** is held back by many factors, including the high cost and low quality of basic services, the low percentage of the population with savings at financial institutions, low government spending on social benefits, and traditional values hindering the economic empowerment of diverse population groups, especially women.

The country's **financial sector** is relatively **resilient**. Financial system assets are mainly in the banking sector and have grown steadily, reaching 115 per cent of GDP in 2023. Non-bank financial institutions (NBFIs) have a limited market share, but pension and investment funds are increasing in importance. Strong credit growth, particularly in terms of mortgage loans, raises risks, but the banking sector is sound overall, with low levels of non-performing loans (NPLs) and strong profitability.

Energy sector resilience, however, is relatively fragile. Armenia relies heavily on imported natural gas from a single supplier for its energy needs, making it vulnerable to geopolitical risks. Almost one-third of electricity generation depends on hydro potential, which is vulnerable to climate change impact. Unbundled energy markets and an independent energy regulator, however, signal positive developments in Armenia's energy sector.

Faced with geopolitical challenges, Armenia's **integration** into global markets is seriously constrained. The North-South road corridor plays a crucial role as the country's only trade route, but requires significant investment to upgrade it. Anticipating the potential opening of borders, the authorities plan to build a logistics hub in Gjumri, a city close to the Turkish border, because of its strategic location. A hub of this nature would enhance connectivity and allow the efficient movement of goods and people, potentially transforming Armenia into a transit country.

1. Political and economic overview

1. Political economy

(as at 13 September 2024)

Following mass anti-government protests in 2018 that led to a peaceful change of power, Armenia committed to wide-ranging political and economic reforms in a bid to rectify years of uneven transition.

Important measures have been taken to improve the rule of law and fight corruption. Transparency International's 2023 Corruption Perceptions Index identified Armenia as a "significant improver", measured by the country's achievements since 2018. In 2023, Armenia was ranked 62nd out of 180 countries, scoring 47/100 compared with 35/100 in 2018.¹ Progress has also been made in the area of justice reform. The reform process needs to continue to strengthen the independence, efficiency and accountability of the judiciary and to overcome remaining weaknesses in the country's anti-corruption framework.

While Armenia remains committed to further reform, implementation of the government's reform agenda has faced significant challenges in recent years as a result of its volatile security situation and high degree of political polarisation. To resolve a grave political crisis when the government's legitimacy was questioned following a ceasefire agreement with Azerbaijan in November 2020 after a 44-day war, the country held early parliamentary elections in June 2021, in which the ruling Civil Contract party reaffirmed its parliamentary majority (albeit a weakened one). The next parliamentary elections are due in 2026. Political tensions have, nevertheless, never fully subsided.

Concluding an agreement on the establishment of peace and a normalisation of relations between Armenia and Azerbaijan, including the opening of regional transport links, is a priority. Establishing a durable peace will contribute to regional stability and economic, energy and trade diversification, including Armenia's participation in regional connectivity, among other things through its Crossroads of Peace initiative.

Despite the progress made, finding a comprehensive settlement remains difficult.

As part of recent efforts to diversify its foreign relations, Armenia has signalled its intention to deepen its cooperation with the EU, based on common values. To this end, in February 2024, the two sides agreed to start work on a new EU-Armenia Partnership Agenda, establishing more ambitious joint priorities for cooperation on all dimensions. It will be underpinned financially by a Resilience and Growth Plan of €270 million for 2024-27. The new Partnership Agenda will also aim to unlock the full potential of the CEPA concluded in November 2017. In September 2024, the EU and Armenia launched a dialogue on liberalising mutual visa arrangements. This could give a new boost to Armenia's reforms, particularly with regard to the fight against corruption and upholding fundamental rights. The joint EU-United States of America-Armenia high-level meeting in Brussels on 5 April 2024 discussed ways to strengthen Armenia's resilience and expand cooperation in multiple sectors, including governance, law enforcement, trade, connectivity, agriculture, energy and technology.

At the same time, Armenia has been a member of the EAEU since 2015. The country's economic and energy dependence on Russia remains high. The countries' bilateral trade has increased further since the start of Russia's war on Ukraine.

Armenia is a parliamentary republic, in which the prime minister enjoys strong executive powers.

To further consolidate democracy, the country would benefit from a strengthening of its institutions, as well as the checks and balances in the political system.

1 See Transparency International (2024).

2. Macroeconomic overview

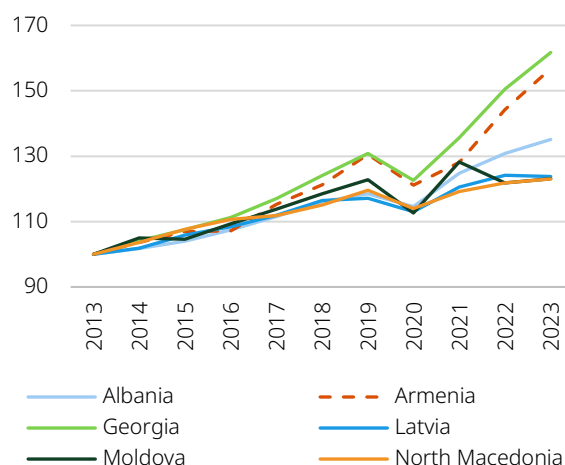
Over the last decade, Armenia's economy has seen strong GDP growth, despite global and regional challenges, such as Covid-19, military conflict with Azerbaijan, and Russia's war on Ukraine. The country's goods trade necessitates further investment in the diversification of products and markets. Low-value-added products (minerals and metals) account for a large share of exports, while Russia accounts for the largest share of both exports and imports. Labour productivity in key sectors has stagnated. The stock of FDI remains low and inflows are volatile. Remittances have declined, but continue to play a crucial role in poverty reduction in low-income households. Government finance indicators show consistent growth in revenues, primarily due to tax reform, enhanced tax administration and medium-term debt management planning. The fiscal deficit remains contained and public debt is hovering at a sustainable level around 50 per cent of GDP, supported by strengthened fiscal rules.

Growth trends and productivity

Armenia's economy has shown substantial resilience to a series of external shocks over the past decade.

The Covid-19 pandemic and the country's armed conflict with Azerbaijan led to a significant economic downturn in 2020. However, the boost gained from improvements in economic governance and competitiveness after the 2018 Velvet Revolution, combined with a stable macroeconomic environment, prudent fiscal policy and timely inflation targeting, subsequently generated stronger growth than in comparator countries. Unexpected external factors resulting from Russia's war on Ukraine have given a temporary boost to GDP growth in recent years. Armenia's real annualised economic growth rate in the 10 years to 2023 stood at 4.6 per cent, in line with Georgia's 4.9 per cent rate and twice those of Latvia, Moldova and North Macedonia.

Chart 2.1. Real GDP growth, 2013-23



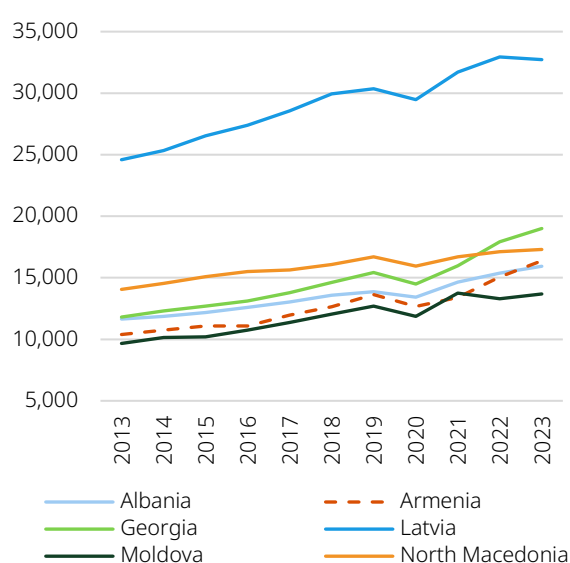
Source: IMF (2024a), authors' calculations.

Note: 2013=100, constant prices, local currency.

Thanks to its robust economic growth, Armenia became an upper-middle-income country in 2018.

GDP per capita has risen steadily over the past decade, overcoming a significant dip in 2020. However, income levels lag those of comparator countries because of their low starting point. Armenia nearly caught up with Albania and North Macedonia in 2023, but there is still some way to go to reach Georgia's level. Structural weaknesses, such as an ageing population, a brain drain and weak labour productivity growth, have hindered faster income convergence with advanced comparators, such as Latvia.²

Chart 2.2. GDP per capita growth, 2013-23 (US\$ PPP, 2017)

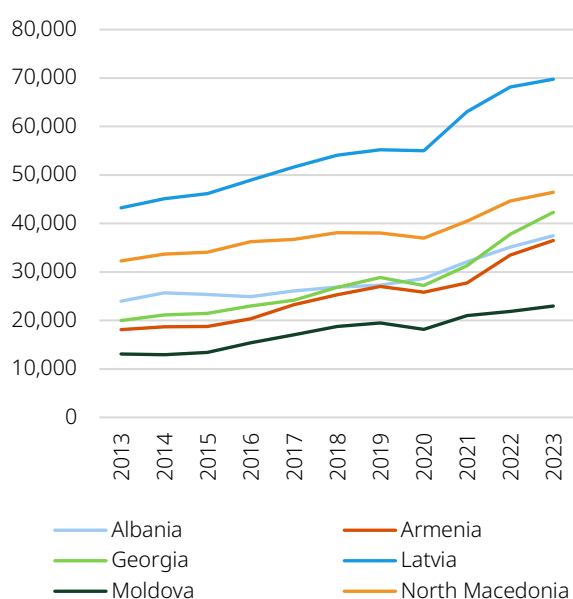


Source: IMF (2024a), authors' calculations.

2 See World Bank (2024a).

Labour productivity recently received a boost from a number of temporary factors, but it may not be sustainable. The sharp rise in labour productivity was driven by a strong recovery from the Covid-19 pandemic and an inflow of highly skilled Russian professionals, who enhanced demand in domestic industries such as hospitality, tourism and real estate, and contributed to a sharp increase in exports of ICT services.³ However, Armenia's labour productivity remains low compared with that of its peers and it is questionable whether the positive recent trends can persist longer term.

Chart 2.3. Labour productivity per worker, 2013-23 (US\$ PPP, 2017)



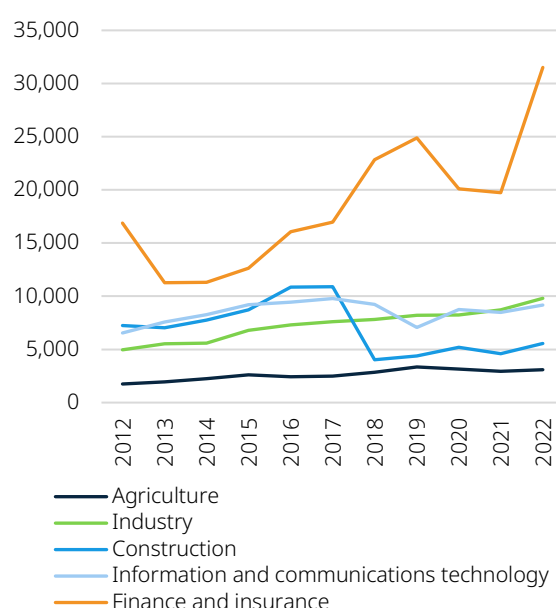
Source: World Bank (2024c) and IMF (2024a).

Note: 2023 figures are estimates based on authors' calculations using the total population times the employment rate modelled by the International Labour Organization. Approximate inflow of 115,000 refugees of Armenian origin added to the Armenia population for 2023.

Agriculture, industry and construction account for almost half of total employment, but are the least productive sectors of the economy. The financial and insurance sector, which accounts for the smallest share of employment, is the country's most productive. Growth in agricultural productivity has stagnated, while construction productivity has plummeted since 2017 and remains very low. Though the contributions of agriculture and construction to GDP growth are decreasing steadily, together with industry, they still account for more than 30 per cent of GDP. Because of their importance to the economy,

the Ministry of Education, Science, Culture and Sports drafted a new state programme (known as the Education Strategy), approved in July 2022, to enhance human capital in Armenia through 2030.⁴ The programme primarily focuses on reskilling and upskilling youth and the elderly population by modernising vocational education and training and work-based learning. Despite the strong performance of the ICT sector, its labour productivity per worker remains lower than that of the financial and insurance b sector. This is down to the high number of employees in the ICT sector, including individual entrepreneurs and start-ups.⁵

Chart 2.4. Labour productivity by sector, 2012-22 (AMD per worker, constant prices, 2012)



Source: ArmStat.

Note: Real-estate activities are excluded, as they account for a fraction of total employment, though the sector has the highest labour productivity rate.

Armenia's GDP growth drivers have been very volatile over the past 10 years. Between 2013 and 2016, high commodity prices boosted export revenues from metals and minerals and fuelled export-led growth. This was followed by a few years of consumption-led growth. More recently, contributions to growth have been more evenly distributed between private consumption and investment. The exception is 2022, when net exports generated extraordinary economic growth on the back of increased demand for tourism, hospitality and accommodation services from migrating Russian information technology (IT)

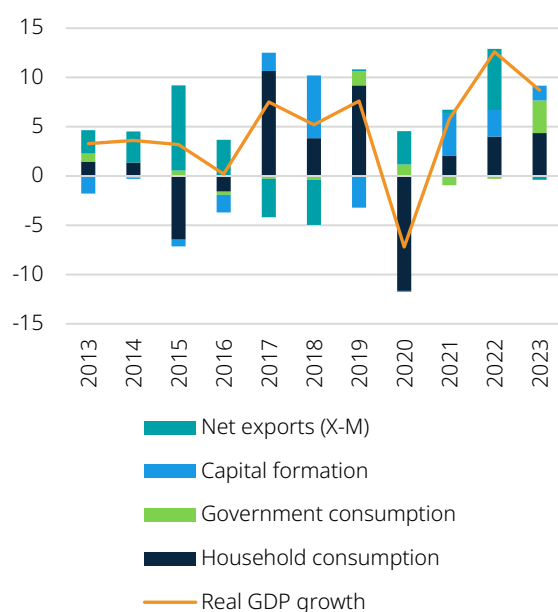
3 See EBRD (2024a).

4 See ETF (2022).

5 See World Bank (2020a).

professionals and firms.⁶ However, this export boom proved short lived and wound down significantly in 2023. A robust GDP growth rate was sustained in 2023 thanks to a strong contribution from government consumption, mobilised to support the emergency needs of more than 115,000 refugees. The volatile contribution of exports to GDP growth suggests there are serious structural challenges behind the country's productivity gap, low domestic industrial competitiveness and lack of sophisticated export commodities and services.

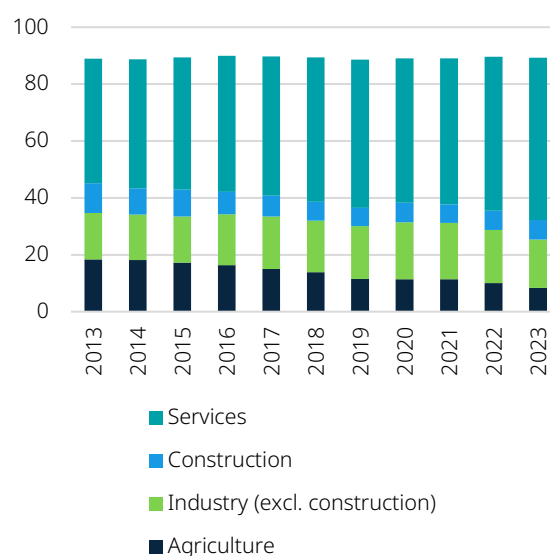
Chart 2.5. Contribution to GDP growth, based on expenditure, 2013-23 (per cent)



Source: ArmStat, authors' calculations.

There has been an increasingly pronounced shift from agriculture to services-led growth. Services as a share of GDP have increased steadily over the past decade, rising from 43.7 per cent in 2013 to 57.1 per cent in 2023. This was mostly on account of a decline in agriculture as a share of GDP, from 18.4 per cent to 8.4 per cent during the period. The shares of industry and construction have remained broadly the same. Despite agriculture's decreasing share of GDP, total agricultural yields have increased as a result of investment in modern greenhouses and better irrigation systems.⁷ The uptick has apparently not been sufficient to match productivity gains in other sectors of the economy, however.

Chart 2.6. GDP breakdown by sector, 2013-23 (per cent)



Source: ArmStat data, authors' calculations.

Note: The breakdown does not add up to 100 per cent, as it excludes financial intermediate services measured indirectly and tax minus subsidies.

Box 1. Foreign direct investment

While FDI is lagging, total factor productivity (TFP) is the biggest contributor to Armenia's real GDP growth.

This would seem counterintuitive, given that TFP tends to be positively correlated to more diversified goods exports, higher labour productivity and an increased presence of FDI,⁸ and Armenia lacks all of these things. Consequently, an analysis of TFP in Armenia should be interpreted with the following caveats:

- There could be an overestimation of TFP due to inconsistent data quality, including high levels of informality, which can underestimate the contribution of labour.⁹
- There is a low starting base for labour productivity and FDI, suggesting TFP growth should be higher than current levels to catch up with comparators.
- Services-led economic growth (primarily ICT) may be less technology intensive than expected, while the vulnerability of the services sector, which depends significantly on remittances and external borrowing, to global and regional demand shocks is high.¹⁰ This could mute any knowledge spillover from services to other key sectors, such as agriculture, construction and industry.

⁶ See EBRD (2024).

⁷ See US International Trade Administration (2023).

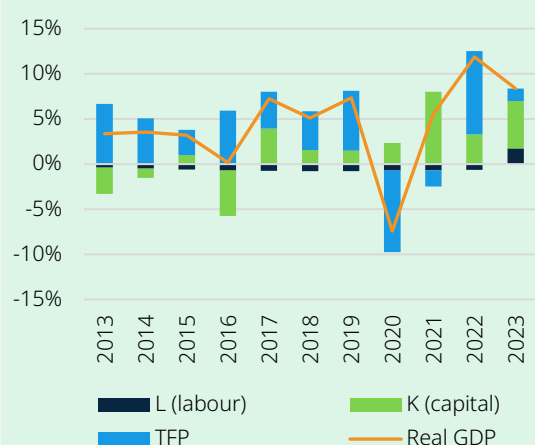
⁸ See Pietrucha and Żelazny (2019).

⁹ The absence of asset registries and a centralised platform to compile domestically financed projects could dent the data quality of K (capital).

¹⁰ See Ayvasyan and Daban Sanchez (2015).

The high capital contribution mark-up in 2021 was led by an increase in capital expenditure to facilitate the country's post-pandemic recovery. Another noticeable capital contribution in 2023 was the combination of a boost in government spending to accommodate refugees and potentially higher FDI inflows than pre-war levels.¹¹ The transmission of TFP growth to long-term economic growth in Armenia would be strengthened by the implementation of timely and effective structural reform, including enhanced labour-force participation, increased efficiency of public investment management and improved access to finance for business development.¹²

Chart 2.7. TFP growth rate (per cent)



Source: ArmStat data, IMF (2024a).

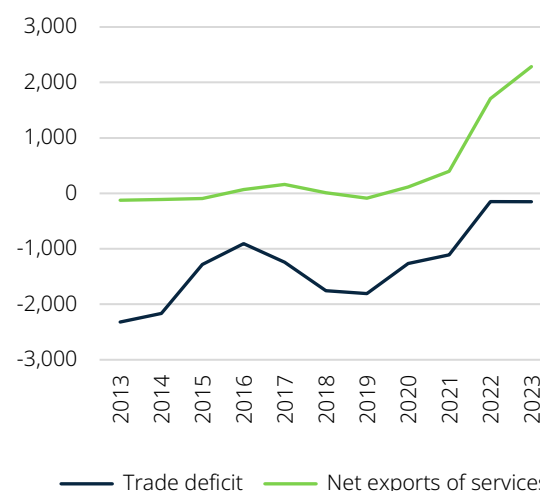
Note: Coefficients are computed using a Cobb-Douglas function. Each growth factor is computed using a natural log to make it linear. GDP in constant prices and gross fixed capital formation in constant prices are used for K (capital). The working-age population 15-64 is used for L (labour), with 2023 estimates including a 20,000 inflow out of an estimated 115,000 refugees (see the "Inclusive" section of this report for further details).

External sector development

The growth of the services sector has not had a significant impact on exports until recently. A sharp increase in service exports from 2021 eliminated the trade deficit almost entirely in 2022-23. Tourism¹³ and ICT service exports have shown the strongest growth over the past few years, increasing an estimated 3.6-fold and 1.9-fold, respectively, in 2022, though this growth began to moderate in 2023. The number of tech workers in Armenia has more than doubled as the country has absorbed Russian IT professionals

seeking refuge in the country.¹⁴ Most ICT sector services are in software programming, due to Armenia's long history of providing IT outsourcing services.¹⁵

Chart 2.8. Trade deficit and net exports of services, 2013-23 (US\$ million)



Source: ArmStat data, authors' calculations.

Thanks to a substantial decline in the trade deficit, the current account deficit remains at a manageable level. The trade deficit has been a persistent issue over the past decade, swamping a surplus in secondary income underpinned by consistent remittance inflows. With the boom in service exports since 2022, led by tourism and the ICT sector, the trade deficit has almost petered out. However, a drop in net remittances and a primary income deficit widened the current account gap again in 2023. The aforementioned relocation of ICT firms almost doubled FDI inflows in 2022. As a result, outflows of investment income surged, creating a deficit in the primary income balance. However, the current account deficit stood at a moderate 2.1 per cent of GDP in 2023 thanks to strong GDP growth.

11 Nonetheless, Armenia's overall public capital stock remains lower than that of its comparators due to unpredictable public investment management, less rigid capital expenditure planning and lower FDI.

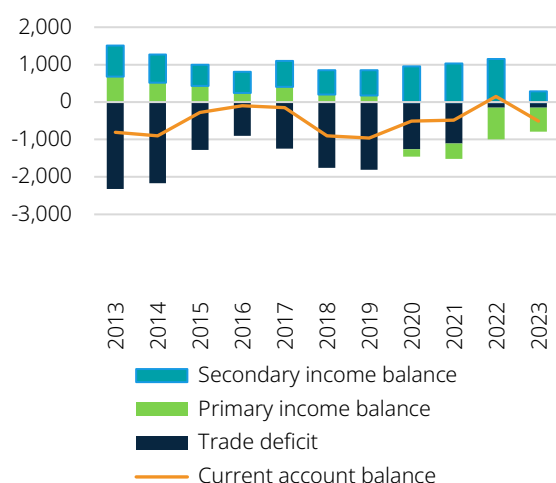
12 See IMF (2023a).

13 Numbers on the origin of individual tourists reportedly coming from Russia are based on anecdotal evidence; the authorities have not issued official figures on tourism numbers and tourist origins.

14 See World Bank (2024a).

15 See World Bank (2020a).

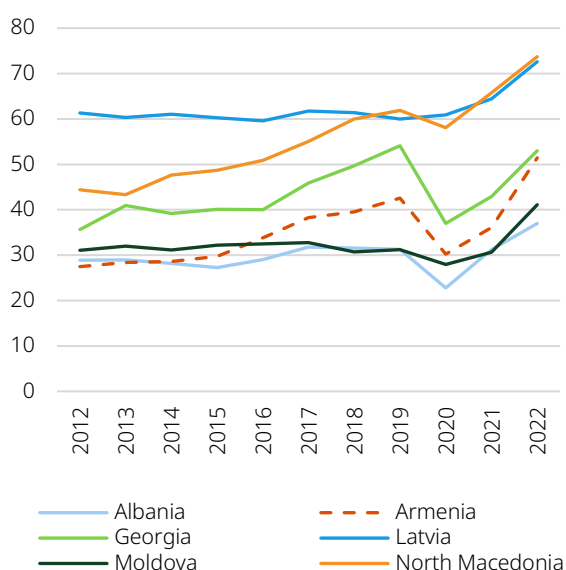
Chart 2.9. Current account balance breakdown, 2013-23 (US\$ million)



Source: ArmStat, authors' calculations.

Total trade volumes have surged recently as a result of strong growth in service exports, but remain relatively modest. Armenia's slow integration into global value chains and logistical bottlenecks are constraining the external trade of goods. Consequently, the total value of goods and services exports as a share of GDP remains much lower than in the most integrated comparator countries, despite their recent increase to 51 per cent of GDP. Because the improvement in the trade balance stems from the growth of services exports and re-exports to Russia, the continuation of this trend remains uncertain. The limited availability of cross-border trade routes adds even more complexity to goods exports.

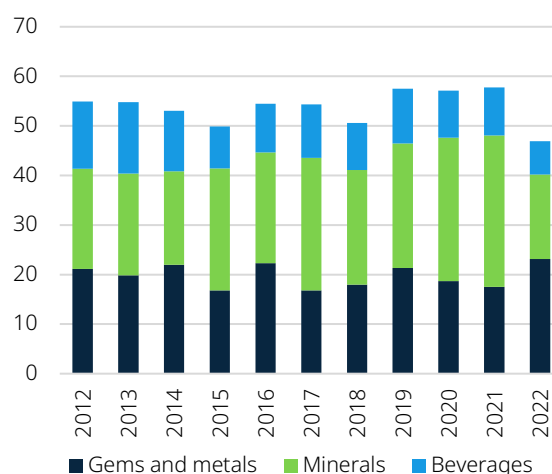
Chart 2.10. Exports of goods and services as a share of GDP, 2012-22 (per cent)



Source: IMF and World Bank data through CEIC Data, authors' calculations.

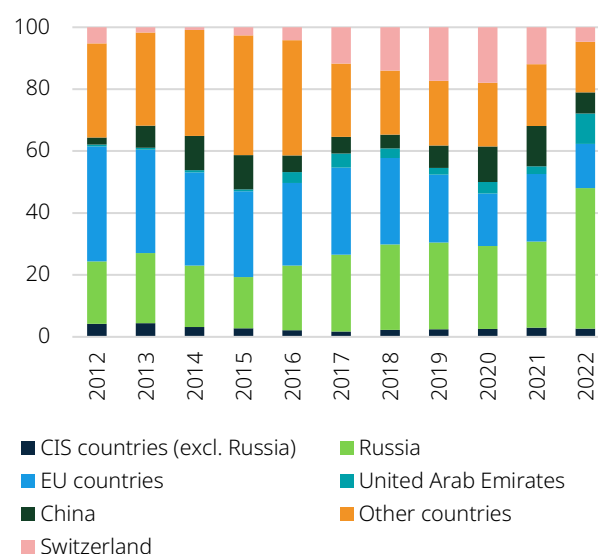
Goods exports are highly concentrated in terms of products and markets. Mining products dominate the export basket, making up 40 per cent of the total and, together with beverages, account for half of the value of goods exported. Russia remains the country's biggest export destination, and this position has strengthened due to the trade diversions caused by the war on Ukraine. At the same time, exports to EU countries fell from 37 per cent in 2012 to 14 per cent in 2022. As exports to EU markets have dwindled, exports of gold to Switzerland have also decreased in the last few years. A noticeable development is an increase in the share of exports going to China, which signed a preferential trade agreement with the EAEU in 2018.

Chart 2.11. Main export goods, 2012-22 (percentage share of total exports)



Source: ArmStat data, authors' calculations.

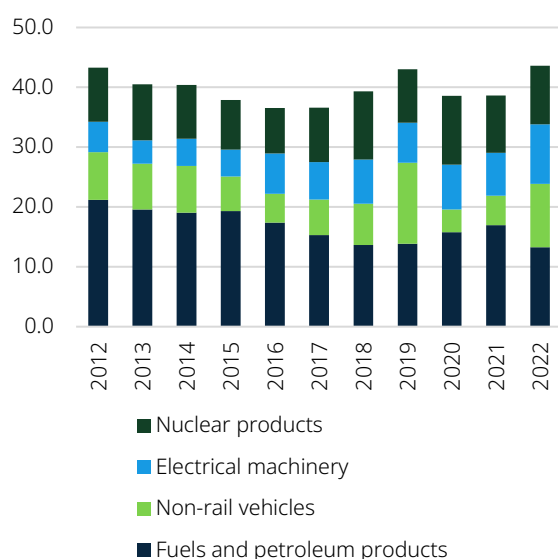
Chart 2.12. Destination of Armenian goods exports, 2012-22 (per cent)



Source: ArmStat data, authors' calculations.

Armenia's basket of imported goods shows a high concentration of a few products, primarily oil. Fuels account for a large share of goods imports, though this share decreased sharply in 2022 due to a rise in the share of re-exports, mainly precious gems, electrical machinery and vehicles. Vehicle import volumes increased 3.5-fold in 2022, while imports of electrical machinery and precious gems more than doubled.

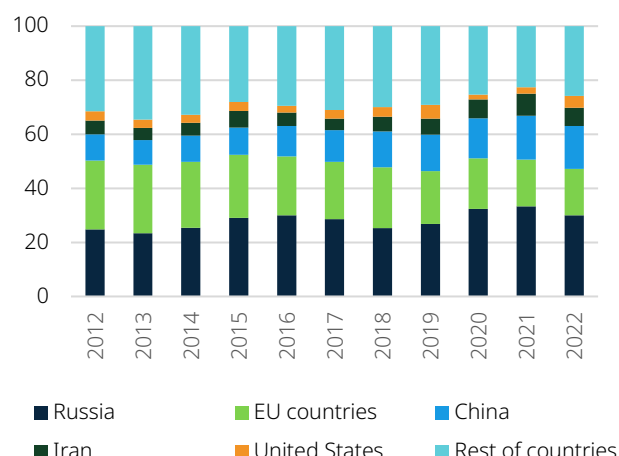
Chart 2.13. Main imported goods, 2012-22
(percentage share of total imports)



Source: ArmStat data, authors' calculations.

Armenia's import market is highly dependent on Russia.¹⁶ The share of goods imported from Russia remained broadly unchanged in 2022 due to the country's total dependence on natural gas imports. At the same time, imports from China are increasing gradually, while the share of imported goods from EU markets has declined steadily, from 25.5 per cent in 2012 to 17.2 per cent in 2022.

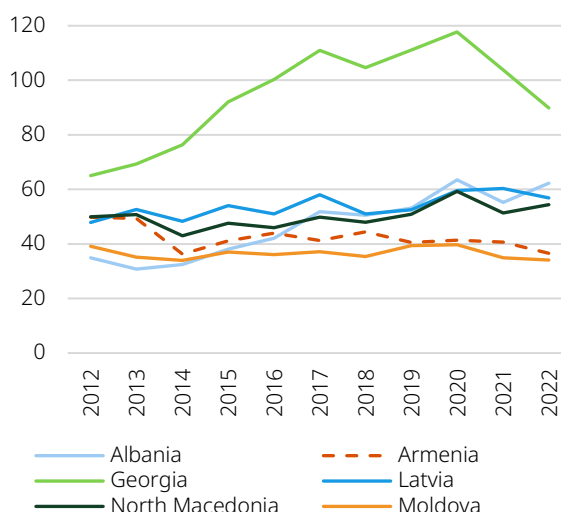
Chart 2.14. Destination of goods imports, 2012-22
(per cent)



Source: ArmStat, authors' calculations.

Low FDI in Armenia has hindered the growth of labour productivity and the development of higher-value-added exports. Except for Moldova, most comparators have seen a gradual increase in FDI stock as a share of GDP, with a dip in 2020 due to Covid-19. Armenia's FDI stock as a share of GDP, in contrast, has hovered around 40 per cent. Russia remains the largest holder of FDI, although its share has decreased slightly due to a slow increase in the FDI share of the EU, North America and the Middle East.¹⁷

Chart 2.15. Inward FDI stock as a share of GDP, 2012-22
(per cent)



Source: UNCTAD data through CEIC Data, authors' calculations.

¹⁶ Most oil and petroleum products are imported from Russia. Further details and the ramifications for energy resilience are discussed in the "Energy resilience" section of this report.

¹⁷ See IMF (2022).

FDI inflows have increased sharply in the post-pandemic period. The sudden rise in interest was caused by the relocation of multinational companies leaving Russia¹⁸ and the influx of highly skilled Russian IT professionals. As a result, Armenia saw a record 24 FDI projects in 2022, three times higher than the previous year.¹⁹ It is too early to know whether this recovery will be sustained, however.

Chart 2.16. Inward FDI flows as a share of GDP, 2012-22 (per cent)



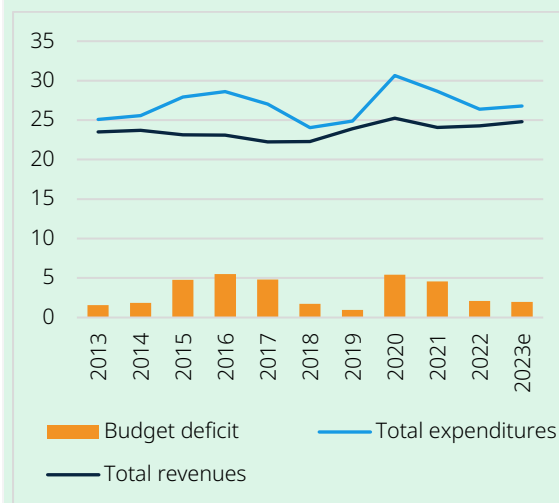
Source: UNCTAD data through CEIC Data, authors' calculations.

Box 2. Fiscal developments

The continued strengthening of the country's fiscal rule has contained the fiscal deficit. The government introduced a new fiscal rule in early 2018 in a bid to reduce current expenditure, but increase the threshold for public investment projects to 50 per cent of public debt to GDP.²⁰ Enhancements to the capacity of the tax administration and tax policy also played an important role in containing the fiscal deficit. Increases in excise duties and environmental tax had already been approved, along with the introduction of a flat income-tax rate of 23 per cent from January 2020. As a result, total revenues have risen steadily, though tax revenue as a share of GDP has decreased due to the country's strong post-pandemic economic growth. Meanwhile, expenditures have increased of late, in part due to spending on the country's refugee response and national defence. Strengthening Armenia's military defences²¹ and further health-sector reform to guarantee universal access are likely to put further upward pressure on current expenditures.

Consequently, stepping up spending efficiencies will be paramount in the medium term.²²

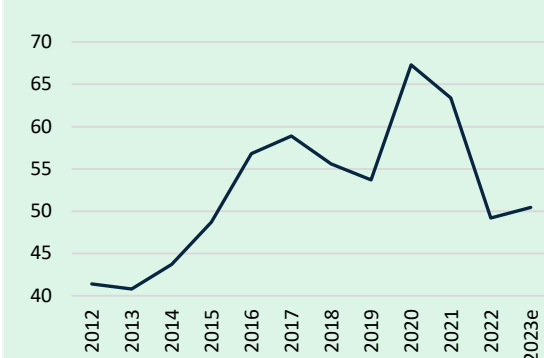
Chart 2.17. Public finances and the budget deficit as a share of GDP (per cent)



Source: ArmStat, authors' calculations.

Thanks to its more robust fiscal rule, Armenia's public debt-to-GDP ratio remains sustainable. However, external shocks, such as geopolitical tensions, exchange-rate depreciation or a rise in the contingent liabilities of SOEs could pose additional risk to public debt sustainability. Thanks to an "escape clause", should there be a crisis, the public debt-to-GDP ratio can rise to more than 60 per cent, subject to parliamentary approval.

Chart 2.18. Total public debt as a share of GDP (per cent)



Source: ArmStat data, authors' calculations.

18 One example is the relocation of US chipmaker Nvidia's research centre to Armenia. See EBRD (2024a).

19 See World Bank (2024a).

20 See IMF (2019).

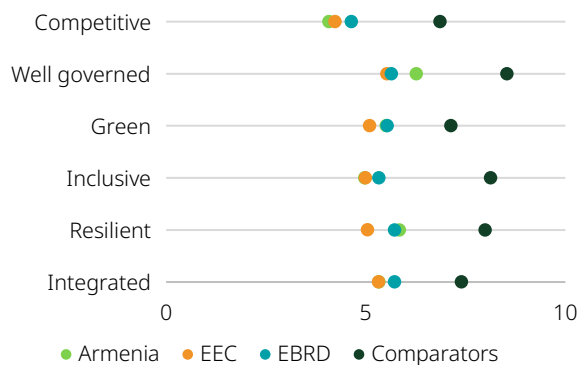
21 See Freund (2023).

22 See IMF (2024b).

2. Assessment of the market economy

This section presents the EBRD's assessment of transition qualities (ATQ) for Armenia. The ATQ is based on a methodology developed by the EBRD in 2016, whereby economies are measured on six desirable qualities of a sustainable market economy: competitive, well governed, green, inclusive, resilient and integrated. Each quality is a composite index calibrated on a scale of 1 (lowest) to 10 (highest), based on a large number of indicators and assessments.²³

Chart 2.1.1. Armenia ATQ overview, 2023



Source: EBRD (2023).

In the EBRD's 2023 ATQ, Armenia ranks 17th out of the 36 economies in which the EBRD operates, based on a simple average of the different qualities.²⁴

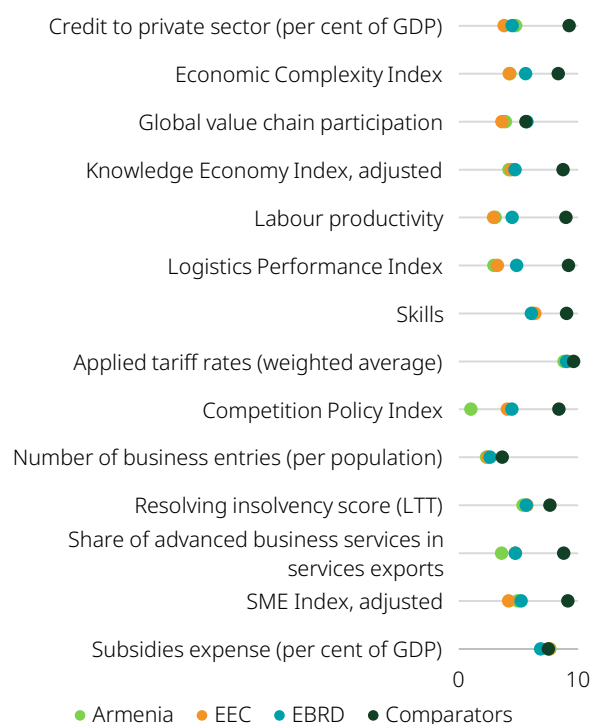
1. Competitive – weak entrepreneurship in a challenging business environment

Armenia is a small, landlocked economy with two of its four borders closed due to geopolitical challenges. It is in a unique position, being a member of the EAEU and having a CEPA with the EU. In the last few years, the authorities have made progress on reducing corruption, improving transparency and setting up anti-corruption institutions. Nevertheless, trade remains highly concentrated geographically and consists of primary goods. There have been efforts of late to diversify production and exports to higher-value-added products and new markets. However, it is a long and complex process.

23 See EBRD (2024b).

24 See EBRD (2023).

Chart 2.1.2. Competitive ATQ indicators, 2023



Source: EBRD (2023).

Armenia is also at a disadvantage as a result of geopolitical challenges. The borders with two of its neighbours (Türkiye and Azerbaijan) are closed, and there are international sanctions on a third neighbour, Iran, limiting trade in that direction. That leaves Georgia as the country's sole route for its merchandise trade with the world. Armenia is a member of the EAEU, but does not have a direct border with any of the other members. The only border crossing point between Georgia and Russia is a bottleneck to reaching the rest of the EAEU market, which absorbs almost half of Armenia's goods exports. Since February 2022, economic sanctions on Russia by many developed economies have put trade with Armenia's biggest export market on shaky ground.

Armenia has been aligning its competition regulation with European standards, particularly through its CEPA with the EU.²⁵ This agreement, which came into force in 2021, commits Armenia to adopting laws that closely approximate EU legislation and mirror European standards and regulations. The CEPA covers a wide range of trade aspects, including competition, and aims for a gradual liberalisation of bilateral trade between Armenia and the EU.

Significant efforts have been made in recent years to improve the functioning of Armenia's internal market. The government has made progress on reducing corruption, boosting transparency and setting up anti-corruption institutions.²⁶ The Competition Protection Commission (CPC) has gradually expanded its powers and taken a central role in regulating market access and preventing market abuse. The CPC has worked towards developing a competitive environment, increasing consumer protection and advancing its institutional capacity. It has prioritised the improvement of its regulatory toolkit and the introduction of new control mechanisms. While its efforts have received recognition in recent years, there is still room to improve the public's understanding of how they can benefit from effective market competition and what the CPC can do to support them.

As a small economy, Armenia's growth potential is highly dependent on its export capacity. Traditionally, production and exports have been dominated by a few industries (food, beverages, ore concentrate, diamonds and metals), which make up 70 per cent of total exports. The economic sanctions introduced by major developed economies on Russia, Armenia's largest export partner with a share of around 40 per cent, poses negative long-term risks to the Armenian economy. There are, however, potential gains to be had in the short and medium term. Many local producers of non-sanctioned food and beverage goods have increased their presence on the Russian market, benefiting from the reduction in competition after the withdrawal of western firms.

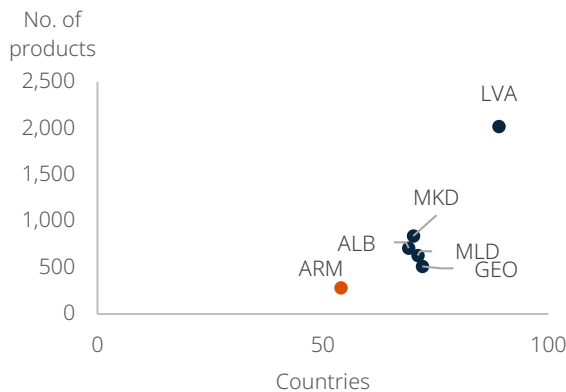
Exports remain highly concentrated. Even by the low standards of its peer group, Armenia lags considerably in terms of the variety and destination of its export products. The country exports only half the number of goods of its closest peer and an eighth of the number of goods of Latvia, which is clearly an upper frontier economy among the selected comparators. On the Herfindahl-Hirschman concentration index,²⁷ Armenia's exports are more in line with those of most of its peers. Latvia is a clear outlier, demonstrating the trade structure of a more advanced transition economy.

25 See European Commission (2021).

26 See US International Trade Administration (2023).

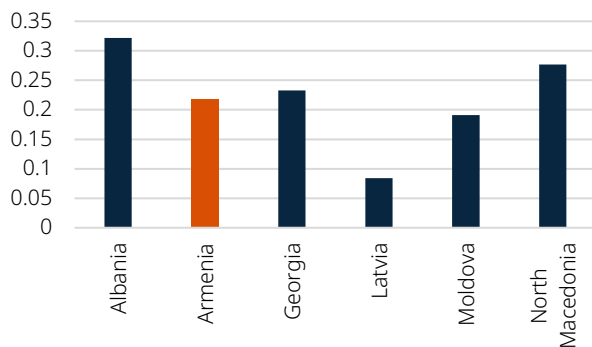
27 See World Bank Data (n.d.c).

Chart 2.1.3. Export diversification by country and product (2022)



Source: UNCTAD (2023).

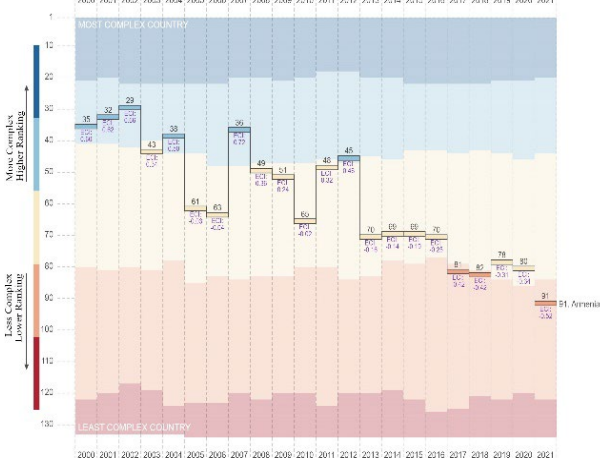
Chart 2.1.4. Export product concentration (Herfindahl-Hirschman Index), 2022



Source: UNCTAD (2023).

Armenia's exports are not just limited in terms of variety, but are also less complex. The Economic Complexity Index produced by Harvard Growth Lab, "a measure of the knowledge in a society as expressed in the products it makes", shows the declining complexity of the country's exported products over the past 20 years.²⁸ Its export composition increasingly consists of less complex and non-specialised goods that are broadly available and easily replicated by other countries. While Armenia's decline in ranking could be due to other countries' faster progress on acquiring more sophisticated know-how, it could also show the depletion of Soviet-era productive knowledge in more complex industries.

Chart 2.1.5. Economic Complexity Index and country ranking



Source: Harvard Growth Lab (2023).

Both the government and the private sector are aware of the risks of overexposure to Russia and the authorities have started work on an export diversification strategy. It will address three issues: geographical diversification, product diversification and increasing product complexity. There is concern that traditional exports (food and beverages) cannot be diversified much due to regulatory standards and a lack of consumer awareness of Armenian products in alternative markets. Therefore, the government has adopted a new measure to subsidise 50 per cent of the cost of consultancy services for companies that achieve at least 20 per cent growth in exports to alternative markets and implement International Organization for Standardization (ISO) standards.

The economy's future growth is closely tied to its diversification. Due to the geographical and logistical challenges involved in integration into global value chains, opportunity is seen in the expansion of ICT services, the hospitality industry and the outsourcing of business services, as well as in increasing the value added of agriculture and mining. Armenia's ICT ecosystem already benefits from the presence of renowned international companies (the role of the diaspora was crucial in that respect), the TUMO Center for Creative Technologies and an enterprise incubator, but could expand further with appropriate policies. The outsourcing of business services, such as back-office operations and call centres, could also benefit from the links of the country's diaspora, the prevalence of foreign language skills and low costs. The country's business community also considers

28 See Harvard Growth Lab (n.d.).

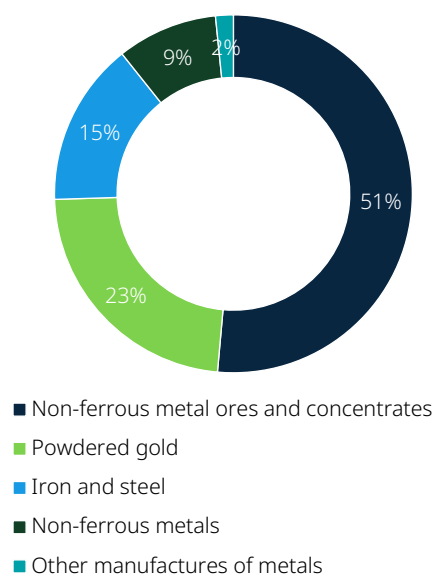
domestic outsourcing to be a way of simultaneously balancing costs and supporting regional development.

One-fifth of the employed population currently works in agriculture, but with very low productivity. Many people in rural areas appear to be engaged in subsistence farming due to a lack of job opportunities. The government's 10-year strategy for agriculture,²⁹ spanning 2020 to 2030, aims to transform the sector into a sustainable, innovative and high-value-added industry. The strategy focuses on environmental harmony, the conservation of natural resources and growing organic produce, all while improving the livelihoods of rural communities. Key priorities include increasing agricultural production, developing rural areas and enhancing Armenia's global economic competitiveness. The strategy aims to address these issues by introducing innovative solutions and new technologies, with the goal of moving agricultural products up the value chain for export.

Private-sector investment is taking modest steps forward in this direction. Some recent examples of diaspora investments in higher-value-added products, such as greenhouses, almond, hazelnut and kiwi plantations, and organic farms, could be a route to bigger farms and more productive agriculture. There have also been efforts to export to Middle Eastern markets, though logistical constraints still need to be overcome. Currently, Armenia-registered planes are not allowed to fly in the EU and Gulf countries due to a lack of local regulation and safety concerns.

Against this backdrop, the mining sector could contribute more to growth and development. The focus of Armenia's Mining Strategy 2035 is on creating a unified database of geological data, ensuring compliance with international environmental and health standards, and fair revenue distribution. Reforms have been implemented to improve the legal and regulatory framework, with international donors supporting efforts to align with best practices. The industry is regulated by core legislation, including the Mining Code and the Law on Environmental Impact Assessment and Environmental Expertise. These reforms aim to promote sustainability and attract investment, while addressing concerns about environmental impacts, sustainability, corruption, land rights and socioeconomic tensions.

Chart 2.1.6. Exports of metal ores and metals, 2022 (per cent)



Source: ArmStat data.

Armenia exports non-ferrous metals in the form of ore and concentrate. The mining industry is focused on the extraction of metals such as iron, copper, molybdenum, lead, zinc, gold, silver, antimony and aluminium. Metal ores, concentrate and refined metals account for one-third of the country's goods exports. However, half of those exports are in the form of low-processed ore and concentrate. The main reason is a lack of smelters after the closure of the Alaverdi copper smelting plant for environmental reasons in 2018. Lately, the authorities have been trying to attract investors to build modern smelters and other facilities further up the value chain.

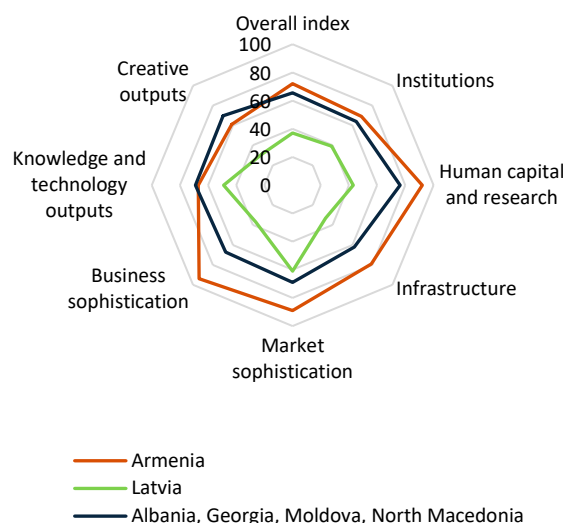
Innovation is at the heart of economic diversification and the move to higher-value-added products, but the results are not yet compelling. In the World Intellectual Property Organization's (WIPO) Global Innovation Index for 2023, Armenia ranked 72nd out of 132 countries. It also ranked 17th out of 33 upper-middle-income countries,³⁰ performing in line with its level of development. A closer inspection of the results shows that Armenia produces more innovation outputs than its level of innovation investment would suggest. The latter measures elements of the economy, such as infrastructure, institutions and human capital, that enable and facilitate innovative activity. While it lags peer countries on these input elements, it is on par in

29 See Ministry of Economy of the Republic of Armenia (2020).

30 See WIPO (2023).

terms of actual outputs (that is, knowledge and creativity). These results suggest very high leverage of investments into the innovation capacity of the economy. Therefore, greater efforts to improve the innovative environment to at least the level of peer countries could generate substantial economic gains.

Chart 2.1.7. Innovation index ranking, 2023



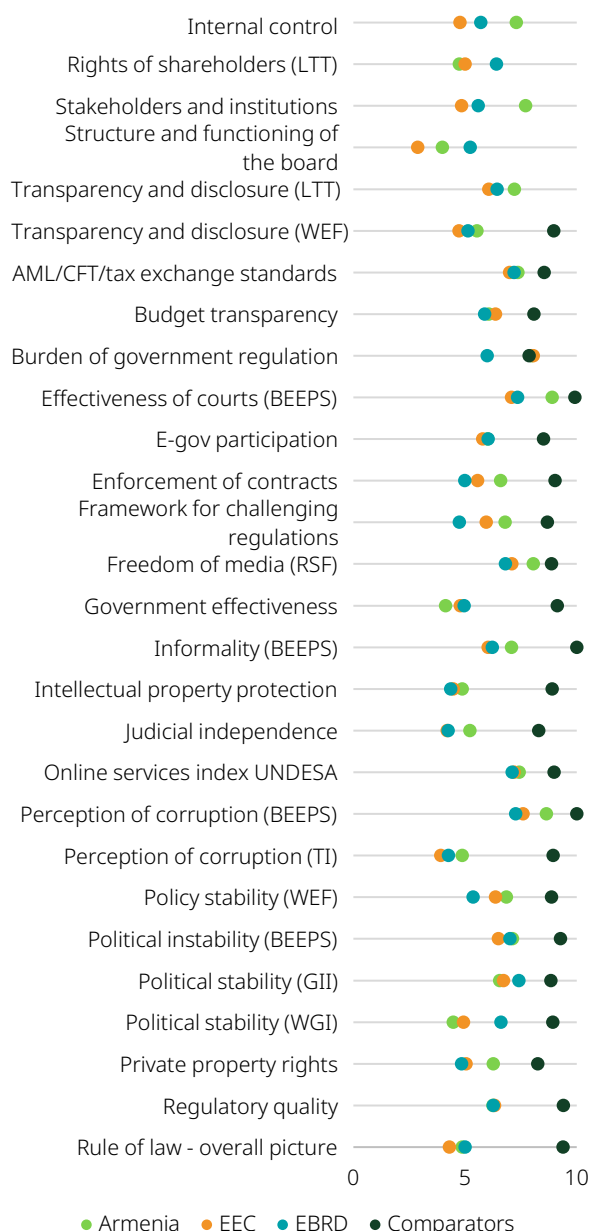
Source: WIPO (2023).

In 2023, Armenia made notable progress, improving its WIPO Innovation Index ranking by 8 places, but the improvement does not seem to be on very solid footing. Interestingly, there was a deterioration in all of the index input elements, but a substantial improvement in the output elements. In the absence of more investment in innovation, the improvement in output is likely to be down to temporary factors, partly related to the advantageous spillover effects of the war on Ukraine.

2. Well governed – multiple challenges hampering reform momentum

The Covid-19 pandemic, the regional geopolitical situation and Russia's invasion of Ukraine have all challenged Armenia's good economic governance practices and continue to hamper the country's reform momentum. A notable influx of capital and labour from Russia and Belarus has contributed significantly to Armenia's economy: its 2022 GDP growth rate of 12.6 per cent marked a 15-year high. Maintaining and capitalising on this growth to ensure resilient and sustainable development will be challenging, with the absence of public-sector institutional capacity impeding the government's ability to address key challenges and implement a coherent reform agenda. Despite lagging its peers, Armenia's efforts to digitalise government services are starting to reap rewards. However, the country's SOEs are struggling to implement good governance practices, hindering their performance and accountability, placing a continued fiscal burden on the government.

Chart 2.2.1. Well governed ATQ indicators, 2023



Source: EBRD (2023).

National-level governance

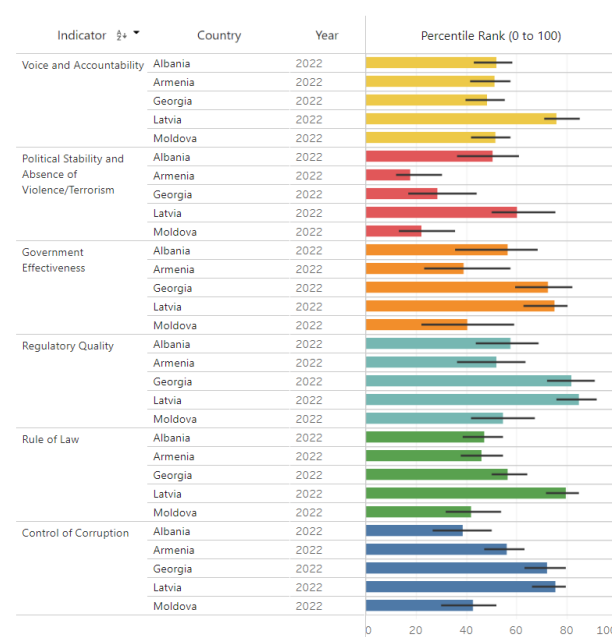
Lack of institutional capacity within Armenia's public administration is a significant challenge. It undermines the government's ability to design and implement priority reforms, weakens inter-agency coordination, and limits policy effectiveness and impact monitoring. Reform initiatives underway since the 2018 Velvet Revolution have been described as patchy and lacking serious impact.³¹ Supported by international donors, including the EU, efforts are underway to improve the efficiency of public services.

A public administration reform strategy was adopted in 2022, focusing on three areas: human resource allocation, public-service database improvement and digital public service delivery.³²

There is much room for improvement in the government's ability to implement its strategic policy priorities. Time-bound action plans, strategic programmes and specific reforms have only recently been developed. So far, only the initial measures have been implemented, making it premature to draw any meaningful conclusions about the level of progress.³³

Progress on economic governance indicators has been inconsistent in recent years, with geopolitical developments in the region posing additional challenges to reform. The renewal of hostilities with Azerbaijan in 2020, 2022 and 2023, as well as Russia's full-scale invasion of Ukraine in 2022, have led to a slowdown in Armenia's reform momentum and exacerbated existing governance issues. In 2022, Armenia scored below its peers on four of the six World Bank Worldwide Governance Indicators.³⁴

Chart 2.2.2. World Bank Worldwide Governance Indicators, 2022, by country



Source: World Bank (2023).

Negative trends can be observed in the areas of political stability, government effectiveness and regulatory quality over the past decade. Nonetheless, recent efforts have led to encouraging results in terms of voice and accountability, and control of corruption,

31 See Bertelsmann Stiftung (2022).

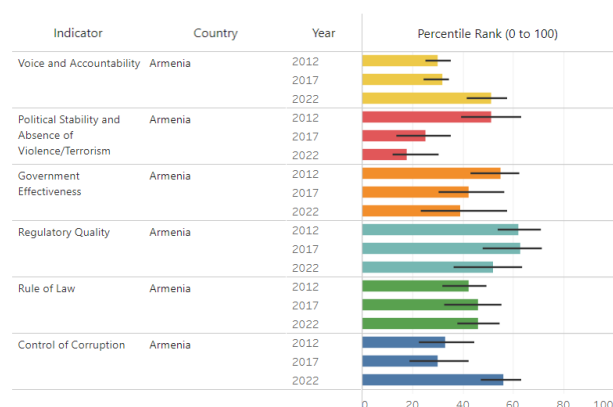
32 See EBRD (2022).

33 See Bertelsmann Stiftung (2024).

34 See World Bank (n.d.) for more.

suggesting that the reforms have had a positive impact on public perception.

Chart 2.2.3. World Bank Worldwide Governance Indicators, Armenia, by year



Source: World Bank (2023).

Anti-corruption efforts

The government's progress on tackling corruption is reflected in Armenia's progress through the ranks of Transparency International's Corruption Perceptions Index. Since 2018, Armenia has climbed 42 places, ranking 63rd out of 180 countries in 2022.³⁵

Institutional capacity to tackle corruption in government has improved with the establishment of the Corruption Prevention Commission in 2019 and an Anti-Corruption Committee in 2021. However, a 2022 OECD review of anti-corruption measures in Armenia found both gaps and overlaps in competences between these specialised anti-corruption organisations.³⁶ Both institutions require further support to fully deliver on their mandates and support the enforcement of the government's comprehensive 2019 anti-corruption strategy and action plan. The government's anti-corruption agenda does not, however, adequately cover business integrity issues.

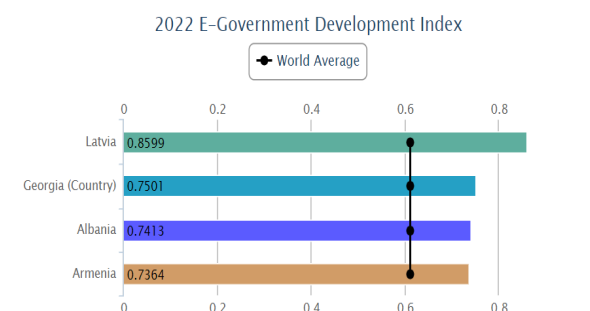
Important steps have also been taken to tackle corruption within the civil service. The Council of Europe, in cooperation with Armenia's Corruption Prevention Commission, has developed a new code of conduct for public servants. Adopted in 2022, the code provides strong impetus for anti-corruption reform, requiring all public servants to reduce corruption and bribery across the government.

Digitalisation of government services

While Armenia has reduced administrative and regulatory burdens in recent years, progress has been slow and has not yet had a transformational effect. Although businesses have reported more consistent execution of laws and policies by government, they continue to express concerns about regulatory processes and bureaucratic inefficiency.³⁷

The ongoing digitalisation of government services is helping to reduce the administrative burden on businesses. Launched by the State Revenue Committee in 2021, the single-window e-system streamlines businesses' interactions with 17 public agencies, as well as permit and customs clearance processes.³⁸ However, many other administrative processes and procedures remain cumbersome and the opportunity for discretionary judgement by individual officials creates the potential for petty corruption.³⁹ The lengthy process for obtaining construction permits and the tax regime are cited as particularly significant constraints on Armenia's business environment.

Chart 2.2.4. E-Government Development Index, 2022



Source: UNDESA (2022).

Despite still lagging its peers, Armenia's efforts to digitalise government services are showing results.

The United Nations Department of Economic and Social Affairs (UNDESA) E-Government Development Index ranked Armenia 64th out of 193 United Nations member states in 2022.⁴⁰ This is a 23-position jump from its 2018 standing.

Similar positive trends can be observed in UNDESA's E-Participation Index. Armenia has climbed 39 positions since 2018 to end up 64th among United Nations members in 2022.⁴¹ Despite this progress,

35 See Transparency International (2023).

36 See OECD (2022).

37 See US Department of State (2022).

38 See EBRD (2022).

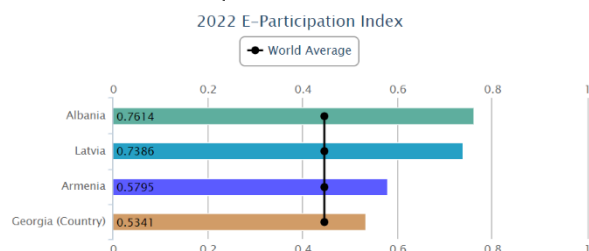
39 See US Department of State (2022).

40 See UNDESA (2022).

41 Ibid.

however, it continues to lag most of its comparator countries, which are in the top 30, by some distance.

Chart 2.2.5. E-Participation Index, 2022



Source: UNDESA (2022).

SOE reform and potential efficiency gains

Armenia's SOE sector, while modest in size compared with its regional counterparts, is significant in vital sectors such as energy and healthcare. A total of 153 SOEs – with assets accounting for about 10 per cent of GDP and less than 1 per cent of total employment and government revenue⁴² – are managed and overseen by 24 government agencies. These include line ministries, the Prime Minister's office, their subordinated bodies and regional administrations. Some of these SOEs underperform, prompting concerns about the quality of public services and the ensuing financial strain on the country's budget.

Overall financial oversight of the country's SOE portfolio lies with the State Property Management Committee. Streamlining the capacity of the ownership function, including through enhanced monitoring processes and by maintaining a centralised registry, could enhance SOE transparency and align accountability structures. Prioritising macro-critical SOEs for oversight based on their size, economic importance and risk profile is recommended to ensure fiscal sustainability.

The Ministry of Finance also plays a crucial role in managing the fiscal implications of the SOE sector.

Strengthening the ministry's capacity to assess proposals for loans, guarantees and subsidies to monitored SOEs is essential in order to improve risk management. It is imperative that the ministry incorporate both financial and non-financial indicators into its analysis and ensure that it has adequate resources to undertake this function.

While Armenia's legal framework generally supports proper governance practices, the current Corporate Governance Code is not enforced. The code, which is

currently being revised, is aimed at listed companies, banks and SOEs, emphasising compliance or explanation. However, effective implementation and enforcement mechanisms are lacking.

Armenian SOEs struggle to implement good governance practices, hindering their performance and accountability. Weaknesses include a lack of board independence, a dearth of board committees and underdeveloped control functions. To address these challenges, empowering SOE boards with clear mandates, establishing merit-based appointment procedures and providing training opportunities are essential steps. Strengthening oversight through board committees and continuous learning initiatives will further enhance SOE governance and performance.

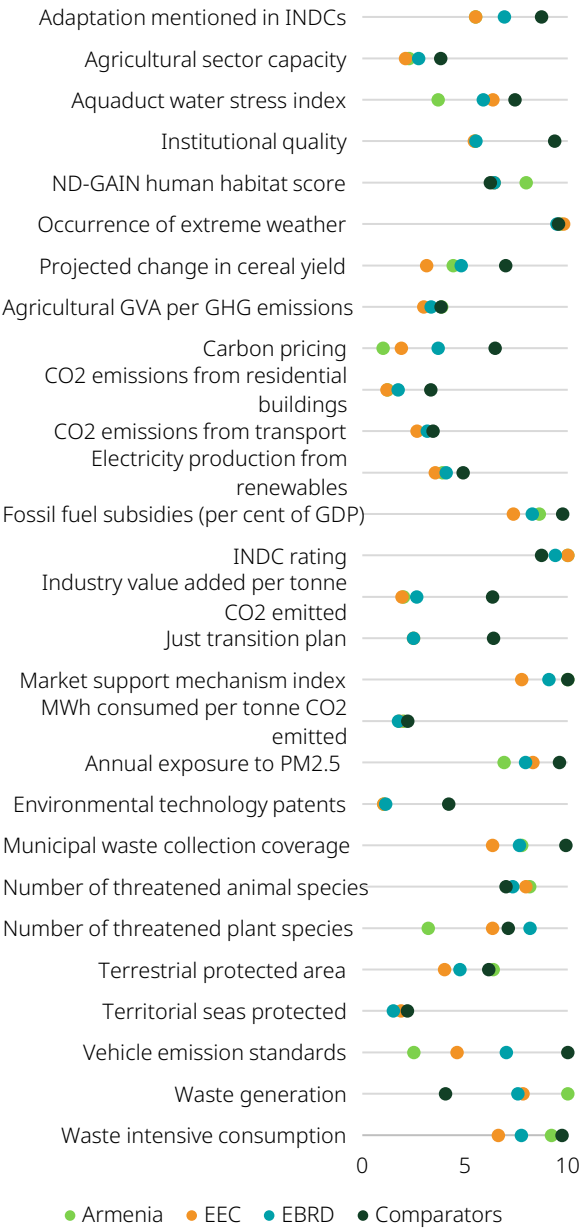
3. Green – growing GHG emissions due to reliance on natural gas and insufficient pace and scale of renewables deployment

Armenia scored 5.5/10 on the green transition quality in 2023, exceeding the eastern Europe and the Caucasus (EEC) region's 5.1/10. However, decarbonisation progress is slow. Economic growth has gone hand in hand with GHG emissions growth over the last decade. Carbon intensity levels have remained stable over the last 10 years, while EEC and EBRD peers have reduced their carbon intensity by 20 per cent, on average. Armenia's high dependency on relatively cheap natural gas imported from Russia has been delaying the low-carbon transition and making investments in energy efficiency less economically attractive. Natural gas is one of the country's main sources of electricity generation, together with nuclear and hydro, and the primary source of final energy consumption. The authorities pledged in Armenia's NDC to reduce CO₂ emissions by 40 per cent from 1990 levels by 2030. Weak climate resilience makes the country highly vulnerable to climate change, as it is exposed to floods,

42 See IMF (2024c).

earthquakes and landslides, necessitating more robust natural disaster risk management.

Chart 2.3.1. Green ATQ indicators, 2023

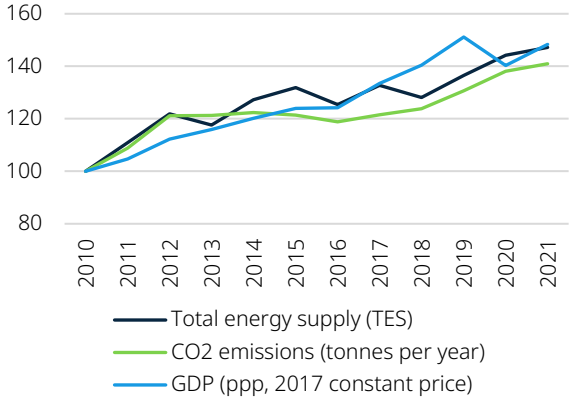


Source: EBRD (2023).

Decarbonisation progress has been slow, as evident in the strong correlation between economic growth and CO₂ emissions growth. Since 2010, emissions growth has been tightly coupled with total energy consumption, indicating the consistently high carbon intensity of the economy and lack of investment in low-carbon technology and energy-efficient

infrastructure.⁴³ The main contributor to the increase in CO₂ emissions is the heavy use of natural gas for electricity generation and residential heating.⁴⁴

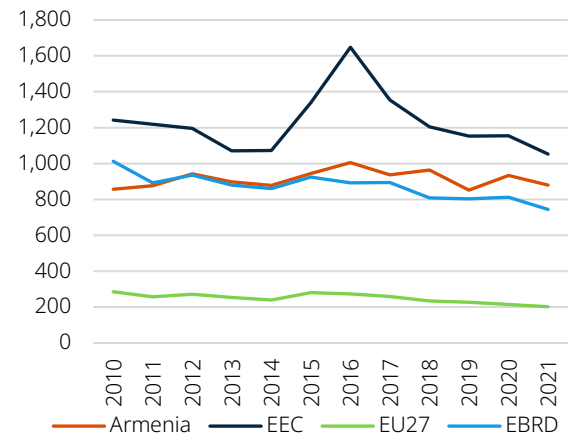
Chart 2.3.2. Economic growth and CO₂ emissions growth, 2010-21



Source: World Bank (2024), IEA World Energy Balances data (2022), authors' calculations.

Armenia's carbon intensity is above the EBRD regional average and the gap is widening. The country's carbon intensity has remained broadly stable, while its EBRD peers have made substantial progress on reducing it, by around 20 per cent over the past decade. Armenia's carbon intensity is nearly five times that of the EU27,⁴⁵ indicating significant potential for reduction. However, reducing CO₂ emissions while boosting economic development and raising the standard of living will continue to pose a formidable challenge.

Chart 2.3.3. Carbon intensity (tCO₂e/GDP, US\$ million)



Source: PIK Potsdam (2022).

The energy sector⁴⁶ is the primary source of GHG emissions in Armenia, accounting for 70 per cent of

43 See World Bank (2024a).

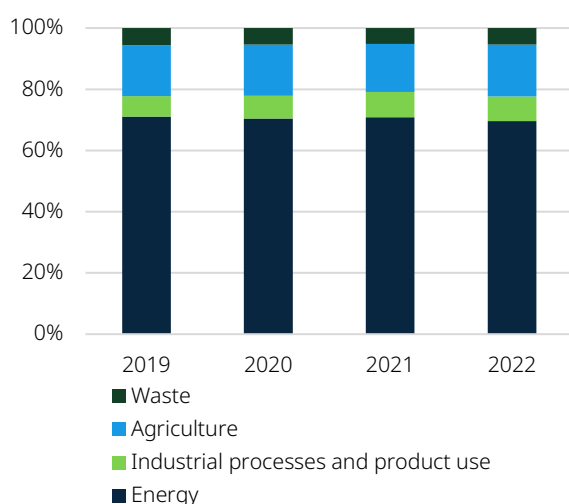
44 See IEA (2022).

45 Ibid.

46 Here, the energy sector is defined as heat and electricity generation, plus the transport and residential sectors.

total emissions over the past few years. The intensive use of fossil fuels for heat and electricity generation is the main reason for emissions growth, followed by agriculture. Recently, emissions from the transport and residential sectors have been increasing markedly. As a result, the transport sector has been the most emissions-intensive sector over the past 10 years.

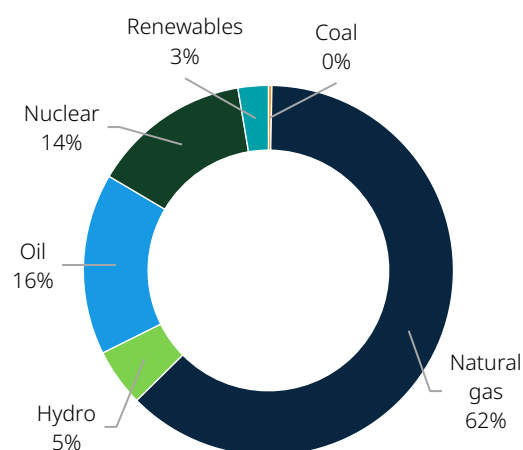
Chart 2.3.4. GHG emissions by sector (MtCO₂e)



Source: IEA World Energy Balances data, 2022.

Low investment in energy efficiency and green technology has delayed Armenia's efforts to reduce the use of fossil fuels for domestic energy supply. This has stalled the decoupling of economic growth from emissions growth and delayed the low-carbon transition. In 2021, natural gas and oil combined accounted for 78.1 per cent of total energy supply, followed by nuclear power at 13.9 per cent. Furthermore, imports of Russian gas and oil covered almost 80 per cent of domestic energy needs. The lion's share of the country's remaining energy requirement is met by imported gas from Iran, which is only used to produce electricity. As of 2021, hydropower and renewables, including biomass, wind and solar, accounted for a very modest amount of the total energy supply.

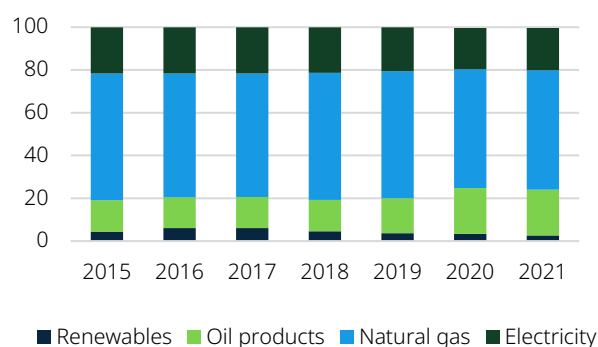
Chart 2.3.5. Total energy supply by source, 2021



Source: IEA World Energy Balances data (2022).

Natural gas is the primary source of energy in Armenia, based on final consumption. Due to the relatively low price of gas imported from Russia it is the preferred source of energy for households, transport and industrial facilities. The transport sector mostly uses natural gas for its operations, so its final consumption of oil has remained relatively low. Households use inefficient gas-based residential heating systems, while much of the country's outdated industrial equipment also depends on natural gas. Meanwhile, renewables consumption remains very low, at around 5 per cent.

Chart 2.3.6. Final energy consumption by source (per cent)

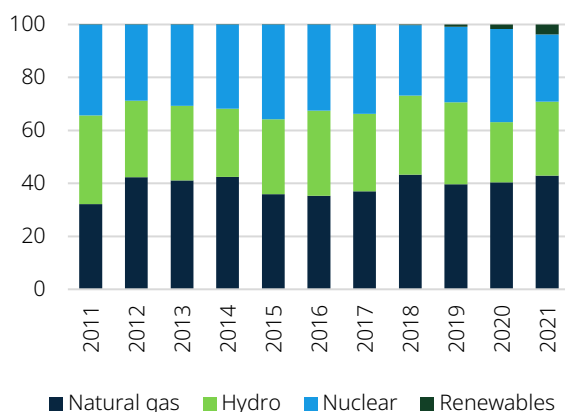


Source: PIK Potsdam (2022).

Natural gas has also been the primary source of electricity production. Armenia's heat generation stems entirely from natural gas. Nuclear energy is the second main source of electricity production, but the country's only power plant, the Armenian Nuclear Power Plant (ANPP), is reliant on costly operating-life

extensions and has long suffered from deteriorating infrastructure that is prone to losses of electricity output. Renewables account for around one-third of total electricity generation.

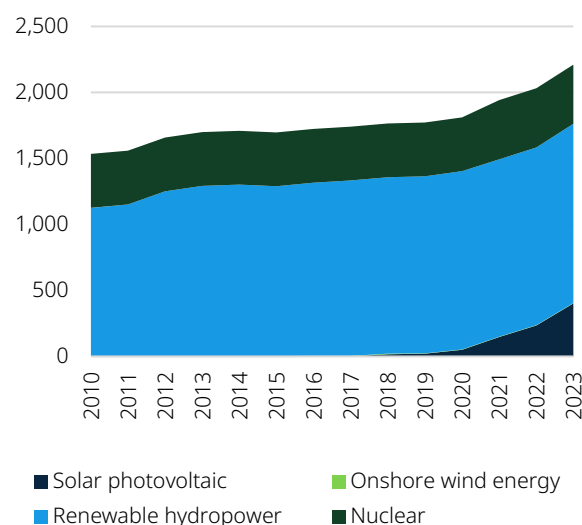
Chart 2.3.7. Energy sources for producing electricity



Source: IEA World Energy Balances data (2022).

The Armenian authorities have made a concerted effort to support the green transition. In 2021, Armenia submitted its NDC to the United Nations, pledging a 40 per cent reduction in GHG emissions by 2030 compared with 1990 levels as part of a 10-year NDC implementation plan (2021-30). However, at the end of 2022, total GHG emissions were down 51 per cent from 1990 levels.⁴⁷ Armenia's NDC target, therefore, actually allows for a 20 per cent increase in GHG emissions between 2022 and 2030. The climate mitigation goal of reducing GHG emissions to 2.07 tCO₂e per capita is reflected in the country's Long-Term Low Emission Development Strategy.⁴⁸ Furthermore, Armenia's renewable energy capacity is expected to double its share of energy generation by 2030, including a more than 25-fold increase in solar power capacity from current levels. Currently, hydropower constitutes 77 per cent of the country's renewables, exposing the power sector to climate impacts (such as changing precipitation patterns). More investment in green technology and stronger renewables capacity are essential for long-term, environmentally sustainable growth, energy security and resilience.

Chart 2.3.8. Zero-carbon-emission energy installed capacity (MW)



Source: IRENA data.

Armenia's climate resilience is weak.⁴⁹ Softening the impact of potential natural disasters on the economy necessitates the preservation of natural resources such as lakes, rivers and forests, which can serve as buffers against droughts, floods or landslides. Sevena Lich (Lake Sevan) is the primary source of the country's renewable hydropower, but it has been substantially drained. The depletion of Lake Sevan could also threaten water supplies to local economies, underscoring the need for a more sustainable means of generating hydropower. Forests play a crucial role in stabilising water levels and in preventing water pollution. However, Armenia lacks sufficient forest area, at just 11.2 per cent of its total land.⁵⁰ Almost 70 per cent of natural forests have aged or been damaged, leading to deforestation.⁵¹ Ongoing deforestation is likely to have a negative impact on the output of the agriculture, forestry and fishery sectors, which collectively account for around 65 per cent of informal employment and 22 per cent of total formal employment.

Armenia is the 22nd-most polluted country in the world, and this comes at a cost. A recent World Bank study shows that the welfare costs associated with fine particulate matter (PM_{2.5}) air pollution in Armenia correspond to about 10.6 per cent of GDP, compared with 3.8 per cent on average in the EU.⁵²

47 Authors' calculations using data extracted from Government of the Republic of Armenia (2023a) and EBRD internal input. To unify the measurement units, MtCO₂e were converted to GtCO₂e by multiplying by 1,000.

48 See Government of the Republic of Armenia (2023b).

49 See World Bank (2021).

50 See World Bank (2021).

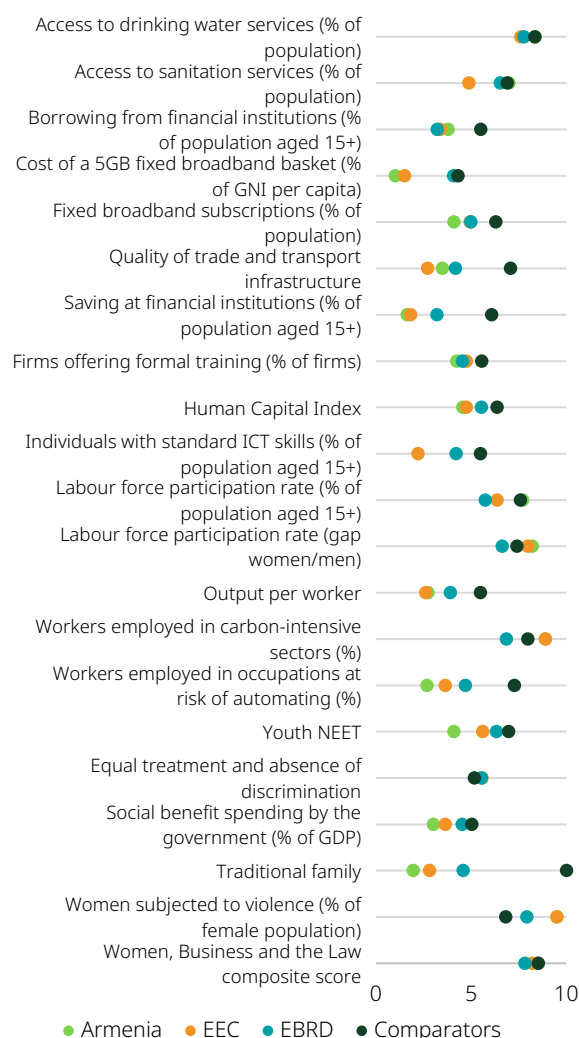
51 See Government of the Republic of Armenia (2005).

52 See Delegation of the European Union to Armenia (2023).

4. Inclusive – emigration, low labour-force participation and high unemployment

Armenia has improved its inclusive ATQ score, increasing it from 4.86 in 2019 to 4.97 points in 2024. The country ranks 18th among the EBRD economies on inclusivity and has the third-lowest score in the EEC region. This lacklustre performance stems from human capital development challenges, including high levels of youth unemployment, skills mismatches and the impact of the proliferation of digital technology on the workforce. Further contributing factors are the high cost and low quality of basic services, the low percentage of the population with savings at financial institutions, low government spending on social benefits and the prevalence of traditional values hindering the economic empowerment of diverse population groups, especially women.

Chart 2.4.1. Inclusive ATQ indicators, 2023



Source: EBRD (2023).

Demographic and labour-market trends underscore the need to enhance human capital development.

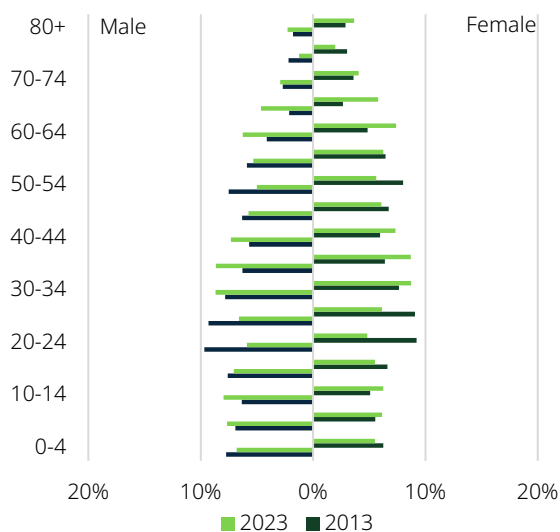
According to the Statistical Committee of the Republic of Armenia (ArmStat), the total population was around 2.97 million at the beginning of 2023, 52.8 per cent of them women. Thirty-seven per cent of all women were living in Yerevan.⁵³ The average age of the population was 37.4 years.⁵⁴ Individuals aged 65 and over accounted for 13.4 per cent of the total population, surpassing the 7 per cent threshold set by the United Nations to classify a population as ageing. Although Armenia is not ageing as rapidly as other countries in the region, the World Bank forecasts that by 2040, one in four Armenians will be older than 60.⁵⁵

53 See ArmStat (2023a).

54 See ArmStat (2023b).

55 See World Bank (2022).

Chart 2.4.2. Age pyramid of Armenia's population at the beginning of 2013 and 2023 (per cent)



Source: ArmStat data.

Rising life expectancy, a declining fertility rate and high migration levels are all contributing to Armenia's changing demographic structure. While the fertility rate has been decreasing (1.74 per cent in 2022 compared with 2.38 per cent in the 1990s), the emigration rate has been high, with the estimated average annual (2020-22) number of migrants who had not returned by 2022 standing at 25,000. However, an influx of more than 115,000 refugees in the last quarter of 2023 has temporarily reversed the migration dynamics. While the gender distribution of this group is similar to the national average, children and older people are overrepresented, at 28 per cent and 18 per cent, respectively, while an estimated 16 per cent live with disabilities and face additional barriers to integration. In terms of geographical distribution, most refugees reside either in or in close proximity to the capital (43 per cent) or in the border region of Syunik (15 per cent).⁵⁶

The poverty rate has declined over the last decade, but remains high at 24.8 per cent, ranging from 19.2 per cent in Yerevan to 30.5 per cent in rural areas. Urban areas other than Yerevan have higher poverty rates than the national average. At the same time, the severity of poverty is much greater in rural and urban areas outside the capital.⁵⁷ Women make up 56 per cent of the poor and households headed by women have a higher incidence of poverty (29.2 per cent) than households headed by men (24.4 per cent).⁵⁸

Table 2.4.1. Armenian basic poverty indicators, 2022 (per cent)

	Extremely poor	Poor	Poor population (%)	Poverty gap	Poverty severity
Urban	1	22.1	54	4.1	1.1
Yerevan	0.7	18.5	22.5	3.4	0.9
Other urban	1.3	25.8	31.5	4.8	1.3
Rural	1.5	29	46	5.6	1.6
Total	1.2	24.8	100	4.7	1.3

Source: ArmStat.

Note: The poverty gap and poverty severity are calculated relative to the average poverty line.

Low labour-force participation and high unemployment remain key challenges, with certain demographics, notably women and youth, particularly affected. According to ArmStat, the national statistics office, the unemployment rate stood at 13.4 per cent in 2022 and was twice as high in urban areas, at 16.9 per cent (compared with 7.9 per cent in rural areas).

The participation rate is only 56 per cent of the working-age population, with a huge disparity between women (47.7 per cent) and men (73 per cent). In addition, 23.5 per cent of the total youth population (as of 2021) is neither in employment nor in education or training (NEET).⁵⁹ Rates also differ according to gender, with labour-force participation at 35.2 per cent among young women and 53.2 per cent among young men. Furthermore, 68 per cent of the working-age population with disabilities are outside the labour force, while only 28 per cent are employed. Geographical location affects employment opportunities too, with women in rural areas experiencing higher NEET rates than their urban counterparts.

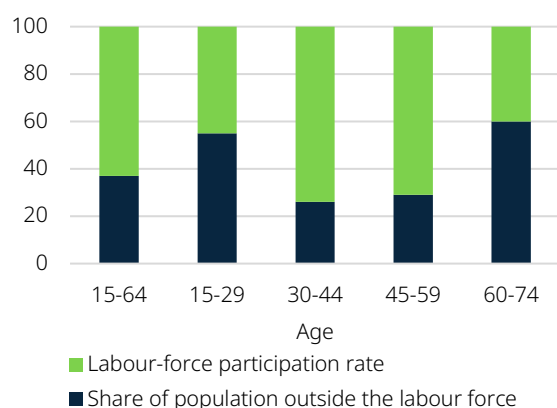
56 See IOM (2024).

57 See ArmStat (2023a).

58 See ADB (2019).

59 See World Bank Data (n.d.b).

Chart 2.4.3. Labour-force participation rate/share of population outside the labour force, by age, 2022 (per cent)



Source: ArmStat.

The share of informal employment and the low sectoral diversification of the labour market are areas of concern. Informal employment has seen a steady increase in recent years, reaching 37.2 per cent in 2022.⁶⁰ Informal employment generates about 36 per cent of GDP.⁶¹ Most informal jobs (65 per cent) are in agriculture. They are particularly prevalent among the 55-64 age group (44.8 per cent) and in rural areas (65.4 per cent compared with 16.5 per cent in urban areas). Men are also more likely to be in informal employment (41.8 per cent) than women (31.5 per cent).⁶² Despite increasing shifts in employment from agriculture to services, agriculture, forestry and fishing still employ the largest share of workers (22 per cent), followed by wholesale and retail trade (12 per cent), education and manufacturing (10 per cent each). Gender-based sectoral segregation in employment is also evident, with women dominating sectors such as education (19 per cent versus 4 per cent men) and health (9 per cent versus 2 per cent), while being underrepresented in construction, mining and transport.

Significant gender pay gaps persist, with the average earnings of women in Armenia amounting to 60.8 per cent of men's.⁶³ Most employers and self-employed individuals are men, while among unpaid workers, women outnumber men by two to one. Women are also more likely than men to work in part-time positions (34 per cent versus 18 per cent). Only an

estimated one in five small and medium-sized enterprises (SMEs) have a woman owner. The proportion of women holding co-ownership positions and top managerial roles in Armenian firms is notably low, with only 34 per cent of all firms having a woman as a co-owner and 24 per cent featuring women in a top management position. A key factor behind women's lower economic engagement is their disproportionate participation in unpaid labour in the care economy. This includes unpaid roles as domestic and/or care providers, or contributors to family businesses.

Employment dynamics clearly show that Armenia's human capital is underutilised, with employers reporting difficulties in finding skilled workers.

This is especially true for firms concentrated in highly productive sectors that trade internationally, use advanced technology and have the potential to drive the structural transformation of the labour market, while creating better jobs. According to the World Bank, Armenia ranks 90th out of 140 countries when it comes to the ease of finding skilled employees.⁶⁴ Similarly, the country ranks 78th out of 157 countries on the Human Capital Index, with a score of 0.58, which is lower than the average score for Europe and Central Asia.

Labour-market challenges are closely linked to the quality of education. Results from the 2019 Trends in International Mathematics and Science Study (TIMSS) show that there has been an increase in achievements in maths and science subjects since 2015 (of 17 and 22 points, respectively).⁶⁵ However, Armenian students score lower than the median, which indicates that they absorb only two-thirds of the knowledge provided at school.⁶⁶ Inequalities in learning outcomes are also evident, with students in rural areas performing worse than students in urban schools, and boys performing worse than girls in all subjects. In addition, the existing 67-point gap between students from the richest and poorest households is larger than the average gap observed across 50 countries (55 points).⁶⁷

While enrolment in higher education institutions has increased by 3.6 per cent since 2015, reaching a gross enrolment rate of 50.4 per cent in 2019, inequalities in access prevail.⁶⁸ Only 19 per cent of youth from poor families are enrolled in higher education, in sharp

60 See ArmStat (2023c).

61 See ETF (2022).

62 See ArmStat (2023c).

63 See WEF (2023).

64 See World Bank (2022).

65 See International Association for the Evaluation of Educational Achievement (2019).

66 See World Bank (2022).

67 See World Bank (2022).

68 See World Bank (2022).

contrast to the 54 per cent enrolment rate among youth from the wealthiest families. Inequalities of access are exacerbated by the concentration of 85 per cent of higher education institutions in Yerevan.⁶⁹

The government recognises the importance of human capital development to economic growth and sustainable development.

On average, it invests 2.2 per cent of GDP annually in education, which is below the 4.1 per cent average of upper middle-income countries and the EU average of 4.7 per cent.⁷⁰

Only 0.1 per cent of GDP is spent on employment programmes annually.⁷¹ To address educational sector challenges, the government plans to increase annual educational spending to 4 per cent of GDP and 15 per cent of central government expenditure by 2030. The country's Education Development Plan through 2030 focuses on three main strategies:

(i) universally inclusive, quality, accessible educational services, (ii) increased efficiency in education processes, costs and management, and (iii) the internationalisation of educational services and products. The plan also aims to involve private-sector specialists in schools and colleges, increase the number of state-funded universities to eight, with a strong research component, and create an “academic city” for quality higher education and science.

Although indicators of financial inclusion have improved significantly over the past decade, gaps persist, especially at a regional level.

Account ownership at financial institutions or through a mobile money-service provider increased from 17.5 per cent in 2011 to 55.4 per cent in 2021.⁷² Even so, these figures are still below the average for eastern Europe and Central Asia (66 per cent).⁷³ Rural areas have relatively fewer bank branches and cash dispensers than urban areas. This is due to their lower economic activity, as well as the higher costs of providing financial services in these areas.⁷⁴ Men are also more likely than women to have a bank account (56 of men versus 49 per cent of women) or own land (63 per cent of men versus 37 per cent of women).⁷⁵ Access to finance is more challenging for small firms, with 35.1 per cent of them having a bank loan or credit line in 2020 compared with 40.9 per cent of all firms.⁷⁶

While Armenia has made significant strides in advancing gender equality, key international comparison indicators suggest that gaps remain.

Armenia ranked 61st out of 146 countries in the World Economic Forum's 2023 *Global Gender Gap Report*,⁷⁷ a notable improvement from the previous year and an advancement of 28 places in the rankings. Its lowest scores were for political empowerment, and health and survival. On the 2023 OECD Social Institutions and Gender Index, Armenia scored 23.7 on a scale of 0 (no discrimination) to 100 (absolute discrimination), almost 9 points lower than the OECD average at 15 points, giving it the second-best score in the EEC region after Moldova.⁷⁸ The World Bank's *Women, Business and the Law Report 2024* places Armenia among 49 global economies with index scores in excess of 90 for their legal framework on women's business, most of them high-income economies.⁷⁹ However, the country does not score favourably when it comes to equality issues relating to workplace, pay and entrepreneurship. Armenia's high performance on the index is attributed to its recent enactment of legislation on sexual harassment in the workplace, though this does not establish criminal penalties or civil remedies for such acts.⁸⁰ Indeed, official statistics indicate that violence against women is a pressing issue, with 8 per cent of women experiencing physical or sexual violence from an intimate partner over their lifetime.⁸¹ Considering that many cases of domestic violence are unreported, the actual incidence is likely to be higher. The country recently finalised its 2024-28 gender equality strategy and action plan, which is in the process of being adopted and not yet publicly available. In 2020, Armenia also introduced amendments to the electoral code, increasing the minimum quota for women's representation among electoral candidates to 30 per cent.

Gender stereotyping and the undervaluing of women in society has resulted in sex-selective abortions and a higher-than-average male-to-female birth ratio.

Armenia is among the countries with the largest deviation in the sex ratio at birth (SRB) rate. According to the United Nations Population Fund, Armenia's natural SRB level is 104-106 boys to every 100 girls.⁸² According to ArmStat data, in 2022, the country's SRB

69 See World Bank (2022).

70 See ADB (2023).

71 See European Training Foundation (2020).

72 See World Bank Data (n.d.a).

73 See Atamanchuk and Tokuoka (2023).

74 See Atamanchuk and Tokuoka (2023).

75 See OECD (2023).

76 See World Bank (2020b).

77 See WEF (2023).

78 See OECD (2023).

79 See World Bank (2024b).

80 See World Bank (2024b).

81 See ArmStat (2023d).

82 See UNFPA (2022).

rate was 111 boys per 100 girls, 3 points higher than in 2021.⁸³

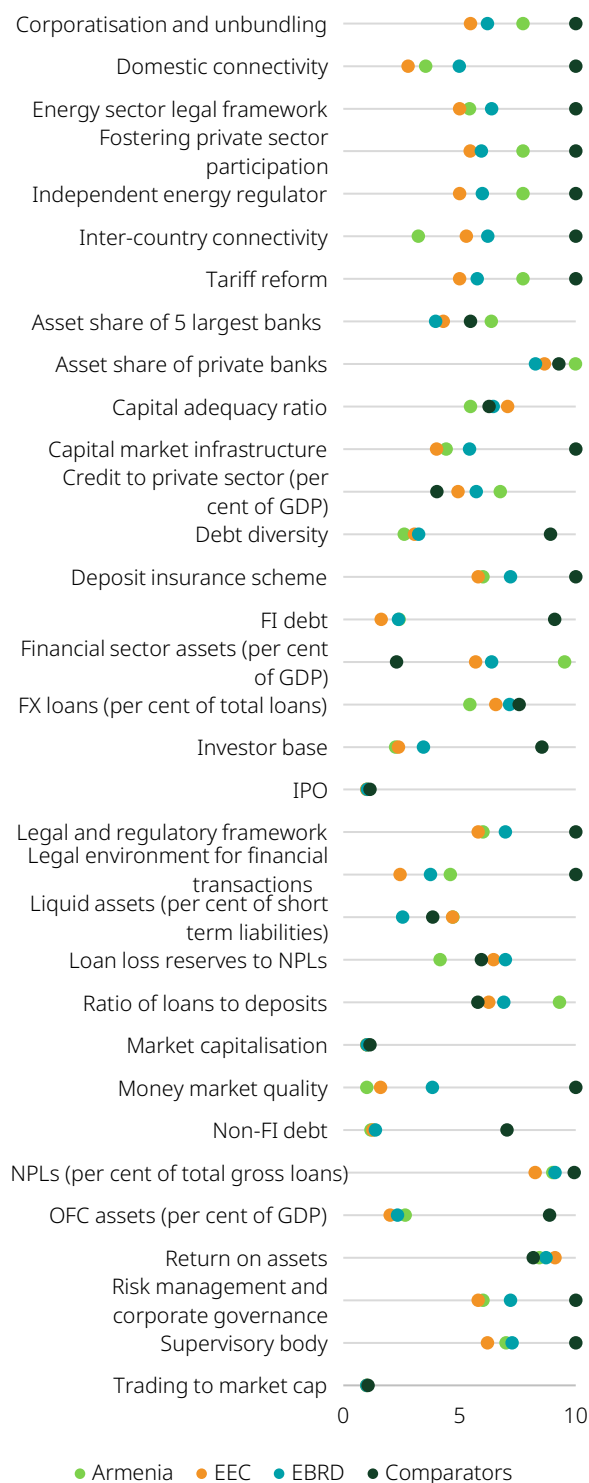
Armenia has been making slow but consistent progress on improving the rights and inclusion of people living with disabilities. At the end of 2020, people living with disabilities made up 6.5 per cent of the population, 38 per cent of them female and 62 per cent of them male. According to the World Health Organization, about 15 per cent of Armenia's working-age population has a disability.⁸⁴ Key milestones in advancing the inclusion of those living with a disability include the country's adoption of the Law on Social Protection of Persons with Disabilities in 1993 and the ratification of the United Nations Convention on the Rights of Persons with Disabilities in 2010. The Public Council, which comes under the auspices of the Human Rights Defender's Office, established in 2019, aims to protect disability rights and enhance cooperation with civil society. Similarly, Armenia's 2021 Law on the Rights of Persons with Disabilities prohibits discrimination and empowers non-governmental organisations, although implementation is constrained by a lack of experience and specific provisions. Despite an increase in the number of organisations for persons with disabilities, their engagement is limited, especially in rural areas, and there are no concrete mechanisms for meaningful participation. Physical accessibility in public spaces and educational facilities remains a significant issue. What is more, the official data-collection system lacks a distinct category for disability, hindering informed policymaking.

5. Resilient – sound banking sector, but weak energy security

At 5.8/10, Armenia's resilience ATQ score is higher than that of the EEC region and the EBRD average. The country's financial-system assets have grown steadily, reaching 115 per cent of GDP in 2023, dominated by the banking sector. Non-bank financial institutions (NBFIs) have a limited market share, but pension and investment funds show promising growth. Strong credit growth, particularly in mortgage loans, raises risks, but the banking sector remains sound, with low NPLs and strong profitability. On the energy front, Armenia heavily relies on imported natural gas from a single supplier for its energy needs, which makes it vulnerable to geopolitical risks. Unbundled energy markets and the presence of a solid, independent energy regulator are positive developments over the last decade. Efforts to enhance renewables capacity are underway, with a view to increasing solar and wind power generation. However, challenges such as limited financing, constrained energy trade routes and slow infrastructure development are hindering progress. Armenia's mining sector presents opportunities for integration into the global renewables market, as it produces the raw materials used for wiring in renewables equipment.

83 See ArmStat (2022).

Chart 2.5.1. Resilient ATQ indicators, 2023

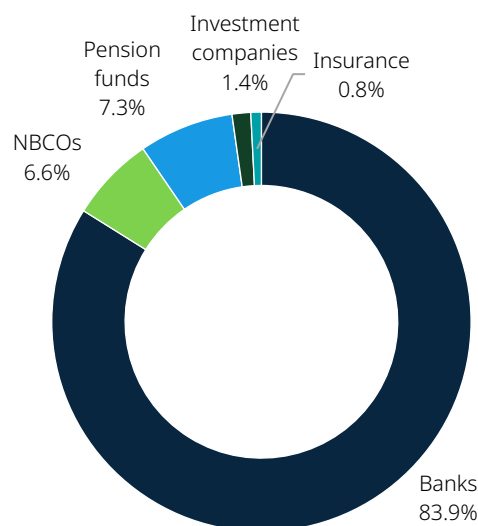


Source: EBRD (2023).

Armenia's financial system has been growing steadily in recent decades and the volume of its assets reached 115 per cent of GDP in 2023. It is dominated by a sizeable banking sector with assets amounting to 97 per cent of GDP and 84 per cent of total financial system assets, respectively, in 2023. NBFIs' market share remains limited, with the share of non-bank credit organisations (NBCOs) declining due to

competition from banks and the recent transformation of some NBCOs into banks. However, there has been a notable increase in the size of pension funds, whose assets more than doubled between 2020 and 2023 and which now account for 7.5 per cent of total assets. Investment funds have also shown strong growth recently, more than doubling their assets in 2023, though they still account for only 1.4 per cent of total assets.

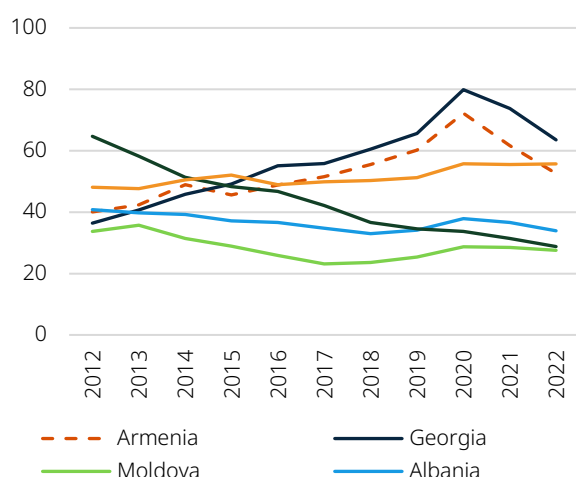
Chart 2.5.2. Financial-sector assets at end 2023



Source: Central Bank of Armenia.

There are 18 banks in Armenia and the sector is not particularly concentrated by regional standards, with the top five banks holding 56 per cent of assets. In early 2024, Bank of Georgia announced the acquisition of Ameriabank, the second-largest bank by assets. At the same time, Ardshinbank, the largest Armenian banking group, reached an agreement to acquire HSBC Armenia. These moves are expected to enhance regional integration and strengthen market consolidation, including skills sharing, particularly in investment banking. Recent credit growth, fuelled by rising mortgage loans, raises the risk of overheating in the real-estate market, threatening financial stability. Total domestic credit to the private sector as a share of GDP subsided to around 52 per cent in 2022, but is still relatively high compared with peers. The recent downward trajectory in private borrowing is also attributable to strong GDP growth, which has outpaced growth in lending.

Chart 2.5.3. Domestic credit to the private sector, 2012-22 (percentage of GDP)

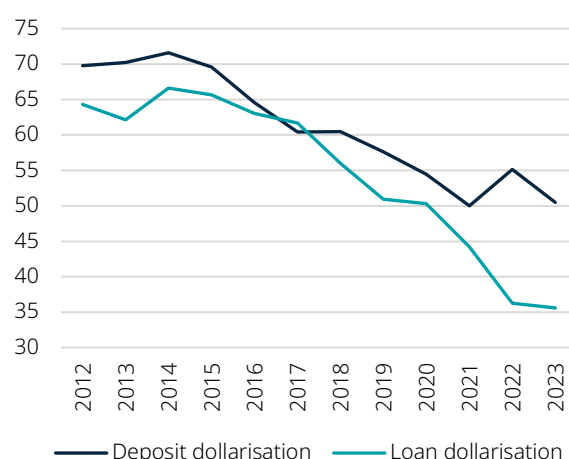


Source: World Bank data, authors' calculations.

The banking sector remains sound, characterised by low NPLs, strong capital and liquidity ratios, and a significant increase in profitability over the past two years. Notably, this has been driven by spillover effects from Russia's war on Ukraine, which has given an unexpected boost to non-interest income, amid an expanded customer base and an increase in payments and foreign-exchange transactions. While the dollarisation of both deposits and loans has declined over the past decade, the patterns of de-dollarisation have been slightly different for deposits and loans.

Non-resident FX deposits increased temporarily in 2022 due to Russians who found refuge in Armenia, but subsided again in 2023.⁸⁵ However, this did not affect loan dollarisation, which was at an historical low of 36 per cent at the end of 2023.

Chart 2.5.4. Deposit and loan dollarisation (per cent)



Source: Central Bank of Armenia, authors' calculations.

Note: Both deposit and loan dollarisation rates include non-residents; loan dollarisation does not include loans provided by credit organisations.

Financial market infrastructure

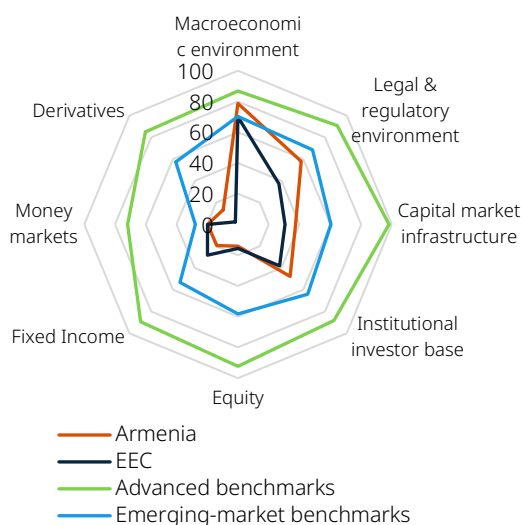
Armenia's financial markets remain underdeveloped despite its stable macroeconomic environment and the market-friendly regulatory approach of the Central Bank of Armenia. In the EBRD's Financial Markets Development Index (FMDI),⁸⁶ Armenia ranks 21st out of 38 economies,⁸⁷ mainly reflecting the low levels of depth, liquidity and diversification in all market segments, despite relatively strong macroeconomic and legal conditions for market development and a growing investor base. Development initiatives are guided by the country's Capital Market Development Strategy, adopted by government in July 2020, and facilitated by the Warsaw Stock Exchange's acquisition of the Armenian Exchange (AMX) in 2022.

85 See EBRD (2024a).

86 The FMDI measures local financial-market development based on publicly available quantitative and qualitative criteria. The FMDI score is derived from 54 individual indicators, split across two equally weighted sub-indices covering (i) the necessary conditions for sustainable market development, including macro-financial conditions, the legal and regulatory framework, market infrastructure and the institutional investor base; and (ii) asset class-specific indicators reflecting the extent of such development across debt, equity, money and derivatives markets. See EBRD (2021) for more details.

87 In April 2022, the EBRD's Board of Governors decided to suspend access to the Bank's resources by Russia and Belarus in response to the invasion of Ukraine, reducing the number of economies in which the Bank operates to 36. The Bank has closed its offices in Moscow and Minsk. Russia and Belarus remain EBRD shareholders.

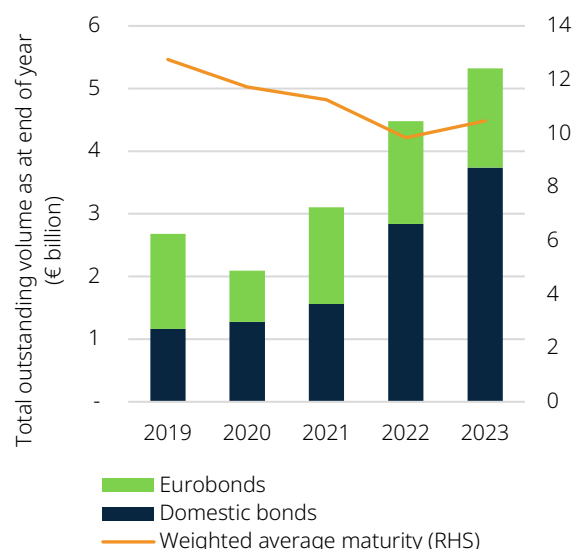
Chart 2.5.5. Financial market development in Armenia and selected comparator economies



Source: EBRD Financial Market Development Index, 2023.

Armenia does not have an actively trading money market. Excess liquidity limits the use of the secured and unsecured segments of the money market, with banks holding liquid assets in excess of regulatory requirements and the bulk of liquidity in unremunerated central bank reserve accounts. Banks trade over-the-counter repos with a maturity of one week, but mainly on Wednesdays, when the Central Bank of Armenia conducts its main operations. There is little to no activity for the rest of the week. Although an overnight repo platform was launched on the AMX in March 2023, it has not been used since then. This lack of activity prevents the creation of an overnight interest rate benchmark, which is key to further financial development. The regulatory framework for both derivatives and repos is robust, but derivatives market liquidity remains low and the adoption of global master repo agreements by local banks has been relatively slow. This sluggish uptake is partly down to the fact that interbank repos tend to be relatively small in size and of short duration, thereby reducing exposure and contractual concerns.

Chart 2.5.6. Characteristics of outstanding sovereign bonds at year end



Source: Cbonds.com.

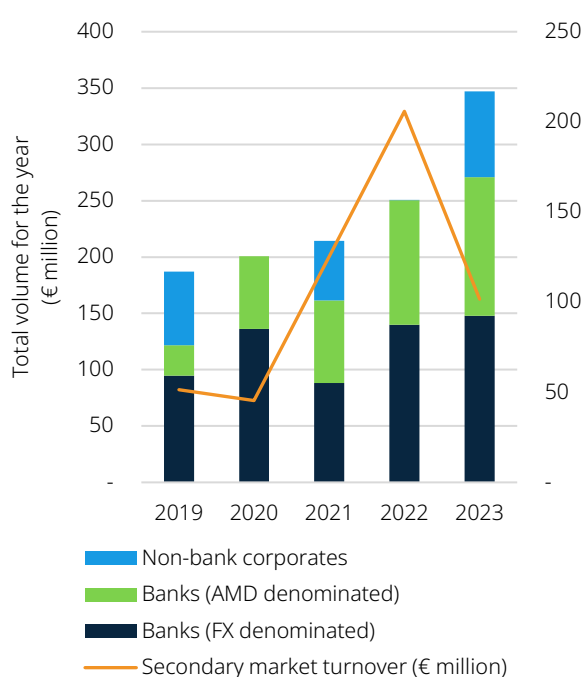
The domestic sovereign bond market has been increasing in size, reaching €3.7 billion at the end of 2023, thanks to a deliberate government strategy to increase the share of domestic and AMD borrowing. The government is capable of borrowing at long maturities, up to 30 years, with the average weighted maturity staying close to or above 10 years for the past five years. The cost of domestic borrowing has increased sharply over the past three years, largely caused by the increase in policy rates and the growing volumes of issuance. Successful disinflation throughout 2023 enabled the Central Bank of Armenia to enact a series of policy rate cuts in 2023 and 2024, gradually reducing borrowing costs. Some of the proceeds raised from domestic issuance have been used for Eurobond buybacks to reduce foreign-currency exposure, taking advantage of AMD appreciation since 2022. While there has been a notable increase in the presence of foreign institutional investors, the majority of government bonds are held by local banks and pension funds. Around half of pension-fund assets are in government bonds, accounting for 22 per cent of the total outstanding volume, while local banks hold 70 per cent.

The domestic corporate bond market remains shallow. It is dominated by banks that have reserve-requirement incentives to fund themselves through listed bonds and are active issuers on the domestic market. At the end of 2023, domestic bank bonds totalled €700 million, and Ardshinbank – the largest bank by assets – had issued a Eurobond worth €271 million on the international markets. Despite

their limited reliance on international markets, banks still primarily issue bonds in hard currencies, with 58 per cent of the domestic outstanding volume denominated in either US dollars or euros. This trend has shown no sign of abating, with 55 per cent of new bank issues in 2023 denominated in foreign currency. However, given the structure of banks' balance sheets and their particularly high foreign-currency liquidity coverage, exchange-rate-related risks remain limited, especially in the context of capital inflows and the appreciation of the AMD.

At the end of 2023, there were only eight domestic bonds outstanding from five non-bank corporate issuers, totalling €127 million. Two of these issues accounted for 83 per cent of the total volume. In addition, a large international Eurobond, worth €271 million, was issued by a mining company and listed on the Irish Stock Exchange. The public National Mortgage Company is also active in the local market, with €50 million in outstanding issuance used to refinance banks' mortgage portfolios. Due to dominance of banks as issuers in the corporate segment, local capital markets are primarily used as a funding source for banks, rather than as an alternative to bank financing. A significant barrier to corporate issuance is the limited brokerage and investment-banking expertise available, as well as the relatively high costs of issuance.

Chart 2.5.7. Yearly volumes for the primary and secondary corporate bond markets



Source: Cbonds.com.

Despite its strong infrastructure, Armenia's equity market development is nascent. At the end of 2023, there were 11 companies listed for a combined market cap of €766 million, or 3.4 per cent of GDP. However, the vast majority of those listings can be considered technical, as they are not traded. Both the primary and secondary markets have been almost inactive in recent decades, but improvements have been seen in recent years, especially since the initial public offerings (IPOs) of ACBA Bank and Team Telecom. Nevertheless, they are the only two stocks listed with an active secondary market, alongside some limited activity in Unibank's ordinary and preferred shares. ACBA Bank raised AMD 7.5 billion (€13.6 million) in 2021 and Team Telecom raised AMD 8.24 billion (€18.7 million) in 2023. While these successful IPOs can serve as a good reference for future listings, significant development is required before Armenian equity markets could be classified by either of the two benchmark index providers (MSCI and FTSE). Moreover, the majority of SOEs (including all banks) have already been privatised, primarily to strategic investors. Therefore, increasing the supply of new listings on AMX will require enhanced corporate transparency and incentives for private companies to undergo public offerings.

Armenia's capital market infrastructure is relatively well developed, with ongoing improvements to both the trading and post-trading infrastructure. These positive developments have been facilitated by the Warsaw Stock Exchange's acquisition of a 65 per cent stake in the AMX in 2021. The AMX also fully owns the Central Depository of Armenia (CDA). In 2023, a new trading system was launched, alongside a platform for the overnight repo market. Furthermore, the market development strategy that guided the acquisition of the AMX includes plans for a transition to T+2 settlement and the merger of the central bank's state securities depository with the CDA once prerequisites are met. This will be complemented by the implementation of subsequent collateral revaluation and collateral management services to develop repo markets. Currently, the CDA supports delivery versus payment, with T+0 settlement and benefits from a free-of-payment link with Clearstream, as well as bilateral links with countries from the wider region.

Since 2006, the Central Bank of Armenia has been the sole authority responsible for the regulation and supervision of the country's financial sector. Its mandated policy objectives are to prioritise financial stability alongside price stability. The central bank has demonstrated a strong commitment to financial market reform, advocating for the development of a

market-friendly regulatory framework. Cooperation with international financial institutions has been consistent, with the gradual implementation of international best practices in financial regulation.

Energy resilience and security

Armenia relies heavily on imported natural gas from Russia for its domestic energy supply and consumption. Being landlocked and dependent on a single supplier exposes Armenia's energy security to geopolitical risks. Gazprom Armenia, a subsidiary of Russia's Gazprom, monopolises the country's gas supply, with no competition in the market. More than 85 per cent of Armenia's gas supply comes from Russia through pipelines via Georgia, while the remainder is imported from Iran, strictly limited to a gas-for-electricity swap.⁸⁸ Natural gas is a main source of electricity generation, accounting for over 40 per cent of electricity, followed by the country's one ageing nuclear power plant, the ANPP. On 14 September 2023, the Armenian authorities approved an extension of the operating lifespan of the ANPP to 2036 from 2026. Hydroelectric plants also contribute to Armenia's electricity generation, on a par with nuclear power, while the contribution of wind and solar photovoltaic (PV) power plants is almost negligible. The transport sector and residential buildings rely heavily on natural gas due to subsidised prices and lower rates of energy tax.

Energy sector governance is relatively advanced.

Armenia's power system operates an unbundled framework, following liberalisation and privatisation in the 1990s, which led to the limited presence of SOEs compared with regional and international peers. Key energy SOEs include the Electric Power System Operator (EPSO), the Settlement Centre and the transmission company (High Voltage Network of Armenia). The Ministry of Territorial Administration and Infrastructure is responsible for energy policy-making. Recently, the ministry has faced staff shortages as a result of its merger with the Ministry of Energy Infrastructures and Natural Resources, which has led to poor interministerial coordination. The Public Services Regulatory Commission (PSRC) was

established as an independent energy market regulator alongside the fully unbundled energy system. The PSRC decides electricity and natural gas tariffs based on connection voltage, differentiating between daytime and nighttime to calculate peak and off-peak tariffs.⁸⁹

However, the current tariff system is based on a cost-plus methodology,⁹⁰ decreasing the long-term efficiency and competitiveness of the energy sector.

The energy market operates on a single-buyer model, with tariff adjustments typically only made during annual revisions by the PSRC.⁹¹ The implementation of tariff reform has been slow and there is a need to recalibrate seasonal tariffs to account for higher winter costs and accommodate increased solar energy use, with intra-day adjustments. There is a lack of incentivising mechanisms to ensure the quality and reliability of energy supply. Though gas prices are not subsidised, natural gas import prices tend to be lower, discouraging private-sector investment in infrastructure and in improving the quality of energy supply services. Consequently, private-sector involvement remains limited. Further improvements in the governance and efficiency of the domestic energy sector could be achieved by fully implementing a rate-of-return methodology for electricity tariffs and ramping up investments in outdated energy transmission and distribution infrastructure.

In January 2021, the Armenian government approved a new energy sector development strategy, outlining its goals for strengthening energy security by 2040.

According to the new strategy, the government prioritises: (1) maximising the country's renewable energy and enhancing energy efficiency; (2) prolonging the life of the ANPP beyond 2026 (now extended to 2036) and constructing a new nuclear power plant to replace the ANPP; (3) constructing a north-south corridor to boost power transmission links with Georgia and Iran; and (4) gradually liberalising the domestic electricity market.⁹²

Enhanced renewables capacity and better regional logistics with Georgia and Iran would improve energy security, supporting Armenia's long-term

88 See IEA (2022).

89 Ibid.

90 A cost-plus basis allows a set rate of return for operators after accounting for fixed and variable costs. It means that operators (energy suppliers) can recover all of their costs in addition to a fixed percentage of the profit margin.

91 An amendment to the single-buyer system in the electricity market was introduced in early 2022, in line with the liberalisation strategy. However, there is no tangible trading in the retail and wholesale electricity market, despite adoption of the newly revised legal framework. See ARKA News Agency (2022) and IEA (2022).

92 See IEA (2022).

economic growth.⁹³ Armenia commenced the liberalisation of its electricity market in early 2022 with a five-year implementation process. The initial phase allowed some power plants to sell electricity at market prices in lieu of the regulated prices set by the PSRC. Hourly electricity trading is now available, moving away from the previous monthly trading system, to increase the volume of trading on the electricity market. Nonetheless, the high use of gas by the industrial sector and households has delayed the activation of the electricity trading market. Reform in the gas sector remains muted due to the monopoly held by Gazprom Armenia. Encouraging the gradual liberalisation of the gas sector aligns strongly with the energy integration agenda of the EAEU.

Renewable energy development remains limited, but efforts to strengthen renewable capacity are underway. Thanks to its favourable climate, Armenia has the potential to generate greater solar PV output than the EU average.⁹⁴ Solar is expected to become the country's major source of renewables growth, capitalising on the declining costs of solar PV equipment. The significant drop in solar energy costs in recent years could also boost initiatives to develop renewables. A 2019 EBRD study showed that Armenia's potential solar energy output per square meter could satisfy up to 85 per cent of per capita annual electricity demand.⁹⁵ The Programme on Energy Saving and Renewable Energy for 2022-30, approved in August 2021, aims to increase the share of electricity generation from solar to at least 15 per cent (from less than 3 per cent in 2020) and to reduce total final energy consumption by 20 per cent by 2030.⁹⁶ The programme envisages increasing solar and wind power capacity to 1,500MW and 500MW, respectively. Most notably, several pilot projects to auction solar PV were undertaken for the Masrik-1 plant. Existing electricity generation assets have the potential to increase capacity and could offer hydropower-based electricity exports at a competitive price, particularly in summer. However, scaling up renewables in Armenia faces several obstacles:

- low private-sector financing for renewables
- the slow roll-out of the new electricity market tariff framework, the modernisation of energy

infrastructure and measures to increase energy efficiency

- logistical constraints on exporting energy due to border closures with two of its neighbours and low demand for electricity from Georgia in the summer season
- increasing electricity exports to Iran require an upgrade of the interconnector and the integration of grid transmission.

Lastly, Armenia produces a number of key raw materials required in renewables equipment. The country extracts various critical minerals, including copper, molybdenum and gold.⁹⁷ The total volume of these critical minerals as a share of global mineral production is very low (4 per cent of molybdenum and 0.4 per cent of copper). This indicates that Armenia is a price taker on the international commodity market. However, copper and molybdenum are two critical raw materials needed to develop renewables, particularly for wiring equipment in power plants.⁹⁸ By leveraging reserves of these critical minerals, Armenia can diversify the foreign ownership of its mining sector and facilitate integration into the global supply chain. This aligns with growing interest in the "green corridor", which aims to ensure a steady flow of critical minerals for decarbonisation.⁹⁹

6. Integrated – landlocked, closed borders, and a sanctioned neighbour and main trading partner

As a member of the World Trade Organization (WTO) and with free trade agreements with its main export markets, Armenia is well-integrated economy. However, as a landlocked country in a region facing huge geopolitical challenges, its development is seriously constrained. The north-south road corridor plays a crucial role as its only trade route, but huge investment is needed to upgrade it.

93 See Westminster Foundation for Democracy (2023).

94 See IEA (2022).

95 See EBRD (2020).

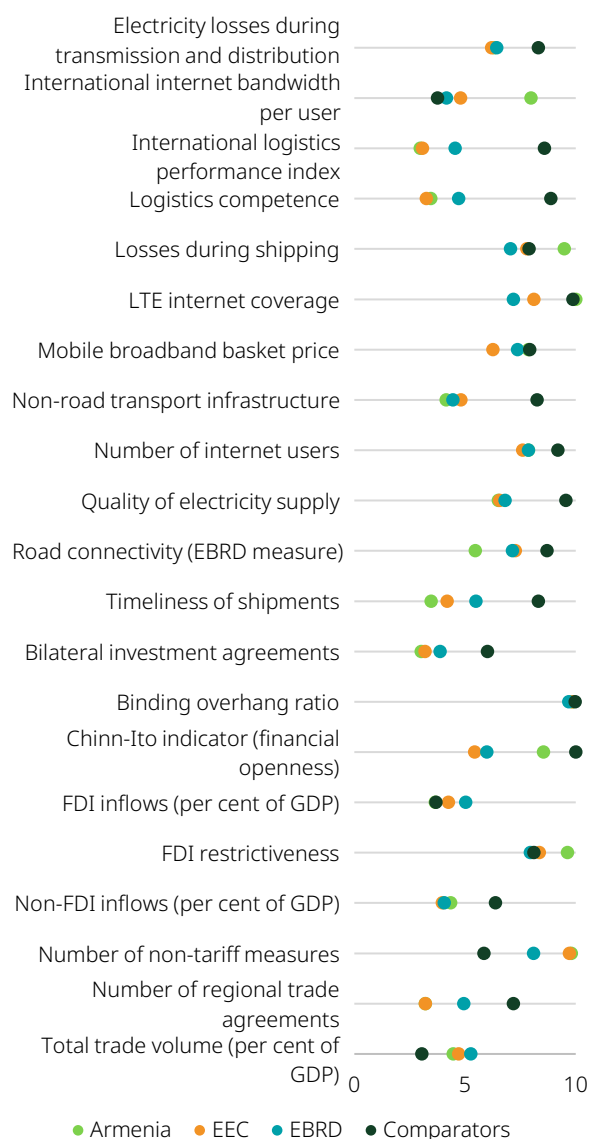
96 See Government of the Republic of Armenia (2022).

97 See German Economic Team (2023).

98 See EBRD (2023).

99 See IMF (2023b).

Chart 2.6.1. Integrated ATQ indicators, 2023



Source: EBRD (2023).

Armenia's membership of the WTO and EAEU, along with its CEPA with the EU, give it favourable access to large markets. Armenia has been a member of the WTO since 2003. It is the only EAEU member country in the South Caucasus, but does not share a border with any members of the bloc (the others being Belarus, Kazakhstan, the Kyrgyz Republic and Russia). It joined the customs union in 2013 and the EAEU's single market in 2015. The EAEU guarantees free movement of goods, services, capital and people. In November 2017, Armenia and all EU member states signed a CEPA that regulates their bilateral trade relations and removed barriers to trade in goods and services. The agreement entered into force in March 2021.¹⁰⁰

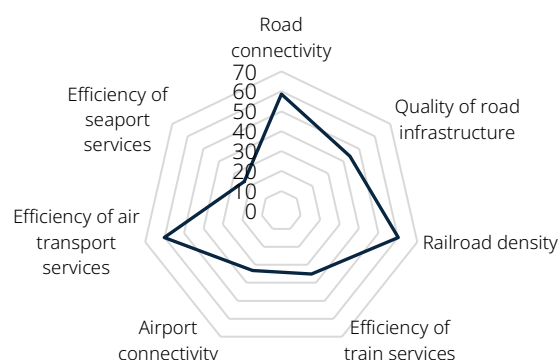
100 See European Commission (n.d.).

At the same time, geopolitical realities have complicated Armenia's integration into regional transport networks and global trade. It is a landlocked country, constrained by significant trade-route limitations because of its closed borders to the west with Türkiye and to the east with Azerbaijan. Long-term international sanctions on Iran, its neighbour to the south, limit the possibility of developing transport and trade in that direction too. Its fourth neighbour, Georgia, to the north, is a link to its main trading partner, Russia, which is also subject to heavy sanctions by many developed economies after its invasion of Ukraine.

Therefore, Armenia's access to third markets heavily relies on Georgia's infrastructure. Seasonal weather conditions impede land transport through the mountainous border crossing between Georgia and Russia, while unreliable maritime services from Georgia's Black Sea ports hinder the access of Armenian goods to other markets.

Chart 2.6.2. Transport infrastructure

Perception of quality score: 0 (worst)–100 (best)



Source: WEF (2019).

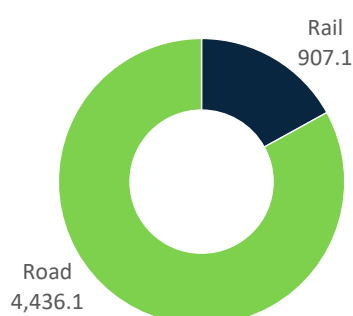
Armenia's transport infrastructure needs an upgrade. According to the World Economic Forum, the country's transport infrastructure scores 48.6 out of 100 and ranks in 74th place out of 141 countries.¹⁰¹ While the density of its road and rail network is relatively good, the quality of its roads and the efficiency of its rail services are poor. There are few air connections with the rest of the world, creating additional bottlenecks for a country already disadvantaged by its geopolitical connectivity constraints.

101 See WEF (2019).

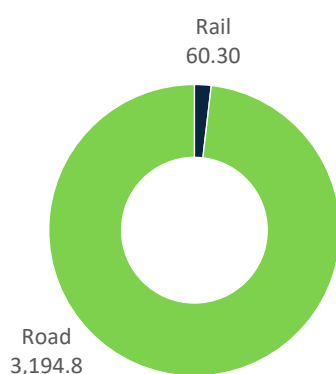
The railway network in Armenia has become less important since the dissolution of the Soviet Union and the collapse of relations with neighbouring countries. The country's dispute with Azerbaijan led to a blockade of its railway, as well as its primary highway connections to the southern region of Syunik and Iran, which pass through Azerbaijan's Nakhichevan exclave to the west of Armenia as the shortest route. At the same time, after the war in the Georgian Abkhazia region in 1992-93, Armenia lost railway access to Russia. Since 2008, the domestic railway system has been operated by a subsidiary of Russian Railways on a 30-year concession. Today, the rail network is 707 km long,¹⁰² but not all of it is operational due to the country's closed borders. Externally, the rail network provides access to Georgia's Black Sea ports, Batumi and Poti, and is mostly used for exporting metal ore and concentrate. The lack of operating railway connections to other external markets also reduces the railroad's use within Armenia.

Chart 2.6.3. Distribution of transport between road and rail, 2022

a) Transport of goods (Mt/km)



b) Transport of passengers (million passengers/km)

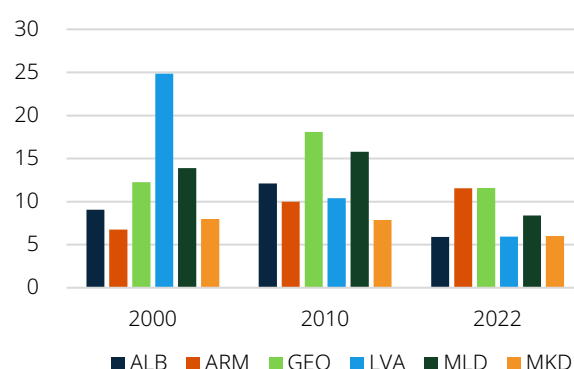


Source: ArmStat data.

Road transport has gained in importance, with uninterrupted connections to the north-south trade corridor. Road transport is the preferred mode of transport for both passengers and goods. The road network is extensive, but faces multiple challenges in terms of road quality, including ageing infrastructure, insufficient maintenance and harsh weather conditions. Some roads have experienced significant wear and tear as a result of heavy traffic, leading to potholes, cracks and surface distress. Efforts to improve the road infrastructure are advancing, with several significant investment projects focused on the rehabilitation and upgrade of interstate roads. The main focus is on the north-south corridor, where some sections are being upgraded with the support of international financial institutions.

The trend in Armenian road fatalities is concerning and cannot be attributed solely to road quality and difficult terrain. Road fatalities are not only high, but have increased over the last 25 years. This trend is in sharp contrast to the improvement in safety standards seen in peer countries, some of which have significantly reduced road fatalities, despite poorer road quality than Armenia. It underscores the complexity of the road safety issue, which cannot be addressed by road upgrades alone. The effectiveness of vehicle inspections, driving skills, traffic law enforcement and unsafe behaviour all contribute to accidents. The authorities have taken action, with the support of United Nations agencies, to address these challenges and improve road safety in Armenia, aiming for a 50 per cent reduction in road deaths by 2030.

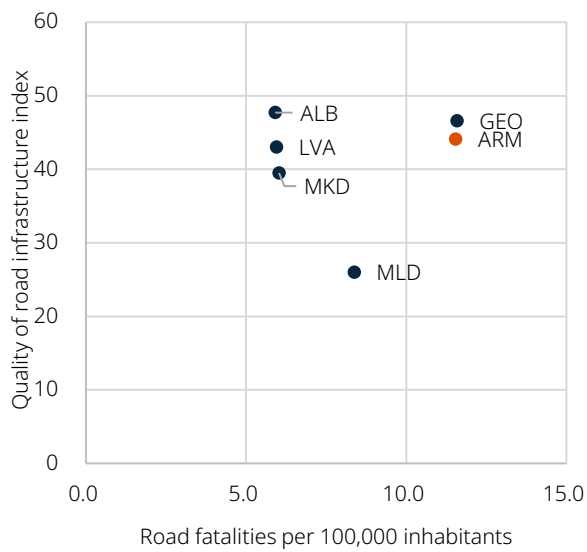
Chart 2.6.4. Road fatalities per 100,000 inhabitants



Source: OECD data.

102 See Enterprise Armenia (n.d.).

Chart 2.6.5. Road quality and fatality rate (2022)



Source: WEF (2019) and OECD data.

The upgrade of the north-south road corridor anticipates potential future border openings. The authorities plan to build a logistics hub in the city of Gjumri, which is close to the Turkish border, precisely because of its strategic location. The hub would enhance Armenia's connectivity, allowing the efficient movement of goods and people. The corridor and the hub could transform Armenia into a transit country for the first time since the early 1990s.

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