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5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY
1. EXECUTIVE SUMMARY

Entering the transition as one of the poorest countries in the region, Armenia embarked on an impressive growth path enabled by early implementation of structural reforms. Its real income has increased more than four-fold since gaining independence. Nevertheless, due to the low initial starting point and an uneven transition in the latter years, Armenia continues to face a gap in living standards. Building on strong popular support in the aftermath of the peaceful Velvet revolution, the new government has embarked on an ambitious reform programme. Public expectations for tangible economic and social improvements are high, while the challenges are complex. To unleash the private sector’s potential and to increase the speed of convergence, Armenia needs to address the following constraints:

- **Governance and competition** shortfalls weaken the business environment. Weak institutions, corruption, informality and constrained competition have in the past held back private sector performance. To build upon the initial successes of the new government in fighting corruption, decreasing the size of the shadow economy and tackling monopolies as well as to ensure their sustainability, public governance needs to be strengthened. The independence and competence of judiciary needs to be ensured and issues in insolvency resolution framework, corporate governance standards, competition and public procurement need to be addressed. Steps taken to address constraints in the taxation are welcome.

- Exports of goods and services have been expanding rapidly, although there are challenges for integration in the global economy. Internal connectivity and cross-border **integration** is hampered by underdeveloped infrastructure. Transport barriers increase the costs of trade, restrict access to markets and reduce the attractiveness of the country for foreign investment. At the same time, execution of existing and initiation of new growth-enhancing capital investments are affected by the limited fiscal space and capacity of the public administration.

- The export basket is dominated by primary commodities and limited low value-added manufacturing, constraining external **competitiveness**. The resource sector, the main driver of exports and foreign investments, has potential for further development and room for modernisation including in **inclusion** and environmental sustainability aspects. Decreasing the volatility of agricultural output and increasing productivity and exports of the agricultural sector requires a holistic approach. Growth in the hospitality and IT sectors has led services to become an export driver. To use the potential of services to its fullest, Armenia needs to address key constraints in these sectors. This would also help to handle Armenia’s youth, regional and gender inclusion challenges, especially in the light of high and persistent outward migration.

- Energy sector **resilience** is constrained by the country’s geographical position and import dependency on fossil fuels. Development of renewable energy resources and energy efficiency solutions would help improve country’s energy security and support the **green** economy transition, and open opportunities for competitive private sector involvement. Solar energy can be competitive with traditional sources of electricity generation thanks to highly favourable climate conditions and the global trend of decreasing costs.
2. POLITICAL ECONOMY
Mass anti-government protests in April/May 2018 led to a peaceful change of power, creating a momentum for wide ranging political and economic reforms. The change was institutionalised in the early parliamentary elections in December 2018 which resulted in a reset of Armenia's political landscape, with the ruling “My Step” alliance of the revolution leader and PM Nikol Pashinyan having gained a landslide victory.

Building on high legitimacy and strong popular support, the new government has embarked on an ambitious reform programme, pledging "economic revolution" and inclusive growth. The implementation of a comprehensive and coherent reform strategy will be required to achieve the ambition. Public expectations for tangible economic and social improvements are high, while the challenges are complex.

Aiming at dismantling the old political economy model in which politics intertwined closely with business, the new government has in particular taken steps on de-monopolisation and the fight against corruption and tax evasion. Progress has been tangible, although Transparency International still ranked Armenia 105th out of 180 countries on its 2018 Corruption Perceptions Index.

Following the December 2015 constitutional referendum, Armenia has completed transition from a semi-presidential to a parliamentary republic in 2018. In the new system, PM enjoys strong executive powers (the "super PM" system). To make reforms systemic and sustainable, strong political will needs to be reinforced by strengthened institutions and enhanced administrative capacity. Strengthening the independence, professionalism and accountability of the judiciary is a particularly important task.

Armenia is a member of the Eurasian Economic Union (EAEU) since 2015. In parallel, it signed a Comprehensive and Enhanced Partnership Agreement (CEPA) with the EU in November 2017. This combination may provide an additional opportunity for the country’s economic development, but could also be a challenge for charting a coherent course of reforms.

Armenia’s economic development is constrained by the geopolitical context. The conflict with Azerbaijan over Nagorno-Karabakh remains unresolved. This is an obstacle to regional development and poses a risk to regional security.

Armenia’s economic development may benefit from wealth of the sizable Armenian diaspora, if reforms advance and investment climate becomes more attractive.
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW
Entering the transition as one of the poorest countries, Armenia economy grew strongly over the past two and a half decades.

Armenia experienced rapid growth since gaining independence

Cumulative real GDP growth [1992=100] and Annual avg. 1992-2018

- Armenia: 5.3%
- Albania: 4.9%
- Georgia: 3.2%
- Latvia: 3.1%
- North Macedonia: 2.0%
- Moldova: 1.1%

However, entering the transition as one of the poorest countries, real income in Armenia remains at relatively low levels

GDP per capita, thousand USD, constant prices, PPP adjusted

- Armenia: 1992 vs. 2018

Stabilising the economy and resuming its growth faster than peers was enabled by early implementation of structural reforms

EBRD transition indicators

- Large scale privatisation
- Governance and enterprise restructuring
- Trade & Forex system
- Price liberalisation
- Competition Policy

- EBRD average: 1991 vs. 2014

- Fast implementation of the first generation of reforms resulted in early success in price liberalization, opening of foreign trade and privatisation. However, the country failed to achieve significant progress in the areas of competition policy, governance and enterprise restructuring. These areas continue to constrain Armenia’s convergence process to more developed economies.

- Armenia entered transition as the second poorest country in the Commonwealth of Independent States (CIS) according to the GDP per capita in PPP adjusted terms. Real earnings in comparable prices were 8 times lower than in Russia, the richest country at that time.

- As it embarked on one of the most impressive growth paths among the transition economies, real GDP per capita increased 4.4 times in 1992-2018, marking the strongest income convergence among CIS countries and wider. Nevertheless, due to the low initial starting point Armenia lags behind most of the peer countries in GDP per capita.

Source: IMF WEO April 2019, WB, Statistical Committee of the Republic of Armenia, EBRD, EBRD calculations
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW

With the exception of the years before the global financial crisis, Armenia’s growth model largely relies on private consumption and exports.

Except in the boom period prior to the global financial crisis, savings and investments were at moderate levels.

In recent years, growth model has been more balanced, relying on private consumption and external demand.

Private consumption and imports are supported by the inflow of money transfers from abroad.

- In 2001-08, economic growth was led by strong increase in capital investments on the back of construction boom. At its peak in 2008, gross capital formation amounted to 40.9% of GDP, boosted by large rise of remittances directed to the real estate market. Following 2009 crisis and burst of the real estate bubble, drivers of growth changed and exports became the main contributor to output growth. In 2017-18, capital investment recorded growth after eight years of decline (with the exception of 2015). In the same period, private consumption strengthened with the recovery of remittances. It is now the largest and the most stable driver of GDP growth. Export expansion remained steady.

- As a result of both historical and recent emigration, diaspora plays an important role in the economy. Share of money transfers stood at 14.4% of GDP in 2018. These inflows largely support the private consumption and associated imports. Some investments coming from the diaspora community are in the form of charity.

Source: Statistical Committee of the Republic of Armenia, Central Bank, EBRD calculations
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW

Moderate capital investments and low levels of FDI indicate challenging business environment

- Capital accumulation is at a low level
  - For a country that needs to converge to higher income per capital level, capital formation is currently low. Public investment is higher than in Moldova and Ukraine but significantly lower than in Georgia.
  - FDI inflows are on a downward trend since 2009. As a share of GDP, they have fallen from 8.8% in 2008 to 2.0% in 2018.

- FDI is consistently below the level of neighboring Georgia which experienced exceptional performance after the global financial crisis. Georgian example shows that a small economy facing unfavourable geopolitics is still able to attract significant foreign investments with a right set of appropriate policies.

FDI stock is among the lowest in the EEC and the wider region

- FDI stock per capita, thousand USD, current prices, in 2018

Comparison of FDI inflows with neighbouring Georgia points to a strong potential to increase investments in Armenia

- FDI inflows
  - Armenia, billion USD (LHS) / Georgia, billion USD (LHS) / Armenia, % of GDP (RHS)

* Simple averages. EBRD average excludes Cyprus and Kosovo.

Source: IMF WEO April 2019, UNCTAD, National statistical authorities and central banks, EBRD calculations
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW
Difficult early transition years took their toll as evident from the demographic and labour market trends

- Harsh early transition years in Armenia were followed by significant drop in birth rate since beginning of 90’s to the beginning of 2000’. As a consequence, the country recently entered ten year period of shrinking cohorts incoming to the labour force.

- Labour force shrank by 14.5% in 2008-17 affected by adverse demographic trends as well as negative net migration rates. Combination of so called ‘push factors’ such as weak creation of well-paid jobs on the domestic market and ‘pull factors’ including nearness of markets with higher living standards, in particular Russia, leads to continued emigration.

- Relatively high unemployment rate persists. Particularly alarming are high youth unemployment rates, estimated at 31% for males and 46% for females.

Source: Statistical Committee of the Republic of Armenia, WB WDI (ILO estimates), EBRD calculations
3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW

Even though the share of services in the economic output increased, production of goods still relies on low value added manufacturing, mining and agriculture.

Industry accounts for the largest portion of the gross value added (GVA), but agriculture employs the largest share of population.

In the recent years, FDI inflows have been concentrated in the mining and energy sectors.

Manufacturing output is dominated by fast growing low value added products.

Source: Statistical Committee of the Republic of Armenia, EBRD calculations

Note: Disinvestment in the mining sector in 2018 was offset by increased FDI in the electricity sector. In 2014-17, share of FDI in mining stood at 48%.
Private sector and SMEs dominate in the Armenian economy

3. GROWTH PERFORMANCE AND PRIVATE SECTOR OVERVIEW

Private sector employs around three quarters of the overall workforce

Firms’ entry density is low compared to the peers, but increasing

Small and micro enterprises dominate the Armenian economy

Private sector characteristics

• Private sector employs three quarters of the total employees. It is estimated to have created approximately the same share of GDP in 2010, which likely increased since.
• Armenian economy is dominated by SMEs. SMEs are largely concentrated in trade, followed by manufacturing and various services. SMEs in trade make up 2/3 of the total number of SMEs but contribute to only 35% of gross value added and 31% of employment. On the other side, SMEs in manufacturing make only 10% of the total SMEs, but generate around 18% of value added and 20% of the sector’s total employment.
• Authorities plan to commercialise and make IPO of some of the remaining SOEs, particularly in energy sector and utilities. At the beginning of 2018, there were 156 commercial entities with more than 50% of state ownership, 92 of which were healthcare companies. Additional 47 entities were listed for privatisation.

Source: Statistical Committee of the Republic of Armenia, World Bank, EBRD calculations
4. OBSTACLES TO PRIVATE SECTOR DEVELOPMENT

4.1 Governance and competition shortfalls weaken business environment
4.1 Governance and competition shortfalls weaken business environment

Weak institutions, corruption and prevalent informality have in the past held back private sector performance.

While on par with most of EEC, Armenia lags behind its neighbour and more advanced EU economies in the quality of institutions.

Worldwide Governance Indicators 2018, scores on a scale of [-2.5,2.5]

Despite the decrease in the past few years, informality remained prevalent partly due to large imprint of agriculture in the economy.

Informal employment as a share of total employment

Until 2018, corruption was consistently perceived to be at high levels, placing Armenia behind most of its peers.

Corruption Perception Index, rank out of 180

Sporadic improvements prior to the Velvet revolution were insufficient in addressing entrenched corruption which plagued the economy for many years.

- Prior to the Velvet Revolution, government introduced a number of legislative reforms to prevent and address corruption. These include simplification of licensing procedures, introduction of various e-government tools, civil service reform amendments to criminalise illicit enrichment, a law on whistle-blower protection and an anti-corruption strategy. However, the majority of reforms have not been fully implemented and enforced.

Significant levels of informality in the economy contributed to creating uneven playing field for the private sector.

- According to the study by the IMF, informal sector stood at 36% of GDP in 2015. This puts Armenia at 34th place out of 159 countries in the world according to the largest shadow economy.

4.1 Governance and competition shortfalls weaken business environment

Drawbacks in governance standards facilitated creation of strong linkages between businesses and politics which act as a constraint on competition.

Armenian economy has been constrained by monopolistic and oligopolistic structures

Share of firms in manufacturing sector, BEEPS V, 2012-13

Weak competition policies pose significant risks to businesses

- Armenia’s small size of the domestic market and landlocked territory limit competition possibilities and facilitate the creation of positions of market dominance. Other long-standing challenges that constrain competition include:
  - **Traditional linkages between businesses and politics** allowed for rent-seeking behaviour and accumulation of market power in the hands of well-connected individuals. Several sectors remain dominated by companies that previously benefitted from de facto monopoly protections. Until recently, imports of certain goods were constrained by informal import cartels. Physical limitations on trade routes and limited points of entry and exit for the import and export of goods made it easier to capture and monopolise trade.
  - **Gaps in regulations and policies.** Some provisions in tax code contributed to favour large firms, while competitive neutrality is not in place given the absence of effective state aid provisions.
  - **Competition law institutions and enforcement have been traditionally weak.** The Competition Authority (SCPEC) does not have the power to collect direct evidence in cartels investigations. Imposed fines are still at very low levels to deter anti-competitive behaviours. While the SCPEC has increased its enforcement activities in recent years and perceptions over its effectiveness have improved, the technical capacity needs to be substantially strengthened.

- According to the Economist Intelligence Unit’s Risk Tracker 2017-18 (WB Systematic Country Diagnostic, 2018), business risks related to weak competition policies are the second-highest among European countries covered in the report*, just after Ukraine. These perceived risks are mainly related to vested interests and cronism as well as unfair competitive practices, followed by price controls and discrimination against foreign companies.

* European and Central Asian countries covered in the WB’s report are Ukraine, Armenia, Bosnia and Herzegovina, Moldova, Albania, North Macedonia, Bulgaria, Romania, Serbia, Georgia, Poland, Hungary, Latvia, Lithuania, and Estonia.
4.1 Governance and competition shortfalls weaken business environment

Velvet Revolution created a unique opportunity for overhauling governance challenges. The new government has been challenging the status quo following the Velvet Revolution.

- A series of high-profile corruption and tax evasion inquiries as well as arrests have been made against former public officials and politically connected businessmen. A number of customs brokerage firms have been prosecuted for tax evasion and fraud as part of the efforts to tackle informal monopolies on imports and corruption at the customs. This has had a strong demonstration effect and it significantly affected the perception of the population.

To build upon the initial successes in anti-corruption fight and ensure their sustainability, system that reduces opportunities and penalizes wrongdoing needs to be strengthened.

- This includes further increasing transparency and simplifying regulation, changing the set of incentives for civil servants, including through higher benefits and accountability, continuously enforcing consequences of corrupt behaviour at all levels, and recovering proceeds in a way that does not negatively affect the rest of businesses.
- Discussions are underway regarding the future landscape of anti-corruption bodies.

Source: World Gallup Survey, EBRD calculations
4.1 Governance and competition shortfalls weaken business environment

Competition in selected markets has been gradually increasing over time

Gradual de-monopolisation has been taking place in selected basic food markets over the past few years.
- Number of importers of many basic food products has increased in the recent years. This has led to, in majority of cases, reduction in the market concentration as indicated by the decreasing market shares of entities that occupy dominant positions.
- Most of the selected commodities seem to have experienced a decreasing price trend in the same period. However, except in the case of bananas, it is unclear whether this is due to increased competition or other factors such as movements in global prices.

Events that took place in the aftermath of the Velvet Revolution gave additional impetus to opening up of the markets. At the same time, impact on consumer prices is yet to fully materialise.
- Addressing high profile corruption cases indirectly led to dismantling some of the competition barriers, particularly in imports. Furthermore, since most of the barriers were informal, authorities’ strong anti-monopoly stance combined with the change of private sector perception contributed to opening up of the markets.
- However, it is not yet clear whether this has translated into materially higher value for customers. Although there is a decline in most of prices of basic foodstuff, similar trend is noticed in commodity markets as well. Discussion with local experts suggest that the transmission channel to retail prices may be hampered by high concentration and anti-competitive practice in the retail sector.

Source: Statistical Committee of the Republic of Armenia, state statistical authorities, EBRD calculations
4.1 Governance and competition shortfalls weaken business environment
Regulatory weaknesses and enforcement limitations in the competition area need to be addressed

Weaknesses in the competition law as well as the effectiveness of its implementation by the State Commission for the Protection of Economic Competition (SCPEC) should be addressed.

- **Legislative drawbacks** include too narrow definition of dominance based exclusively on market shares, inefficient merger control procedures, ineffective state aid framework and limited investigative powers attributed to the competition authority (SCPEC does not have the power to conduct dawn-raids which limits anti-cartel enforcement). While fines for anti-competitive behaviour on the book have recently been increased in line with international standards (capped at 10% of annual turnover), actual amounts levied so far were too lenient to deter anticompetitive conducts and other offences.

- **Limitations in the enforcement** capabilities of the competition authority are related to the need to strengthen its operational and strategic capacity, enhance transparency in determining fines, and address currently limited disclosure and outreach which are essential for the predictability of legislation enforcement.

There is space to improve pro-competition policies in the key sectors, in particular those that provide production inputs (energy, utilities, railways, airports).

- State sector and public utilities are regulated by Public Services Regulatory Commission (PCRS). PCRS’ responsibilities have recently been expanded to cover analysis of the market dynamics and adherence with the competition rules.

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**Need for greater transparency and stronger regulation of the railway sector to improve performance and enable competition in the long term**

Armenian rail infrastructure is operated by the South Caucasus Railways (SCR), the monopoly concessioner. SCR has the concession for a period of 30 years until 2038, with the option of extension for another 10 years. The concession transferred assets from the state owned railway to the company in exchange for investment in infrastructure, new rolling stock and a share of future revenues.

SCR is responsible for the operation of both passenger and cargo services. While rail is uncompetitive relative to road for passenger trips between areas served (it transported 0.2% of passenger in 2018), it is more significant for freight transport. However, its importance is decreasing: it accounted for around 10% of the total quantity of freight in 2018, down from around 24% since the peak in 2012.

There are no formal barriers to entry of other rail operators. However, no competitor has been licensed and there are no plans for unbundling the sector at the moment.

According to the concession agreement, open access charges are set by the PSRC. However, the methodology for the calculation of prices and the actual charges have not yet been published and PSRC appears to have broad discretion to set its own tariffs. Pricing structure, based on the space instead of the weight, does not meet the demands of the export-oriented private companies in the manufacturing and processing sectors.

Private sector expressed concerns over the quality of services in terms of delays, reliability and safety of the rail services. In the absence of market pressure, regulator bears the responsibility to stimulate competitive pressures which are needed to incentivise increased productivity and innovation. Increasing quality of services in the railway sector in Armenia requires strengthening regulation of standards and performance, including penalties for non-performance.

4.1 Governance and competition shortfalls weaken business environment

Important steps have been taken to improve the business environment; recent progress in tackling non-transparencies in customs administration is tangible.

Business environment has been improving over time as the authorities took steps to simplify business regulations and enhance public services delivery.

- Number of economic activities requiring *licensing* has been radically reduced, and *risk-based control systems* were established in inspections, tax and customs administration. Following the streamlining and reform of inspection bodies in 2018, the average number of inspections fell from 18 to 6.

- Authorities launched a number of *e-government services* over the past few years which further reduced bureaucracy for businesses, increased transparency and curbed opportunities for corruption. However, systems suffer from technical issues which makes them suboptimal.

- Over the last 2 years, *public services* have been increasingly digitised and outsourced to the private sector managed post offices, banks and other institutions in order to increase the coverage, simplify the procedures and decrease the time needed to obtain certificates, licences and permits.

Customs have benefitted from increased transparency and simplified procedures.

- Petty corruption at the border has reportedly been rooted out and *procedural burden* was lowered. Disproportionately large increase in budget contributions of customs duties compared to the increase in the value of imports in 2018 points to increased fairness and transparency in customs clearance of goods.

- There room for additional improvements of customs procedures, including further clarifying customs clearance procedures and criteria.
4.1 Governance and competition shortfalls weaken business environment

Taxation remains one of the constraints for the private sector notwithstanding efforts taken by the authorities to ameliorate it.

Budget revenues in Armenia are among the lowest in the EBRD region; they amounted to 23% of GDP in 2018, 94% of which were taxes. This reflects the need for further broadening the tax base and increasing tax collection compliance.

Source: IMF WEO April 2019, Statistical Committee of the Republic of Armenia, EBRD calculations
4.1 Governance and competition shortfalls weaken business environment

Independence and competence of judiciary needs to be ensured and issues in insolvency resolution framework, corporate governance standards and public procurement addressed

The lack of independent and reliable judicial system has undermined the government's assurances of equal treatment and transparency, as well as reduced businesses' ability to seek recourse in the case of disputes.

- According to the World Economic Forum's 2018 Global Competitiveness Report Armenia ranks 85th for judicial independence, behind Georgia which ranked 83rd. The current government has stated its commitment to address this constraint.
- Courts suffer from a lack of capacity to settle corporate disputes, unpredictability in decision-making, low quality of judgements, and weak enforcement capabilities. Disputes often take months or even years to be resolved. Independence, impartiality and competence of judges needs to be strengthened including through specialisation, training and better benefit packages.

Insolvency resolution frameworks needs to be strengthened.

- Authorities are currently reviewing the legislative framework for resolving insolvency. Initial steps are being taken to develop an electronic solution that would simplify and speed up the process. These efforts need to be followed by capacity building for insolvency practitioners and the appointment of judges with insolvency expertise to the newly founded insolvency court (January 2019).

Corporate governance standards are weak.

- While a Corporate Governance Code was introduced in 2010, monitoring of the implementation of and compliance with the Code is lacking.
- According to the EBRD’s 2016 assessment of Armenia’s corporate governance framework, corporate governance legislation and practices also suffer from a number of weaknesses. For example, while the law requires companies to create a control commission, it does not require the creation of any board committees. There is a lack of clarity regarding enforceability of shareholders’ agreements and it appears that shareholders do not enjoy pre-emptive rights in public offerings.
- Combined with low levels of financial literacy, poor corporate governance standards of the private sector restricts access to official financing.

Issues related to public procurement need to be resolved.

- Armenia acceded to the WTO’s Government Procurement Agreement in 2011, implementing legal reforms to align with WTO and EEU rules, as well as launching an e-procurement platform in 2016. All procurement is done electronically following recent legislative change.
- Practice of cutting tenders into lots is not common, adversely affecting opportunities for SMEs to participate in public tenders.
- The proportion of procurement from a sole source is still very high, albeit decreasing. According to the OECD, share of procurement transactions implemented by non-competitive procedures and registered by the Ministry of Finance amounted to 54.4% in 2017.
- Independence of the Procurement Appeals Board needs to be enhanced (appointment of board members, representation by civil society) as well as the objectivity and effectiveness of the procurement appeals process.
- Capacity for procurement at the level of local governments and government joint stock and non-commercial organisations is low.
4. OBSTACLES TO PRIVATE SECTOR DEVELOPMENT

4.2 Obstacles to integration with international markets
4.2 Obstacles to integration with international markets

Exports have grown rapidly although there are significant challenges for integration in the global economy

Exports of Armenian goods and services have been expanding rapidly.
- In real volume terms, exports increased six fold in 2000-18, growing at the annual compound growth rate (CAGR) of 10.5%.
- Growth in tourism and IT sectors has led services to become an export driver. Share of services receipts in GDP increased from 7.3% to 16.6% in 2008-18.
- While exports is among the main drivers of GDP growth in Armenia, at 36.8% of GDP in 2018 it lags behind the peers.

Armenia’s geographic location creates significant challenges for its integration in the global economy. Yet, its location is also potentially strategic, depending on global geopolitical dynamics.
- Armenia is landlocked and its eastern and western borders with Azerbaijan and Turkey are closed. Third neighbouring country is Iran which is subject to US economic sanctions.
- East-west linkages through Georgia and Azerbaijan are becoming increasingly important to facilitate trade and transport between Europe and Asia, with the 2017 opening of the Kars-Tbilisi-Baku rail linking the Caspian port to Turkey and Black sea a key example. Linkages in the south of Armenia to Iran provide an alternative strategic connection which has the potential to become increasingly important for access to markets in the Middle East and wider regions.

Export has been among the main contributors to GDP growth since 2010

Size of exports relative to GDP lags behind peers

Exports as share of GDP, in current prices

Source: Harvard CID, Statistical Committee of the Republic of Armenia, IMF WEO April 2019, EBRD calculations
4.2 Obstacles to integration with international markets

The export basket is dominated by primary commodities and limited low value-added manufacturing.

Share of mining products, precious stones and metals decreased over the past decade, from approximately 65% in 2008 to approximately 55%, but the structure of the export basket remains largely unchanged.

*In million USD, current prices*

**Structure of goods exports in 2017**

Mineral products: 27%

Ores, slags, ash: 3%

Beverages: 11%

Processed food, beverages, tobacco: 11%

Tobacco: 2%

Precious stones and metals: 13%

Aluminium: 5%

Ferrous metals: 4%

Copper: 3%

Other: 0.2%

Other goods: 10%

Clothes: 6%

Textile and textile products: 0.5%

Agriculture: 5%

**Structure of goods exports in 2008**

Mineral products: 12%

Ores, slags, ash: 4%

Beverages: 14%

Processed food, beverages, tobacco: 1%

Tobacco: 1%

Precious stones and metals: 16%

Aluminium: 4%

Ferrous metals: 20%

Copper: 7%

Other: 2%

Other goods: 12%

Clothes: 2%

Textile and textile products: 1%

Agriculture: 3%

Source: Statistical Committee of the Republic of Armenia, EBRD calculations
4.2 Obstacles to integration with international markets

Russia is the main trading partner, however Armenia has a relatively diversified network of export markets.

Notwithstanding Russia as the largest source of imports and second largest export destination, following the EU, Armenia has a relatively diversified network of trade partners.

- Geographical structure of imports remained largely unchanged since 2010. Russia and EU account for approximately one quarter of imported goods each.
- Structure of export destinations is changing. Share of goods exported to the EU countries decreased from nearly 50% in 2010 to close to 30% on the back of increased exports to Russia and other markets, including the Gulf countries and Switzerland.

Following Armenian accession to the Eurasian Economic Union (EAEU) in 2015, exports to the Russian markets increased significantly.

- Exports to Russia, at 28% of overall exports, increased 2.2 times in nominal US dollars since 2014. For comparison, exports to EU countries increased 1.5 times and overall exports 1.6 times in the same period.

**Structure of imports by countries**

**Structure of exports by countries**

**Share of exports to the EU market has been shrinking on the back of increased export to Russia and other countries**

**Source:** Statistical Committee of the Republic of Armenia, EBRD calculations
4.2 Obstacles to integration with international markets
Cross-border connectivity is hampered by lack of infrastructure

**Most of merchandise trade is transported via roads**

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- **Pipeline**: 42% Exports, 1% Imports
- **Air**: 13% Exports, 14% Imports
- **Rail**: 7% Exports, 57% Imports
- **Road**: 88% Exports, 49% Imports

**The great need for new infrastructure investments is constrained by the tight fiscal space**

- Public debt reached 59% of GDP in 2017, triggering fiscal consolidation and series of improvements to the fiscal framework, including revision of the fiscal rule.
- Effective from 2018, new fiscal rule was designed to curb current spending while leaving more flexibility for the implementation of growth-enhancing investment projects in case public debt levels exceed the pre-set thresholds.
- While the current fiscal framework strikes a better balance between stimulation of growth and public debt reduction, still high public debt (56% of GDP in 2018) severely affects infrastructure investments. There is also a significant backlog of undisbursed IFI-funded projects planned to be implemented over the near-term.
- With these constraints in place, there is only limited scope for direct public investment in high priority infrastructure projects (roads), although the government is keen to scale up private sector involvement.

Armenia is highly dependent on Georgia for access to its largest external markets. This creates an infrastructure bottleneck fully outside of Armenia’s control. Transport barriers increase the costs of trade, restrict access to markets and reduce the attractiveness of the country for foreign investment.

- Due to its difficult geographical and geopolitical position, exports can only be transported via air or overland through Georgia or Iran.
- Goods exported to or via Russia are transported through a narrow road in Georgia and to a single border crossing near Lars. Both the road and the border crossing have low capacity and the road is often closed down due to adverse weather conditions. Road network and border crossing points with Iran are also in a dire need of upgrading.
- There is only one international border for rail services at Bagratashen. Goods are then transported through Georgia to ports Poti or Batumi on the Black Sea.

**Roads are of great importance for exports and the wider economy.**

- Most of exported goods are transported by road. Railway is largely used for mining products and air transport for goods of high value-to-weight ratio (diamonds, jewelry, fresh fruit).
- The Armenia road network is around 7,500km in length, with 24% classified as strategic, 26% regional and the remaining 50% as local. At 266 km per 1000 km2 road density is comparable to Georgia.
- Roads account for 84% of total freight movement by weight. Volumes of road transportation has more than tripled in 2018 compared to 2015 when it accounted for 62% of total volume of freight transportation. This increase coincides with Armenia joining the EAEU and upgrades to the border crossing points, suggesting this is mainly growth in traffic to and from Russia.
- Roads account for 88% of all passenger trips, however traffic levels have declined from a peak of 2.7 million passenger km in 2012 to around 2.5 million in 2017.
- Motorization levels are relatively low. According to the WHO, there were around 104 registered vehicles per 1,000 people, significantly lower than in Georgia (239).
4.2 Obstacles to integration with international markets
Rehabilitation and development of road network is vital for Armenia’s integration

Much of the road network is in a poor condition, road safety is a particular issue, and the transport sector has the highest share of CO2 emissions.

- Around half the road network was found to be in good to fair condition in 2015, with the remaining quarters assessed as poor or bad by the ADB. Overall road quality is low compared to regional peers. Around two thirds of interstate and republican roads were found to be in good to fair condition in 2015. The WEF Global Competitiveness Survey indicates that perceptions of road quality are similar to the EEC average, though below that of Georgia. Armenia ranks 112th out of 140 economies on the road connectivity index and 85th when it comes to the quality of roads.

- The WHO estimates that there were around 17 road traffic related fatalities per 100,000 people per year in Armenia in 2013, which is higher than 13.5 across the EBRD region and 15.3 in Georgia. While there has been some improvements in overall fatality rates since then, number of accidents and injuries has continued to climb to approximately 5,000 in 2017, almost doubling compared to 2013.

- The transport sector has the highest share of CO2 emissions of which 99% is road transport. While the road transport is mainly reliant on gas which is considered cleaner than oil, the sectors emissions are still high.

There has been significant investment in the rehabilitation of the strategic road network over recent years, including several major IFI supported road projects. However, their implementation is constrained by the low capacity of the public administration.

- The North-South Corridor project was developed in 2010 to improve several sections of the road network from the border with Georgia at Bavra to the Iranian border at Meghri/Agarak via Gyumri and Yerevan. A total length of the corridor is around 470km and the estimated cost for the entire project is around US$ 3.1bn. Tranche 1 & 2 of the project are nearing completion – accounting for around 16% of the total corridor (by length), with tranches 3 in construction, 4 in preparation stage and 5-6 waiting to be initiated.

Government funding for road maintenance has been below optimal in recent years.

- Total spending in 2016 was around 0.14% of GDP (EUR12mn), lower than target levels recommended in the Armenian Development Strategy of up to 0.25%.

4.2 Obstacles to integration with international markets
Further development of air links is crucial to support growth of the tourism sector; municipal infrastructure requires improvements

The support and development of new air links is important to help overcome the country’s relative geographical isolation, to support the growth of the tourism sector and to attract FDI

- The sector faces challenges related to the small size of the domestic market, high fuel costs (relative to competing airlines operating from Russia and the Middle East) and competition from larger regional hub airports/airlines. Armenia’s airport connections are relatively poor compared to neighbours.

- There are two international airports: Zvarnots next to Yerevan which accounts for around 94% of all passengers, and Shirak – a smaller airport close to Gyumri which has experienced very rapid growth over the last two years, primarily related to the entry of a low cost Russian airline Pobeda. Both airports are operated under a thirty year concession signed in 2001.

- A masterplan for the expansion and upgrade of both airports was approved in 2018. This includes investment to expand capacity, upgrade facilities to higher standards and enable accessibility for a wider range of aircraft types. Authorities plan to further develop Shirak as a hub for low cost carriers following the model of Kutaisi in Georgia.

Municipal infrastructure and urban transport

- Around 64% of the population live in urban areas. The two largest cities are Yerevan and Gyumri with population of around 1 million (around one third of the total population) and 100,000 people respectively.

- Yerevan faces environmental issues, particularly in air quality, soil quality, waste management, biodiversity and public transport.

- Public transport network in Yerevan and road infrastructure needs to be upgraded. There is a need to prioritise and improve the integration of public transport services to maintain mode share in the context of rising car ownership. Fleet renewal is also a priority for buses and trolleybuses - the average age of all vehicles in the city (including cars, busses and trucks) is around 16 years old.

Water and waste water, solid waste

- The Yerevan water and wastewater system has been operated under concession since 2007 and significant improvements in water quality have been achieved over this period including in the continuity of the water supply - 84% of inhabitants have 24 hour access to water.

- 90% of inhabitants are connected to the wastewater system, however the sewerage system requires improvement. Non-revenue water leakage is also very high at around 72%.

- The solid waste sector has been reformed by the introduction of long term PPP concession contracts for waste collection and disposal in 2014. However landfill sites do not comply with EU standards resulting in soil and water contamination. Landfill sites require replacement and modernisation. At below 5%, recycling levels are very low.

Source: Statistical Committee of the Republic of Armenia, EBRD calculations
4.2 Obstacles to integration with international markets
Resource sector, main driver of exports and FDI, has potential for further development and room for modernisation

Mining is a leading sector in terms of exports and one of the largest contributors to tax revenues and foreign investments

<table>
<thead>
<tr>
<th></th>
<th>GVA 2018</th>
<th>Employment 2017</th>
<th>Taxes and payments to the state budget 2016-17 avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per cent of total</td>
<td>2.8%</td>
<td>0.9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Industrial output 2018</td>
<td>20%</td>
<td>47%</td>
<td>48%</td>
</tr>
<tr>
<td>Exports 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI inflows 2014-17 avg.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contributions of metal mining companies to the local community budgets are small
Share of total taxes and payments declared by metal mining companies

<table>
<thead>
<tr>
<th></th>
<th>Community budget USD</th>
<th>Community budget USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2.5mn</td>
<td>2.7mn</td>
</tr>
<tr>
<td>2017</td>
<td>106mn</td>
<td>180mn</td>
</tr>
</tbody>
</table>

- The country's mineral resources include copper, molybdenum, lead, zinc, gold and silver. In addition to extracting minerals, Armenia has a diamond- and aluminium-processing industries based on imported raw materials. While further processing facilities for copper, gold and molybdenum are being developed, majority of mining products are still exported as low value-added ores (up to 27% of total exports in 2017).
- Receipts from exports of mining products are a significant source of foreign currency, exposing the economy to volatility in global commodity market prices. At the same time, mining sector is dominated by a small number of large operators, making it vulnerable to external shocks.
- Armenia made fast progress in joining the EITI initiative. Commitment to implement the EITI standards was first first made within the framework of the Open Government Partnership in 2011. EITI Board designated Armenia as a Candidate country in 2017 and the first EITI report was published in 2019.
- Contributions of the mining companies to the local community budgets are only a fraction of those to the state budget as zero share of royalties remains with the local government.
- With respect to the gender inclusion aspects in the sector, 18.7% of workforce in the sector were women in 2017.
- Sector is affected by concerns about the potential environmental effects and poor mineral recovery rates. Authorities have taken steps to set standards for responsible mining and align the legislative framework for the industry with global environmental practices. Compliance with the highest environmental standards needs to be ensured.

Timely resolution of the uncertainties around the Amulsar gold mine project is essential for investor confidence.
- Lydian mine, the largest FDI in Armenia expected to start operations in 2018, has been blocked by protestors due to concerns over environmental and social impact of the project. The government commissioned a number of independent assessments of the projects with no conclusive results yet. The company whose financial health is deteriorating.

Source: EITI, Statistical Committee of the Republic of Armenia, EBRD calculations
4.2 Obstacles to integration with international markets

Despite gradually decreasing footprint, agriculture plays a significant role in the economy; exports are concentrated in beverages and tobacco.

Agriculture accounted for a third of the country’s total employment but its productivity is significantly lower than other sectors.

Exports of agricultural products are largely based on alcoholic beverages and tobacco products.

Weight of the agriculture in the economy of Armenia is comparable to other post-Soviet countries.

- In 2018, agriculture employed approximately 33% of total employment, and produced close to 15% of country’s GDP. Its importance in the economy is gradually declining; in 2011, it accounted for nearly 39% of total employment and 20% of GDP.
- Exports of alcoholic beverages and tobacco products accounts for around 75% of agricultural products and 19% of total goods exports.
- While only 15% of Armenian land is arable, the climate is beneficial for agriculture produce, in particular fruit and vegetables. Most of the land is at an altitude of over 1,000 metres and over two thirds is on the slope which complicates the production.
- Subsistence farming is becoming more sophisticated with an increasing range of products despite still prevalent informality in the sector. Productivity has been increasing with labour moving out and (public) investments into technology rising, but yields still remain significantly below potential.

Source: Statistical Committee of the Republic of Armenia, WB WDI, UNCTAD, EBRD calculations
4.2 Obstacles to integration with international markets
Decreasing volatility of agricultural output and increasing productivity and exports of the sector requires a holistic approach

Fragmented land ownership and outdated technology slow down Armenia’s agribusiness from benefitting of economies of scale, and moving up the value chain.
- Land ownership and cultivation is very fragmented, with average size of the plots at 1.4-1.5 ha (against 16 ha in the EU) and 90% of agricultural output being produced by family farms. At the same time, almost half of the country’s arable land is not being used and owners are often unknown. Government is working on the law that will enable identification of all land owners, put unused land back on the market and help consolidate the existing land plots.

Limited and outdated agricultural infrastructure and equipment constraints productivity and sustainability of the agricultural sector.
- Significant investments are needed to modernise and develop irrigation, anti-hail and anti-freezing systems, upgrade agriculture machinery stations and other infrastructure. In addition, the obsolete transport infrastructure and underdeveloped logistics networks lead to high transportation and logistics expenses, further hampering the competitiveness of Armenian products, domestically and abroad.
- Agriculture accounts for 80% of water withdrawal, pointing to a potential water efficiency issue in the sector. While small in absolute terms, more than 60% of energy consumption in the sector is oil. This is relatively high compared to other EBRD countries and there is potential for fuel-switching.

Lack of access to finance and agricultural insurance products constrain farmers' willingness and ability to invest.
- Expanding production capacity and moving up the value chain will require greater support and services for farmers, either through producer associations and cooperatives, or through cooperation with larger companies (e.g. supermarkets, export wholesalers). Agriculture wholesale market does not exist in the country. The insurance market which would help towards stability of the profits in the sector is also inexistent though government is taking steps to develop one.

Standards and certification schemes, particularly with regard to food safety, are important in order to enable increased export volumes and diversified export destinations.
- Agribusinesses have limited awareness of the benefits and requirements of international food safety standards. Agricultural exports remain concentrated to a few markets (mainly Russia) and have suffered from volatility as a result.

Modern, appropriate skills in horticulture, agronomy, veterinary and food processing technologies should be supported.
- There is a need for more sector specialists and education needs to be modernised. With average age of farmers reportedly 55-60 years old, non-agricultural rural areas need to be developed in order to attract younger people to the sector.
4.2 Obstacles to integration with international markets

Services have become an export driver, largely due to the hospitality sector

Over the past 15 years, services exports increased eight-fold in nominal USD values, driven by strong increase in tourism receipts. Share of tourism-related inflows in GDP more than tripled, from 3% in 2003 to almost 10% in 2018. Tourism is estimated to have contributed 15.7% of GDP and 14.1% of total employment in 2017.

Armenia was ranked 79th out of 140 countries in the WEF Travel & Tourism Competitiveness Report 2019. Best scores were achieved on price competitiveness (30th), business environment (31st) and safety/security (40th) dimensions. Environmental sustainability (101st), natural resources (95th), ground and port infrastructure (91st) and cultural resources and business travel (91st) were identified as main disadvantages.

To achieve higher growth rates in the tourism sector, Armenia needs to address current bottlenecks which include poor transport infrastructure, low capacity of air passengers’ transportation and available air connections. Further expansion of accommodation capacity, development of destination sites in a sustainable way, expanding entertainment programme and international visibility is needed.

Source: Statistical Committee of the Republic of Armenia, Central Bank of the Republic of Armenia, Georgian National Tourism Administration, WEF, EBRD calculations
While small in size, Armenia’s software and services industry has been developing rapidly in the recent years.

**ICT industry turnover, in millions USD**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover</th>
<th>Exports</th>
<th>Number of companies</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>321</td>
<td>120</td>
<td>363</td>
<td>9,354</td>
</tr>
<tr>
<td>2015</td>
<td>559</td>
<td>214</td>
<td>450</td>
<td>12,685</td>
</tr>
<tr>
<td>2018</td>
<td>922</td>
<td>334</td>
<td>800</td>
<td>19,552</td>
</tr>
</tbody>
</table>

Key challenges for the sector according to the ICT managers in 2018

- Shortage of highly qualified workforce (73.2%) and problems in attracting it (64.2%)
- Limited access to finance and lack of support from state authorities and non-governmental organizations (57%)
- Tax (34.5%) and customs procedures (20%)
- Gaining entry into world markets (23.2%) due to lack of awareness in regard to Armenia among several international partners or lack of trust in representatives of a country with low or average income levels
- Factors hampering healthy competition (22.1%), customers’ lack of trust for buying products (18.5%) and issues related to confidentiality and data protection (9.6%)

Armenia ranks below the EBRD average on the EBRD Knowledge Economy Index

<table>
<thead>
<tr>
<th>Per cent of graduates from tertiary education, in 2017 (2016 for Latvia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
</tr>
<tr>
<td>3%</td>
</tr>
<tr>
<td>26%</td>
</tr>
<tr>
<td>71%</td>
</tr>
</tbody>
</table>

Shortage of highly qualified workforce is considered to be the main challenge for the ICT sector

- Natural Sciences, Mathematics and Statistics
- Engineering, Manufacturing and Construction
- Other

Source: EIF Foundation, EBRD Knowledge Economy Index, WB EdStats
4. OBSTACLES TO PRIVATE SECTOR DEVELOPMENT

4.3 Constraints in the energy sector undermining its resilience
4.3 Constraints in the energy sector undermining its resilience

Energy sector resilience is constrained by the country’s geographical position and regional geopolitics

More than one third of the power generation depends on imported gas and another third comes from season-dependent hydro sources

Share of total power generation, in 2017

- Nuclear: 31%
- Thermal (gas fired): 39%
- Small hydro: 11%
- Large hydro: 19%
- Solar and Wind: 0%

Armenia does not have proven fossil fuel resources and its energy supply largely depends on imported gas.

- Electricity generation relies on gas fired power generation which satisfies approx. 40% of electricity consumption. The nuclear power plant and large and small hydro produce the rest of the electricity capacity. Contribution of wind and solar photovoltaic (PV) power plants is almost negligible at the moment.
- 77% of the vehicles operate on Compressed Natural Gas (CNG) – which accounts for around two thirds of total transport energy and is second largest driver of energy consumption after heating. This is largely due to the lower cost of this fuel as it is supplied at subsidised prices from Russia and is also subject to lower rates of taxation.

Energy trade is constrained by Armenia’s geopolitical position. Country’s current energy partners are almost exclusively Russia and Iran.

- Armenia imported 2.4 BCM of gas in 2017. 83% of gas was imported from Russia at bilaterally negotiated conditions below international pricing benchmarks subject to annual agreements. The rest was imported from Iran under electricity-for-gas swap agreement.
- Armenia is not connected to the Southern Gas Corridor (SGC) linking Europe with Azerbaijan. Transmission, distribution, storage and sale of the natural gas in the domestic market is performed by Gazprom Armenia. Underground gas storage is used for seasonal and peak demand.
- The current electricity generation assets potentially have space to increase capacity and may be able to offer cheap electricity exports, particularly in summer on the account of hydro power plants (HPPs). However, exports to Turkey and Azerbaijan are not possible and Georgia does not require additional electricity in the summer season. Increasing exports of electricity to Iran requires upgrading the interconnector.

Energy demand pattern is influenced by availability of subsidised gas imports.

- The availability of subsidised import of gas from both partners influences the overall energy market, including the electricity sector as it relies on gas fired power generation. Low energy prices fail to provide incentives for private sector infrastructure investments and improvements to the quality of services.

Source: Armenian 2017 Energy Balance report
### Armenia is prioritizing development of renewable energy resources and energy efficiency solutions to improve its energy security. Solar energy can be competitive with traditional sources of electricity generation thanks to favourable climate conditions and global trend of decreasing costs. Regulatory incentives and capacity building of technical expertise can help to attract private sector investments.

| Small-hydros on the back of favourable regulations from 2001 with PPA and FIT\(^1\) for 20 years |
| Number of small HPPs |
| 1990 | 28 |
| 2018 | 182 |

- On the back of the enabling regulation put in place in 2001, the number of small scale hydro power plants (HPPs) grew more than five-fold since 1990. HPPs supply electricity to the distribution company, Electric Networks of Armenia, under standardized contracts approved by the regulator, PSRC. Current fleet consists of 182 privately-owned HPPs.
- The mandatory 20-year off-take PPA for small HPPs is soon expiring. To maintain and further advance current capacities, new hydropower sector strategy needs to be developed.

| High solar energy potential due to high solar irradiation and altitude |
| MWh, average indicative figures |
| Per capita demand for electricity | Potential solar energy output per square meter |
| 2 | 1.7 |

- Estimates suggest that the potential solar energy output per square meter could provide up to 85% of per capita yearly demand for electricity. Combined with a significant decrease of solar energy costs in recent years, this could benefit the power sector.
- Recent changes to legislation incentivised instalment of solar rooftops, stimulating a substantial growth in demand for this technology in 2018.
- Support mechanisms and capacities for energy efficiency upgrading need to be in place; policy targets that would direct sector growth and investment are not pronounced.

| Competitive costs even compared to partially subsidised traditional electricity generation |
| Price in AMD/MWh |
| Masrik-1 auction | 2016 average wholesale price |
| 20 | 24 |

- Successful auction of the pilot Masrik-1 Solar Power Plant project, concluded in 2018, marked the first instance of attracting private sector participation in renewable energy development through a competitive international auction in the EEC region. R2E2\(^2\), government agency in charge of renewables, targets up to five additional photovoltaic (PV) sites across the country which could be tendered shortly.
- The government would benefit from additional capacity in implementation of these large projects. Good track record would attract even more foreign investments to the sector.

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1) Purchasing Power Agreement (PPA) and Feed in Tariff (FIT); 2) Renewable resources and Energy Efficiency Fund

4.3 Constraints in the energy sector undermining its resilience
Governance and incentive mechanisms need to be improved, including to accommodate for increasing levels of renewable energy generation

The current set up and governance of the energy sector in Armenia is quite advanced. The system is fully unbundled, regulator is independent and share of SOEs in the sector is limited. However, tariffs do not incentivise improvements in the performance of the system nor do they encourage strong investor involvement.

- The power system of Armenia is unbundled. Following the wave of liberalization and privatization in the ‘90s, the share of SOE in the sector is quite low compared to regional and international benchmarks. The main energy SOEs are Electric Power System Operator (EPSO), the Settlement Center and the transmission company (High Voltage Network of Armenia).

- The market is set up as a “single buyer model”. Tariffs are regulated based on rate of return methodology, which can be revised once a year upon request of the company to the independent regulator (PSRC).

- The current tariff methodology could be improved in order to incentivize more efficient performance of the system and to attract private investors where needed. In particular, this includes modifying seasonal tariffs to reflect higher winter costs as well as intra day adjustments to accommodate higher rates of solar penetration. Transparency in tariff decisions and methodologies for their calculations needs to be increased. There is a lack of incentive regulation mechanisms for quality and reliability of supply.

- To improve the governance of the domestic energy sector and its efficiency and resilience, the following principles should be integrated in the energy regulatory framework:
  - Move the focus away from the producers towards the consumers and the quality of energy supply,
  - Ensure stable and predictable cash-flows to facilitate participation of foreign private investors and financial institutions, including by extending the period of tariff methodology revisions,
  - Increase investment to upgrade outdated infrastructure,
  - Ensure transparency of the regulatory regime.

A significant increase in renewable generation will have an impact on the governance of the system and vice versa. All the main functions of the market will need to adapt to technologies which produce electricity in varying amounts throughout the year.

<table>
<thead>
<tr>
<th>DISPATCHING</th>
<th>• Variable energy resource production is expected to increase significantly. Potential for synergies with current small-hydro productions is small.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERATION</td>
<td>• Solar and wind have nearly zero marginal cost while traditional generation is very expensive due to fuel costs.</td>
</tr>
<tr>
<td>TRANSMISSION AND DISTRIBUTION</td>
<td>• Networks and their operations might need to be substantially upgraded to absorb additional variable energy resource.</td>
</tr>
<tr>
<td>END USERS</td>
<td>• End users might become prosumers, i.e. consumers and producers of energy at the same time.</td>
</tr>
</tbody>
</table>

The scale and width of predicted change in the system highlights the need for technical upgrade and capacity building to integrate renewables into a new energy market design.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY
5. Qualities of a sustainable market economy

EBRD’s 2018 Assessment of Transition Qualities (ATQs)

EBRD methodology for measuring transition gaps is based on the following six desirable qualities of a sustainable market economy: competitive, well-governed, green, inclusive, resilient and integrated. Progress on a transition path is measured on a continuous scale of 1 to 10, where 10 is the best possible score and denotes the frontier. The composite indicators at quality level aggregate a wide range of sub-indicators.

* Score for advanced comparator economies is a simple average of scores for Canada, Czech Republic, France, Germany, Japan, Sweden, United Kingdom and United States.

Labour productivity more than tripled compared to two and a half decades ago, but is currently nearly twice lower than the EBRD average. Armenia’s competitiveness is constrained by governance challenges, limitations in domestic and external connectivity and weaknesses in the business environment. Weak institutions and drawbacks in governance standards facilitated vested interests and linkages between businesses and politics which obstructed competition. Transport barriers increase the costs of trade, restrict access to markets and decrease attractiveness for productivity-enhancing foreign investments.

- While it ranks relatively favourably on the Doing Business 2019 overall rank (41st out of 140), Armenia lags behind neighboring Georgia (6th). The overall score is dragged down by drawbacks in dealing with construction permits (98th), resolving insolvency, (95th) and paying taxes (82nd). Low firm entry rates point to remaining difficulties in the business environment.

- Private sector competitiveness has long been constrained by monopolistic and oligopolistic market structures, enabled by institutional weaknesses. There is space to address regulatory and enforcement limitations in the competition area.

- Resources are locked in low-productivity activities. Agriculture remains the largest and least productive sector. Goods export basket is dominated by mining products, exposing the country to price volatility in commodity markets.

- Average applied tariffs is relatively low at 2.2% in 2017 according to the WB. As an EAEU member state, Armenia has a tariff-free access to Russia, its largest trading partner. Armenia’s landlocked location, poor quality of physical infrastructure as well as logistics affects country’s competitiveness on external markets.

- Difficulties in complying with ISO international standards and best practices, likely signalling country’s trade orientation towards EAEU countries, imply constraints to further integration opportunities with other regions, including the EU.

- Services’ contribution to exports rapidly increased in the recent past in particular in tourism and ICT. However, innovation is constrained by the insufficiently developed innovation ecosystem and ICT infrastructure, and shortage of highly skilled labour. Advancing transport infrastructure and connectivity, developing destination sites in a sustainable way and raising international visibility would benefit hospitality sector.

- SMEs face challenges in accessing non-bank financing and suitable business skills and standards. according to the EBRD-developed SME index. Financial literacy and corporate governance standards are poor, potentially limiting the pool of businesses with access to official financing.

- Consistent emigration depletes human capital and reduces potential GDP growth. Labour force shrank by 14.5% in 2008-17 including due to outward migration.

5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Competitive [Score: 4.51 out of 10 | Rank: 24 out of 38]
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Competitive [Score: 4.51 out of 10 | Rank: 24 out of 38], cont’d

Source: EBRD.

Note: Visit https://2018.tr-ebrd.com/reform/ for detailed information on the indicators and sources.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Well-governed [Score: 5.81 out of 10 | Rank: 16 out of 38]

Armenia is in line with the EEC average, but lags behind more developed European countries when it comes to the quality of institutions as measured by the Worldwide Governance Indicators (WGI 2018, data refers to 2017).

Informality remains high, albeit decreasing

In Informal employment as a share of total employment, Armenia ranked 85th out of 140 economies on judicial independence in 2018 (WEF GCI).

In doing Business 2019, Armenia ranked 95th on resolving insolvency. This is its weakest score among all components (WB DB).

With a score of 35 on a scale of 0 (highly corrupt) to 100, Armenia ranked 105th out of 180 countries in 2018 Corruption Perceptions Index (TI).

Many successive governments failed to significantly improve governance and successfully fight entrenched corruption. Their efforts usually ended short of implementation. Recent initiation of high profile corruption cases and personal distancing from corrupt practices of public officials has had a strong demonstration effect. These reform efforts need to advance, including other dimensions like in judiciary which lacks impartiality and independence, and in implementation of corporate governance standards.

- Armenia has undergone a comprehensive review of existing regulations, including a regulatory guillotine which slashed the number of obsolete rules. However, it is missing an unified and strategic approach to public administration reforms and regulatory burden remains heavy and convoluted in some areas. Enhancing skills of civil servants and ensuring insulation from political and business pressures would improve the quality of policy formulation.

- Tax code is overly complex and exhibits frequent changes. Business perceive tax authorities as overly aggressive in their inquiries. At the same time, with tax revenues as a share of GDP among the lowest in the EBRD region, there is a need to further broaden the tax base and increase tax collection compliance.

- The current government has made strong efforts to tackle corruption. Number of high-profile corruption and tax evasion inquiries as well as arrests were made against politically exposed public officials and business representatives. While this has had a strong demonstration effect leading to dramatically decreasing perception of corruption, anti-corruption fight needs to be institutionalised in a way that does not negatively affect regular operations of the private sector.

- The effectiveness of Armenia’s judiciary is undermined by lack of capacity and weak enforcement capabilities. Independence, impartiality, competence and accountability of judges needs to be strengthened.

- Investors are exposed to weak insolvency resolution framework. Efforts to improve the framework need to continue.

- While decreasing, levels of informality remain high.

- Corporate Governance practices in Armenia are weak. The 2010 Corporate Governance Code lacks compliance monitoring and is not widely implemented. EBRD’s 2017 Corporate Governance Assessment assessed the structuring and functioning of Boards as weak, particularly regarding board composition, gender diversity and independence of directors.

- Transparency and disclosure practices are assessed as fair. Companies are required by law to prepare annual reports, disclosing financial and non-financial information. While companies appear to formally comply, disclosure requirements provided by listing rules and recommendations of the Corporate Governance Code are often disregarded. Disclosure of non-financial information is limited.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Well-governed [Score: 5.81 out of 10 | Rank: 16 out of 38], cont’d

Source: EBRD.
Note: Visit https://2018.tr-ebrd.com/reform/ for the list of indicators, data sources and methodological notes.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Green [Score: 5.76 out of 10 | Rank: 17 out of 38]

Armenia’s green economy transition will need to focus on energy efficiency (EE), renewable energy (RE), and climate change adaptation. A combination of policy, legal, regulatory, and institutional reforms have had good results in the energy and environmental sector. Compliance, enforcement and robust structure for implementation remain a challenge. Armenia submitted its Nationally Determined Contributions (NDC) and is an Observer to the Energy Community Treaty.

- EE measures are needed to meet growing energy demand in a sustainable manner. The energy saving target of reducing energy consumption by 3.3% by 2014 under the first National Energy Efficiency Action (NEAP) 2011-2014 was achieved by a large margin. Second proposes 37.6% reduction for 2020. The government should continue to work on the long term energy strategy to ensure that energy policy goals respect and fully reflect the potential of EE and RE to contribute to wider political, economic, social and environmental goals.

- Buildings represent the largest energy end-use sector, accounting for 37.5% of electricity and 25.3% of gas consumption. Energy consumption in residential buildings is expected to be up to 29% of total energy consumption until 2030. The majority of housing stock is comprised of badly insulated and poorly constructed multi-storey apartment buildings. A number of laws, regulations, construction norms and standards were adopted in recent years that introduced some energy performance requirements to newly constructed residential buildings as well as for renovation of public buildings, but implementation remains a challenge.

- Majority of SMEs that undertake energy and resource efficiency measures do not receive technical or financial support according to surveys by the OECD. Less than 5% receive technical assistance from government authorities: this figure is 9-10% among SMEs, but micro-enterprises do not benefit from government support at all.

- Overarching road map to increase RE shares should be adopted. Armenia’s electricity from RE is almost entirely from hydro, with solar and wind remaining largely untapped despite the available potential. The government is finalizing the first solar auction with plans to follow with additional five sites. While RE is envisaged to play a significant role under the Development Strategic Plan 2014-2025, binding targets or detailed action plans have not been adopted.

- Armenia is vulnerable to climate change impacts and ranks 22nd as the top water stressed country in the world by 2040 according to the WRI. Annual mean temperatures are expected to increase by up to 2.0°C by 2030. A strong increase in the duration of heat waves, a reduction in the duration of cold spells and shifts in precipitation patterns are projected to intensify over the next years.

Source: International energy Agency, World Bank WDI
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Green [Score: 5.76 out of 10 | Rank: 17 out of 38], cont’d

Source: EBRD.
Note: Visit https://2018.tr-ebrd.com/reform/ for the list of indicators, data sources and methodological notes.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Inclusive [Score: 5.95 out of 10 | Rank: 18 out of 38]

Substantive inclusion gaps hinder the economic potential of Armenia. Women have unequal access to economic opportunities. Persistent skills mismatches need to be addressed, especially in the light of high youth unemployment fuelling outward migration. Regions outside of Yerevan offer limited employment opportunities as evident from high proportion of self-employment, estimated at 41.9% in 2016, mainly due to own-account workers in the agriculture.

- Women are facing unfavorable conditions on the labor market. Women’s labour force participation is the second lowest in the region at just over 50%, while the male ratio is at 71.3%. Horizontal segregation in education and labour market leads women into less-productive sectors of the economy, including agriculture (65% of female employment), education, health and social work. The rate of female entrepreneurship is slightly lower than the EBRD average with 25% per cent of businesses having female participation in ownership. However, women’s businesses are typically small- and micro-sized, many of them home-based, and in low productivity sectors (tailoring, wellness, hospitality, food processing). Women’s access to economic opportunities is also hindered by limited access to finance and poor childcare services.

- Educational attainment levels in Armenia are rising, but skills mismatch across sectors persists. While tertiary gross enrolment rates (52%) and the share of people with medium-level educational attainment (67.9%) have increased, the share with vocational education training (VET) has decreased from 26.3% in 2012 to 23.6% in 2016. Armenia ranks 55th out of 140 countries in the Skills pillar of WEF’s Global Competitiveness Index 2018. This rank is dragged down by poor performance on the perception of staff training, ease of finding skilled employees and quality of vocational education, pointing to a skills mismatch on the labour market.

- Weak employment opportunities for youth and in regions in combination with persistent skills mismatch across sectors contribute to high youth unemployment (at 38.7% in 2018), high share of youth not in education employment or training, as well as increasing and permanent emigration. Lack of employment is often seen as a key driver and the majority of emigrants are low skilled. In rural areas, about 67% of young people are employed in the informal sector (compared to less than 20% in urban areas). Compared to urban areas, they often lack access to the same range of entrepreneurial advice and information as well as to crucial infrastructure and transport connections, leading to poor access to economic opportunities.

Source: Statistical Committee of the Republic of Armenia, EBRD calculations

Share of unemployed youth and those not in education, employment or training (NEET) is high

Share to working-age population of the same age and sex group, in 2017

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>46%</td>
<td>31%</td>
<td>46%</td>
</tr>
<tr>
<td>NEET</td>
<td>46%</td>
<td>23%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Share of women out of the labour force is significantly higher than men

Share of working age population, in 2017

<table>
<thead>
<tr>
<th></th>
<th>Out of labour force</th>
<th>Unemployed</th>
<th>Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>47%</td>
<td>9%</td>
<td>44%</td>
</tr>
<tr>
<td>Male</td>
<td>29%</td>
<td>13%</td>
<td>58%</td>
</tr>
</tbody>
</table>

14% of women have a bank account (compared to 21% of men) and women spend an average of 4.9 hours per day on unpaid care tasks (men less than 1).

Gap between male and female average monthly wage has been decreased significantly, from 42% in 2008 to 32% in 2017, but remains high.

Population is concentrated in the capital. According to the official statistics, Yerevan makes 36.4% of total and 57% of total urban population (Armstat).
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Inclusive [Score: 5.95 out of 10 | Rank: 18 out of 38], cont’d

Source: EBRD.
Note: Visit https://2018.tr-ebrd.com/reform/ for the list of indicators, data sources and methodological notes.
Recent strengthening of the banking supervision, including through recapitalisation and consolidation, increased country’s financial resilience though vulnerabilities remain. Heavy reliance on imported gas from undiversified sources limits Armenia’s energy resilience.

- Banking sector has stabilised, following recapitalisation and consolidation. Increased capital requirements announced in 2014 and effective from 2017 strengthened sector capitalisation and led to four mergers since 2015. Sector remains relatively fragmented with 17 banks, about half with foreign ownership. Further consolidation may be needed to improve efficiency and profitability.

- Vulnerabilities remain, including due to highly dollarised balance sheets which expose banks to potential FX-related credit and liquidity risks. While dollarisation is decreasing, it remains one of the highest in the CIS region. CBA has adopted a number of measures to mitigate risks from dollarisation.

- NPLs stabilised although asset quality is susceptible to FX-related risks and rapid consumer loan growth. Sector NPLs, which peaked in 2016 in the aftermath of the 2014 economic slowdown, gradually decreased to 5.5% as of July 2019. Recent strong pick-up in credit activity may put pressure on asset quality.


- Non-bank sector is small but growing. The pension reform from 2018 onwards is expected to support development of capital markets.

- Total primary energy supply is dominated by natural gas, accounting for approximately 60%, and nuclear, standing at 20% of total energy supply. Large and small hydro produce the rest of the energy supply. 77% of the vehicles operate on Compressed Natural Gas (CNG).

- With energy trade severely limited by Armenia’s geopolitical position, country is dependant on gas imports from Russia and Iran.

- The availability of subsidised import of gas from Russia and Iran influences the overall energy market.

- There is space to improve regulatory incentive mechanisms in the energy sector and bring them up to best international standards.

At 55% of GDP in 2018, credit penetration is the 2nd highest in the EEC region after Georgia but significantly behind more developed peers (CBA).

Loan dollarization stood at 53% (with corporate loans at 77% and loans to households at 23%), and deposit dollarization at 59% as of July 2019 (CBA).

In 2017, 83% of gas was originated from Russia and the rest was imported from Iran (Ministry of Economy).
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Resilient [Score: 6.08 out of 10 | Rank: 15 out of 38], cont’d

Source: EBRD.
Note: Visit https://2018.t-rebrd.com/reform/ for the list of indicators, data sources and methodological notes.
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Integrated [Score: 5.98 out of 10 | Rank: 19 out of 38]

FDI stock per capita is very low

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI stock per capita, Thousand USD per capita, in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moldova</td>
<td>1.0</td>
</tr>
<tr>
<td>Armenia</td>
<td>1.9</td>
</tr>
<tr>
<td>Albania</td>
<td>2.7</td>
</tr>
<tr>
<td>North Macedonia</td>
<td>2.9</td>
</tr>
<tr>
<td>Georgia</td>
<td>4.5</td>
</tr>
<tr>
<td>Latvia</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Overall quality of infrastructure is ranked 74th on WEF’s Global Competitiveness Index

<table>
<thead>
<tr>
<th>Quality of Infrastructure</th>
<th>Rank out of 140, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrification rate</td>
<td>1</td>
</tr>
<tr>
<td>Railroad density</td>
<td>34</td>
</tr>
<tr>
<td>Overall infrastructure</td>
<td>74</td>
</tr>
<tr>
<td>Efficiency of train services</td>
<td>76</td>
</tr>
<tr>
<td>Efficiency of air transport services</td>
<td>78</td>
</tr>
<tr>
<td>Electric power losses</td>
<td>82</td>
</tr>
<tr>
<td>Quality of roads</td>
<td>85</td>
</tr>
<tr>
<td>Airport connectivity</td>
<td>93</td>
</tr>
<tr>
<td>Road connectivity index</td>
<td>112</td>
</tr>
<tr>
<td>Efficiency of seaport services</td>
<td>119</td>
</tr>
</tbody>
</table>

Internal and external integration is constrained by the lack of and poor quality of existing infrastructure. Due to its dependence on Georgia for access to the largest external markets, Armenia faces a bottleneck fully outside of its control. Inflow of foreign investments has been on a downward trend for the last decade and is far below the level of neighbouring Georgia. Delays in opening the country’s new and one of the largest gold mines since 2018 weighs on investor confidence.

- Exports and imports of goods and services as a share of GDP have risen steadily over the last few years, but remain the lowest in the EEC region and below the EBRD average. The number of non-tariff measures and the binding overhang ratio (which measures the predictability of tariffs) are low compared to the EBRD average. The country currently participates in only 9 regional trade agreements, EAEU being one of them (EBRD average: 18, OECD average: 31).

- Armenia’s openness to FDI flows (2.7% of GDP on average over the last 5 years) is below the regional (4.7%) and EBRD countries’ averages (4.3%). The size of the net FDI inflows to Armenia has been decreasing since 2008 and is significantly lower than in neighbouring Georgia. FDI stock is low. The country is part of 40 bilateral investment agreements, almost 3 times less than the OECD countries on average.

- Armenia is facing bottlenecks to economic growth in terms of quality of infrastructure. Quality and connectivity of air transport, roads, railways as well as access to ports is low. Further development of air links and road network is crucial to support growth of the tourism sector. Municipal infrastructure, water and waste water systems, and solid waste sector needs improvements.

- Execution of the existing and initiation of new infrastructure projects are affected by the limited fiscal headroom and capacity of the public administration.

- The logistics competence (e.g. transport operators, custom brokers), the ability to track and trace consignments and the timeliness of shipments are assessed low but on a similar level to other EEC countries. The cost of trading across borders (measured as the time and cost associated with the logistical process of exporting and importing goods) is below the EEC and EBRD average, but far above that of more developed countries.

- Around 67% of the population are internet users (compared to 66.3% in EEC, 62.5% in the EBRD countries and 86.9% in the OECD countries).

Source: UNCTAD, WEF GCI
5. QUALITIES OF A SUSTAINABLE MARKET ECONOMY

Integrated [Score: 5.98 out of 10 | Rank: 19 out of 38], cont’d

Source: EBRD.

Note: Visit https://2018.tr-ebrd.com/reform/ for the list of indicators, data sources and methodological notes.