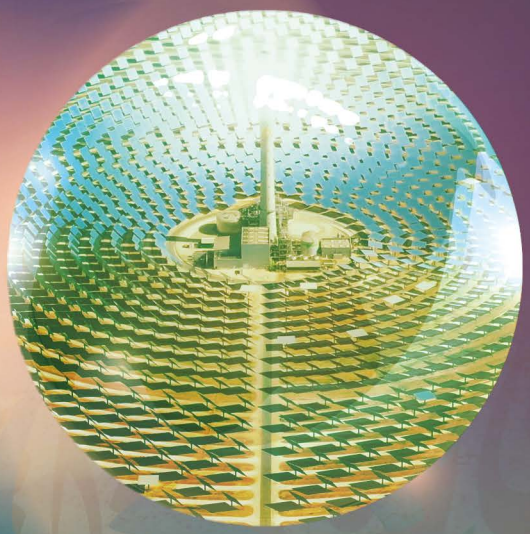

IsDB GROUP
INTEGRATION REPORT
FOR ARAB COUNTRIES
2023


Superdrug

CONTENTS

FIGURES AND TABLES



FOREWORD

The world needs multilateral cooperation more than ever to tackle today's developmental challenges. Not only structural issues such as climate vulnerability, affordable energy, and poverty but also emerging ones due to various ongoing political conflicts, affect the Islamic Development Bank (IsDB) member countries through various channels including trade, investments and tightening financial conditions. The role of international organizations such as IsDB is becoming more important and necessary in such an environment characterized by uncertainty and unpredictability.

IsDB's Articles of Agreement emphasizes the objective of achieving greater economic integration among its member countries. Accordingly, the Bank has been advocating for regional cooperation and integration (RCI) as an effective tool to support the socioeconomic development agenda of its member countries since its inception. This vision is enshrined in the Bank's RCI Policy which is built on four pillars: (i) enhancing cross-border connectivity, (ii) improving investment climate and competitiveness, (iii) mainstreaming trade and Islamic Finance, and (iv) facilitating cooperation to provide regional public goods. In line with IsDB's Updated Strategy for 2023-2025, the implementation of the RCI Policy directly contributes to achieving the Bank's three strategic objectives: (i) boosting recovery from COVID-19, (ii) tackling poverty and building resilience, and (iii) driving green economic growth.

Considering the central role of regional integration in fulfilling the Bank's noble mission, we developed the "IsDB Integration Index" to measure the level of economic integration among IsDB member countries. Based on the index results, the first "IsDB Group Integration Report" was prepared and launched in November 2022. The IsDB Group Integration Report for Arab Countries is a spin-off from the first report based on a similar methodology, with a focus on the Arab region. The Bank decided to take a deeper look into this region because its RCI experience offers numerous lessons to other IsDB regions in terms of achievements and challenges. The Arab region has a large untapped potential in terms of deepening the integration within itself and beyond. Therefore, a careful analysis of the success factors and bottlenecks of economic integration in the Arab region is key to develop the right incentives for utilizing RCI as a mean to realize the region's developmental aspirations.

This report is an important insight into the interplay between different drivers of regional integration as it highlights their interactive complexity in moving forward with a shared RCI agenda in the Arab region.

This report is an important insight into the interplay between different drivers of regional integration as it highlights their interactive complexity in moving forward with a shared RCI agenda in the Arab region. I am confident that the findings presented hereafter will be of significant benefit to policymakers from the Arab region as well as other regions to draw lessons from each other's experiences.

Dr. Muhammad Al Jasser
Chairman
Islamic Development Bank Group

"IsDB has always been at the forefront of supporting regional integration among its member countries in the Arab region since their development challenges require a common agenda that can only be implemented through multilateral efforts. This was valid in the context of the COVID-19 crisis, and it is still very relevant in the cases of climate change, food security as well as the implementation of sustainable development goals. This new IsDB Group Integration Report for Arab Countries is an important tool to guide the Bank's operations to support the deepening of economic integration in the region."

Dr. Mansur Muhtar
Vice President (Operations), IsDB

"The IsDB Group Integration Report for Arab Countries highlights the extent of economic integration in the Arab world across different dimensions, including trade and investments, financial markets, connectivity and logistics, among others. This knowledge product is a good example of productive synergy to support evidence-based decision-making within the IsDB Group. The IsDB Institute remains committed to continuing this Group-level exercise and expanding it to other regions to generate customized policy recommendations."

Dr. Sami Al-Suwailem
Acting Director General, IsDB Institute & Chief Economist

"ICIEC, the guarantee-arm of the IsDB Group is firmly committed to actively contributing to the COMCEC targets toward achieving 25% intra-OIC trade by 2025. ICIEC unique value proposition can help fostering the intra-regional Arab Countries integration through the provision of risk mitigation tools to promote intra-trade and investments. Since inception, ICIEC supported close to USD 23.9 billion intra-Arab trade and investment flows. ICIEC contributes to the Arab-regional integration through credit and political risk insurance solutions that are offered to investors, financing institutions, contractors and exporters."

Oussama Abdul Rahman Kaissi
CEO, Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC)

"Global competition has become more intense, with economic progress in the developing world being uneven. On this front, regional integration is necessary to improve the welfare of Arab countries and promote inclusive growth. Tapping into the significant potential of economic integration will benefit Arab countries due to efficiency gains from growth spillovers, larger markets and production scale economies."

Eng. Hani Salem Sonbol
Acting CEO, Islamic Corporation for the Development of the Private Sector (ICD)

"Economic cooperation and integration among the member countries is one of the ITFC's strategic pillars and fostering intra-OIC trade is a vital component of this integration. In this context, ITFC is concentrating on Trade Integrated Solutions, which include initiatives for capacity-building and trade financing, to create greater integration. The ITFC has launched in October 2021, on behalf of the IsDB Group, the 2nd Phase of Aid for Trade Initiative for the Arab States Program (AfTIAS 2.0), which is a five-year program aiming to enhance the environment of international trade in the Arab region and to provide avenues for more regional integration. The IsDB Group's Integration Report for Arab Countries will help ITFC develop operational plans that have a particular emphasis on improving integration in Arab member countries."

Eng. Hani Salem Sonbol
CEO, International Islamic Trade Finance Corporation (ITFC)

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AMU	Arab Maghreb Union
ARCII	Asia-Pacific Regional Cooperation and Integration Index
ARII	Africa Regional Integration Index
CCD	Cooperation and Capacity Development
ERS	Economic Research and Statistics
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GAFTA	Greater Arab Free Trade Area
GCC	Gulf Cooperation Council
ICD	Islamic Corporation for the Development of the Private Sector
ICIEC	Islamic Corporation for the Insurance of Investment and Export Credit
IMF	International Monetary Fund
IsDB	Islamic Development Bank
IsDBI	Islamic Development Bank Institute
ITFC	International Islamic Trade Finance Corporation
MC	Member Country
OECD	Organisation for Economic Co-operation and Development
OIC	Organisation of Islamic Cooperation
PCA	Principal Component Analysis
RCI	Regional Cooperation and Integration
RTA	Regional Trade Agreement
SME	Small and Medium-Sized Enterprises
TPS-OIC	Trade Preferential System among the Member States of the OIC
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

ACKNOWLEDGEMENTS

This report is a joint effort of staff from various units of the Islamic Development Bank (IsDB) Group. It was prepared by a core team from the Economic Research and Statistics (ERS) Division in the Islamic Development Bank Institute (IsDBI), and the Cooperation and Capacity Development (CCD) Department in IsDB under the guidance of Areef Suleman (Director, ERS) and Riad Ragueb (Director, CCD).

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The report was produced under the strategic direction of Mansur Muhtar (Vice President, Operations), Sami Al-Suwailem (Acting Director General, IsDBI / Chief Economist), Amer Bukvic (Acting Director General, Global Practice and Partnerships), and Anasse Aissami (Director General, Country Programs).

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In preparing this report, the team is most grateful for the generous collaboration of the Asian Development Bank's (ADB) Regional Cooperation and Integration research team led by Cyn-Young Park (Director, RCI Division at ADB). Special thanks go to the ADB team, consisting of Rolando Avendano, Mara Claire C. Tayag, Maria Criselda L. Aherrera, and Mahinthan J. Mariasingham for their valuable contributions.

EXECUTIVE SUMMARY

As stated in the Islamic Development Bank's (IsDB) Articles of Agreement, IsDB member countries (MCs) share the goal of attaining greater economic integration among themselves. To measure the level and progress of economic integration among IsDB MCs in a comprehensive way, the IsDB Group developed a statistical index in 2022.[1] The novel IsDB Integration Index consists of 22 indicators that are grouped under five dimensions: (i) trade and investment integration; (ii) financial markets integration; (iii) production networks; (iv) connectivity and logistics; and (v) human mobility and institutional integration.

Based on the index results, the first "IsDB Group Integration Report" was finalized and launched in 2022. The "IsDB Group Integration Report for Arab Region" is the second publication arising from the integration index methodology. For purposes of this report, the Arab region refers to 21 countries of the League of Arab States: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen. Somalia is currently excluded because of insufficient data.

The index results reveal that the level of overall intra-Arab integration was steady from 2010 to 2022. But the structure of the integration index by dimension has changed considerably during the same period. Some dimensions improved (financial markets integration), while others deteriorated (connectivity and logistics and human mobility and institutional integration). In 2010, the weakest dimension was financial markets integration. By 2021, it was already the largest driver of integration. On the contrary, the human mobility and institutional integration dimension, which was the strongest dimension in 2010, has gradually declined until 2021.

It is worth noting that financial markets integration is the weakest dimension of economic integration for all IsDB MCs across Africa, Asia, Europe and South America.[2] This suggests that there is a strong potential for peer learning and sharing of best practices among IsDB MCs. The rest of the IsDB MCs can rely on the individual and collective experiences of Arab countries, especially the Gulf Cooperation Council (GCC) group, on financial integration with other IsDB regions, such as Central Asia and Sub-Saharan Africa. IsDB possesses a key role in facilitating the exchange of such practice through its Reverse Linkage Mechanism.

The index results also suggest that there is a need to improve the effectiveness and capacity of intergovernmental institutions in the Arab region in supporting regional integration. Strong institutional integration is instrumental in maintaining a consistent path towards deeper integration based on harmonized rules and regulations, maximizing intended gains.

The overall index scores vary largely across different subregional groups, causing an asymmetry and unbalanced economic integration profile in the regional level. The oil exporters group has a higher intra-Arab integration score compared to the non-oil exporters group. Meanwhile, among different subregional groups, the overall performance of the GCC group is the highest due to its relative success in terms of financial markets integration.

It is important to mention that the IsDB Integration Index measures the level of economic integration on a relative basis. As a limitation, it does not capture the integration of IsDB MCs with the whole global economy. To complement the index findings from a global perspective, supplementary analysis was done, which showed that IsDB MCs in the Arab region enhanced their integration with the global economy during the last decade. This indicates that the economies of IsDB MCs in the region integrated more strongly with the rest of the world than among themselves.

According to the index results, trade and investment integration is a major area where the IsDB Group can support the economic integration agenda of the Arab region in many ways. The IsDB Group can support the effective implementation of the Greater Arab Free Trade Area (GAFTA) as well as the formulation and operationalization of an enhanced pan-Arab investment agreement to deepen intra-Arab integration. Beyond that, the full implementation of the Trade Preferential System among the Member States of the Organisation of Islamic Cooperation (TPS-OIC) and its possible extension with environmental provisions may play a transformative role in connecting the Arab region to other IsDB regions to maximize benefits from trade in a climate-friendly way.

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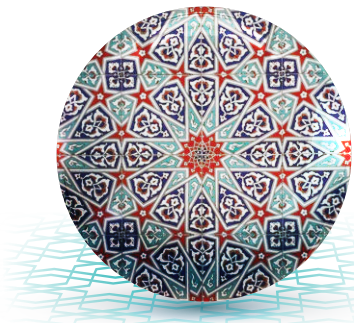
[1] IsDB Group comprises five entities: the Islamic Development Bank (IsDB), the Islamic Development Bank Institute (IsDBI), the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), the Islamic Corporation for the Development of the Private Sector (ICD), and the International Islamic Trade Finance Corporation (ITFC).

[2] The index results for all IsDB regions are available in the "IsDB Group Integration Report 2022" at the following link: **https://www.isdb.org/publications/isdb-group-integration-report-2022**

INTRODUCTION



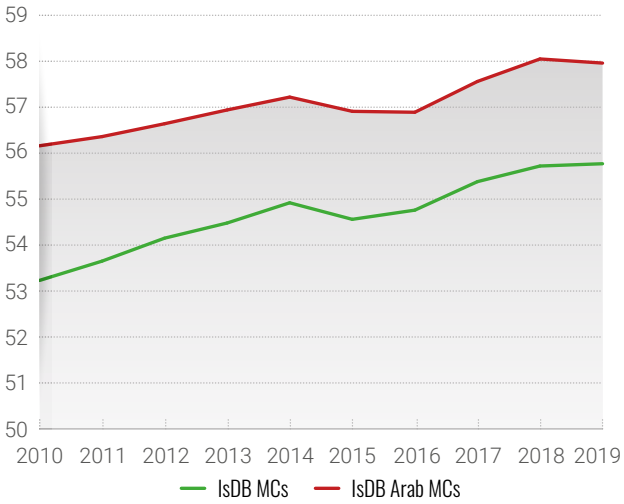
The Islamic Development Bank (IsDB) Group works to strengthen regional integration as a tool to boost trade and investments, promote growth, and improve livelihoods based on the principles of solidarity and mutual benefits. To achieve these objectives in line with the Updated IsDB Strategy (2023-2025) and its Regional Cooperation and Integration (RCI) Policy, the IsDB Group tracks progress toward greater economic integration among its member countries (MCs) on a global and regional basis.

There is a growing recognition that RCI offers a practical framework for addressing emerging transnational challenges such as food insecurity, energy shortages, public health, and climate change because it helps countries reach a critical mass to deal with their common problems. Moreover, in the post-COVID-19 era, geographical proximity plays an increasing role in shaping global trade and investment flows, as production fragmentation becomes more concentrated among nearby trading partners, reinforcing the role of RCI in sustaining socioeconomic development.

In line with the global trends in leveraging RCI, the Arab region (henceforth "the region") is actively working on a common agenda to integrate, more closely synchronizing the economies of the region.[3] The region has embarked on several regional integration initiatives since the 1940s in the aftermath of World War II. The most comprehensive RCI initiative in the region in terms of coverage of countries is the League of Arab States which aims to strengthen integration among its member states through coordination and cooperation.

Available data shows that the world economy has become more integrated in recent decades. Accordingly, IsDB MCs have made significant progress in integrating their economies with the global economy. The average score of IsDB MCs in the KOF Globalization Index has increased during the last decade. A similar trend is observed for IsDB MCs in the Arab region, with higher scores compared to the IsDB average (Figure 1).[4]

FIGURE 1 KOF GLOBALIZATION INDEX
(IsDB MCs and IsDB ARAB MCs AVERAGES)



Note: The latest available data is as of 2019.
Source: KOF Globalization Index Database.

While it is generally held that the level of integration among IsDB MCs has risen over time, there has not been a fully nuanced and structured analysis of the same. To close this analytical gap, the IsDB Group developed an integration index to measure the level and progress of economic integration among IsDB MCs. The first IsDB Group Integration Report was prepared and launched in 2022, encompassing the results.[5] The report indicated that the strongest driver of economic integration among IsDB MCs is "production networks," implying a major role played by inter-industry linkages. Financial integration is identified to be the most critical integration bottleneck; thus demanding the heaviest attention moving forward.

The IsDB Group Integration Report for Arab Countries is the second publication featuring the IsDB Integration Index. It pays close attention to the Arab region and aims to develop customized and operational recommendations for the region. For future editions of the report, IsDB plans to focus on different regional groupings to compare RCI trends in different regions.

[3] For purposes of this report, the Arab region refers to 21 countries of the League of Arab States: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates (U.A.E.) and Yemen. Somalia is currently excluded because of insufficient data.

[4] The KOF Globalization Index measures the economic, social, and political dimensions of globalization. The overall KOF index is calculated as the average of the "de facto" and the "de jure" globalization Index. De facto globalization measures actual flows and activities while de jure globalization is related to the policies and institutions that enable global flows and activities. Further information on the KOF Globalization Index is available at: https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html.

[5] The full report is accessible through https://www.isdb.org/publications/isdb-group-integration-report-2022.

REGIONAL ECONOMIC INTEGRATION TRENDS

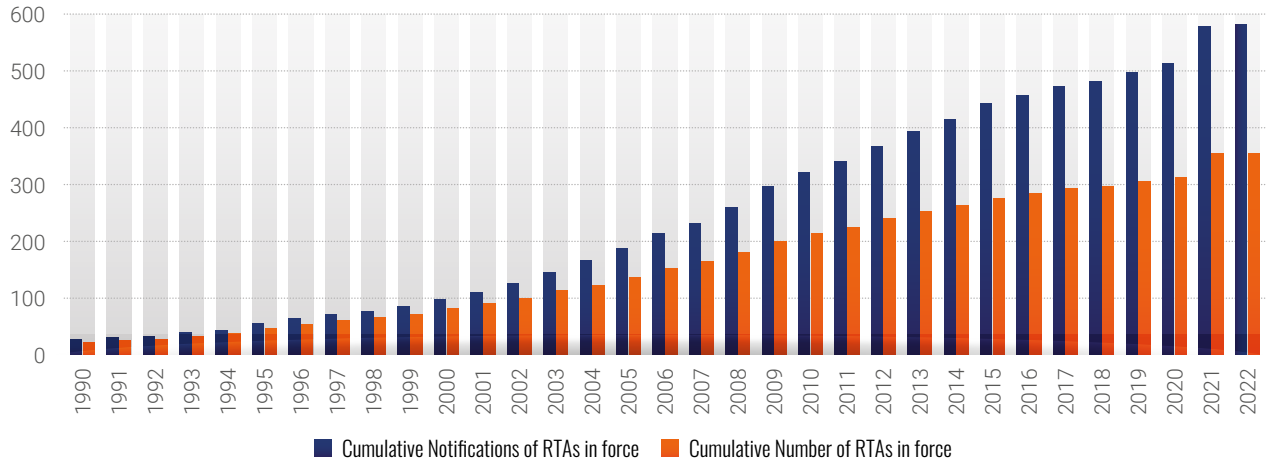
Over the last three decades, many economies have moved toward greater economic integration. This was fueled by the search for appropriate conditions and institutional contexts within which goods, services, capital, data, and people can circulate more freely and contribute to higher growth. Parallel to global integration trends, RCI has been taking various forms, including cooperation in building large-scale infrastructure, the design of regional socioeconomic policies, and cooperation in stabilizing financial markets.[6] Trade, one of the main drivers of RCI, has also been assembled by countries to foster greater integration. The number of regional trade agreements (RTAs) increased globally by more than 16 times from 1990 to 2022 (Figure 2).

The proliferation of RTAs has triggered an increasing interest in measuring the level of regional integration to better understand the role of economic complementarities, institutional arrangements, and geographical proximity in driving cross-border trade and investments. In addition, existing differences across economic groupings attracted the attention of researchers to make worldwide comparisons (Figure 3).

Similar initiatives on tracking progress on regional integration have been initiated by regional development institutions. For example, the Asian Development Bank (ADB) has developed the Asia-Pacific Regional Cooperation and Integration Index (ARCII), a composite index providing a multidimensional measure of regional integration covering trade and investment, money and finance, regional value chains, infrastructure and connectivity, free movement of people, institutional and social integration, technology and digital connectivity, and environmental cooperation. The index allows tracking progress on a set of dimensions, identifying strengths and weaknesses at the regional, subregional, and national levels.

Over the last three decades, many economies have moved toward greater economic integration. This was fueled by the search for appropriate conditions and institutional contexts within which goods, services, capital, data, and people can circulate more freely and contribute to higher growth.

FIGURE 2 NUMBER OF RTAs IN FORCE (1990 - 2022)



RTA = regional trade agreement
Source: World Trade Organization RTAs Database **(https://rtais.wto.org/UI/charts.aspx)** accessed on 28 December 2022.

[6] De Lombaerde, P. and Acosta, E. J. S. (2017). *Indicator-based Monitoring of Regional Economic Integration*. Springer.

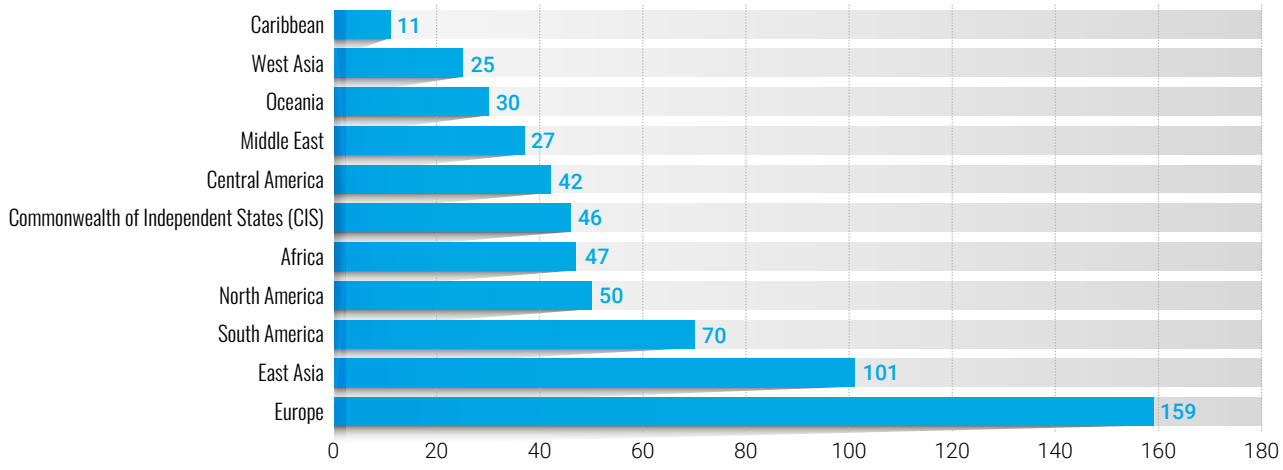
Similarly, the African Union Commission, United Nations Economic Commission for Africa, and the African Development Bank have jointly initiated the Africa Regional Integration Index (ARII) platform, which provides users access to ARII scores and rankings, the underlying data used to compute these scores, and a vast array of related information. The ARII covers various dimensions of regional integration: trade, production networks, macroeconomy, infrastructure, and free movement of people.

Since its inception, IsDB has also been tracking the progress toward economic integration among its MCs, as it considers RCI to be an effective approach in connecting the MCs to global markets and production systems while generating investment and employment opportunities in a harmonious way. Prior to the development of the IsDB Integration Index, IsDB's statistical measurement approach was based on available trade and investment data. As the IsDB Group recognizes the multifaceted nature of economic integration, it is imperative to further include indicators on the free movement of people, financial integration, production linkages, institutional integration, and connectivity and logistics.

Comprehensively measuring the level of economic integration among IsDB MCs has many expected benefits for a large global audience, extending beyond the IsDB Group. It is relevant to regional cooperation organizations, governments of MCs, the private sector, the research community, and the public at large. Most importantly, analyzing several dimensions of intra-MC integration helps unpack the underlying drivers and bottlenecks of economic integration to guide policymaking and identify areas of improvement. Conducting a study on economic integration across various regions and subregions allows meaningful comparisons, which provide critical inputs to facilitate peer learning and sharing of best practices among IsDB MCs through South-South Cooperation.

Since its inception, IsDB has been tracking the progress toward economic integration among its MCs, as it considers RCI to be an effective approach in connecting the MCs to global markets and production systems while generating investment and employment opportunities in a harmonious way.

FIGURE 3 REGIONAL BREAKDOWN OF RTAs IN FORCE



RTA = regional trade agreement
Source: World Trade Organization RTAs Database **(https://rtais.wto.org/UI/charts.aspx)** accessed on 28 December 2022.

MEASURING REGIONAL INTEGRATION

In developing composite indices of economic integration, principal component analysis (PCA) is a widely used statistical technique that objectively determines the weights of each criterion.[7] The PCA technique accounts for the highest possible variation in the indicator set using the smallest possible number of factors. It groups individual indicators that are collinear to form a composite indicator capturing the information common to individual indicators.[8] This ensures the most optimal use of existing data based on its correlation structure.

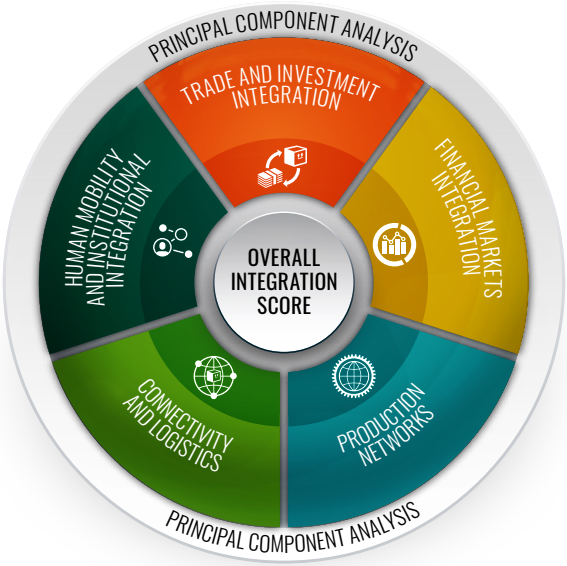
The PCA technique reduces the multidimensionality of data by transforming the original dataset to a new set of variables called principal components. These components reflect both common and unique variances of the variables, with the last few components identifying directions in which there is negligible variation (a near linear relationship) with the original variables. Thus, PCA allows one to detect and recognize groups of interrelated variables. The technique was first introduced in 1901 by Karl Pearson and subsequently modified three decades later by Harold Hotelling.[9]

In composite indices, the selection of a weighting procedure and the assignment of weights to variables directly affect the results. The selection of an appropriate weighting procedure is fundamental to the successful construction of a composite indicator. In order not to introduce bias to the index results, it is recommended to avoid a priori weighting procedures.[10] Therefore, in designing a composite index, PCA is considered as a viable technique to determine the weights of indicators in an objective way. In addition to objectivity, its straightforward application allows the PCA to be applied in many kinds of indices, including those related to measuring welfare, socioeconomic development, and regional integration.

Following similar regional integration index initiatives, the IsDB Integration Index follows a two-step PCA method as a weighting procedure. The estimates are produced by applying the first PCA to each dimension and then a second PCA for the overall index. The first PCA assigns weights to individual indicators within each dimension, and the second PCA generates the weights for the dimensions of the composite index. After running the PCA in two steps, the results are refined using a Spatial Autoregressive Model to account for spatial dependence.[11]

The IsDB Integration Index is structured around five dimensions, namely: (i) trade and investment integration; (ii) financial markets integration; (iii) production networks; (iv) connectivity and logistics; and (v) human mobility and institutional integration. Table 1 lists a total of 22 indicators factored into these dimensions to produce the IsDB Integration Index. The index scores range from 0 to 1, where higher scores indicate higher levels of regional integration. An individual country's index score represents the level of its integration to the rest of IsDB MCs in the Arab region in this report.

ECONOMIC INTEGRATION DIMENSIONS



For purposes of this report, the Arab region refers to 21 countries of the League of Arab States: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates (U.A.E.) and Yemen. Somalia is currently excluded because of insufficient data.

For comparative results across different subregions, the report follows the classification presented in Table 2. The score of an individual subregion is calculated as the simple average of all countries covered under the subject group. Similarly, the overall intra-Arab integration score is calculated as the simple average of all individual IsDB MC scores in the whole region. The scores are also reported on a dimensional basis to analyze the drivers and bottlenecks of regional economic integration.

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[7] A composite index is a statistical tool that compiles a set of individual indicators into a single index based on the underlying multi-dimensional model.

[8] OECD and EC-JRC. (2008). *Handbook on Constructing Composite Indicators: Methodology and User Guide.* OECD Publishing.

[9] Salkind, N. J. (Ed.). (2010). *Encyclopedia of Research Design* (Vol. 1). Sage.

[10] König, J. (2015). *The EU Index of Integration Effort.* UNU-CRIS Working Papers.

[11] Please see the appendix for details on the methodology and data sources.

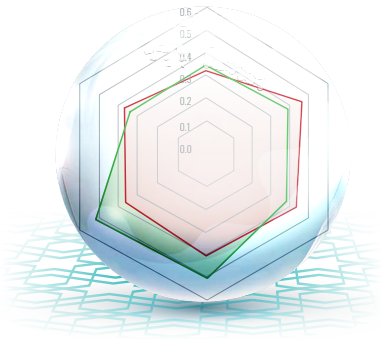


TABLE 1 LIST OF DIMENSIONAL INDICATORS

DIMENSION	INDICATOR CODE	INDICATOR NAME
I. TRADE AND INVESTMENT INTEGRATION	I-a	Ratio of intra-Arab exports to total exports
	I-b	Ratio of intra-Arab imports to total imports
	I-c	Ratio of intra-Arab international trade to total international trade
	I-d	Ratio of intra-Arab FDI inflows to total FDI inflows
	1-e	Ratio of intra-Arab FDI outflows to total FDI outflows
II. FINANCIAL MARKETS INTEGRATION	II-a	Ratio of intra-Arab cross-border equity liabilities to total cross-border equity liabilities
	II-b	Ratio of intra-Arab cross-border bond liabilities to total cross-border bond liabilities
	II-c	Financial institutions depth index
	II-d	Financial markets depth index
III. PRODUCTION NETWORKS	III-a	Average trade complementarity index over Arab trading partners
	III-b	Average trade concentration index over Arab trading partners
	III-c	Ratio of intra-Arab intermediate goods exports to total intra-Arab goods exports
	III-d	Ratio of intra-Arab intermediate goods imports to total intra-Arab goods imports
IV. CONNECTIVITY AND LOGISTICS	IV-a	Average trade cost over Arab trading partners
	IV-b	Average liner shipping connectivity index over Arab trading partners
	IV-c	Logistics performance index
	IV-d	Fixed broadband subscriptions (per 100 people)
V. HUMAN MOBILITY AND INSTITUTIONAL INTEGRATION	V-a	Share of other IsDB Arab MCs that do not require an entry visa
	V-b	Ratio of intra-Arab migrant stock to total migrant stock
	V-c	Share of other IsDB Arab MCs that have an embassy
	V-d	Share of other IsDB Arab MCs that have signed FTAs
	V-e	Share of other IsDB Arab MCs that have signed business investment treaties

TABLE 2 SUBREGIONAL GROUPS

GULF COOPERATION COUNCIL (GCC) GROUP	ARAB MAGHREB UNION (AMU) GROUP	NON-GCC EASTERN GROUP	NOT COVERED IN THE REPORT DUE TO DATA UNAVAILABILITY
Bahrain	Algeria	Comoros	Somalia
Kuwait	Libya	Djibouti	
Oman	Mauritania	Egypt	
Qatar	Morocco	Iraq	
Saudi Arabia	Tunisia	Jordan	
U.A.E.		Lebanon	
		Palestine	
		Sudan	
		Syria	
		Yemen	

PART A:
ANALYSIS OF INDEX RESULTS

INTRA-ARAB INTEGRATION TRENDS

The IsDB Integration Index results reveal that the overall level of intra-Arab integration has not changed substantially between 2010 and 2022 (Figure 4). However, there are notable changes in the five dimensions of the index over time. Some dimensions show upward trends, while some of them are on downward trends, generally offsetting one another in the overall index. This led to relatively steady overall integration scores from 2010 to 2022.

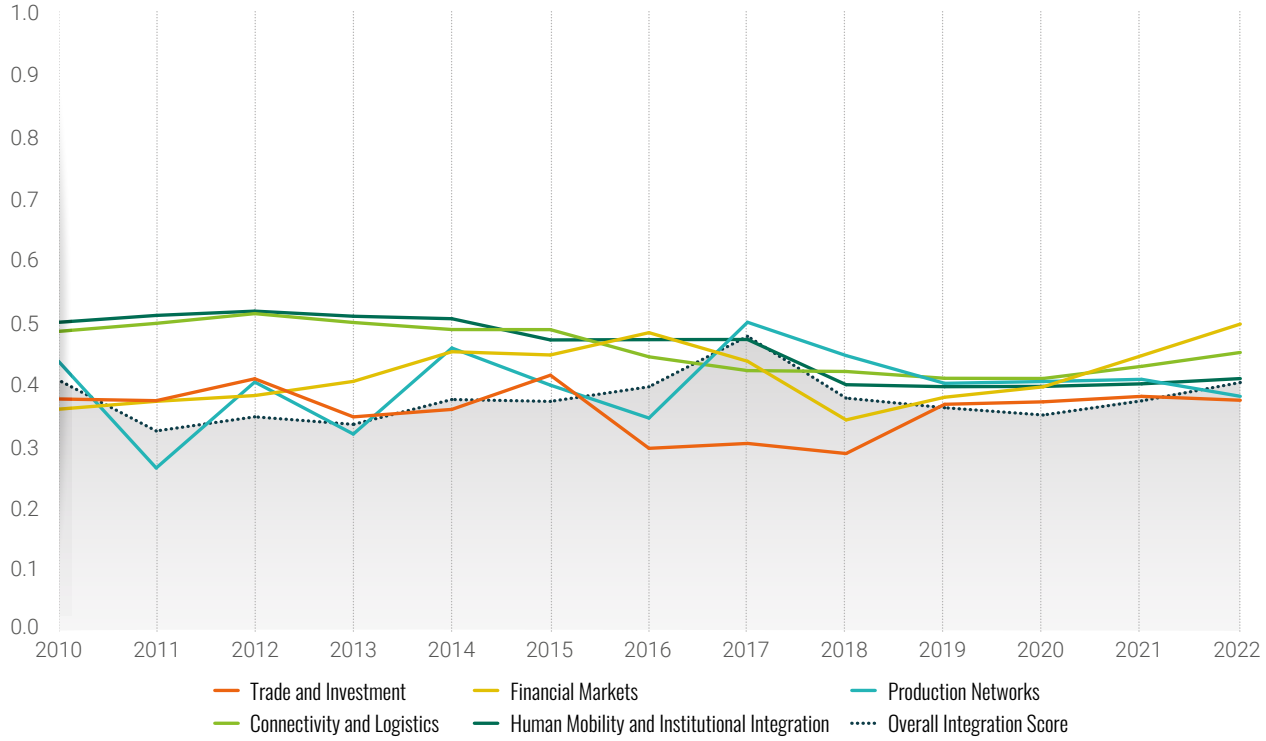
There is a significant upward trend in financial markets integration from 2010 to 2022. In 2010, financial markets integration was the weakest dimension of intra-Arab integration. However, its dimensional score has increased gradually over the succeeding years, becoming the largest driver of integration in 2021. This may be a sign of maturing financial markets and reasonably well-integrated banking systems in the region, possibly aided by increasing digitalization and use of new technologies. The two main factors contributing to the enhanced financial integration in the Arab region were deepening financial markets and intraregional portfolio investment flows due to lower risks and higher expected returns compared to global financial markets.

While financial markets integration is primarily contributing positively to the overall results in recent years, consistency will be needed to reinforce its role as the primary force of deeper economic integration among IsDB MCs in the Arab region. This is especially relevant in the current global context where expected rising returns from cross-border equity and debt portfolio investments in developed countries may divert some portfolio investments to non-Arab countries in the near term.

In a similar vein, the production networks dimension has been supporting intra-Arab integration, especially from 2017 to 2021, making the largest contribution to the overall score in 2017. This suggests a positive shift in the structure of intra-Arab trade through backward and forward industry linkages. Nevertheless, production networks scores exhibit the largest volatility among the five dimensions of the index, indicating fragile and non-institutionalized linkages across industries in the region. This may also be partly explained by limited trade complementarity especially within subregional groups in the region.

The IsDB Integration Index results reveal that the overall level of intra-Arab integration has not changed substantially between 2010 and 2022.

FIGURE 4 INTRA-ARAB INTEGRATION TRENDS (2010-2022)



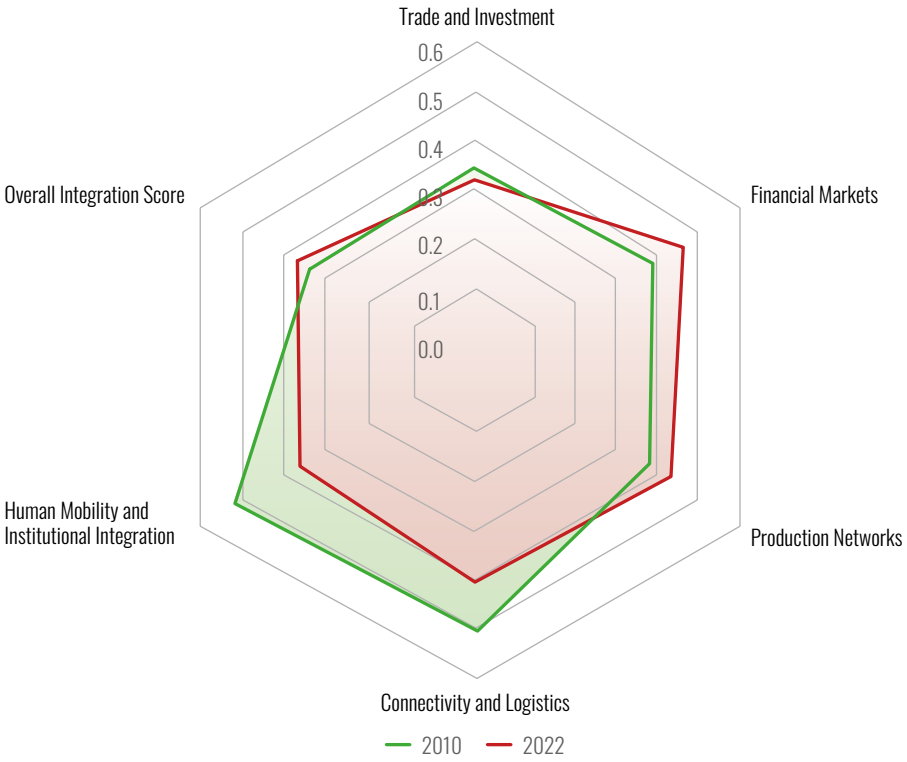
Trade and investment integration scores are not very stable due to alternating phases of economic growth and decline (i.e., business cycles), including the impact of exogenous shocks such as the oil price plunge of 2014-2016 and regional political conflicts. The contribution of the trade and investment integration dimension to intra-Arab integration has been the lowest during the 2010-2022 period. This could be partly explained by the fact that the oil exporter and non-oil exporter countries have similar economic characteristics within their respective groups, leading to limited economic complementarities at the regional scale.[12]

A downward trend is observed in the human mobility and institutional integration dimension. It was the strongest dimension in 2010, with a score of around 0.5. However, its score has declined to around 0.4 in recent years. The relatively low performance in terms of mobility and institutional integration suggests that there is a need for additional efforts from Arab countries to operationalize regional agreements and to improve the effectiveness and capacity of the existing intergovernmental institutions in the region.

The contribution of connectivity and logistics to intra-Arab integration has also weakened from 2010 to 2022, pointing to the need for boosting investments in cross-border infrastructure. Cross-border connectivity is a high-impact policy area to coordinate regional efforts because it encourages the private sector to expand into larger markets and capitalize gains on international specialization, by joining regional and global production networks. The proliferation of new technologies is offering important opportunities to improve connectivity in the Arab region and facilitate faster movement of goods across borders.

Figure 5 depicts a two-period comparison of the linear trends of the five dimensions between 2010 and 2022. Notably, financial markets integration has witnessed the largest positive change. Improvement through better coordination of monetary policies and harmonization of financial market regulations and practices across the Arab region will contribute more to financial integration.

FIGURE 5 LINEAR TRENDS OF INTRA-ARAB INTEGRATION SCORES



[12] The two groups are defined as follows: Oil-exporters are Algeria, Bahrain, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, the U.A.E., and Yemen. Non-oil exporters are Comoros, Djibouti, Egypt, Jordan, Lebanon, Mauritania, Morocco, Palestine, Sudan, Syria, and Tunisia.

RESULTS OF ARAB REGIONAL SUBGROUPS

The countries of the region are classified into two groups: oil-exporters and non-oil exporters.[13] Table 3 juxtaposes index scores of oil exporters and non-oil exporters. The oil exporters group exhibits higher intra-Arab integration score compared to the non-oil exporters. This result is mainly driven by a much higher score of the oil-exporters group in the financial markets dimension and in the connectivity and logistics dimension.

Further, Arab countries are classified into three groups: the Gulf Cooperation Council (GCC), the Arab Maghreb Union, and the non-GCC Eastern groups. Table 4 shows the lowest overall index score in the Arab Maghreb Union group, while the highest score is in the GCC group. High scores in financial markets integration as well as connectivity and logistics dimensions are, likewise, the primary drivers of integration in the GCC group.

Arab countries are classified into three groups: the Gulf Cooperation Council (GCC), the Arab Maghreb Union, and the non-GCC Eastern groups. The lowest overall index score is in the Arab Maghreb Union group, while the highest score is in the GCC group.

THE GULF COOPERATION COUNCIL (GCC) GROUP

The economic integration of the GCC group (consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the U.A.E) is the highest among the three subregional groups, with a score of 0.547. Among the five dimensions, the achievement of the MCs in this group is the highest in Dimension 2 (financial markets integration) at 0.780 and the lowest in Dimension 5 (human mobility and institutional integration) at 0.285. This indicates that the GCC subregion is relatively well connected to the rest of the Arab region through its financial markets but is relatively lagging in terms of labor mobility and institutional synchronicity.

TABLE 3 COMPARISON OF SCORES BETWEEN OIL-EXPORTERS AND NON-OIL EXPORTERS

	OVERALL SCORE	TRADE AND INVESTMENT INTEGRATION	FINANCIAL MARKETS INTEGRATION	PRODUCTION NETWORKS	CONNECTIVITY AND LOGISTICS	HUMAN MOBILITY AND INSTITUTIONAL INTEGRATION
OIL-EXPORTERS	0.463	0.338	0.615	0.329	0.564	0.379
NON-OIL EXPORTERS	0.344	0.406	0.387	0.428	0.335	0.435

TABLE 4 SCORES BY SUBREGIONAL GROUPS

	OVERALL SCORE	TRADE AND INVESTMENT INTEGRATION	FINANCIAL MARKETS INTEGRATION	PRODUCTION NETWORKS	CONNECTIVITY AND LOGISTICS	HUMAN MOBILITY AND INSTITUTIONAL INTEGRATION
GCC GROUP	0.547	0.351	0.780	0.331	0.644	0.285
ARAB MAGHREB UNION GROUP	0.338	0.391	0.328	0.316	0.382	0.426
NON-GCC EASTERN GROUP	0.344	0.377	0.386	0.445	0.336	0.478

GCC = Gulf Cooperation Council

Note: GCC Group includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the U.A.E. Arab Maghreb Union group includes Algeria, Libya, Mauritania, Morocco, and Tunisia. Non-GCC Eastern group includes Comoros, Djibouti, Egypt, Iraq, Jordan, Lebanon, Palestine, Sudan, Syria, and Yemen.

[13] Please see footnote 12 for the definition of the two groups.

THE ARAB MAGHREB UNION GROUP

The economic integration of MCs in the Arab Maghreb Union Group (consisting of five MCs, namely Algeria, Libya, Mauritania, Morocco, and Tunisia) posts a score of 0.338; the lowest among the three subregional groups. Of the five dimensions, the group achieves the highest integration in Dimension 5 (human mobility and institutional integration) at 0.426, while the lowest integration is in Dimension 3 (production networks) at 0.316. This suggests that further efforts are needed to strengthen firm-level production and consumption relationships between the Arab Maghreb Union Group and the rest of the Arab region. While production relationships are fostered at the firm-level, governments can nonetheless implement industrial policies that incentivize the development and strengthening of value chains.

THE NON-GCC EASTERN GROUP

The Non-GCC Eastern Group (consisting of ten MCs, namely Comoros, Djibouti, Egypt, Iraq, Jordan, Lebanon, Palestine, Sudan, Syria, and Yemen) has an economic integration score of 0.344; slightly higher than that of the Arab Maghreb Union Group (0.338). The scores are high in Dimension 5 (human mobility and institutional integration) at 0.478 and in Dimension 3 (production networks) at 0.445, whereas the lowest score is with Dimension 4 (connectivity and logistics) at 0.336. Thus, the group may need to prioritize investments in physical cross-border connectivity and soft regional connectivity measures to enhance its integration with the rest of the Arab region.

Table 5 categorizes the countries into highly, moderately, and weakly integrated with other IsDB MCs in the Arab region. According to the 2022 index scores, weakly and moderately integrated MCs are dispersed across different subregions while all the highly integrated MCs are in the GCC subregion. This results in an unbalanced integration structure at the Arab region level.

According to the 2022 index scores, weakly and moderately integrated MCs are dispersed across different subregions while all the highly integrated MCs are in the GCC subregion. This results in an unbalanced integration structure at the Arab region level.

TABLE 5 CLUSTERS OF COUNTRIES (BASED ON THE 2022 INDEX RESULTS)

HIGHLY INTEGRATED WITH OTHER ARAB MCS	MODERATELY INTEGRATED WITH OTHER ARAB MCS	WEAKLY INTEGRATED WITH OTHER ARAB MCS	NOT LISTED DUE TO DATA UNAVAILABILITY
Bahrain	Algeria	Djibouti	Somalia
Kuwait	Comoros	Mauritania	
Oman	Egypt	Syria	
Qatar	Iraq	Sudan	
Saudi Arabia	Jordan	Yemen	
U.A.E.	Lebanon		
	Libya		
	Morocco		
	Palestine		
	Tunisia		

Note: The clustering cutoffs have been determined based on the quartiles.

CONCLUSION

The IsDB Integration Index results reveal that the level of overall intra-Arab integration was steady from 2010 to 2022. However, the structure of the integration index by dimension has changed considerably during the same period. Some dimensions improved (financial markets integration), while others deteriorated (connectivity and logistics and human mobility and institutional integration).[14] In 2010, the weakest dimension was financial markets integration. By 2021, it was already the largest driver of integration. On the contrary, the human mobility and institutional integration dimension, which was the strongest dimension in 2010, has gradually declined until 2021.

In contrast to the Arab region, financial markets integration is the weakest dimension for all IsDB MCs (score of 0.167 in 2020). This suggests that there is a strong potential for peer learning and sharing of best practices among IsDB MCs. The rest of the IsDB MCs can rely on the individual and collective experiences of Arab countries, especially the GCC Group, on financial integration with other IsDB regions, such as Central Asia and Sub-Saharan Africa. IsDB possesses a key role in facilitating the exchange of such practice through its Reverse Linkage Mechanism.[15]

Meanwhile, the index results suggests that there is a need to improve the effectiveness and capacity of intergovernmental institutions in the Arab region in supporting regional integration. Indeed, highly integrated economic blocks are characterized by high level of intraregional institutional integration and human mobility. In this regard, visa-free travel policies supplement multilateral trade and investment treaties by facilitating the mobility of people. Strong institutional integration also assists countries in maintaining a consistent path towards deeper integration based on harmonized rules and regulations, maximizing intended gains.

The index results suggests that there is a need to improve the effectiveness and capacity of intergovernmental institutions in the Arab region in supporting regional integration.

The overall index scores vary largely across different subregional groups, causing an asymmetry and unbalanced economic integration profile in the regional level. The oil exporters group has higher intra-Arab integration score compared to the non-oil exporters group. Meanwhile, among the three subregional groups (GCC, Arab Maghreb Union, and Non-GCC Eastern subregion), the overall performance of the GCC group is the highest due to its relative success in terms of financial markets integration.

The progress in different dimensions of economic integration is also highly nuanced among the subregional groups. This reflects the need for the IsDB Group to adopt customized approaches in assisting its MCs to accelerate their regional integration. For example, cross-border physical investments in transport, energy, and digital connectivity are priority sectors for economic integration. However, operational focus could vary at the subregional level, since each of the three subregional groups are at different stages of integration. For the GCC group, greater focus may be directed to soft connectivity measures, such as digitalization of trade and investment promotion services, establishment of small and medium-sized enterprises (SME) networks, and harmonization of regulatory frameworks to facilitate trade and investments. Meanwhile hard infrastructure may need to be focused for the Arab Maghreb Union and non-GCC Eastern subregional groups.

Trade and investment integration is a major area where the IsDB Group can support the economic integration agenda of the Arab region. The Group can support the effective implementation of the Greater Arab Free Trade Area (GAFTA) as well as the formulation and operationalization of an enhanced Pan-Arab Investment Agreement to deepen intra-Arab integration. Beyond that, the full implementation of the Trade Preferential System among the Member States of the Organisation of Islamic Cooperation (TPS-OIC) and its possible extensions with environmental provisions may play a transformative role in connecting the Arab region to other IsDB regions. The TPS-OIC is intended to maximize benefits from trade at a larger scale in a climate-friendly way.

Finally, the accession of all IsDB MCs to the World Trade Organization (WTO) and international trade facilitation conventions will strengthen the position of the region as a trade hub between Africa, Asia, and Europe.[16] At the backdrop, the IsDB Group is seen to continue its active capacity development initiatives for its MCs in the Arab region. Eventually, this shall aim to ease all Arab MCs' accession to trade organizations for further trade liberalization and development.

[14] The index results for all IsDB regions are available in the "IsDB Group Integration Report 2022" accessible through https://www.isdb.org/publications/isdb-group-integration-report-2022.

[15] Further information about IsDB's Reverse Linkage Mechanism is available at https://www.isdb.org/reverse-linkage.

[16] International trade facilitation conventions include the International Road Transport (TIR) Convention and the Convention on the Contract for the International Carriage of Goods by Road (CMR).

PART B1:
OVERALL REGIONAL TRENDS

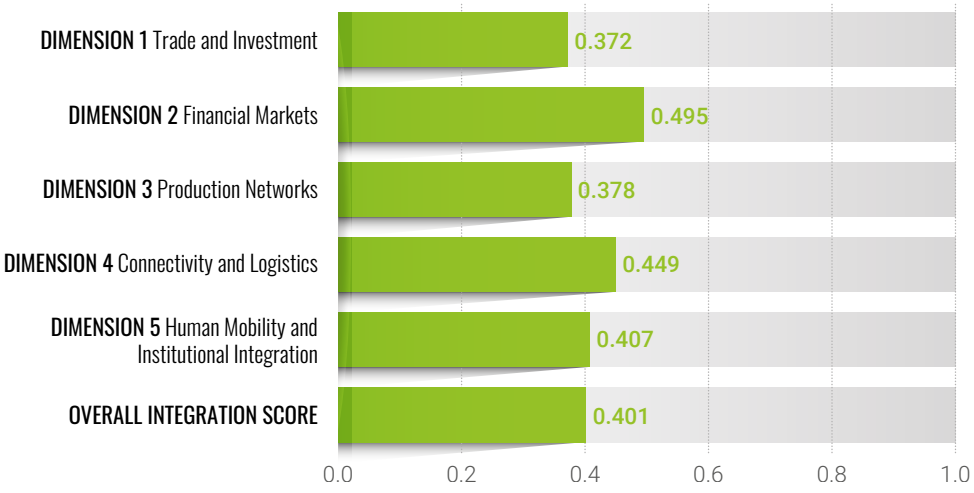
OVERALL INDEX TRENDS

IsDB ARAB MEMBER COUNTRIES

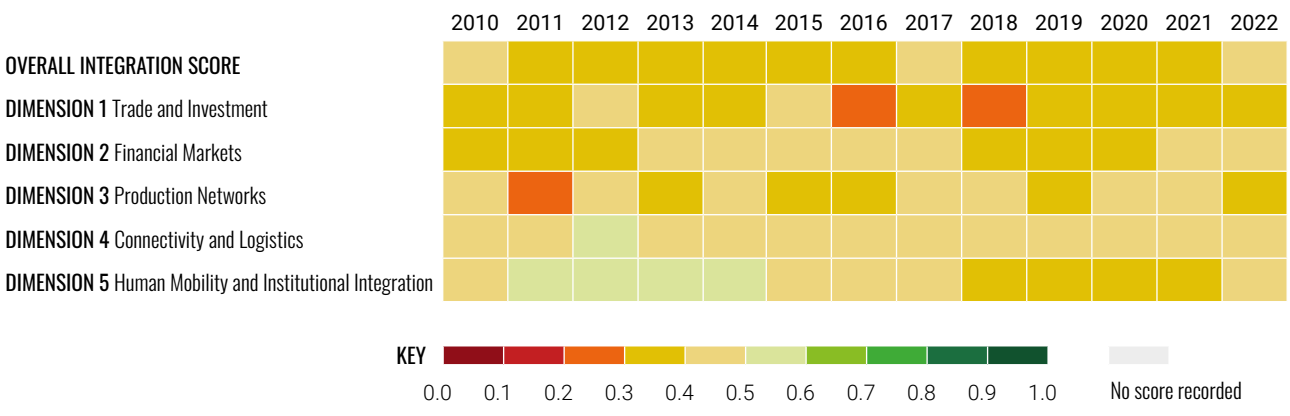
- HIGHLY INTEGRATED WITH OTHER IsDB ARAB MCs
- MODERATELY INTEGRATED WITH OTHER IsDB ARAB MCs
- WEAKLY INTEGRATED WITH OTHER IsDB ARAB MCs
- NOT LISTED DUE TO DATA UNAVAILABILITY

OVERALL IsDB ARAB MCs SCORE (2022)

OVERALL IsDB ARAB MCs SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL IsDB ARAB MCs INTEGRATION TRENDS



PART B2: SUBREGIONAL GROUPS

SUBREGIONAL GROUPS

GULF COOPERATION COUNCIL (GCC) GROUP
Bahrain
Kuwait
Oman
Qatar
Saudi Arabia
U.A.E.

NON-GCC EASTERN COUNTRIES GROUP
Comoros
Djibouti
Egypt
Iraq
Jordan
Lebanon
Palestine
Sudan
Syria
Yemen

ARAB MAGHREB UNION (AMU) GROUP
Algeria
Libya
Mauritania
Morocco
Tunisia

DATA UNAVAILABLE
Somalia

SUBREGIONAL PROFILE

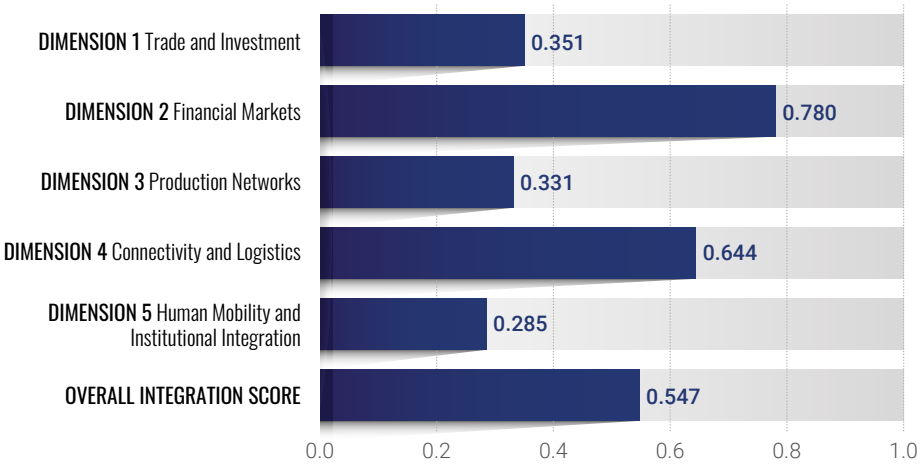
GCC GROUP

HIGHLY INTEGRATED WITH OTHER IsDB ARAB MCs
Bahrain
Kuwait
Oman
Qatar
Saudi Arabia
U.A.E.

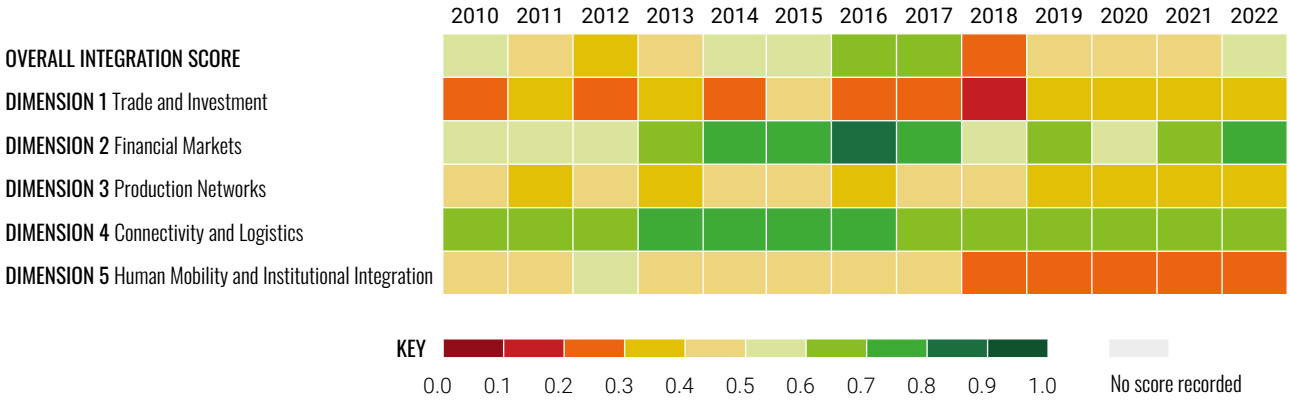
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

SUBREGIONAL SCORES BY 5 INTEGRATION DIMENSIONS (2022)



SUBREGIONAL INTEGRATION TRENDS



SUBREGIONAL PROFILE

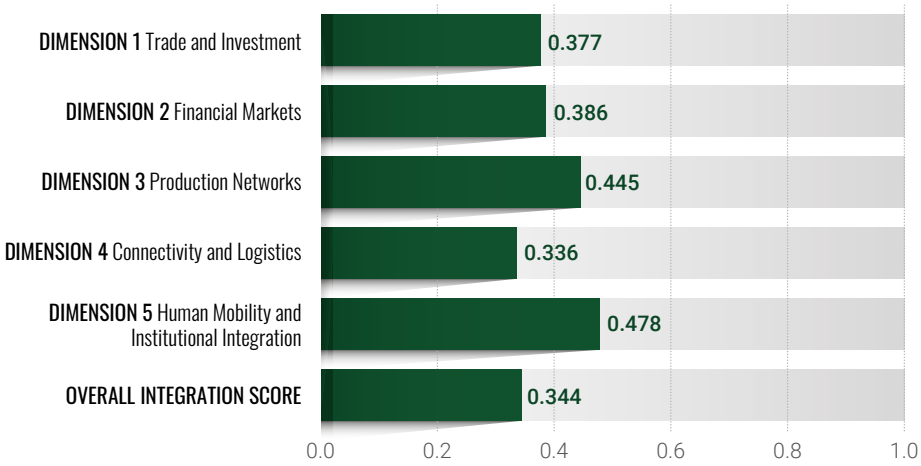
NON-GCC EASTERN COUNTRIES GROUP

- **MODERATELY INTEGRATED WITH OTHER IsDB ARAB MCs**
  Comoros
  Egypt
  Iraq
  Jordan
  Lebanon
  Palestine
- **WEAKLY INTEGRATED WITH OTHER IsDB ARAB MCs**
  Djibouti
  Sudan
  Syria
  Yemen

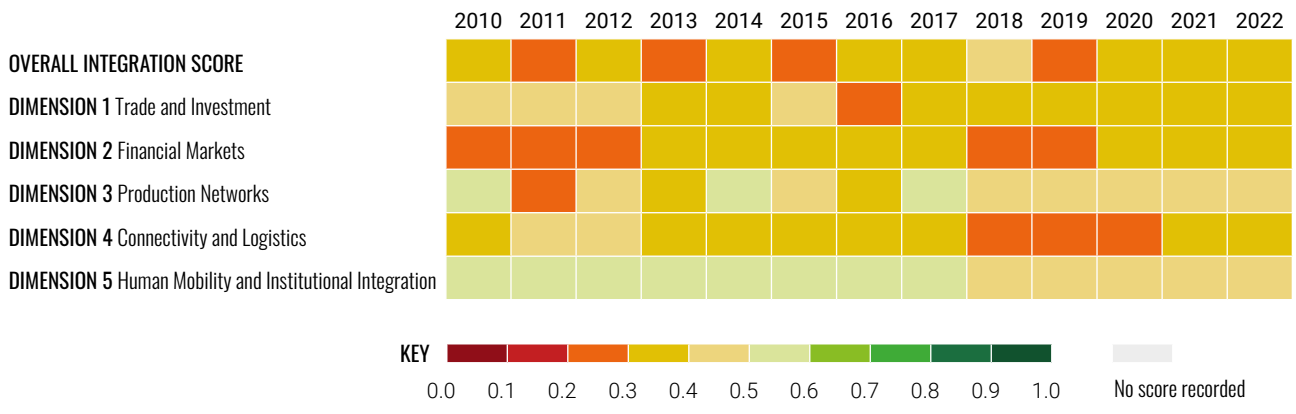
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

SUBREGIONAL SCORES BY 5 INTEGRATION DIMENSIONS (2022)



SUBREGIONAL INTEGRATION TRENDS



SUBREGIONAL PROFILE

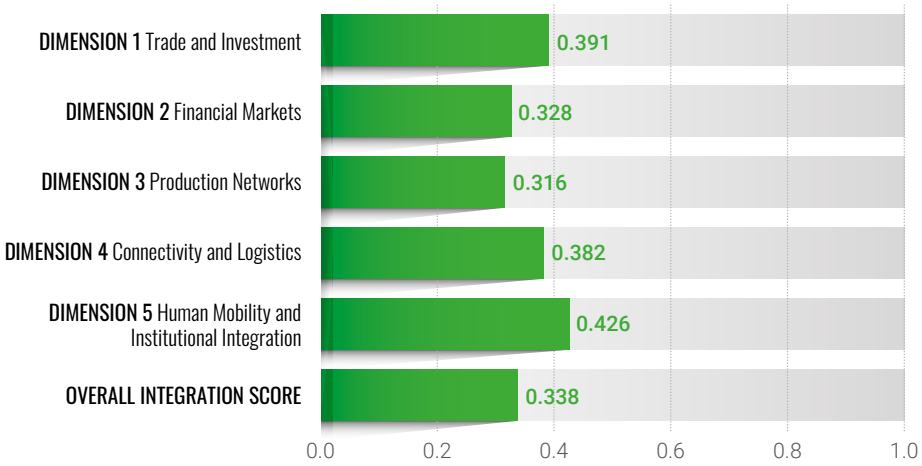
ARAB MAGHREB UNION (AMU) GROUP

- **MODERATELY INTEGRATED WITH OTHER IsDB ARAB MCs**
  Algeria
  Morocco
  Tunisia
  Libya
- **WEAKLY INTEGRATED WITH OTHER IsDB ARAB MCs**
  Mauritania

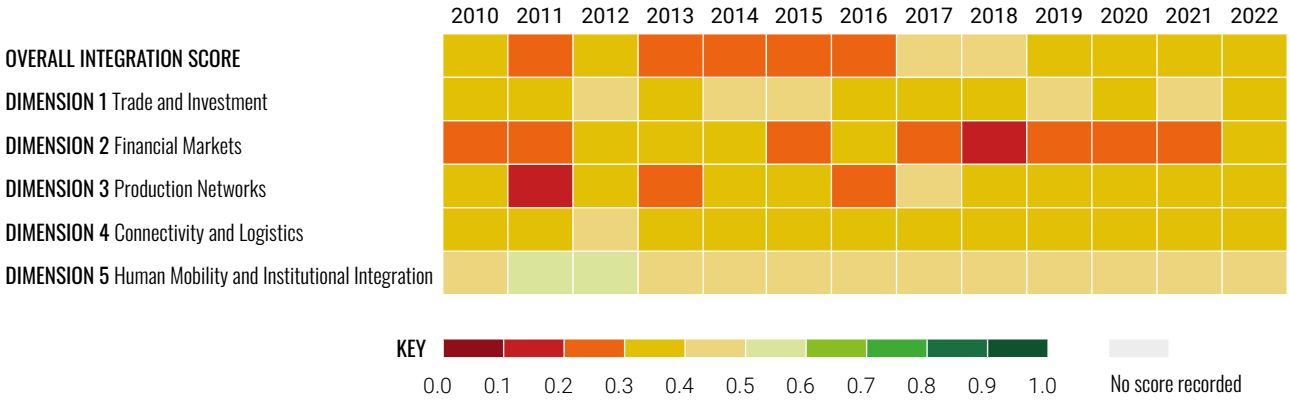
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

SUBREGIONAL SCORES BY 5 INTEGRATION DIMENSIONS (2022)



SUBREGIONAL INTEGRATION TRENDS

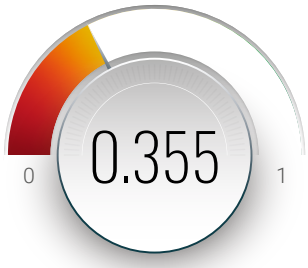


PART B3:
COUNTRY PROFILES

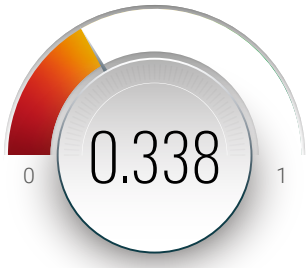
COUNTRY PROFILE

ALGERIA

COUNTRY SCORE (2022)

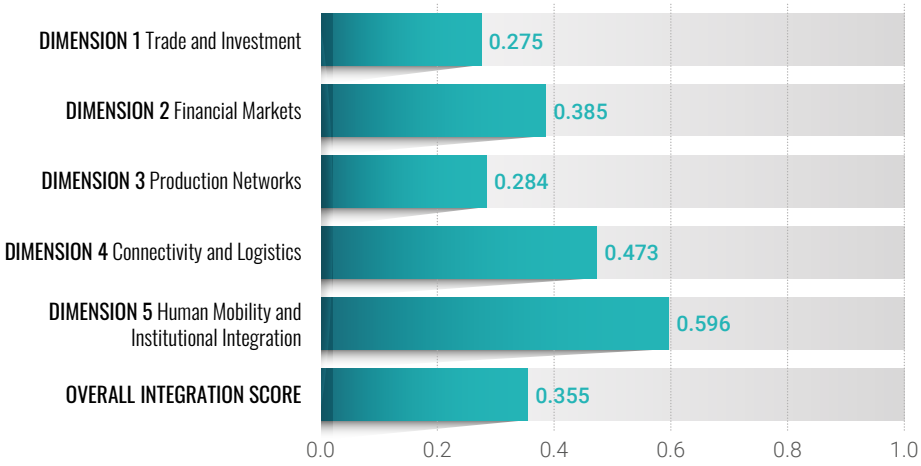


SUBREGIONAL SCORE (2022)

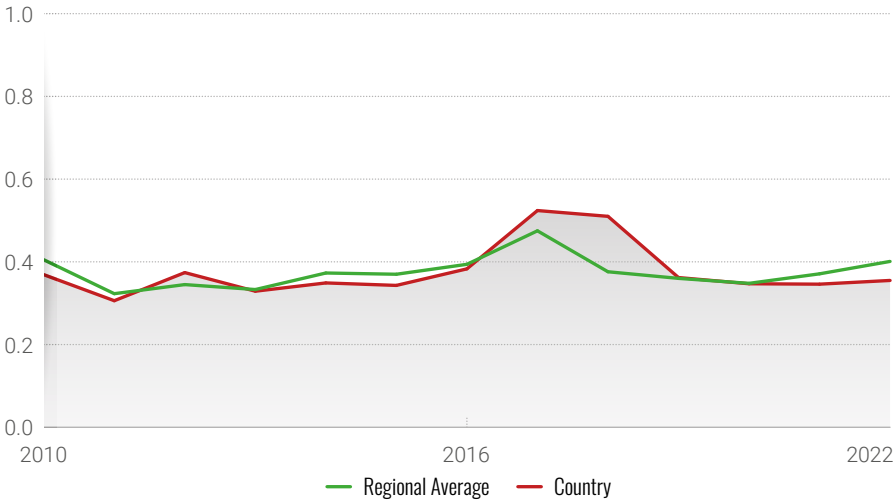


REGIONAL SCORE (2022)

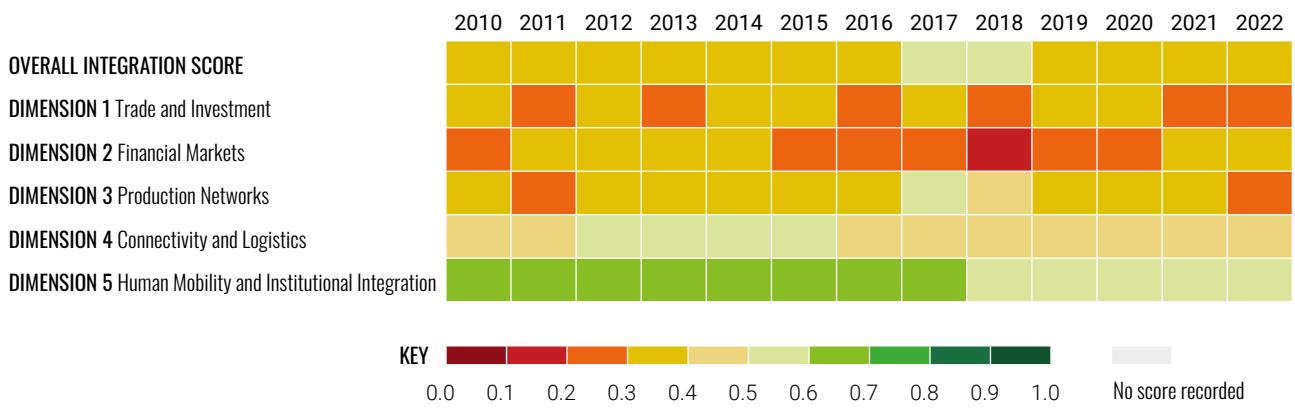
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



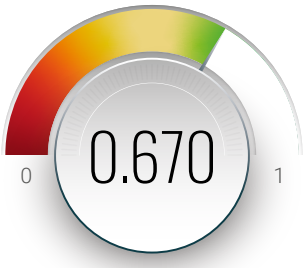
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

BAHRAIN

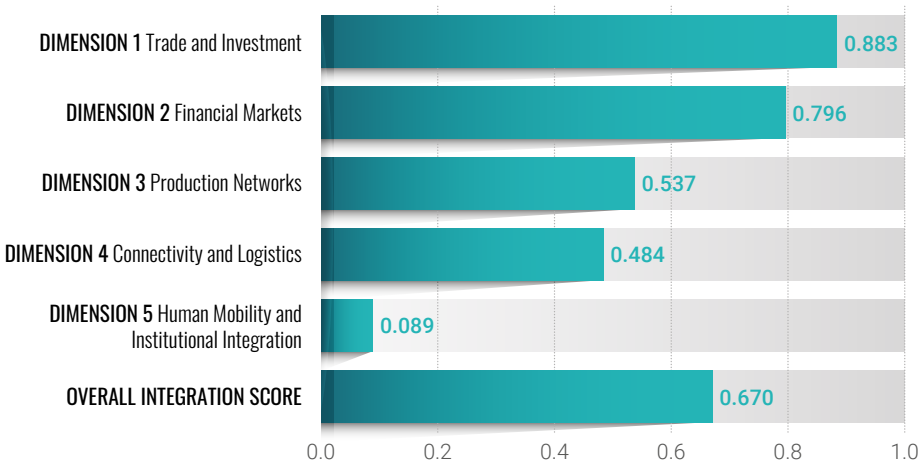
COUNTRY SCORE (2022)



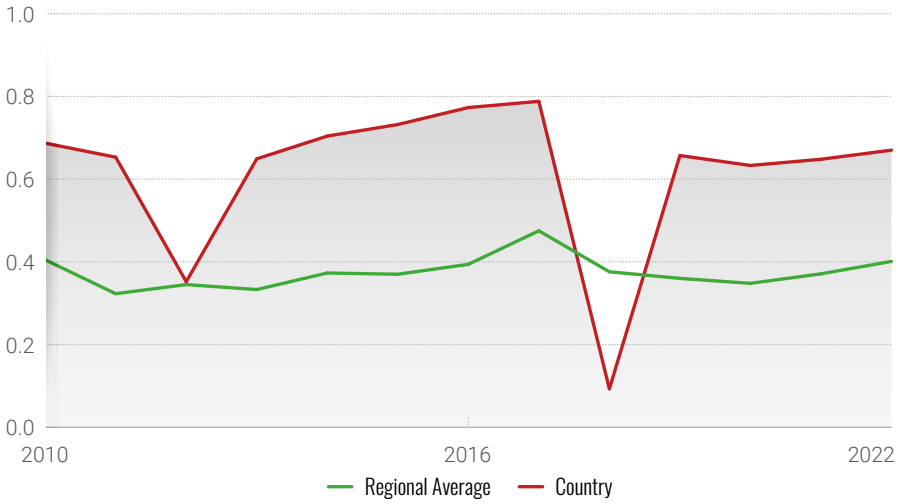
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

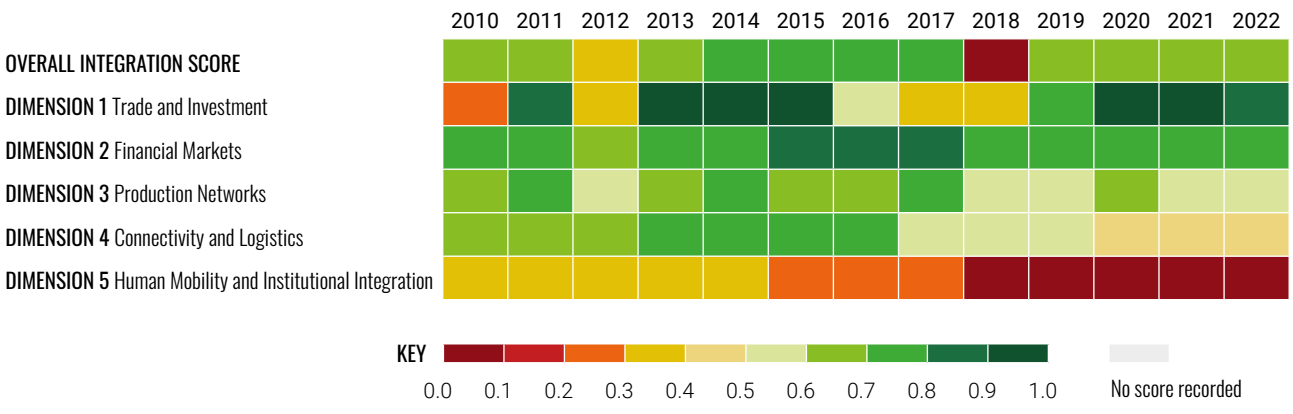
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



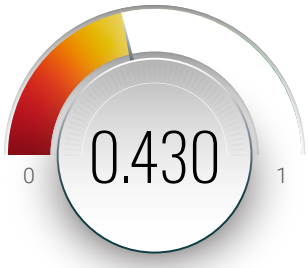
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

COMOROS

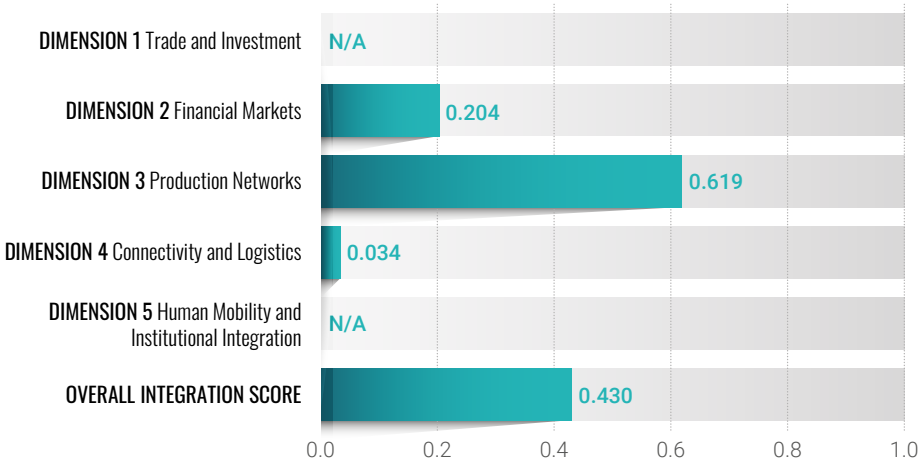
COUNTRY SCORE (2022)



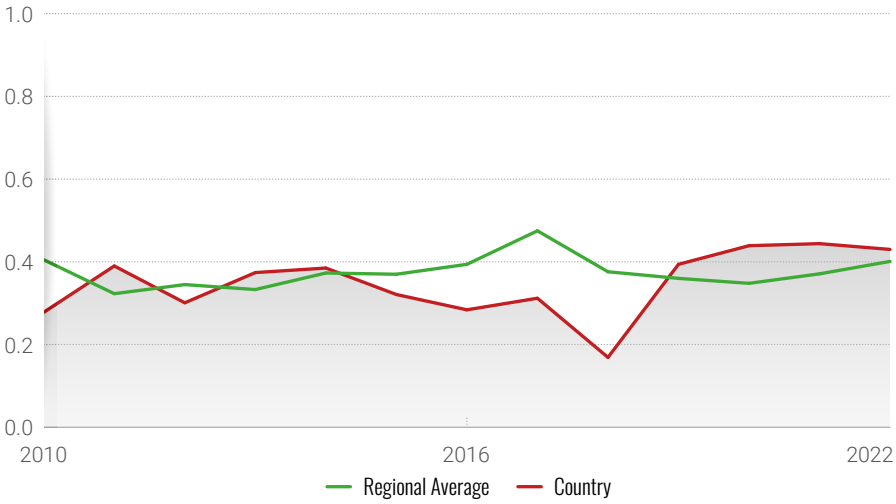
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

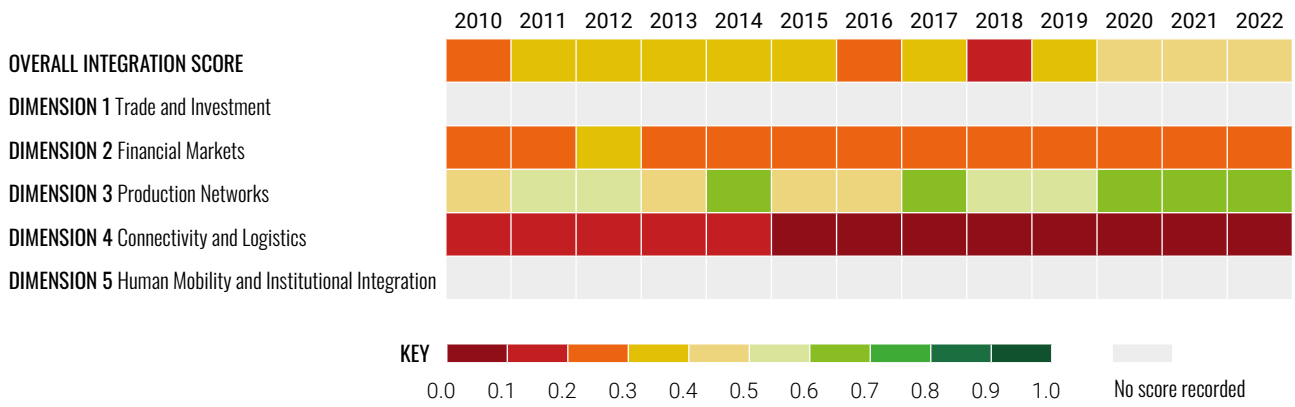
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

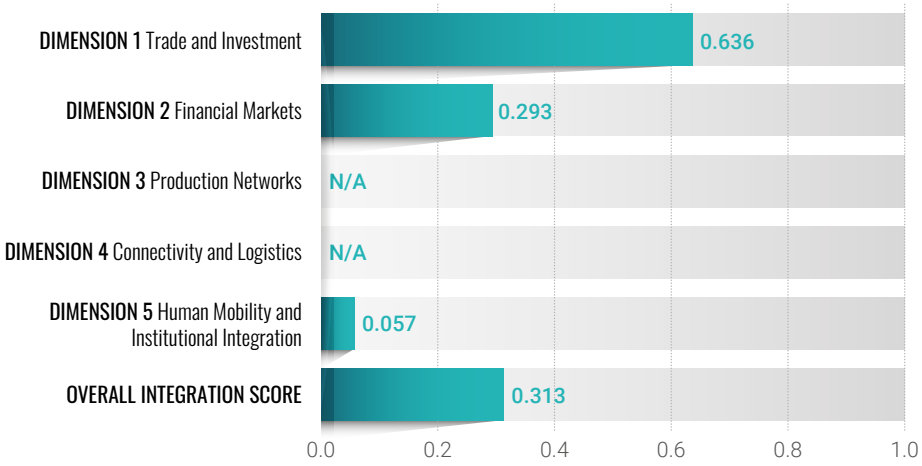
DJIBOUTI

COUNTRY SCORE (2022)

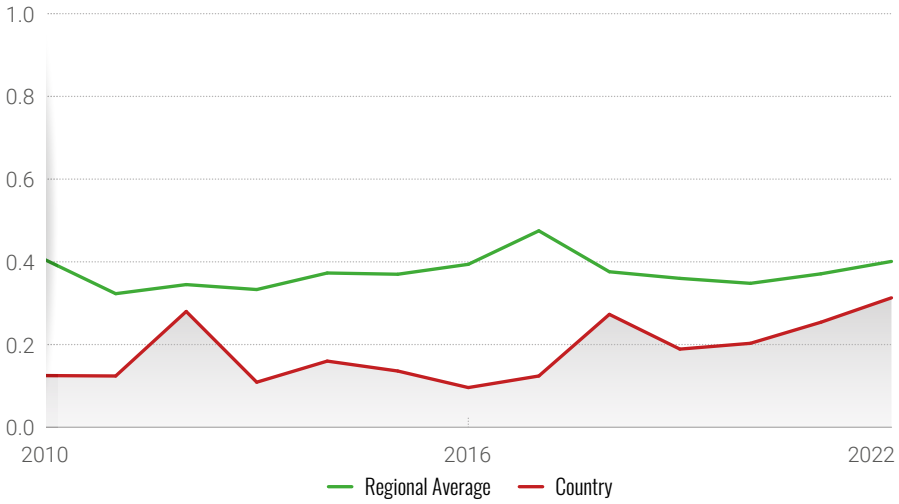
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

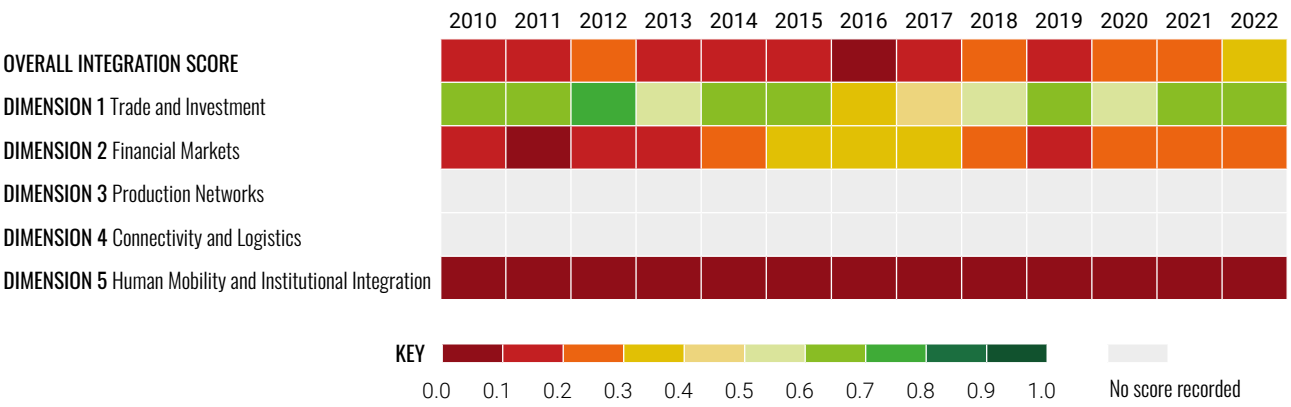
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



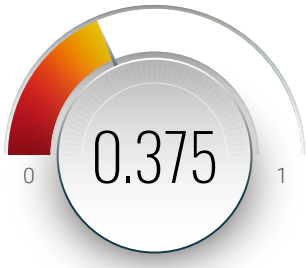
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

EGYPT

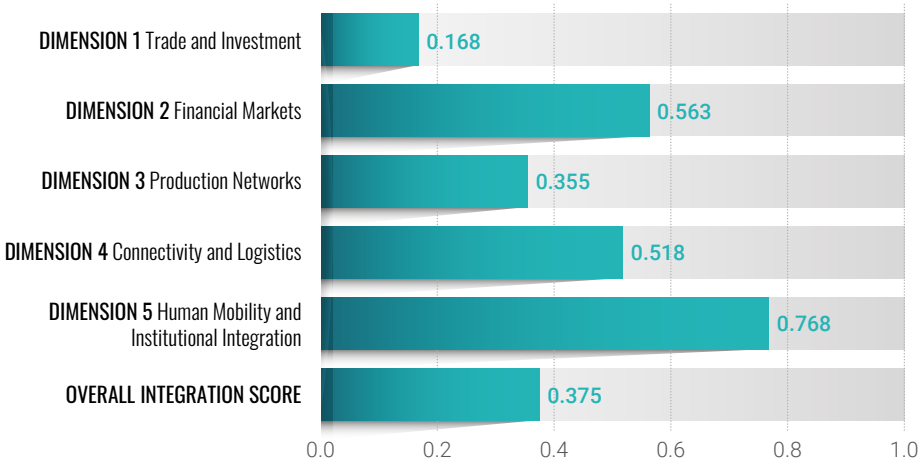
COUNTRY SCORE (2022)



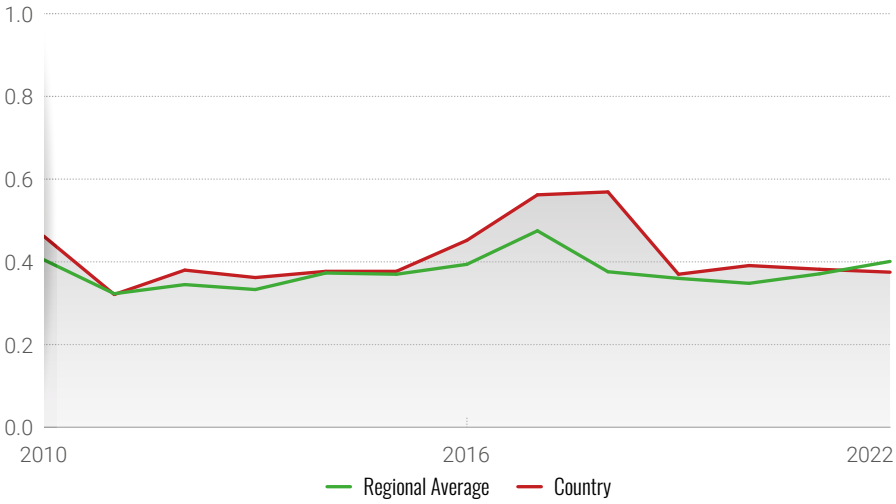
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

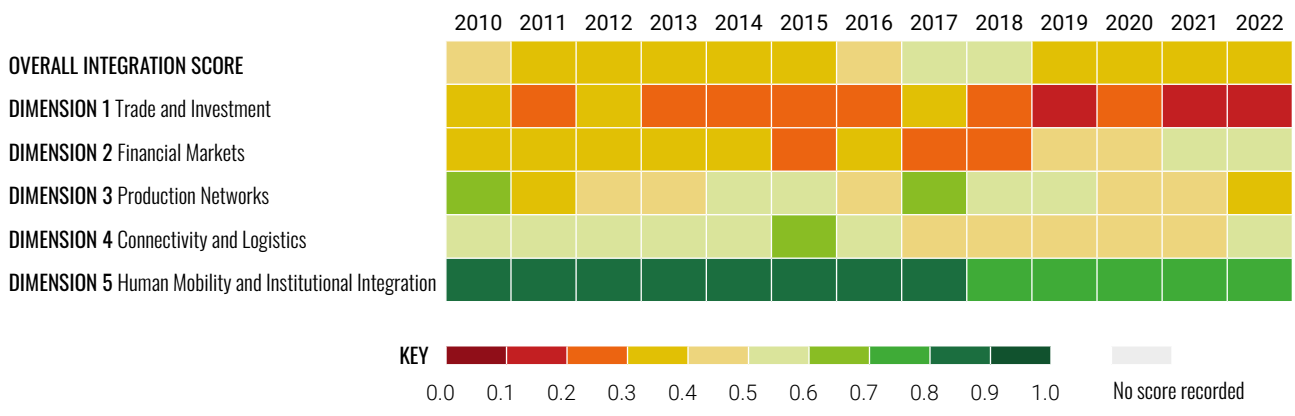
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



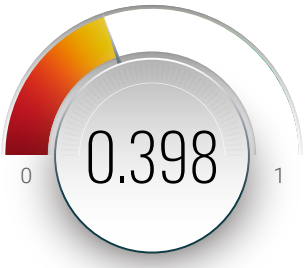
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

IRAQ

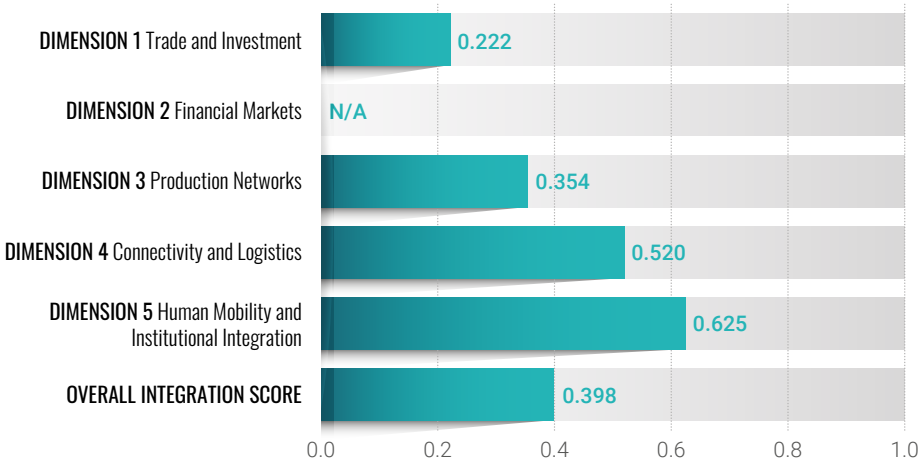
COUNTRY SCORE (2022)



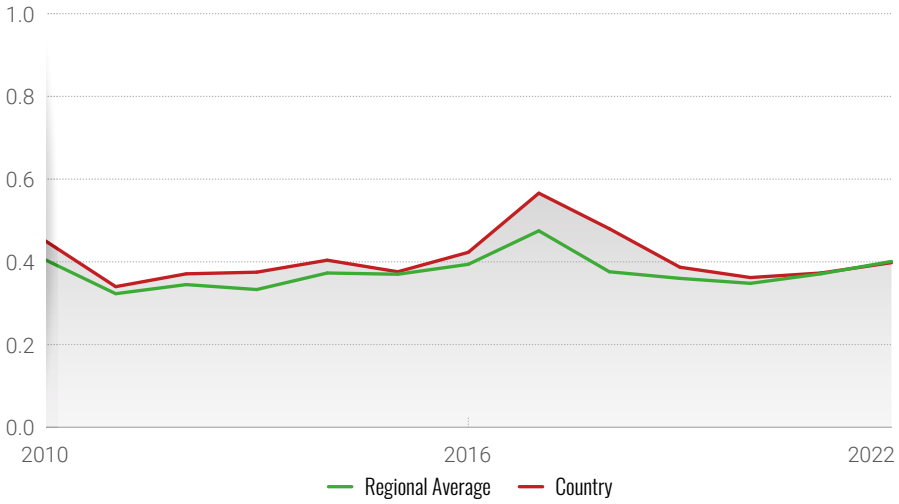
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

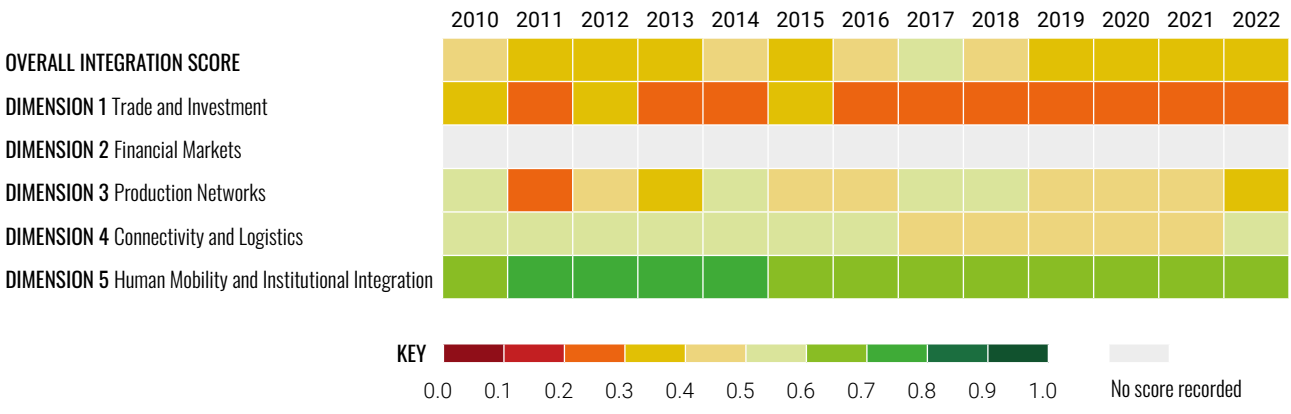
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



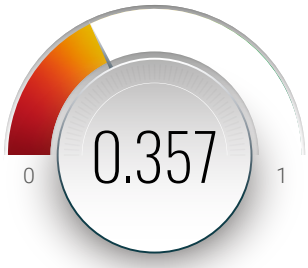
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

JORDAN

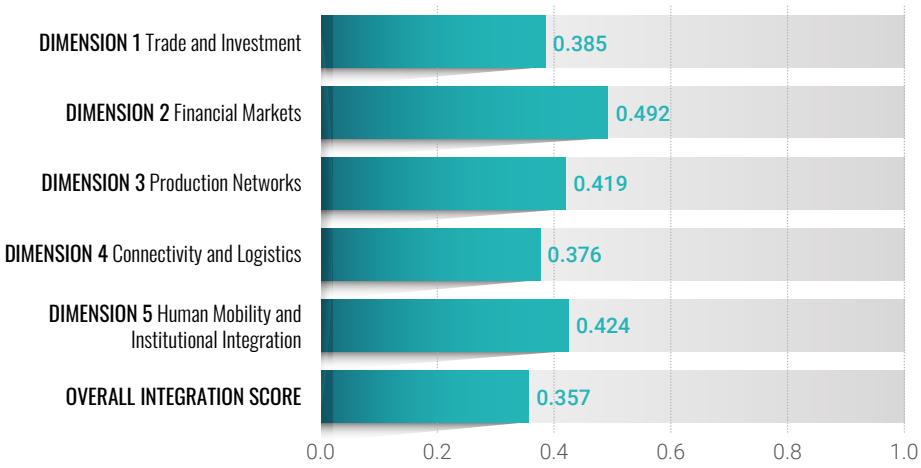
COUNTRY SCORE (2022)



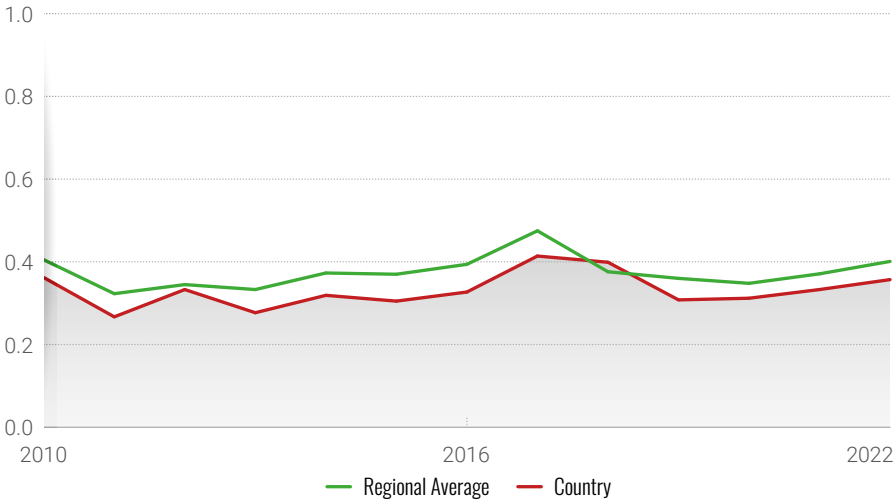
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

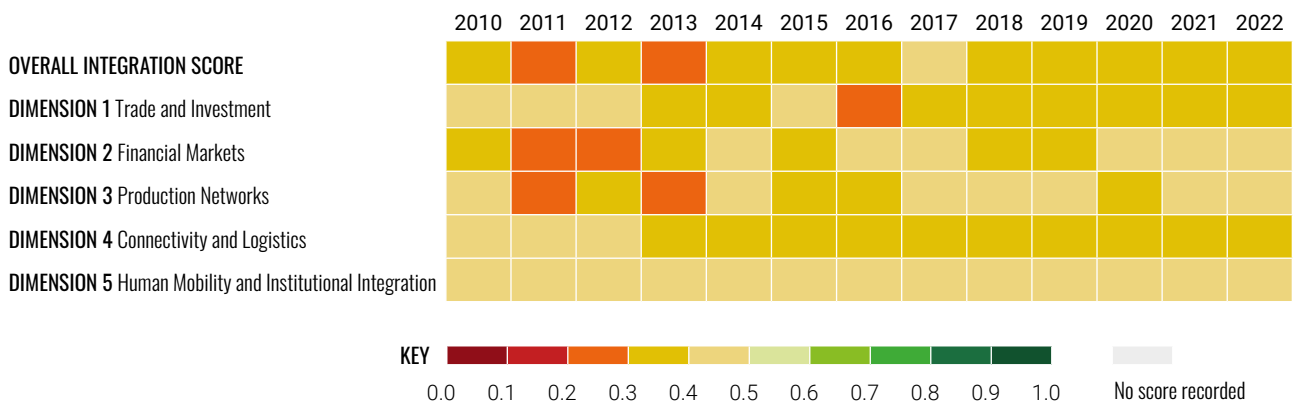
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



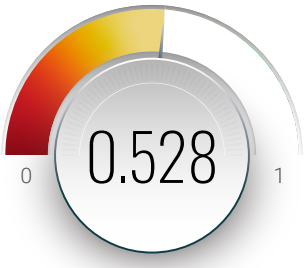
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

KUWAIT

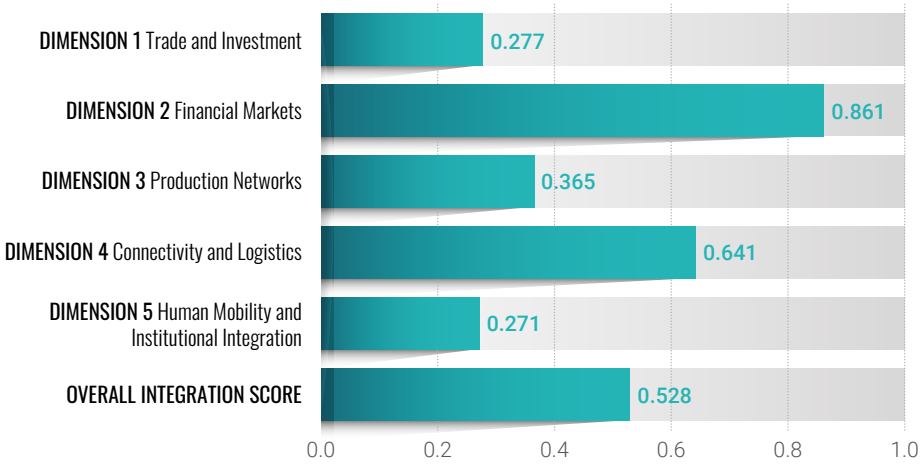
COUNTRY SCORE (2022)



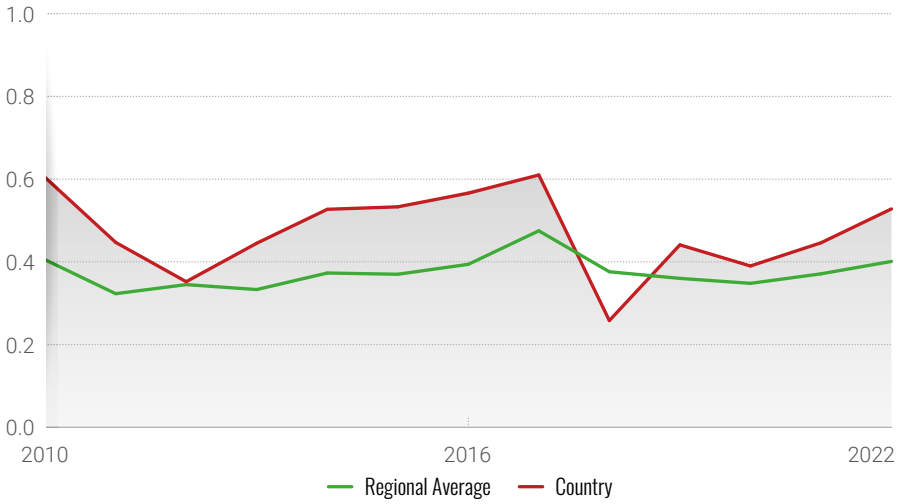
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

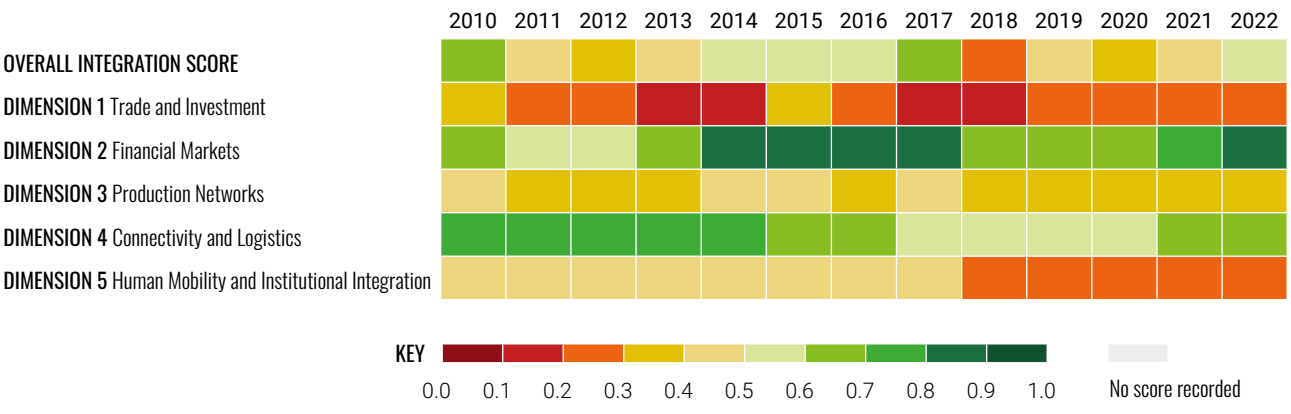
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

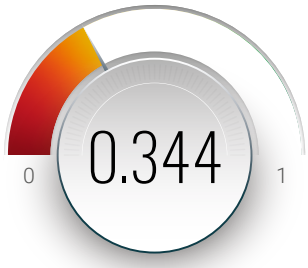


COUNTRY PROFILE

LEBANON

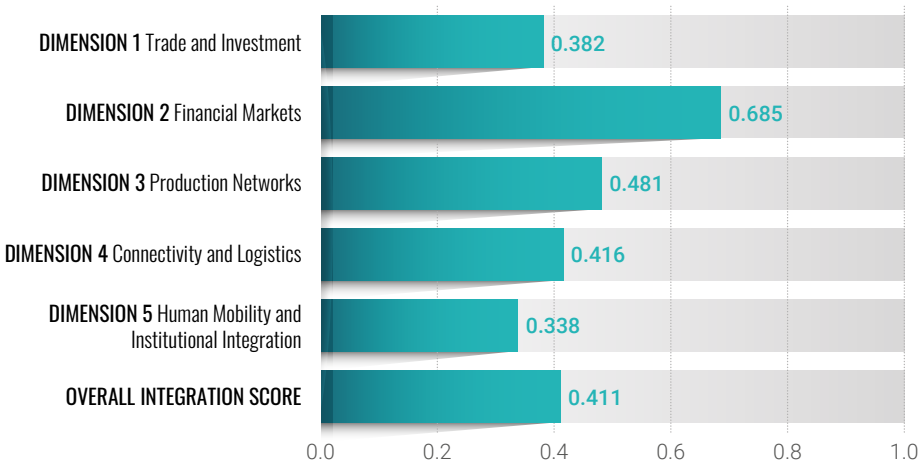
COUNTRY SCORE (2022)

SUBREGIONAL SCORE (2022)

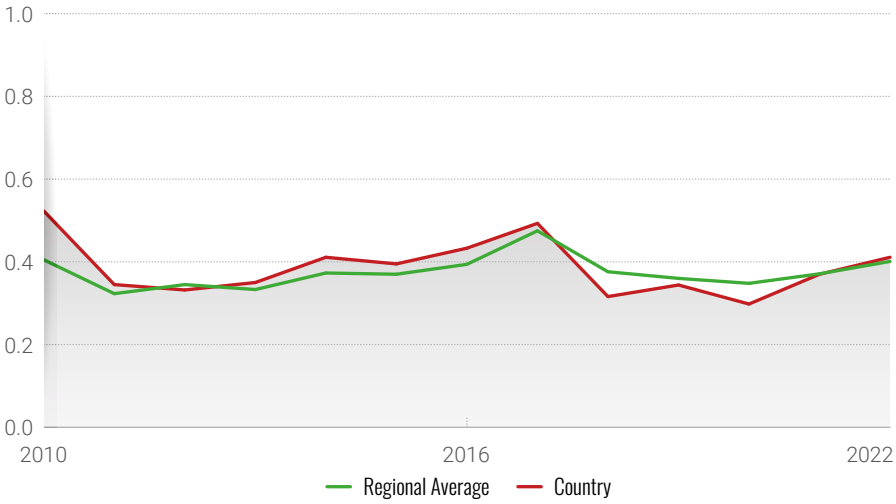


REGIONAL SCORE (2022)

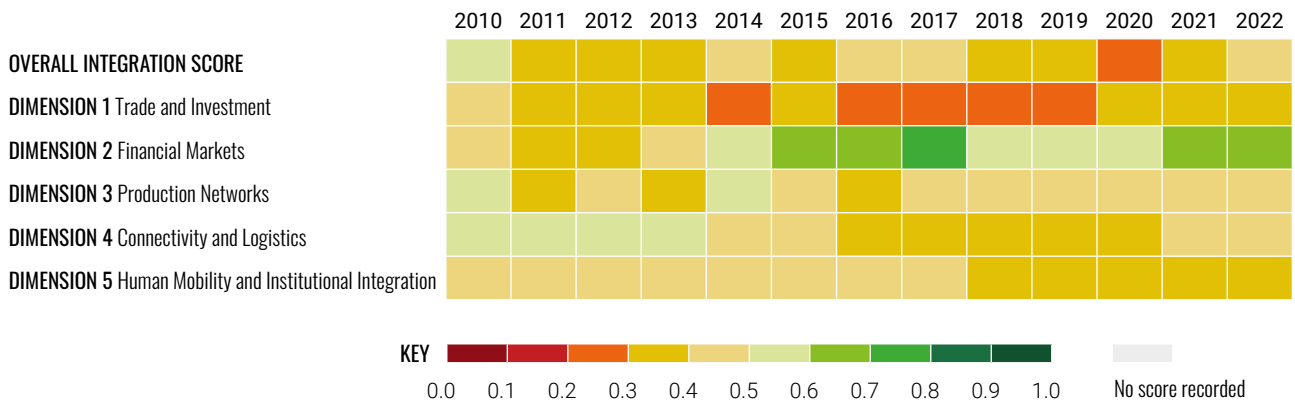
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



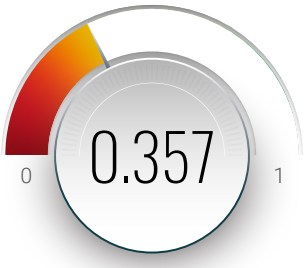
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

LIBYA

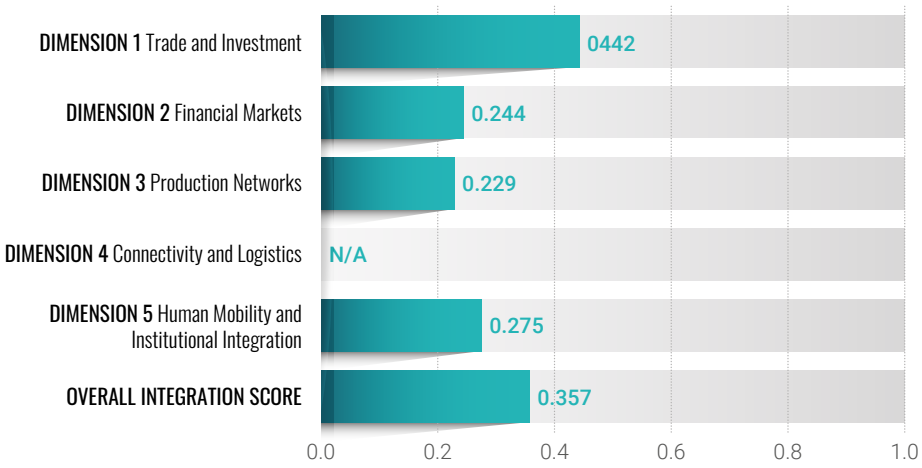
COUNTRY SCORE (2022)



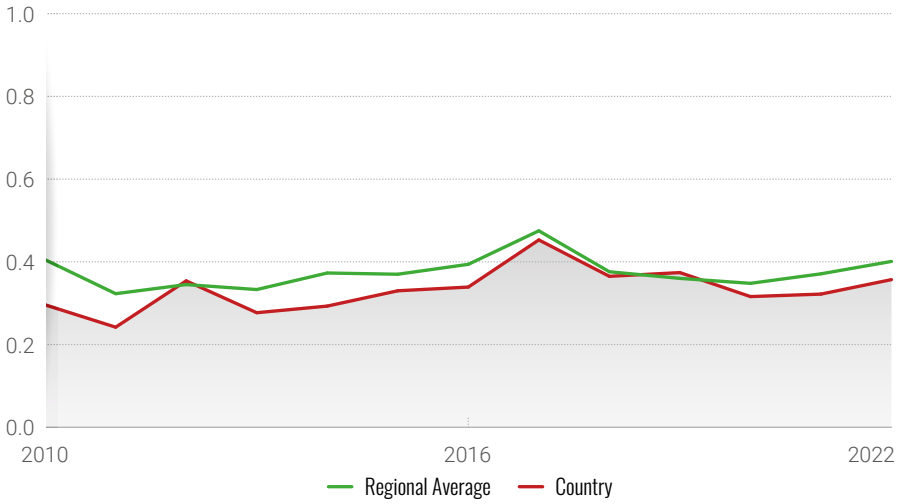
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

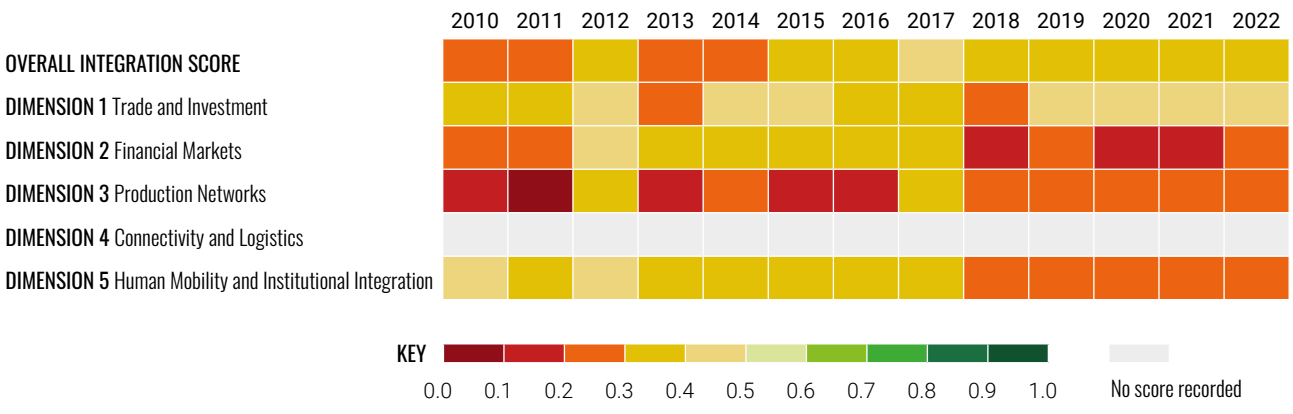
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

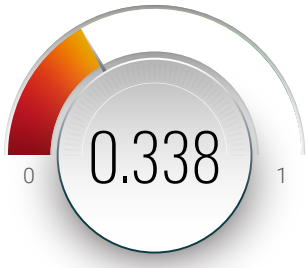


COUNTRY PROFILE

MAURITANIA

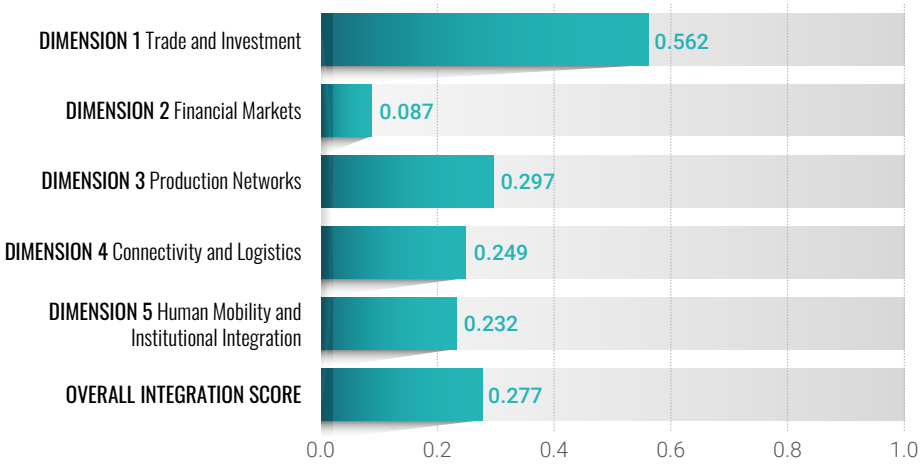
COUNTRY SCORE (2022)

SUBREGIONAL SCORE (2022)

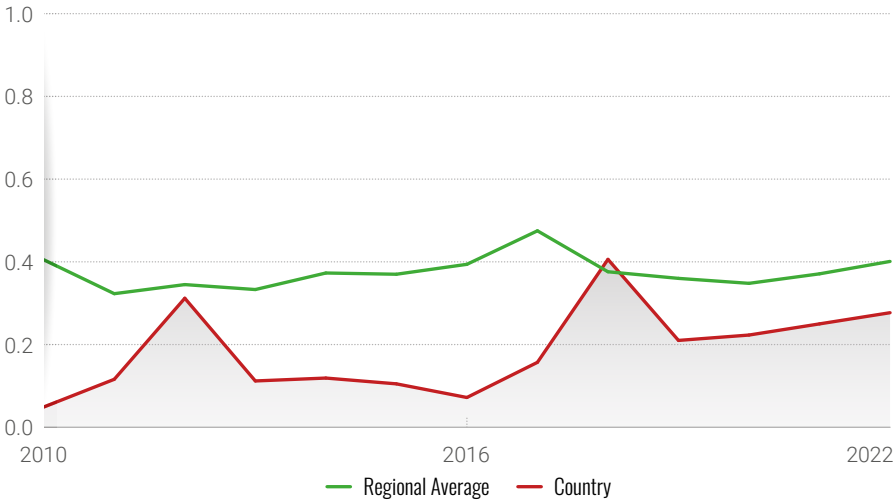


REGIONAL SCORE (2022)

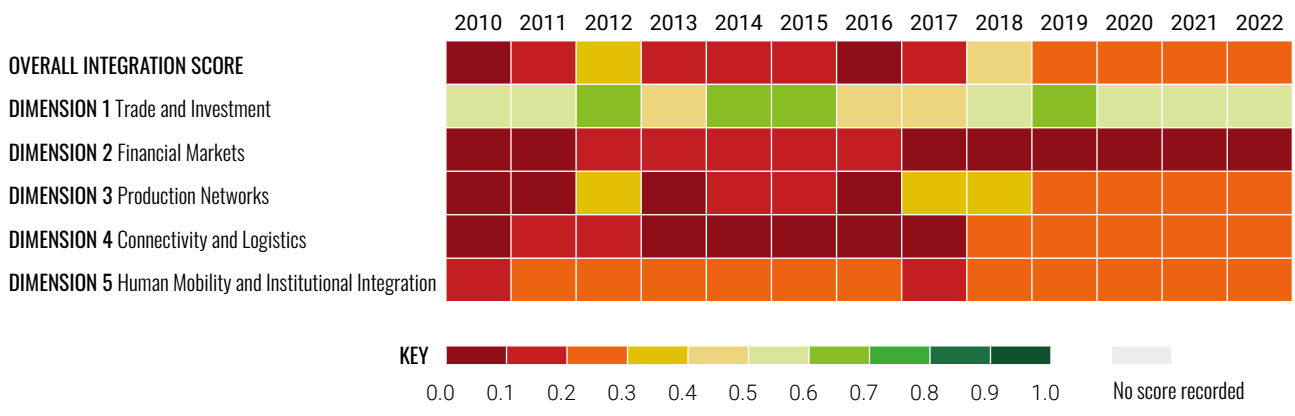
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

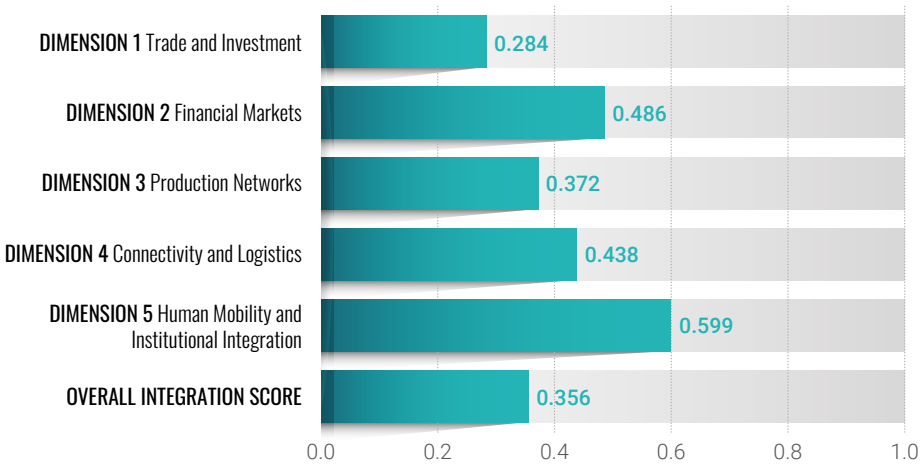
MOROCCO

COUNTRY SCORE (2022)

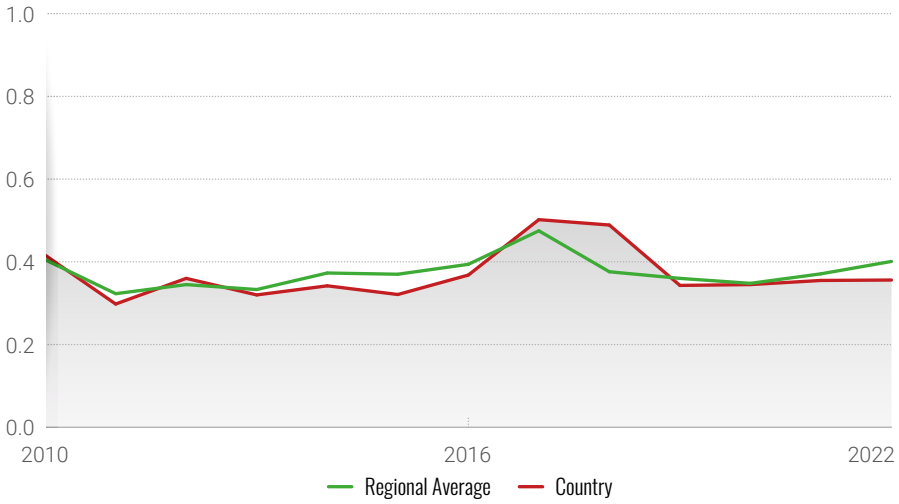
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

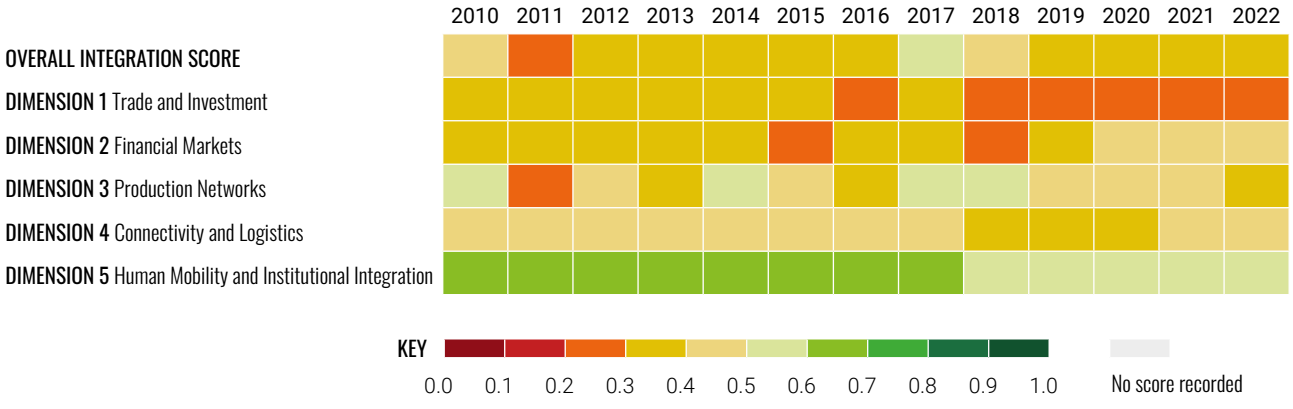
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs IsDB AVERAGE

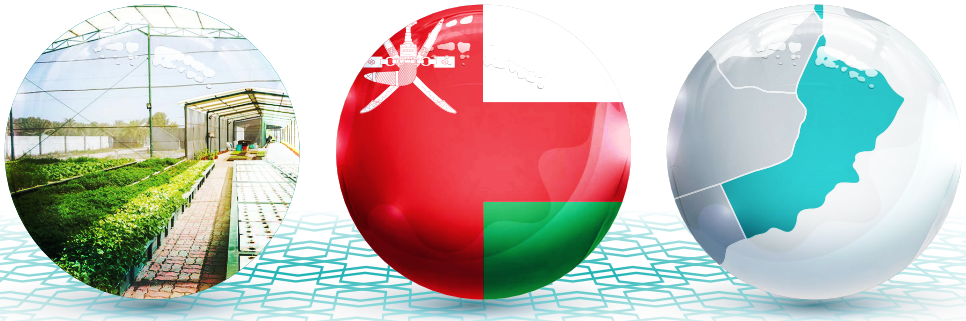


COUNTRY INTEGRATION TRENDS

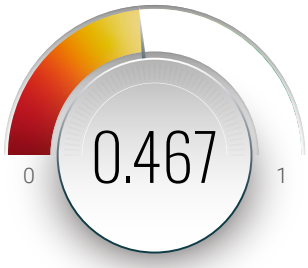


COUNTRY PROFILE

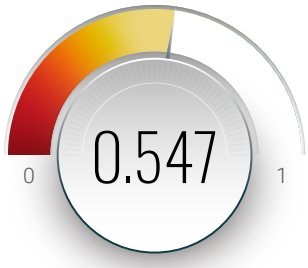
OMAN



COUNTRY SCORE (2022)

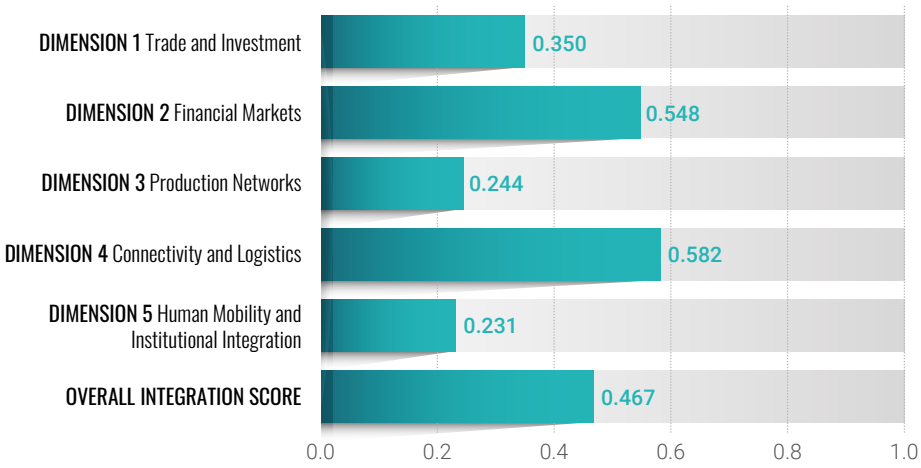


SUBREGIONAL SCORE (2022)

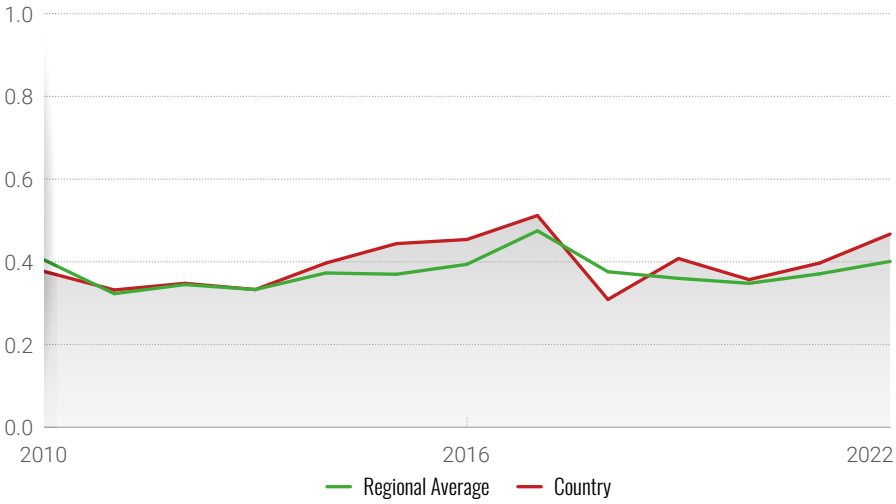


REGIONAL SCORE (2022)

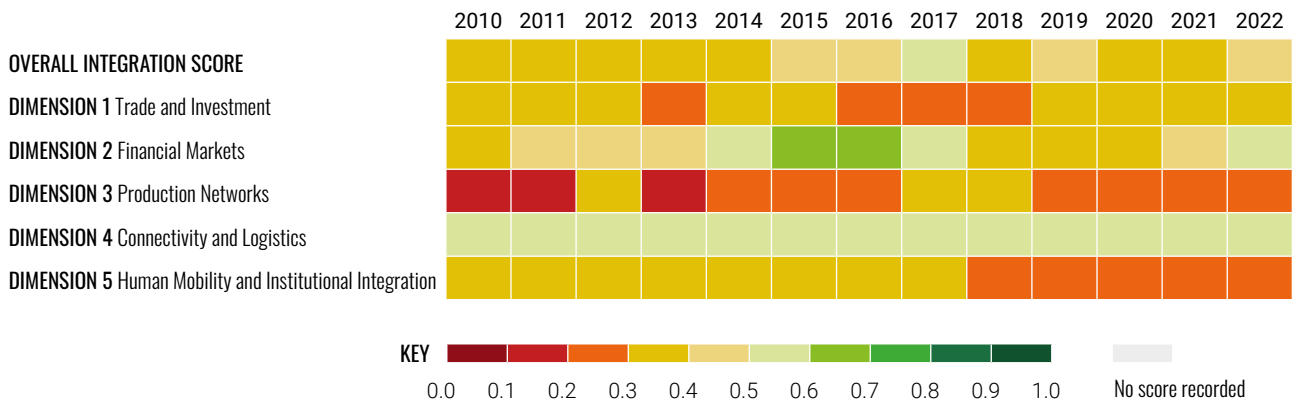
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

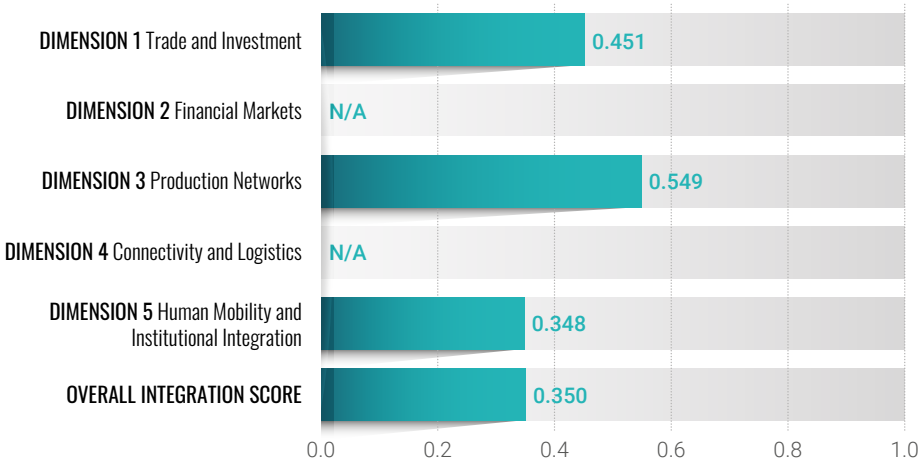
PALESTINE

COUNTRY SCORE (2022)

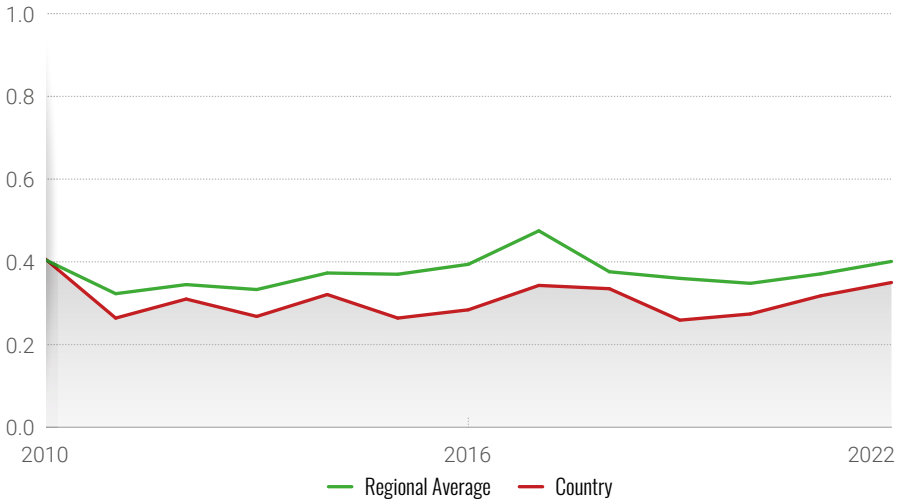
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

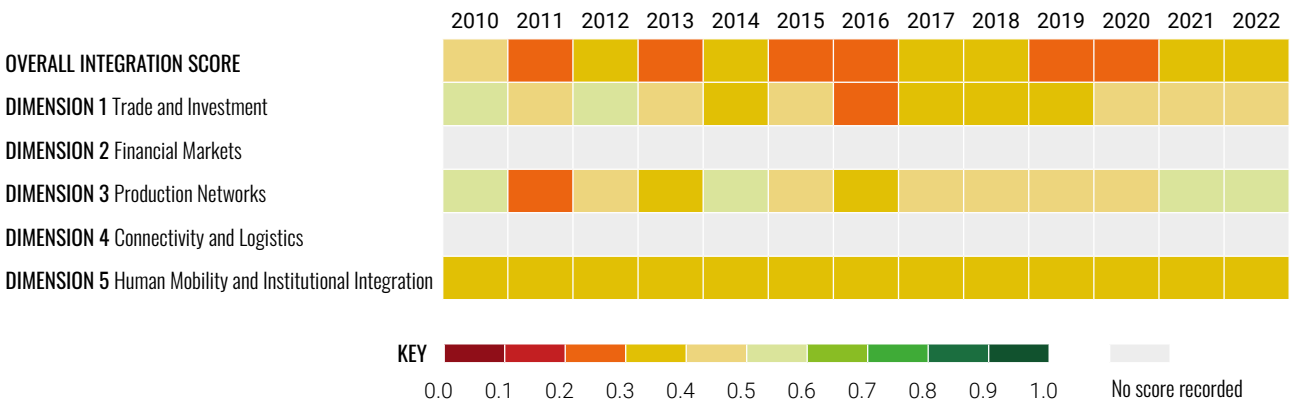
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE

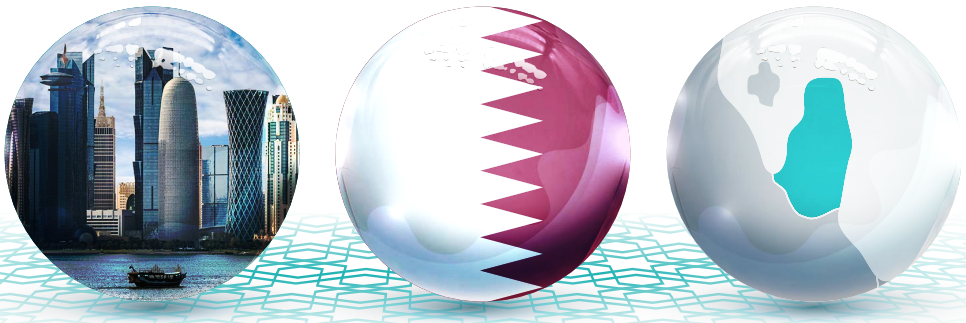


COUNTRY INTEGRATION TRENDS

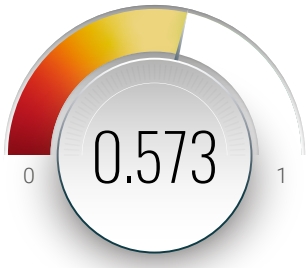


COUNTRY PROFILE

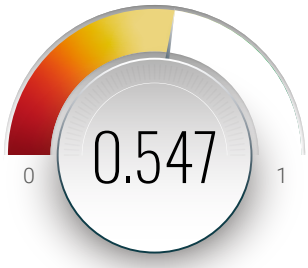
QATAR



COUNTRY SCORE (2022)

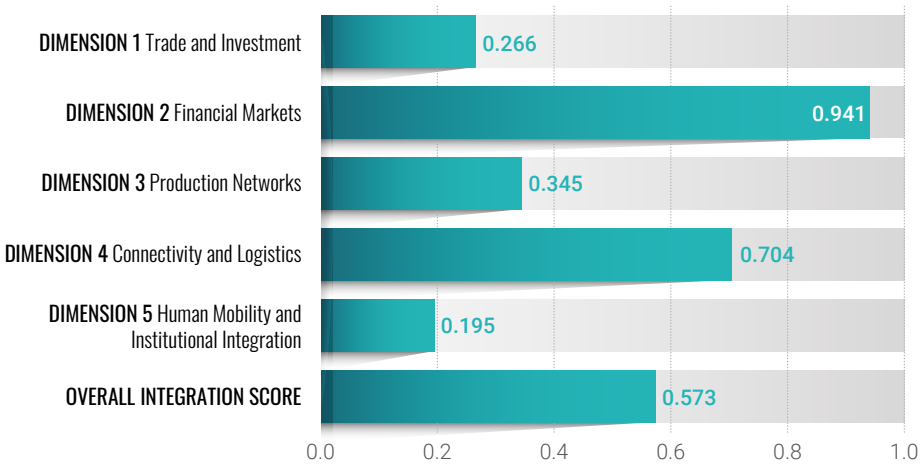


SUBREGIONAL SCORE (2022)

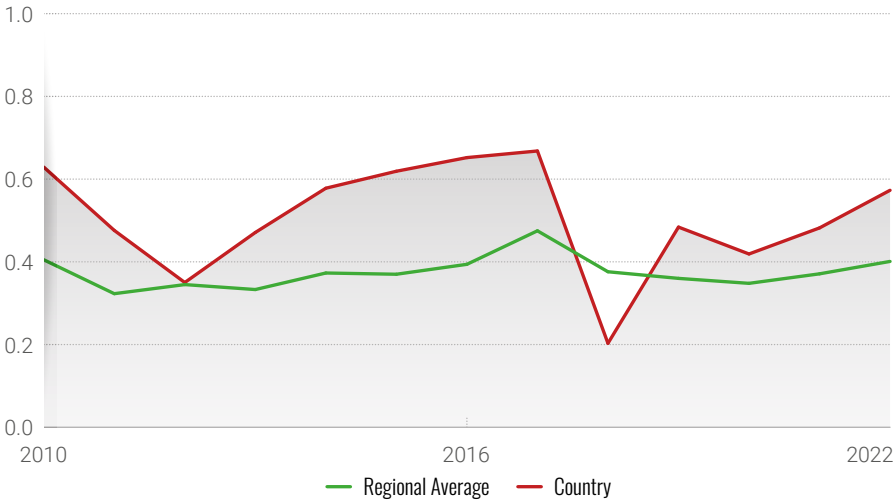


REGIONAL SCORE (2022)

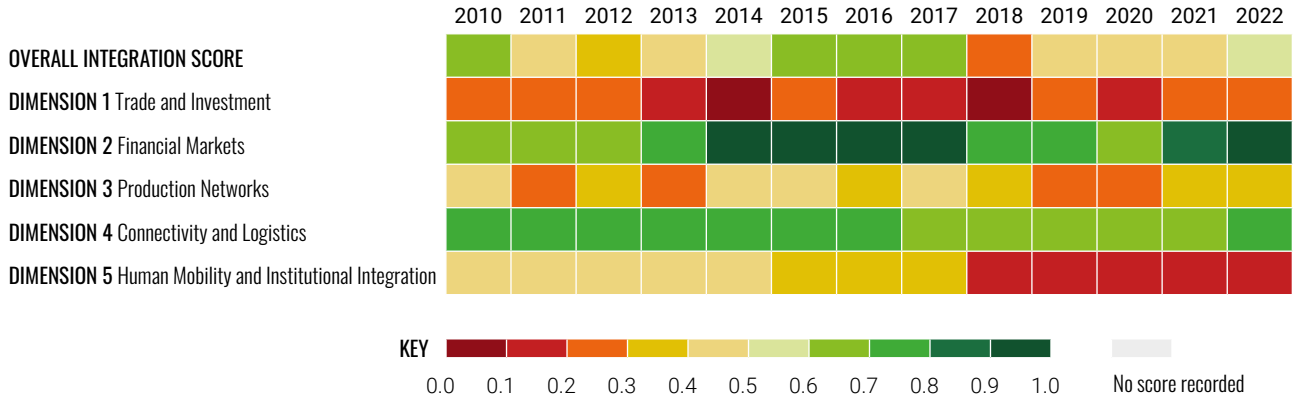
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



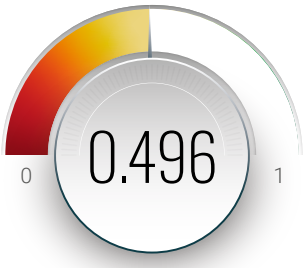
COUNTRY INTEGRATION TRENDS



COUNTRY PROFILE

SAUDI ARABIA

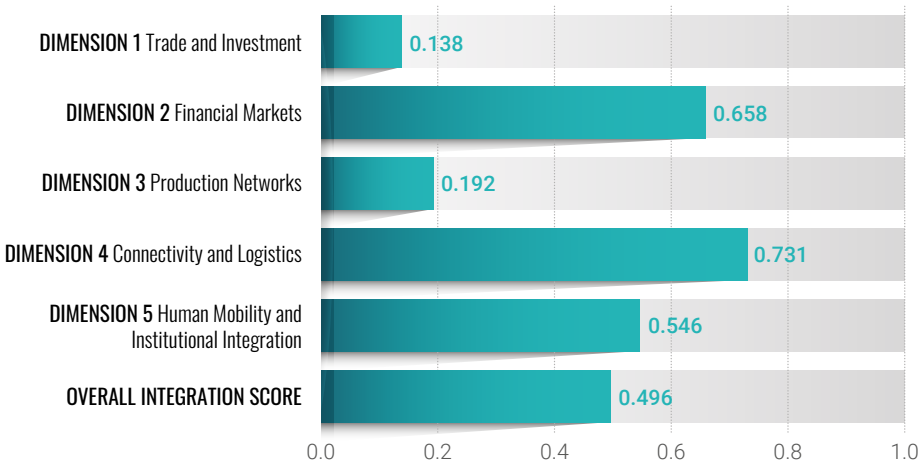
COUNTRY SCORE (2022)



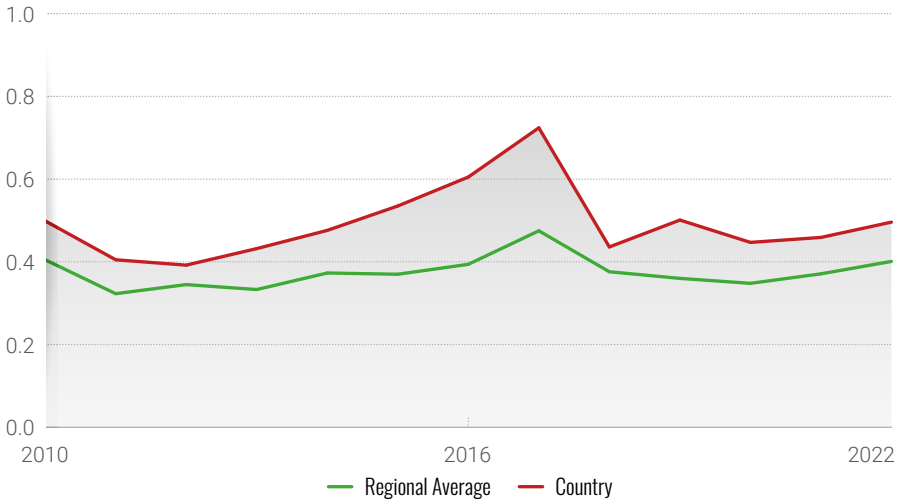
SUBREGIONAL SCORE (2022)

REGIONAL SCORE (2022)

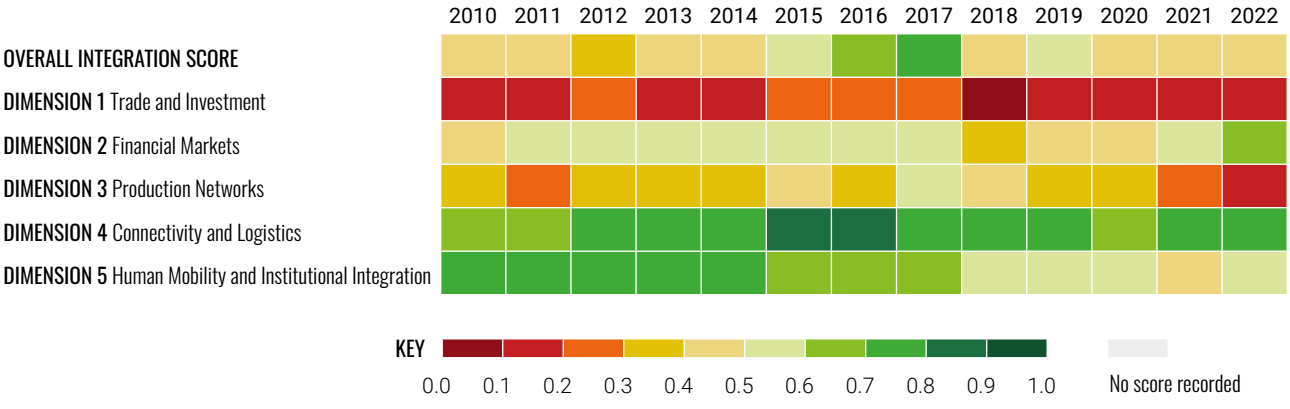
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

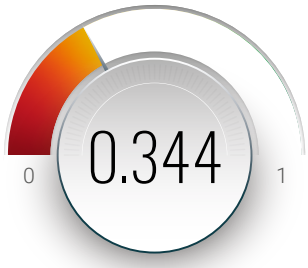


COUNTRY PROFILE

SUDAN

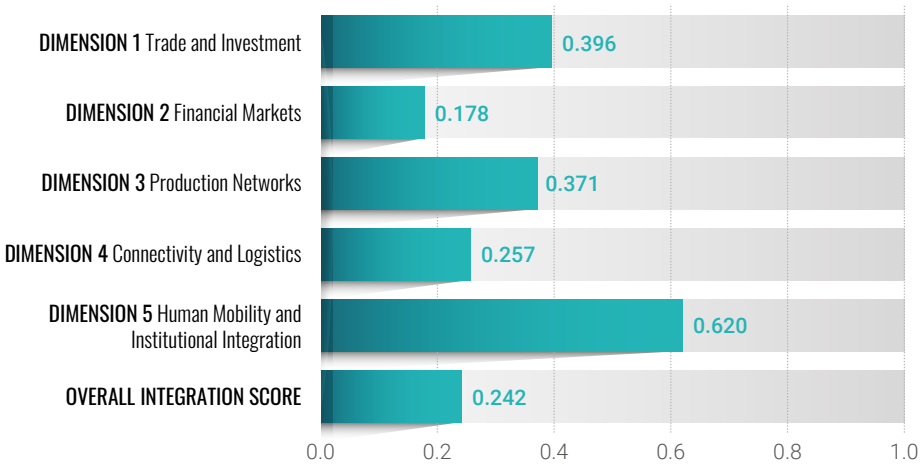
COUNTRY SCORE (2022)

SUBREGIONAL SCORE (2022)

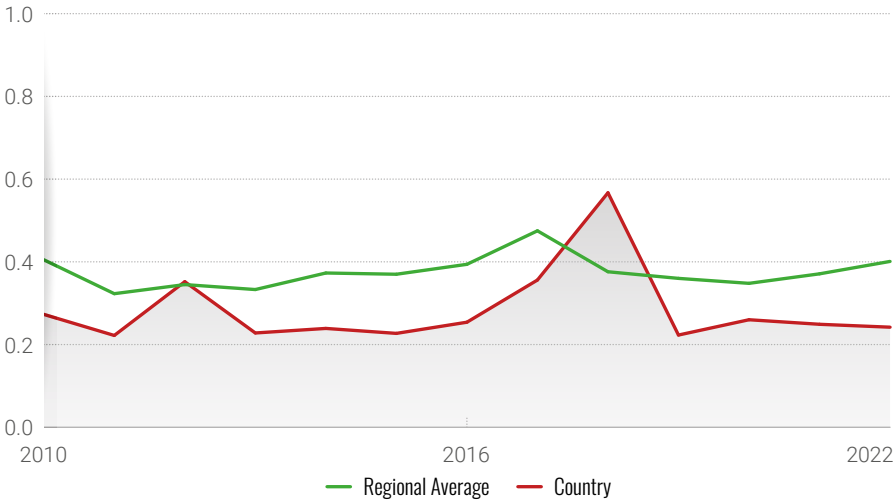


REGIONAL SCORE (2022)

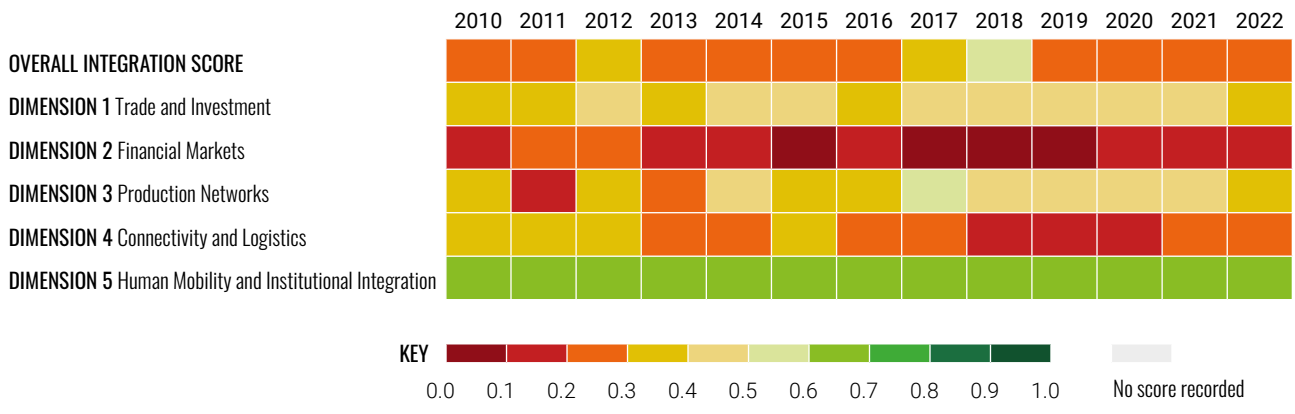
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

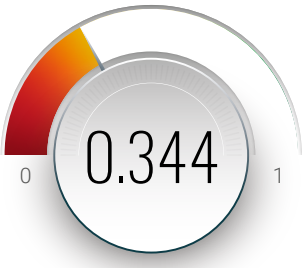


COUNTRY PROFILE

SYRIA

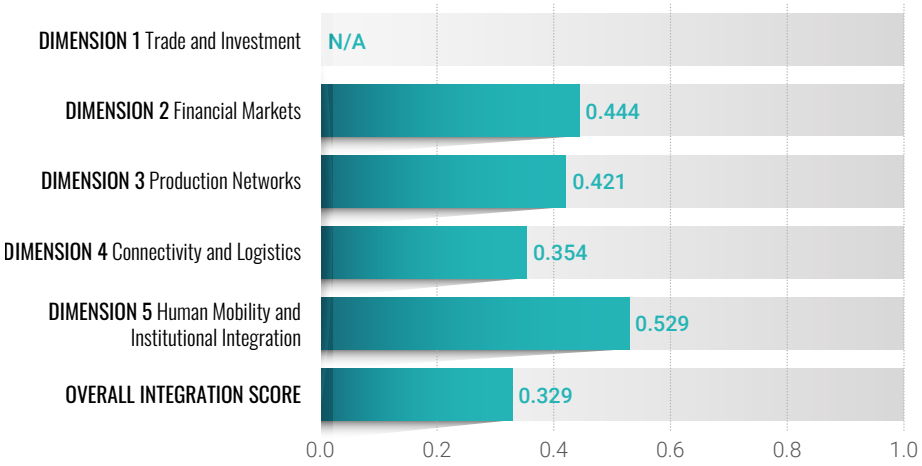
COUNTRY SCORE (2022)

SUBREGIONAL SCORE (2022)

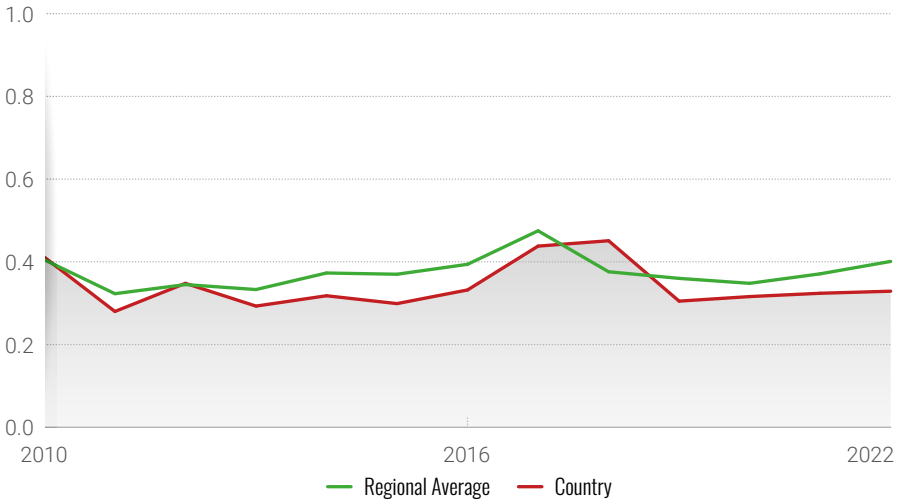


REGIONAL SCORE (2022)

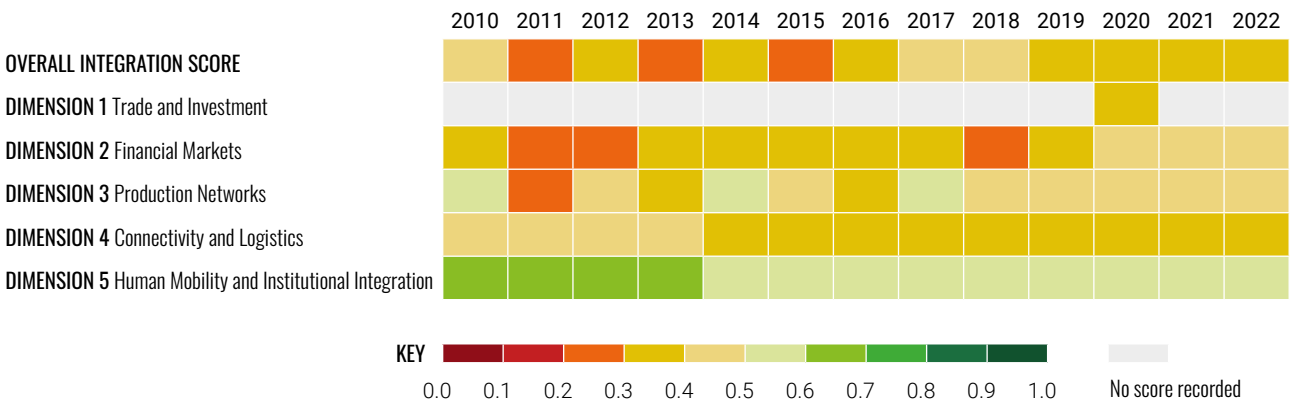
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

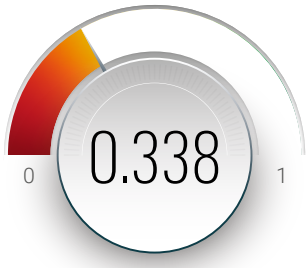


COUNTRY PROFILE

TUNISIA

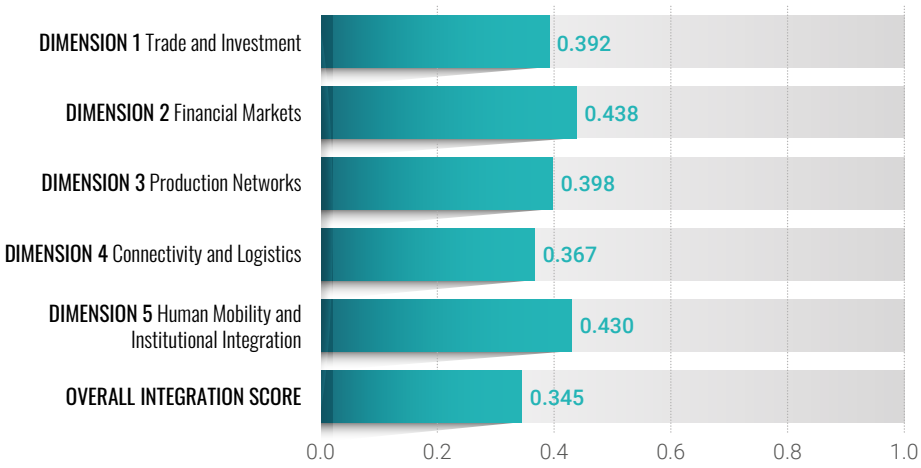
COUNTRY SCORE (2022)

SUBREGIONAL SCORE (2022)

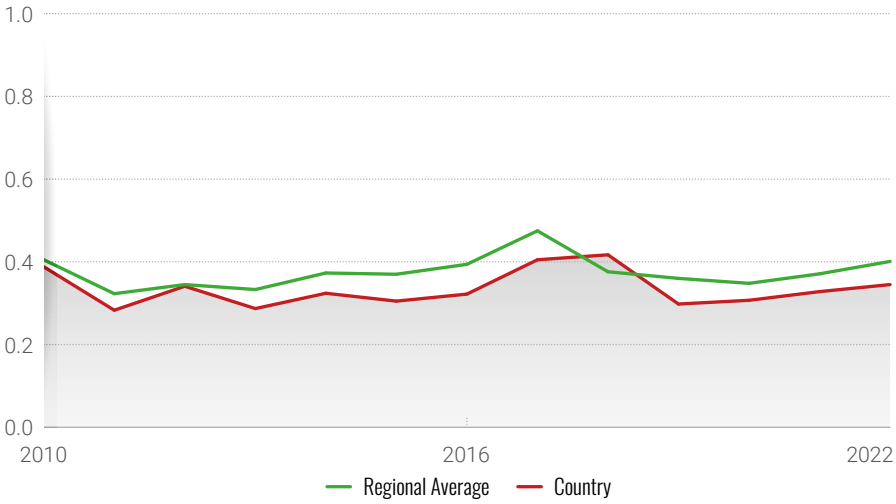


REGIONAL SCORE (2022)

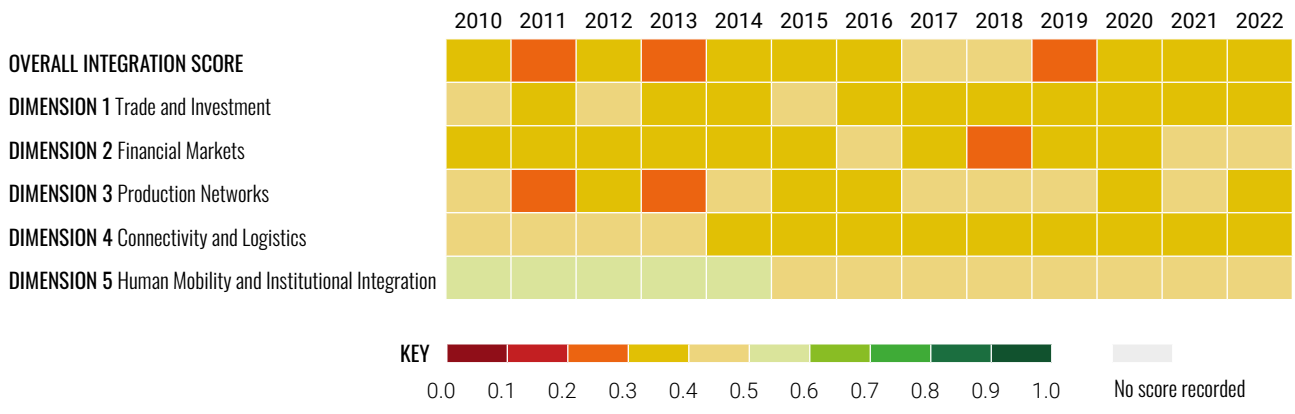
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



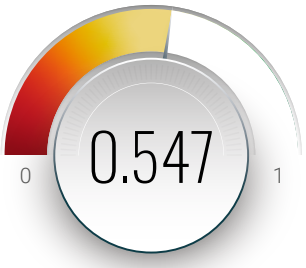
COUNTRY INTEGRATION TRENDS



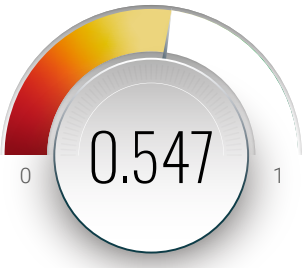
COUNTRY PROFILE

U.A.E.

COUNTRY SCORE (2022)

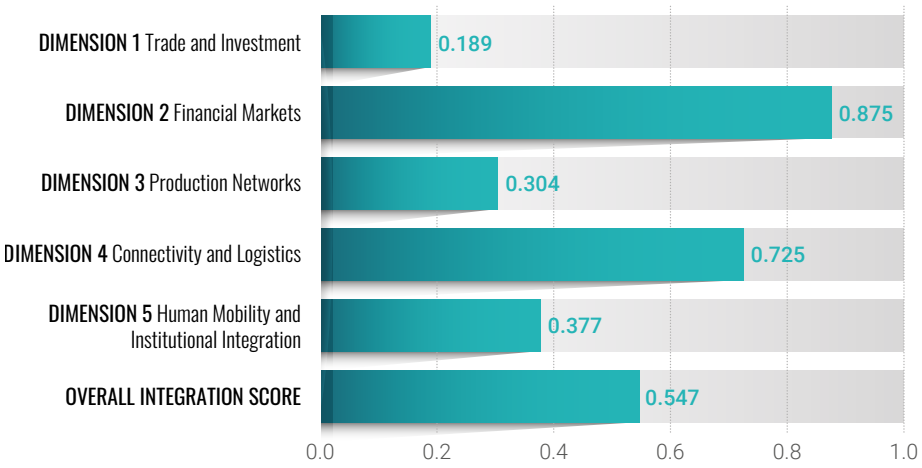


SUBREGIONAL SCORE (2022)

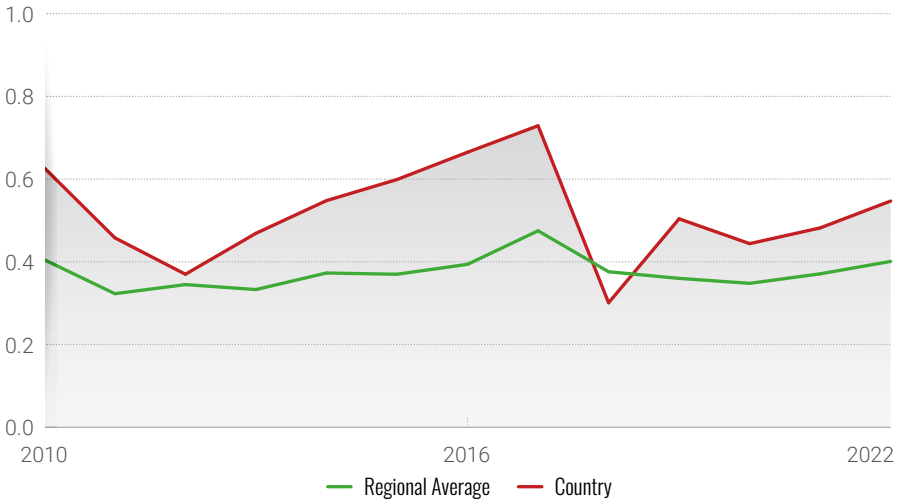


REGIONAL SCORE (2022)

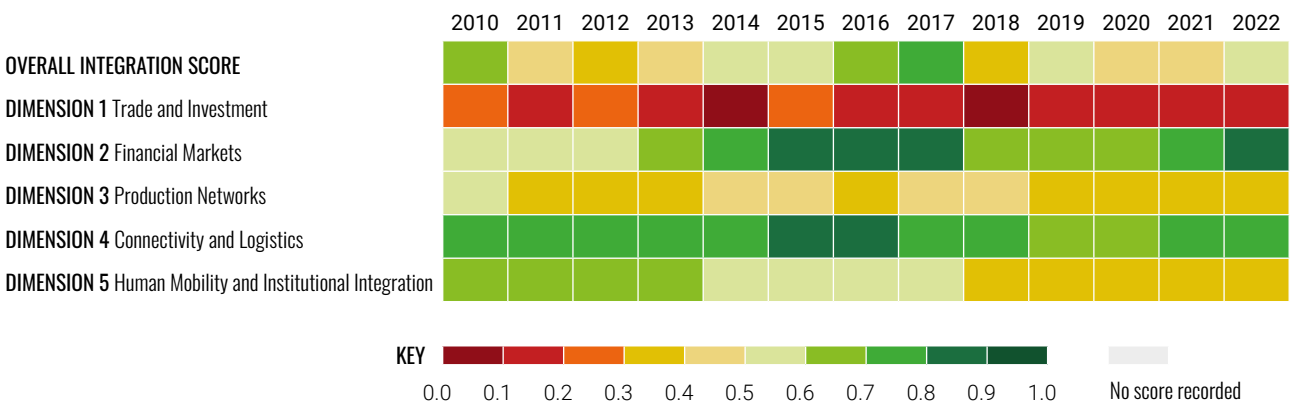
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS

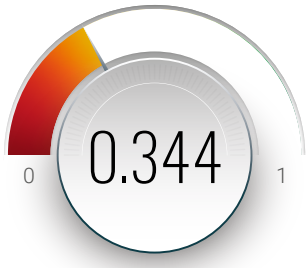


COUNTRY PROFILE

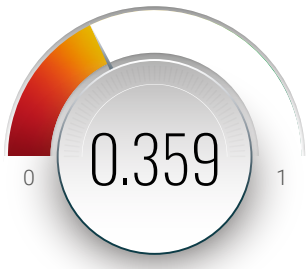
YEMEN

COUNTRY SCORE (2022)

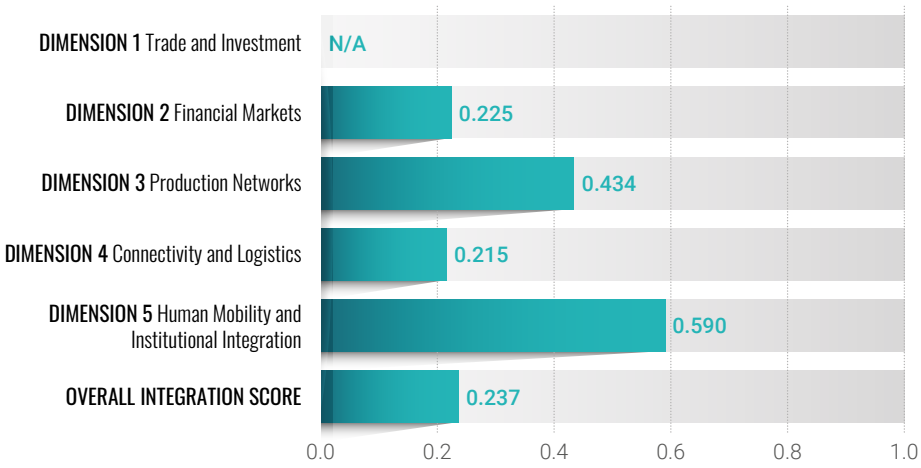
SUBREGIONAL SCORE (2022)



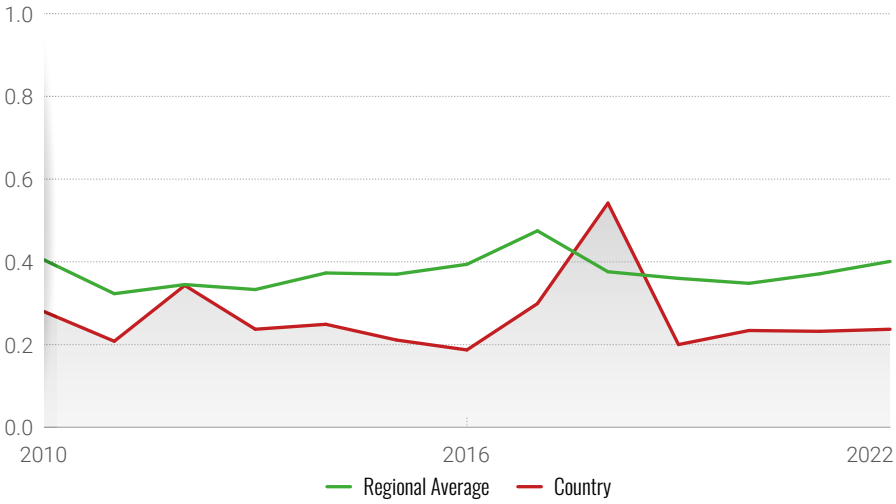
REGIONAL SCORE (2022)



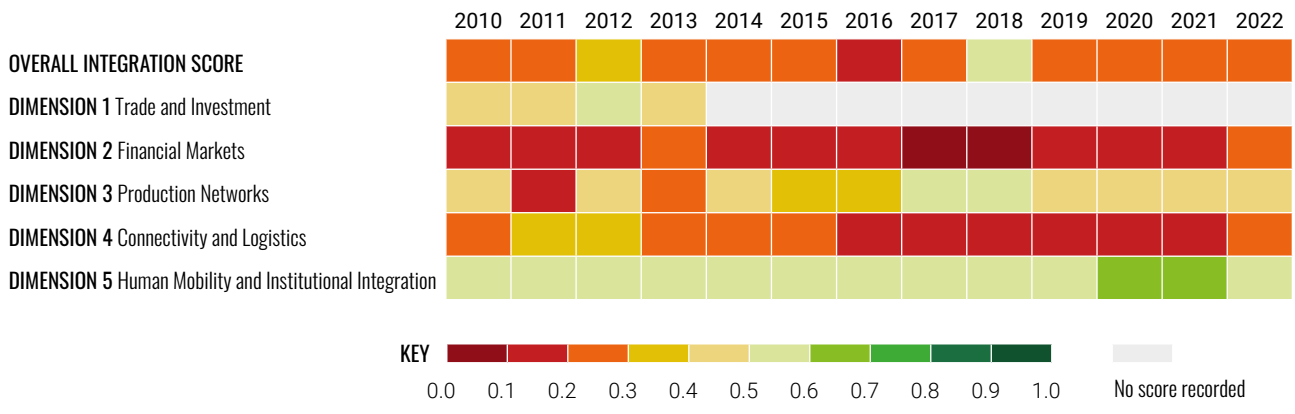
COUNTRY SCORES BY 5 INTEGRATION DIMENSIONS (2022)



OVERALL INTEGRATION SCORE TRENDS: COUNTRY vs. REGIONAL AVERAGE



COUNTRY INTEGRATION TRENDS



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INDEX DATA SOURCES

DIMENSION	INDICATOR NAME	DATA SOURCES
I. Trade and Investment Integration	Ratio of intra-Arab exports to total exports	International Monetary Fund (IMF). Direction of Trade Statistics. **www.imf.org/en/Data**
	Ratio of intra-Arab imports to total imports	International Monetary Fund (IMF). Direction of Trade Statistics. **www.imf.org/en/Data**
	Ratio of intra-Arab international trade to total international trade	International Monetary Fund (IMF). Direction of Trade Statistics. **www.imf.org/en/Data**
	Ratio of intra-Arab FDI inflows to total FDI inflows	Orbis Cross-Border Investments Database
	Ratio of intra-Arab FDI outflows to total FDI outflows	Orbis Cross-Border Investments Database
II. Financial Markets Integration	Ratio of intra-Arab cross-border equity liabilities to total cross-border equity liabilities	IMF Coordinated Portfolio Investment Survey
	Ratio of intra-Arab cross-border bond liabilities to total cross-border bond liabilities	IMF Coordinated Portfolio Investment Survey
	Financial institutions depth index	IMF Financial Development Index Database
	Financial markets depth index	IMF Financial Development Index Database
III. Production Networks	Average trade complementarity index over Arab trading partners	United Nations Conference on Trade and Development (UNCTAD). UNCTADstat. **http://unctadstat.unctad.org/EN/**
	Average trade concentration index over Arab trading partners	United Nations Conference on Trade and Development (UNCTAD). UNCTADstat**. http://unctadstat.unctad.org/EN/**
	Ratio of intra-Arab intermediate goods exports to total intra-Arab goods exports	United Nations. Commodity Trade Database**. https://comtrade.un.org/**
	Ratio of intra-Arab intermediate goods imports to total intra-Arab goods imports	United Nations. Commodity Trade Database. **https://comtrade.un.org/**
IV. Connectivity and Logistics	Average trade cost over Arab trading partners	World Bank and United Nations Economic and Social Commission for Asia and the Pacific. Trade Costs Database. **www.databank.worldbank.org**
	Average liner shipping connectivity index over Arab trading partners	UNCTAD. UNCTADstat. **http://unctadstat.unctad.org/EN/**
	Logistics performance index (overall)	World Bank. Logistics Performance Index. **http://lpi.worldbank.org**
	Fixed broadband subscriptions (per 100 people)	World Bank – World Development Indicators **http://databank.worldbank.org**
V. Human Mobility and Institutional Integration	Share of other IsDB Arab MCs that do not require an entry visa	Henley & Partners. **https://www.henleyglobal.com/**
	Ratio of intra-Arab migrant stock to total migrant stock	United Nations. Department of Economic and Social Affairs, Population Division. International Migration Stock
	Share of other IsDB Arab MCs that have an embassy	**https://www.embassypages.com/**
	Share of other IsDB Arab MCs that have signed FTAs	DESTA **(https://www.designoftradeagreements.org/downloads/)**
	Share of other IsDB Arab MCs that have signed business investment treaties	UNCTAD

APPENDIX: TECHNICAL NOTE ON THE CONSTRUCTION OF THE ISDB INTEGRATION INDEX

Measuring the level of economic and regional integration within a group of economies requires the use of several statistical tools because it is a multi-faceted concept with multiple dimensions. Several efforts have been made to better understand the concept of economic integration to undertake research and policy studies on a regional basis.

For example, the Asian Development Bank (ADB) has developed the Asia-Pacific Regional Cooperation and Integration Index (ARCII), which is a composite index providing a multidimensional measure of regional integration. The index allows for tracking progress on a set of relevant dimensions of regional integration, identifying strengths and weaknesses at the regional, subregional, and national levels.

Similarly, the African Union Commission, United Nations Economic Commission for Africa and the African Development Bank have jointly initiated the Africa Regional Integration Index (ARII) platform, which allows users to access ARII scores, rankings, the data used to compute these scores, and a vast array of related information. The index covers various dimensions of regional integration: trade, production networks, macroeconomy, infrastructure, and free movement of people.

The Islamic Development Bank (IsDB) Integration Index is constructed as a composite index that represents the five main dimensions of economic integration: trade and investment integration, financial markets integration, production networks, connectivity and logistics, and human mobility and institutional integration.

The process of building the IsDB Integration Index is composed of five steps. First is the selection of the input indicators under each specific dimension of economic integration based on literature review results. The second step involves investigating the data sources and their credibility and availability. Third is the review of the methodology for calculating each specific input indicator (i.e., transforming the raw data into input indicators). After that, the fourth step involves relevant normalization and interpolation techniques to make the set of indicators harmonized for the last step of the process. Finally, the principal component analysis (PCA) technique is applied to the dataset, and results are refined by using a spatial autoregressive model to account for spatial dependence.

The construction of the IsDB Integration Index follows the standards of similar exercises accumulated so far. This process can be summarized in the following steps.

I. Gathering the raw data for the 22 input indicators from the sources presented in Table A1

II. Calculating each specific input indicator according to the formula/equation as explained in Table A1

III. Normalizing each indicator by using the minimum-maximum method

IV. Applying applicable interpolation techniques (backward, forward, and linear interpolation)

V. Applying the PCA model in two steps

VI. Refining the results to remove geographical bias

CALCULATION AND FORMULA

TABLE 1A CALCULATIONS OF DIMENSIONAL INDICATORS

DIMENSION	CODE	INDICATOR NAME	CALCULATION / METHOD
I. TRADE AND INVESTMENT INTEGRATION	I-a	Ratio of intra-Arab exports to total exports	Exports of country x_{it} to Arab MCs divided by total exports of country x_{it} (Xi = country, Xt=year)
	I-b	Ratio of intra-Arab imports to total imports	Imports of country x_{it} from Arab MCs divided by total imports from country x_{it}
	I-c	Ratio of intra-Arab international trade to total international trade	Total intra-Arab trade divided by total trade
	I-d	Ratio of intra-Arab FDI inflows to total FDI inflows	Intra-Arab FDI inflows divided by total FDI inflows to the country
	I-e	Ratio of intra-Arab FDI outflows to total FDI outflows	Intra-Arab FDI outflows divided by total FDI outflows from the country
II. FINANCIAL MARKETS INTEGRATION	II-a	Ratio of intra-Arab cross-border equity liabilities to total cross-border equity liabilities	Intra-Arab cross-border equity liabilities divided by total cross-border equity liabilities
	II-b	Ratio of intra-Arab cross-border bond liabilities to total cross-border bond liabilities	Intra-Arab cross-border bond liabilities divided by total cross-border bond liabilities
	II-c	Financial institutions depth index	The index national value
	II-d	Financial markets depth index	The index national value
III. PRODUCTION NETWORKS	III-a	Average trade complementarity index over Arab trading partners	The mean value of the index over IsDB Arab MCs
	III-b	Average trade concentration index over Arab trading partners	The mean value of the index over IsDB Arab MCs
	III-c	Ratio of intra-Arab intermediate goods exports to total intra-Arab goods exports	Intermediate goods are defined as the sum of the following categories in BEC: 111* Food and beverages, primary, mainly for industry 121* Food and beverages, processed, mainly for industry 21* Industrial supplies not elsewhere specified, primary 22* Industrial supplies not elsewhere specified, processed 31* Fuels and lubricants, primary 322* Fuels and lubricants, processed (other than motor spirit) 42* Parts and accessories of capital goods (except transport equipment) 53* Parts and accessories of transport equipment Country x_{it} intermediate exports to other IsDB Arab MCs divided by Country x_{it} total exports to IsDB Arab MCs
	III-d	Ratio of intra-Arab intermediate goods imports to total intra-Arab goods imports	Country x_{it} intermediate imports from other IsDB Arab MCs divided by Country x_{it} total imports from IsDB Arab MCs
IV. CONNECTIVITY AND LOGISTICS	IV-a	Average trade cost over Arab trading partners	The average of Country x_{it}'s trade costs against each individual IsDB Arab MC (one by one)
	IV-b	Average liner shipping connectivity index over Arab trading partners	The average of Country x_{it}'s index values against each individual IsDB Arab MC (one by one)
	IV-c	Logistics performance index (overall)	Only the value for Country x_{it}
	IV-d	Fixed broadband subscriptions (per 100 people)	Only the value for Country x_{it}

TABLE 1A CALCULATIONS OF DIMENSIONAL INDICATORS (CONTINUED)

DIMENSION	CODE	INDICATOR NAME	CALCULATION / METHOD
V. HUMAN MOBILITY AND INSTITUTIONAL INTEGRATION	V-a	Share of other IsDB Arab MCs that do not require an entry visa	Total number of IsDB Arab MCs not requiring an entry visa divided by the total number of IsDB MCs in the Arab region
	V-b	Ratio of intra-Arab migrant stock to total migrant stock	Total migrant stock in country x_{it} from all IsDB Arab MCs divided by total migrant stock in country x_{it} from all over the world
	V-c	Share of other IsDB Arab MCs that have an embassy	Total number of IsDB Arab MCs having an embassy in country x_{it} divided by the total number of IsDB MCs in the Arab region
	V-d	Share of other IsDB Arab MCs that have signed FTAs	Total number of IsDB Arab MCs with signed FTAs divided by the total number of IsDB MCs in the Arab region
	V-e	Share of other IsDB Arab MCs that have signed business investment treaties	Total number of IsDB Arab MCs with signed business investment treaties divided by the total number of IsDB MCs in the Arab region

IMPUTATION OF MISSING DATA

There are several interpolation techniques for imputing missing data. For the IsDB Integration Index, three methods have been used: linear regression (interpolation), forward interpolation, and backward interpolation.

LINEAR REGRESSION (INTERPOLATION):

The function applied for linear interpolation is the STATA statistical package "ipolate" and its attributes. The function generates a new indicator which is a linear interpolation of the original indicator based on the existing values. When the original value of the indicator is not missing or repeated, the new indicator simply takes the original value. The formula used is as follows:[17]

$$y = \frac{y1-y0}{x1-x0}(x - x0) + y0 \qquad (1)$$

where (x_0,y_0) and (x_1,y_1) are the closest points for missing y at x.

If the missing value is at the end of the time series, then forward interpolation is applied to fill in the gaps in the data. When the missing value is at the beginning of the time series, then backward interpolation techniques are applied to bridge the gap.

[17] Meijering, E. 2002. A chronology of interpolation: From ancient astronomy to modern signal and image processing. Proceedings of the IEEE 90: 319–342.

NORMALIZATION OF THE RAW DATA OF INDICATORS

The raw data for the selected indicators represent different scales, such as ratios, percentages, averages and others. All indicators convey quantitatively different information in different measurement units. Thus, the normalization of the data before applying the PCA is required to account for scaling issues and to avoid mixing apples and oranges. The resulting normalized indicators range between 0 and 1, with higher values denoting greater regional economic integration and lower values denoting less integration.

Time series data helps in employing the panel normalization and interpolation of the raw indicators over time. It also helps maintain the consistency of the indicator values over time. The employed normalization formula takes into consideration the country and the time. The formula used is as follows.

$$\hat{x}_{it} = \frac{x_{it} - \min\ (x_{it})}{\max\ (x_{it}) - \min\ (x_{it})} \quad (2)$$

where x_{it} is indicator x for country i in year t and $\hat{x}_{it}$ is the normalized indicator for country i in year t.

For the indicators where higher values of the original variable imply lower integration, such as average trade concentration ratio and average trade cost ratio, the transformation is given as follows:

$$\hat{x}_{it} = 1 - \frac{x_{it} - \min\ (x_{it})}{\max\ (x_{it}) - \min\ (x_{it})} \quad (3)$$

WEIGHTING AND AGGREGATION

PCA is employed in two stages to arrive at the final scores for economic integration at the country-level for a specific year. The first phase involves obtaining the five-dimensional level scores. The second stage involves applying PCA once more to obtain the final and aggregated intra-regional integration scores (values). Finally, simple averaging is conducted to have the aggregated regional level measurement of economic integration.

REFINEMENT TO REMOVE GEOGRAPHICAL BIAS

Given that geographical location potentially affects the individual scores of countries due to spillover effects from neighboring countries, the index results are refined by applying appropriate spatial econometric techniques.

To capture the impact of spatial spillovers, a regression model is developed by using continuous variables of land area, real GDP, and population, as well as indicator variables on whether a country is land or sea locked.

Finally, lagged dependent variables are introduced to the model by applying a spatial autoregressive model. The predicted values of the dependent variable (index score) are used as the refined results.

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