منتدى الاستراتيجيات الأردني
JORDAN STRATEGY FORUM

Financial Development in Jordan: The Way Forward

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JORDAN STRATEGY FORUM

The Jordan Strategy Forum (JSF) is a not-for-profit organization, which represents a group of Jordanian private sector companies that are active in corporate and social responsibility (CSR) and in promoting Jordan's economic growth. JSF's members are active private sector institutions, who demonstrate a genuine will to be part of a dialogue on economic and social issues that concern Jordanian citizens. The Jordan Strategy Forum promotes a strong Jordanian private sector that is profitable, employs Jordanians, pays taxes and supports comprehensive economic growth in Jordan.

The JSF also offers a rare opportunity and space for the private sector to have evidence-based debate with the public sector and decision-makers with the aim to increase awareness, strengthening the future of the Jordanian economy and applying best practices.

For more information about the Jordan Strategy Forum, please visit our website at www.jsf.org or contact us via email at info@jsf.org. Please visit our Facebook page at Facebook.com/JordanStrategyForumJSF or our Twitter account @JSFJordan for continuous updates aboutJordan Strategy Forum.

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Policy Papers: A policy paper is a research piece which focuses on a specific issue or problem and provides clear recommendations for policy makers.

1. Background:

The role of finance (banks, stock markets, bond markets, insurance companies, and others) in the process of economic growth and development has been a topic of great interest to academic researchers, as well as to international organizations such as the World Bank (WB), International Monetary Fund (IMF), and the International Financial Corporation (IFC).
The World Bank, for example, states that when financial systems deliver their functions efficiently, they promote economic growth, widen economic opportunities, and even stabilize economies. The following few quotations are worth noting:

1. Economies with **"better-developed financial systems tend to grow faster over long periods of time, and a large body of evidence suggests that this effect is causal: financial development is not simply an outcome of economic growth; it contributes to this growth"** (WB).

2. Financial development **"reduces poverty and inequality by broadening access to finance to the poor and vulnerable groups, facilitating risk management by reducing their vulnerability to shocks, and increasing investment and productivity that result in higher income generation"** (WB).

3. Financial development can help with the **"growth of small and medium sized enterprises (SMEs) by providing them with access to finance. SMEs are typically labor intensive and create more jobs than do large firms"** (WB).

The **"Economic Modernization Vision"** identified financial services as an important sector within the driver "future services" which also includes information and communication technology services, creative industries, health care, trade, and transportation. The vision indicated that:

- While the capital market is a strategic sector, its performance is **modest and needs rejuvenations to further catalyze investment and economic growth.**
- The financial sector has **great strategic potential** if the capital market is developed to contribute to investment and financing.
- One of the proposed initiatives in financial services is to **develop a deep and liquid capital market (bonds and equities).**

Based on the above, the overall objective of this Policy Paper, published by the Jordan Strategy Forum (JSF), is to shed light on Jordan's performance in the IMF's Financial Development Index, and draw some lessons from its deteriorating performance. In addition, based on the European Bank for Reconstruction and Development's (EBRD) Financial Development Index, we outline where Jordan stands on this Index. Accordingly, the Forum presents a set of recommendations mainly concerned with the implementation of the Economic Modernization Vision initiative in its development of the capital market aspect.

2. Financial Development Index

The IMF's Financial Development Index

This index ranks countries' financial development index based on how developed their financial institutions (banks and insurance) and financial markets (stock markets) are in terms of three sub-pillars: **Depth, Access, and Efficiency.**

1. The Financial Institutions Index:

1. **Depth (FID):** Bank credit to the private sector in percent of GDP, pension fund assets to GDP ratio, mutual fund assets to GDP ratio, and insurance premiums to GDP ratio.
2. **Access (FIA)**: Bank branches per 100,000 adults and ATMs per 100,000 adults.
3. **Efficiency (FIE):** Banking sector net interest margin, lending-deposits spread, non-interest income to total income, overhead costs to total assets, return on assets, and return on equity.

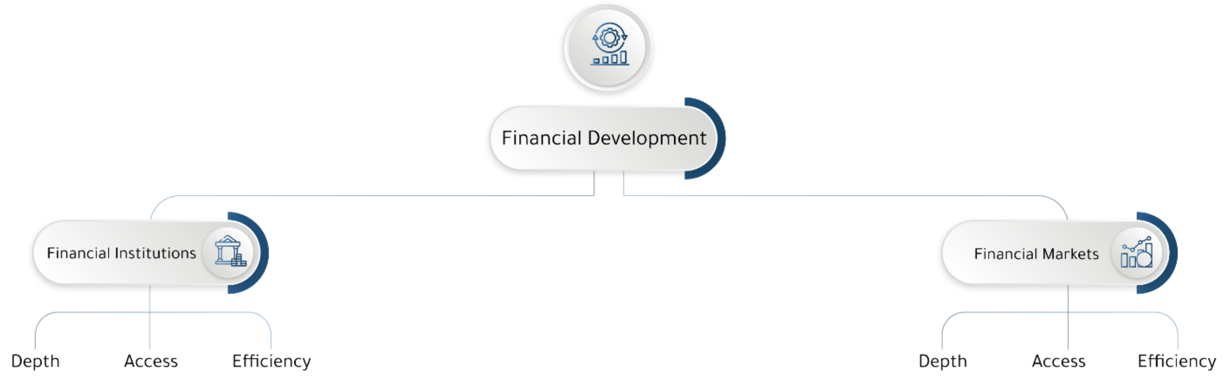
The Financial Markets Index:

A. **Depth (FMD):** Stock market capitalization to GDP ratio, stocks traded to GDP ratio, international debt securities of government to GDP ratio, and total debt securities of financial and non-financial corporations to GDP ratio.

B. **Access (FMA):** Percent of market capitalization outside of top 10 largest companies and total number of issuers of debt (domestic and external, non-financial and financial corporations) per 100,000 adults.

C. **Efficiency (FME):** Stock market turnover ratio (stocks traded to capitalization).

Financial Development Index: The Components



2. The European Bank for Reconstruction and Development' Financial Development Index

The EBRD has recently published a report entitled "Transition Report 2021 - 22 System Upgrade: Delivering the Digital Dividend". In this document, the EBRD "introduces a new index capturing the development of financial markets in the EBRD regions and several comparator economies (both advanced economies and emerging markets)". This Index includes 50 economies and is composed of two sub-indices:

1. The Necessary Conditions for Sustainable Market Development:

This sub-index covers "macroeconomic conditions, legal and regulatory frameworks, market infrastructure and the depth of the local investor base (which is, to some extent, determined by the pension system and other structural policies)".

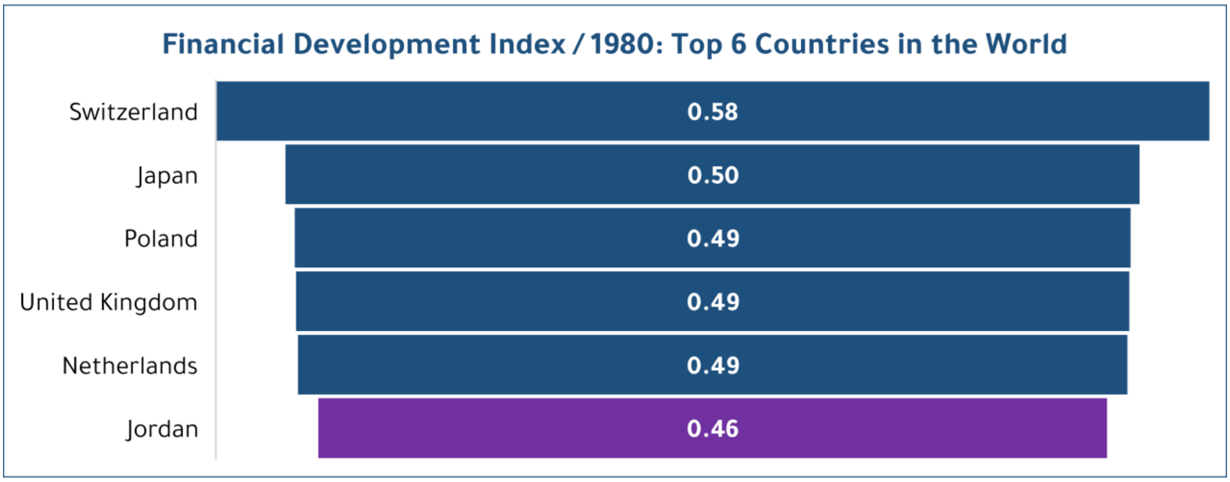
2. Asset Class-Specific Indicators Reflecting the Extent of such Development:

The sub-index "captures market outcomes in terms of the depth, liquidity and diversification of markets across several asset classes: fixed income, equities, money markets and derivatives".

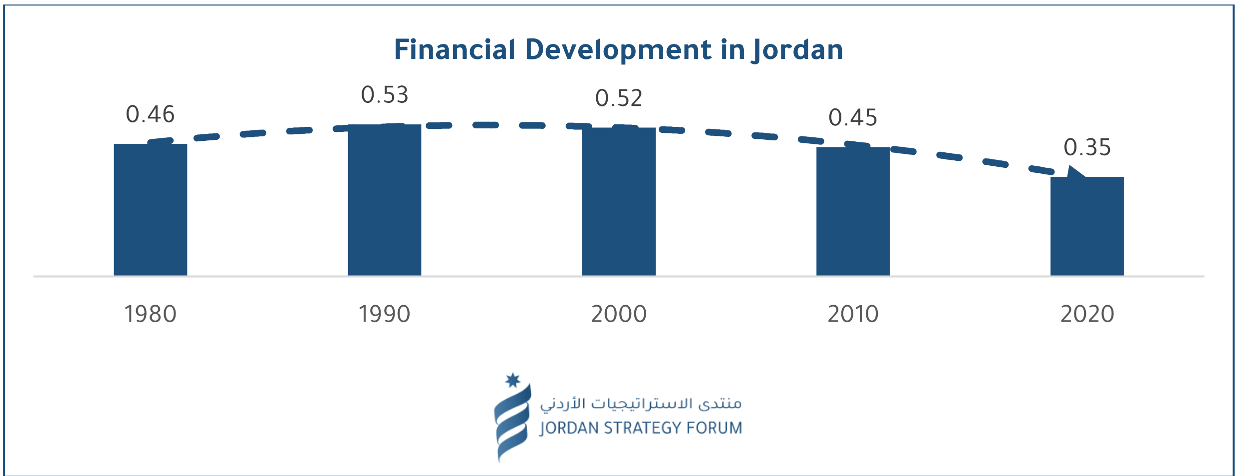
3. Financial Development in Jordan: Some Observations

Based on the IMF's database, this section traces "financial development" in Jordan in its overall aspect, and financial institutions and financial markets aspects.

A. In 1980, the score of Jordan's overall financial development index was equal to 0.46. **This score ranked Jordan 6th out of 183 economies.** With a score of 0.58, Switzerland topped the world.



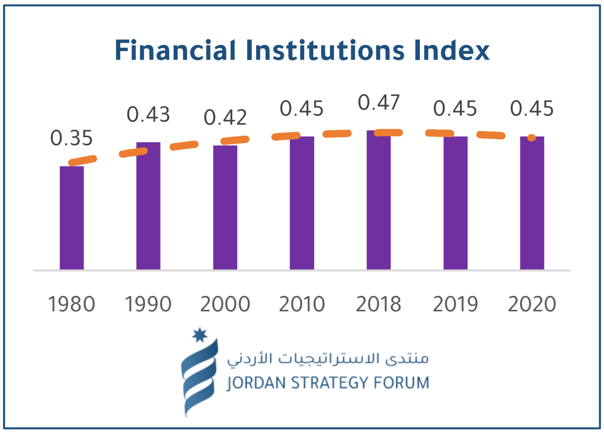
B. Over time, Jordan's score has fallen from its peak in 1990 (0.53) to 0.35 in 2020. **The 2020 score (0.35) ranked Jordan 68th out of 183 economies.**

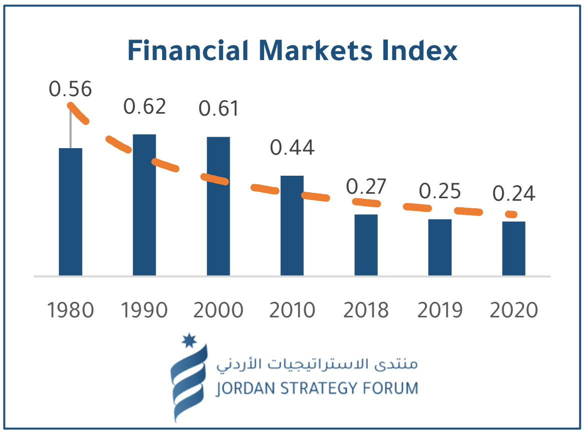


C. In 1980, Jordan topped the Arab economies in its overall financial development score. In 2020, however, the picture has changed dramatically. **Jordan's score (and rank) is higher than that of Lebanon, Egypt, Tunisia, and Algeria ONLY.**

Regional Financial Development Scores & Ranks					
Country	**1980**		**Country**	**2020**	
	Score	**Rank**		**Score**	**Rank**
Jordan	**0.46**	**6**	Qatar	0.53	32
Qatar	0.34	18	UAE	0.46	46
Bahrain	0.24	40	Saudi Arabia	0.45	50
Lebanon	0.22	45	Bahrain	0.41	52
Egypt	0.19	50	Kuwait	0.37	59
Oman	0.19	51	Oman	0.37	61
Kuwait	0.16	61	Morocco	0.35	67
Saudi Arabia	0.15	62	**Jordan**	**0.35**	**68**
Tunisia	0.14	73	Lebanon	0.31	77
UAE	0.13	80	Egypt	0.30	79
Morocco	0.13	81	Tunisia	0.24	98

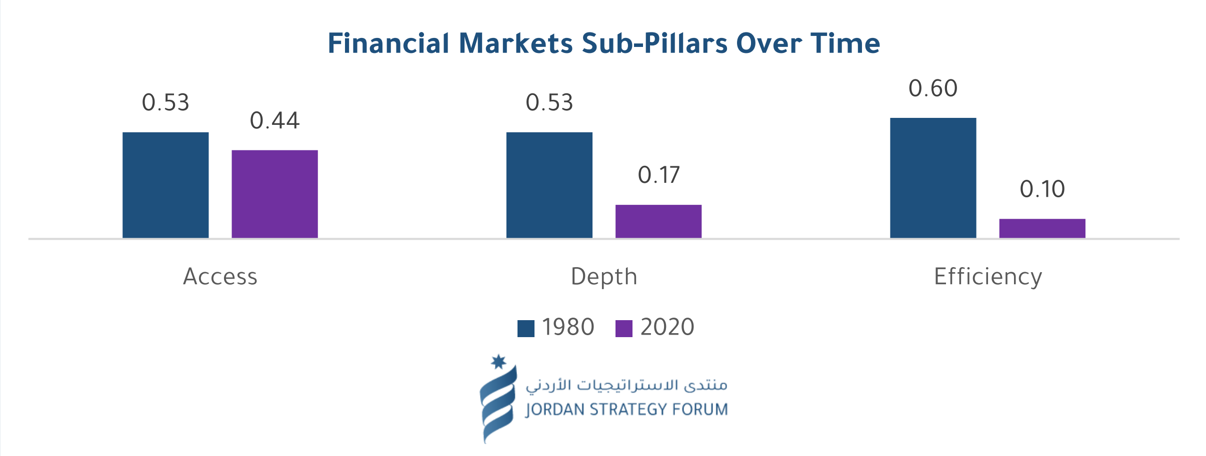
D. During the period 1980 - 2020, the score of Jordan's financial institutions index has increased from 0.35 in 1980 to 0.45 in 2020. Jordan's financial markets index, on the other hand, has fallen from its peak in 1990 (0.62) to its lowest value in 2020 (0.24).





Clearly, the deterioration in Jordan's overall financial development index is due to the financial markets pillar, and not the financial institutions pillar.

E. The scores of the three sub-pillars (access, depth, and efficiency) of financial markets have deteriorated over time. This deterioration is particularly significant in depth and efficiency.



One major component of market access in the "percent of market capitalization of outside of top 10 largest companies". Clearly, the Jordanian capital market is highly concentrated. The top ten companies account for 67.8% of the market capitalization of all listed companies. In addition, the top ten companies account for 55.8% of the trading volume in all listed companies.

Market Capitalization & Trading Volume (JD) / 2021		
Measure	**Top Ten Companies**	**162 Companies**
Market Capitalization (JD)	10,503,900,000	4,991,800,000
Trading Volume (JD)	1,095,653,343	867,946,657
Share in Market Capitalization	**67.8%**	**32.2%**
Share in Trading Volume	**55.8%**	**44.2%**

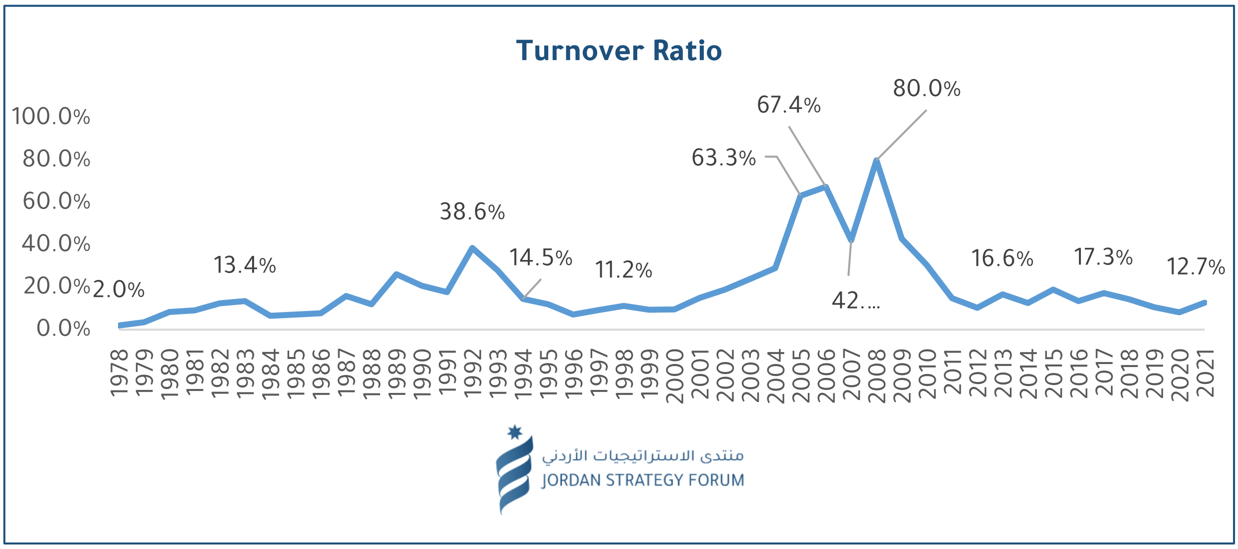
One major component of market depth is the trading volume (in Dinars) in stocks divided by the size of the national economy (GDP).

Clearly, the Jordanian capital market has **"low"** trading volume to GDP ratio. The years 2005-2008 only, witnessed "high" trading volume to GDP ratios.

The Amman Securities Exchange: Trading Volume / GDP							
Year	**Ratio**	**Year**	**Ratio**	**Year**	**Ratio**	**Year**	**Ratio**
1978	0.7%	1989	15.2%	2000	5.6%	2011	13.6%
1979	1.6%	1990	9.7%	2001	10.5%	2012	8.8%
1980	3.6%	1991	10.2%	2002	14.0%	2013	12.4%
1981	5.2%	1992	24.6%	2003	25.7%	2014	8.7%
1982	7.8%	1993	24.9%	2004	46.9%	2015	12.5%
1983	7.9%	1994	11.4%	2005	**189.0%**	2016	8.2%
1984	3.1%	1995	8.9%	2006	**133.1%**	2017	10.0%
1985	3.4%	1996	5.1%	2007	**101.8%**	2018	7.6%
1986	3.1%	1997	6.9%	2008	**126.4%**	2019	5.0%
1987	6.5%	1998	8.3%	2009	55.5%	2020	3.4%
1988	5.6%	1999	6.7%	2010	34.7%	2021	6.1%

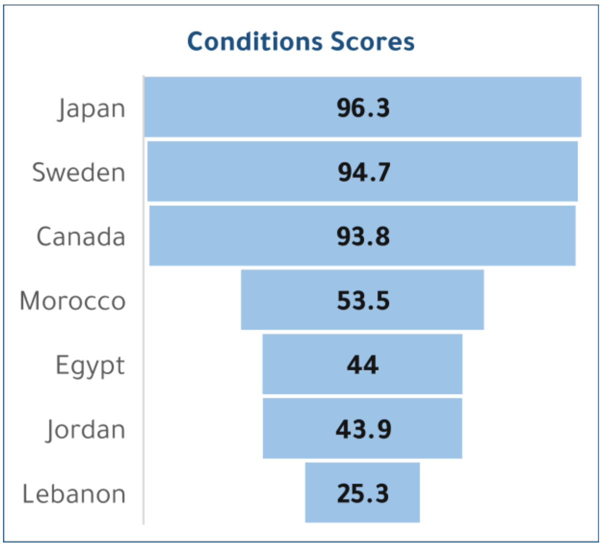
The only component of market efficiency is stock market turnover ratio (trading volume in stocks divided by their market price capitalization).

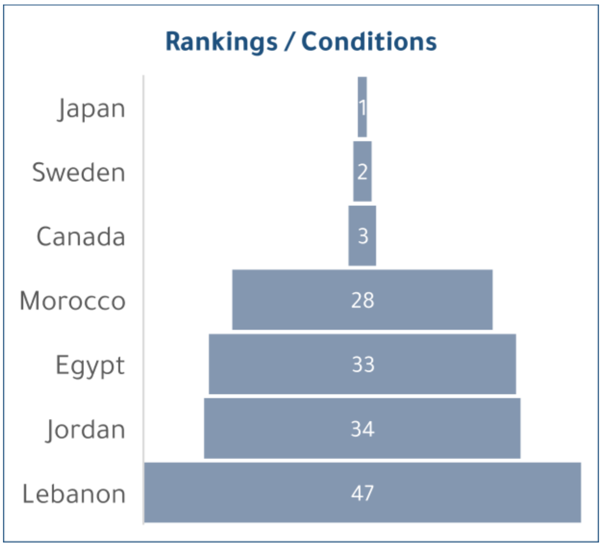
Clearly, the Jordanian capital market has **"low"** trading volume to GDP ratio. The years 2005-2008 only witnessed **"high"** trading volume to market capitalization ratios.



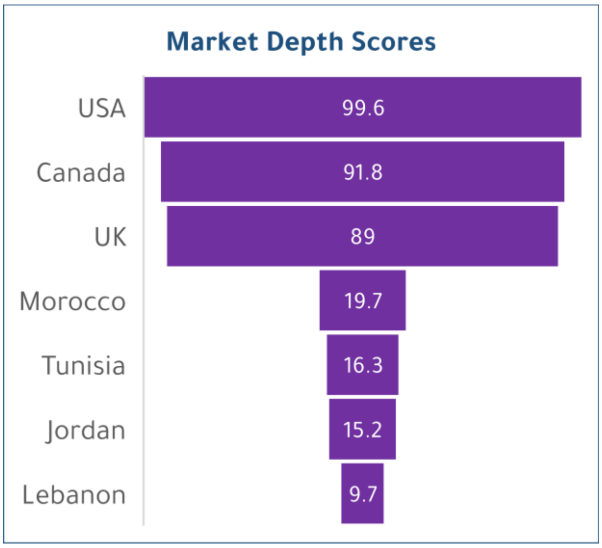
Based on the EBRD's Financial Market Development Index, we outline below some observations about where Jordan stands on this index.

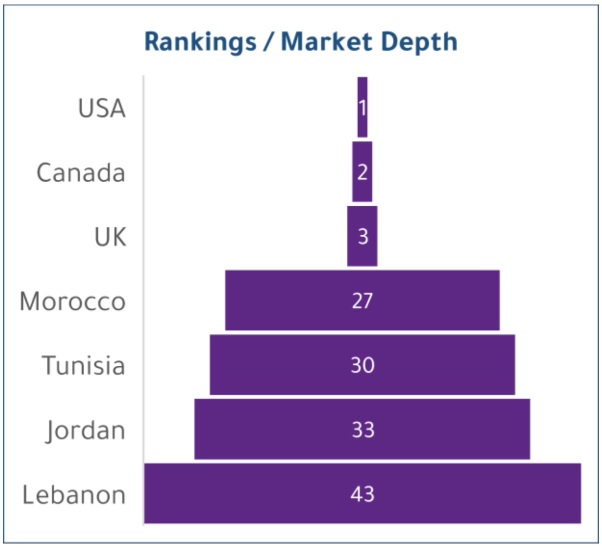
1. The top 3 countries in the conditions score are Japan, Sweden, and Canada. With a score of 43.9, Jordan's rank is 34th out of 50 economies.





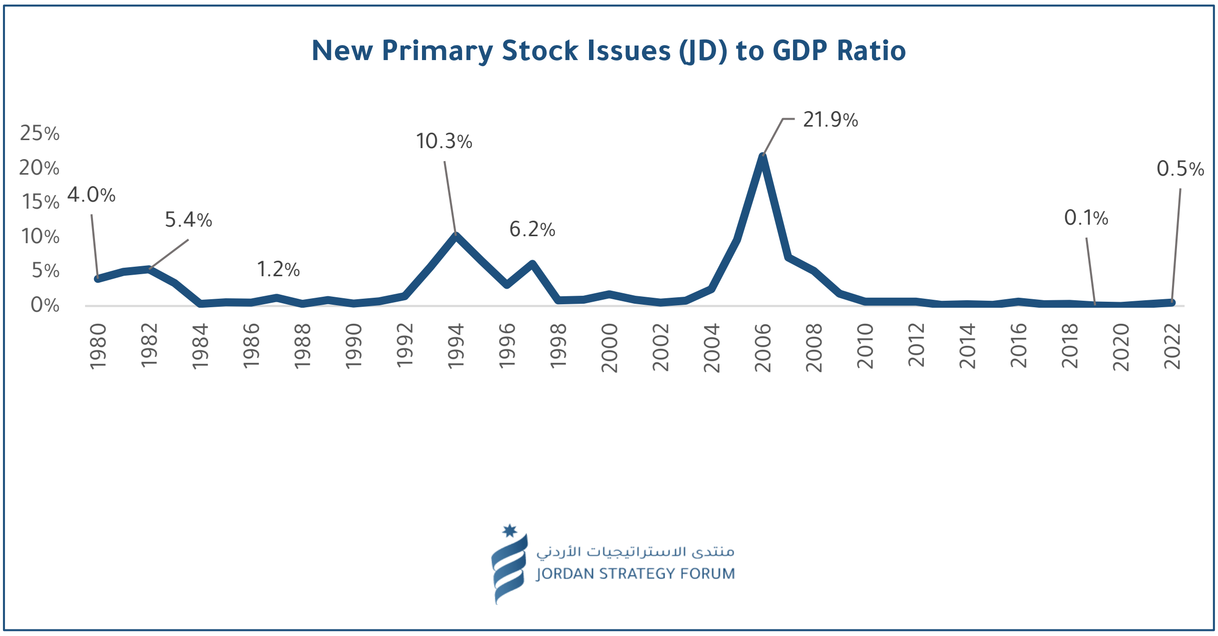
2. The top 3 countries in the conditions score are the USA, Canada, and the UK. With a score of 15.2, Jordan's rank is 43rd out of 50 economies.



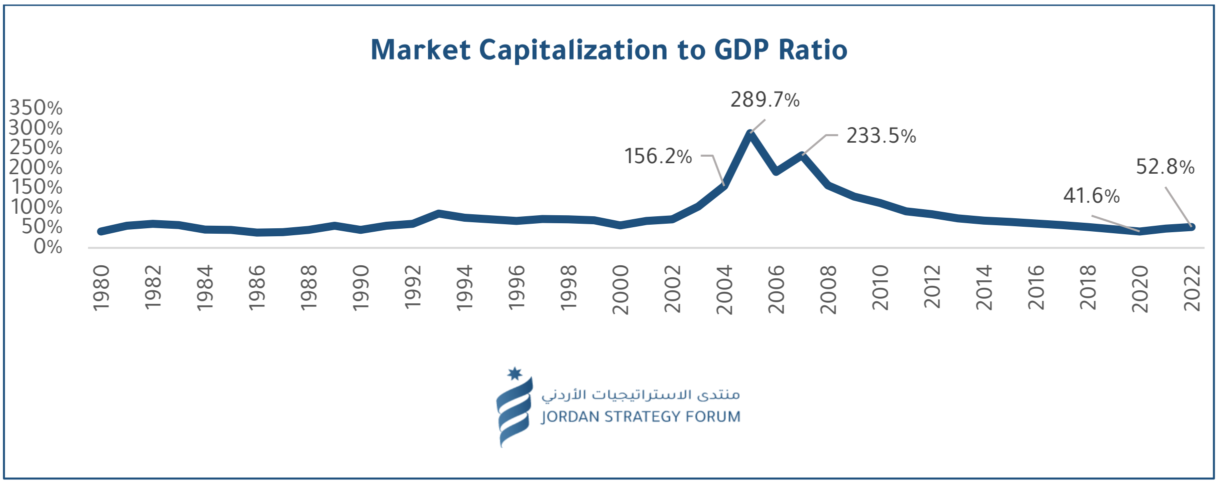


In addition to the above-mentioned observations, it is useful to take note of the following.

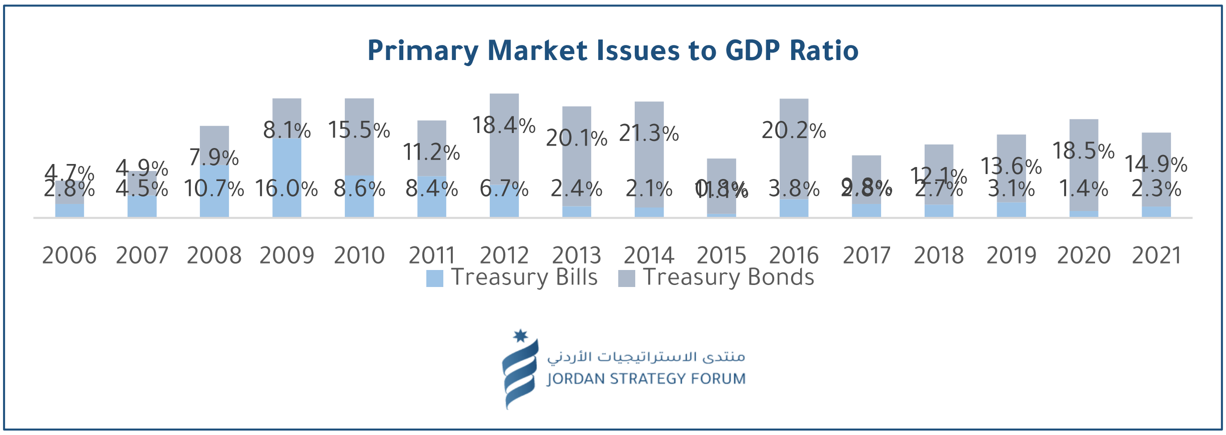
1. Except for a few years, new stock issues to GDP ratios have been modest. Within this context, it is worth noting that "in the period from 2016 - August 31, 2022, Saudi Arabia's stock market witnessed both the highest number of IPOs and the largest total offering amount among GCC stock markets, with a total of $38.9 billion of proceeds through 60 IPOs. It is followed by the UAE with total equity primary offerings value of $14.5 billion through 11 IPOs" (Zawya).



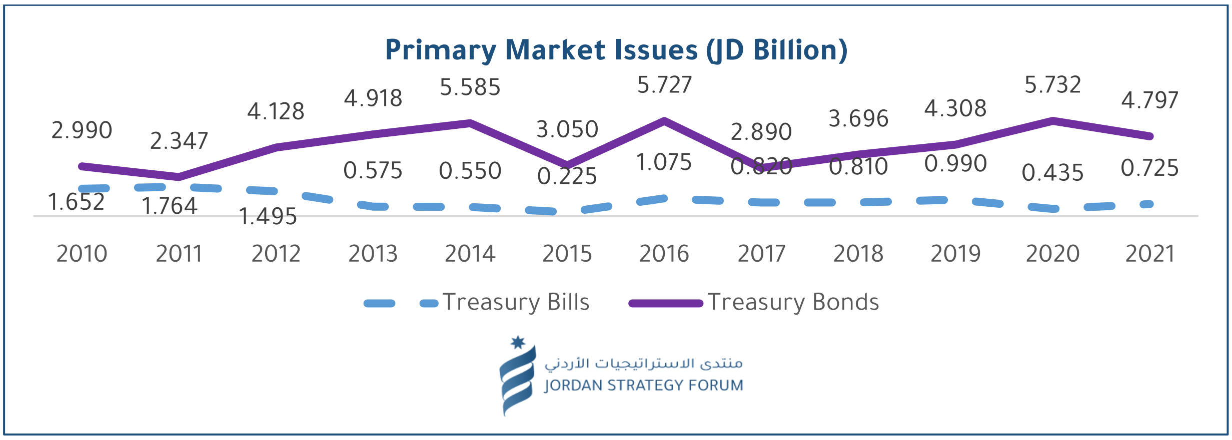
2. It is encouraging to note that recently, the Jordanian capital market has witnessed some improvements in its turnover ratio and market capitalization to GDP ratio. Notwithstanding that the ratios are still modest compared to the period 2005-2007, it is still important to build on such imporvements to further develop the Jordanian capital market.



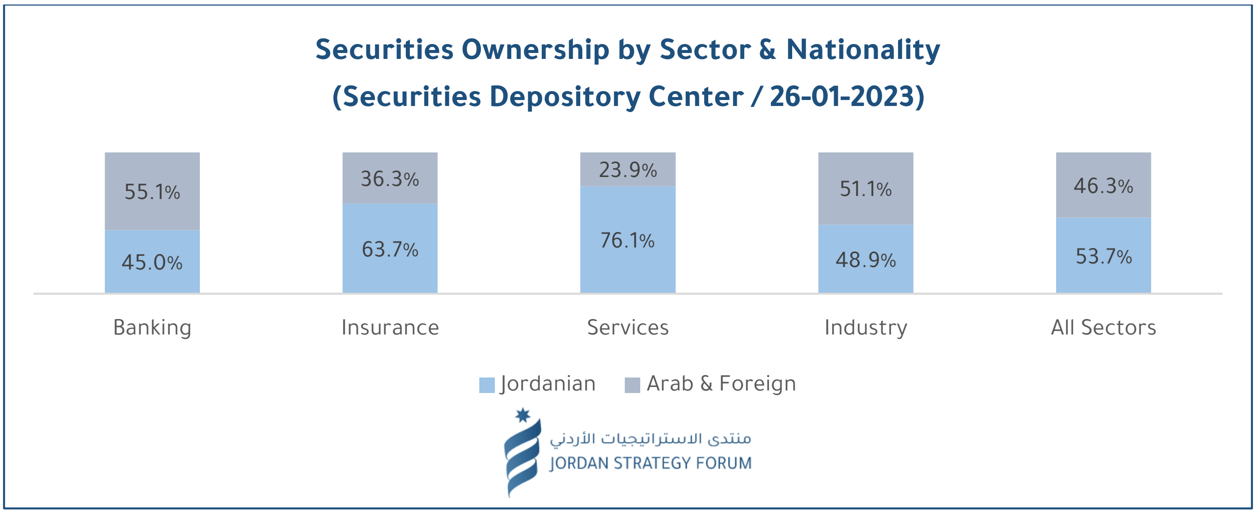
Recently, there has been sizeable issues of government securities. However, these issues are not traded on the secondary market. This is "unusual" in almost all countries that issue government securities.



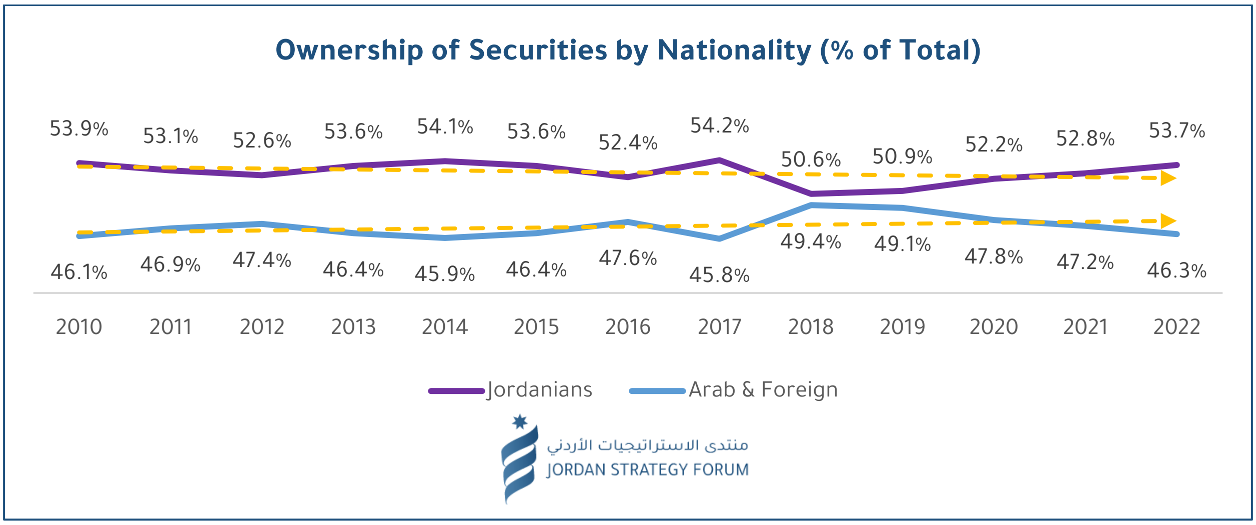
3. With the persistent budget deficits, and the resulting high public debt, it is next to impossible to establish a Government Securities Market (GSM) in its "secondary" segment. The issued government securities (Treasury Bills and Treasury Bonds) are largely sold to licensed banks in Jordan and to the Social Security Investment Fund (SSIF). For example, in 2021, treasury bills and treasury bonds accounted for about 57.0% of the total assets of the SSIF (JD 12.3 billion).



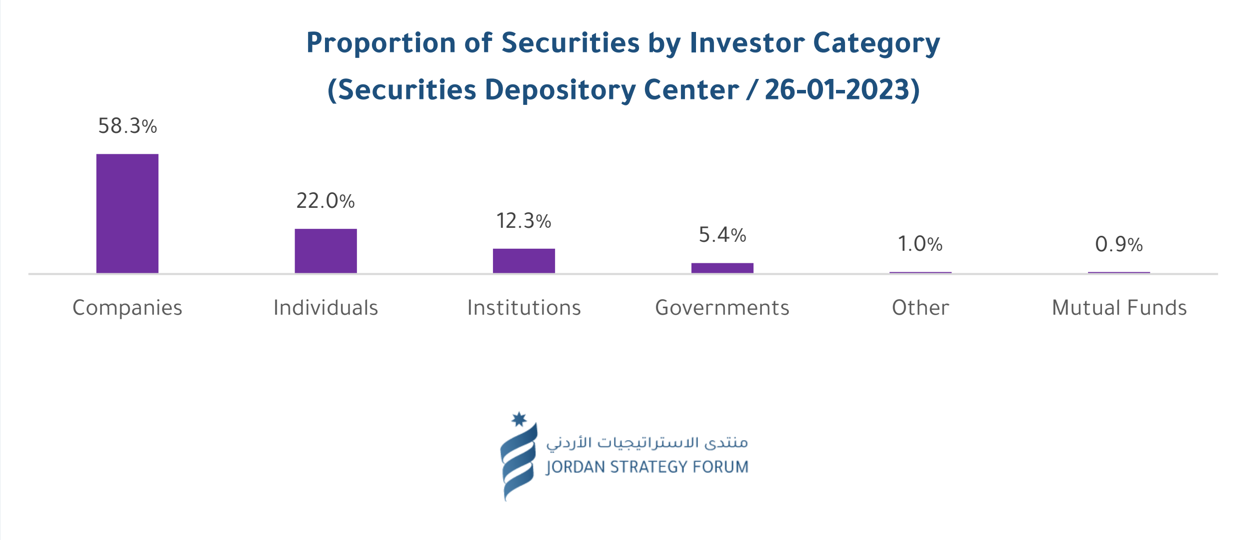
4. Based on the data published by the Securities Depository Center, it is interesting to note that 53.7% of the issued securities are owned by Jordanians. As for the sectoral distribution of these securities, the proportions reflect some great differences. For example, while 76.1% of the services securities are owned by Jordanians, this ratio is equal to 45.0% in the banking sector.



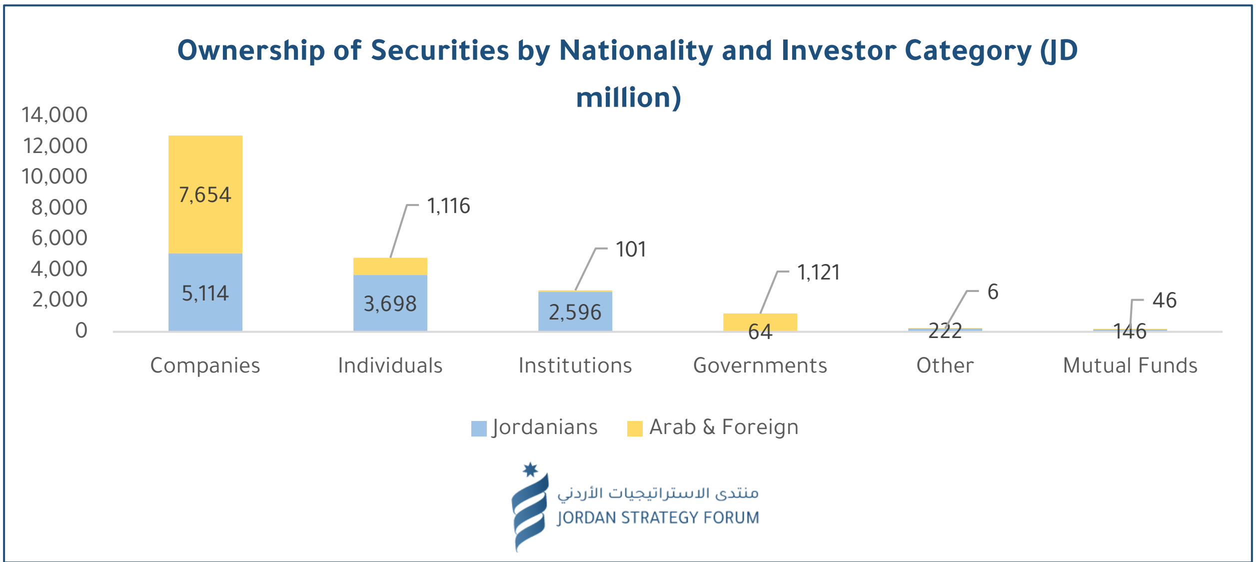
5. Within the context of the above-mentioned, it is also informative to note that the proportion of securities owned by non-Jordanian investors decreased from 49.4% in 2018 to 46.3% in 2022, while the percentage of Jordanians increased from 50.6% to 53.7%.



6. As for the ownership of securities by category of investors, the largest investors were companies (58.3%), individuals (22.0%), and institutions (12.3%). On the other hand, governments (5.4%) and mutual funds owned the smallest shares (0.9%).



7. Relative to the above, companies own the largest share of securities with a total value of JD 12,768 million, Jordanians own 40% of this value. On the other hand, mutual funds own the smallest share of securities with a total value of JD 192 million, Jordanians own 76% of this value.



4. The Jordanian Capital Market: Amman Stock Exchange (ASE)

From the outset, it must be stated that the ASE is an important institution. Indeed, the market boasts the listing of some of the largest companies in the country. These include manufacturing companies, mining companies, and services companies. These companies realize many advantages from getting listed on a stock exchange. In addition, listed firms provide investors with a few benefits as well.

1. Listed companies have easier means to raise additional capital as they become well-known to potential investors. Listed companies can raise funds to finance their expansion.

2. Listed companies attract the attention of investors, analysts, newspapers, magazines, television channels, and others. On average, such attention can promote and enhance listed companies' goodwill and reputation in the market.

3. The stock market offers shareholders / investors a variety of financial securities, such as shares, bonds, derivations, and options, to invest in. Such a choice is beneficial in the diversification of their investment portfolios.

4. When individuals as well as institutions invest in financial securities, their interests are well-protected by the existing regulatory framework. This helps in reducing risks due to fraudulent activities of companies.

Within the context of the economic importance of the ASE, benefits of companies getting listed on a stock exchange, and the low and deteriorating scores in Jordan's financial markets index, it is critically important to note the instrumental and demonstrable role of **liquid secondary markets.** A liquid secondary market enables investors to get their orders (buy and sell) executed immediately and as cheaply as possible.

For all stock markets, the concept of liquidity is extremely important for two main reasons:

1. **The Level Effect:** The fact that profitable capital investment projects require long-term commitments of funds, the presence of a liquid secondary market encourages savers to invest in the issued securities (stocks and bonds) because they know that they can quickly and cheaply sell them on the secondary market whenever they choose to do so.

2. **The Efficiency Effect:** A liquid secondary market provides investors with superior diversification benefits, and this leads them to shift their investment portfolios from **"safe with low-return projects"** to **"riskier with high-return projects"**. Such shifts in

the capital flows improve the efficiency in the capital allocation process and promote real economic growth.

In the ASE, the market-making mechanism is order-driven. Under this system, strict price and time priority rules are followed. In other words, for any two or more buy (sell) orders, the one with the highest (lowest) price has execution priority. If two or more orders of the same type and price are noted, the order which was noted first has execution priority.

As it stands, the trading mechanism of the ASE tends to suffer from one major weakness and that is lack of immediacy or liquidity. To understand this weakness in more detail, we outline in the Appendix a few trading scenarios. Based on these scenarios, one can understand why the performance of the ASE, in terms of the IMF's efficiency and depth measures, are weak. After all, because of its trading mechanism (order-driven), the ASE suffers from low turnover ratio (efficiency). In addition, because price decreases and price increases are not symmetrical, this problem tends to discourage price increases over time. The market is weak in its capitalization to GDP ratio and in its trading volume to GDP ratio (depth). In addition, the ASE, given its existing trading mechanism, suffers from high liquidity cost.

To improve Jordan's score (and rank) in the IMF's Financial Development Index, relevant stakeholders should do what is necessary to increase:

A. The number of listed firms.
B. Trading volume in the shares of the listed companies.

5. Results & Recommendations

All stock markets have one thing in common and that is to bring buyers and sellers of securities together and trade on the secondary market. In the ASE, and as discussed in the previous section, the market-making mechanism is order-driven. Order-driven stock markets suffer from lack of immediacy. Investors cannot be assured of getting their orders executed immediately. In addition, liquidity cost (bid-ask spread) in such markets tends to be high.

To achieve the Economic Modernization Vision's Financial Services, especially the initiative whose objective is to "develop the capital market to become more liquid and deeper (stocks and bonds)", we provide below a set of recommendations whose purpose is to improve Jordan's financial development.

A. Short Term Policy Recommendations (Less than one Year):

1. Encourage Reverse Stock Split:

The fact that the market price of many listed Jordanian stocks is low (for many, price is even lower than one Dinar), any change in the price (multiples of one penny) tends to be large. This is why it is worth encouraging firms to **"reverse split"** their stocks. **Doing this would increase stock prices and hence reduce liquidity cost.**

3. Examine the percentage of ownership by major shareholders in the shares of listed companies and the percentage of the free-float shares to enhance the volume of trading in the secondary market.

3. Re-examine issuance and listing fees and trading tax with the aim of promoting companies to list their securities.

B. Medium Term Policy Recommendation (1 - 2 Years):

2. Introduce Market Makers:

It is worth looking into licensing what are called market makers. Market makers (which can be banks' subsidiaries, an arm of brokerage companies, or any other private sector entity) provide trading (liquidity) services. By making a market for a listed security (stock or bond), market makers enable trading activity on the secondary market. **Market makers are obliged by law to "make a market" for the securities in which they are licensed.**

A market maker carries an inventory of the securities in which he / she makes a market. In addition, a market maker is obliged to continuously quote two prices: The price at which he / she is willing to buy (bid price) and the price at which he / she is willing to sell (ask price). The difference between the buy and sell quotes is called the bid-ask spread. This difference is the market maker's profit. This process is exactly like what the money changers do.

In practical terms, when a market maker receives a buy order, he / she immediately sells the shares / bonds from its inventory at the quoted price (ask). When a market maker receives a sell order, he / she immediately buys the shares / bonds at the quoted price (bid) and adds them to the inventory.

Naturally, when any market maker receives successive buy orders, he / she is "free" to increase the quoted ask price and the quoted bid price as well.

Naturally, when any market maker receives successive sell orders, he / she is "free" to decrease the quoted bid price and the quoted ask price as well.

Without market makers, a buyer would have to wait for a seller to match his / her price. This transaction could take a long time. Without market makers, it is unlikely that most securities would have enough liquidity to support trading volume.

The implications of illiquidity are too serious to ignore:
First, stock price changes tend to be volatile (risky) because they move between wide bid and ask prices.

Second, the international evidence clearly shows that stock returns in illiquid markets tend to be low.

Third, low stock returns discourage listed firms to issue stocks on the primary market to finance their investments.

Stakeholders should license market makers for a "limited number" of good performing and large corporations. Once this introduction is running, it can be introduced to other listed firms.

Relative to the introduction of market makers, it is worth noting that the "Saudi Exchange **(Tadawul)** announced today, Dec. 4, the launch of the market-making framework for equity and derivatives markets to ensure the availability of liquidity and increase price formation efficiency, in line with its efforts to advance the growth of the Saudi capital market as part of the Kingdom's Vision 2030... Market makers have to ensure the availability of liquidity for a listed security by providing continuous quotes throughout market open session".

3. Promote the establishment of Special Purpose Vehicles (SPVs):
It is known that the private party to most Public-Private Partnership (PPP) contracts is a specific project company formed for that purpose (SPV). This project company raises finance through a combination of **equity and debt (provided by banks, or through bonds).**

C. Long Term Policy Recommendation (More than 3 Years):

4. The establishment of government securities market (GSM).

This recommendation involves many benefits (USAID):

First, a GSM exposes the government to financial discipline. When a government runs persistent and excessive budget deficits, market participants in the secondary market would increase the government's cost of funding by lowering the price of the issued securities, and hence, seeking higher yields.

Second, a GSM provides a risk-free benchmark yield curve that other financial markets can use as a reference for pricing financial assets, thereby imparting liquidity to such markets.

Third, a GSM facilitates the transmission mechanism of monetary policy through the yield curve which acts as a channel of integration of various segments of the financial market.

Fourth, a well-functioning bond market enhances economic stability by enabling the government to pursue expansionary fiscal policy in recessionary times. Such a market can prove to be a valuable funding source to finance fiscal stimulus packages. Also, the bond market allows governments (together with the private sector) to finance long-term infrastructure projects known to be conducive to inclusive economic growth.

Within the context of the establishment of a GSM in Jordan, however, it is worth noting that few conditions must be met.

1. The government should be a credible issuer of securities. The size of the public debt should maintain investors' confidence in the ability of the government to meet its financial commitments (i.e., service and repay its borrowings).

2. Investors are willing to pay a higher price for government securities when they trust the government. The yield of a security decreases as its price rises, and this lowers cost of public funding.

3. Macroeconomic conditions should be relatively stable. If inflation is in the double digits and interest rates are high and volatile, investors will not buy long-term securities, and hence, the extension of the yield curve beyond very short-term securities would not be possible, unless the government issues inflation-indexed bonds or variable-rate bonds.

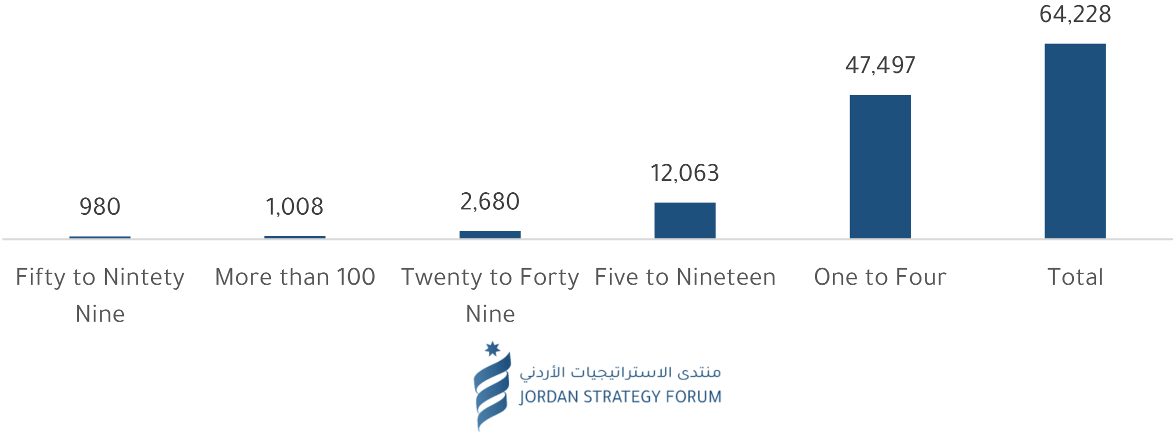
4. The government should be committed to pay market interest rates on its debt. A GSM will not develop if the government sells the issued securities to local banks and to the

Social Security Investment Fund. The yield levels should be determined by the market, and not administratively set.

5. The establishment of small and medium enterprises platform.

Based on the 2021 annual report of the Social Security Corporation (SSC), the total number of compulsory- insured private sector establishments is equal to 64,228. This number is way larger than the 172 listed firms on the ASE. This difference indicates that the ASE should do what is necessary to encourage these private businesses to list their financial securities.

Number of Compulsory Insured Private Establishments According to Employment Size / 2021



Within this context, it would be useful if the ASE establishes what is called an "SME platform". The aim of such a platform is to encourage small and medium sized companies with high growth potential to come forward and list their financial securities. In other words, the platform is expected to offer a new and alternate asset class to informed investors having longer investment horizon. The platform shall allow companies to raise much needed growth capital as they grow, mature and transit to the exchange's main board.

6. Legislation Related to the Capital Markets

In addition to the above-mentioned recommendations, the Jordan Securities Commission, in cooperation with the European Bank for Reconstruction and Development, examined all the existing legislation related to the capital market. Their study recommended harmonizing existing legislations with the existing Securities Law to reach a legislative environment that governs the workings of capital market institutions in accordance with international best practices.

Finally, based on all of the above-mentioned observations, and to achieve the financial services sector initiatives mentioned in the economic modernization vision, especially the initiative whose objective is to "develop the capital market to become more liquid and deeper (stocks and bonds)", it is important to enhance the "independence" of all the relevant institutions (Jordan Securities Commission, Securities Depository Center, and Amman Stock Exchange). For example, one wonders whether or not the decision to halt trading during 2020 for about 50 days as a result of covid-19 was right, given the fact that almost all stock markets in the world did not adopt such a decision.

7. To sum up

It is imperative to adopt the above-mentioned recommendations which can be summarized as follows:

1. Encourage reverse stock splits to increase stock prices and reduce liquidity cost.
2. Introduce Market Makers to provide liquidity.
3. Promote the establishment of Special Purpose Vehicles (SPVs) to accelerate Public-Private Partnership (PPP) contracts.
4. Establish a government securities (bond) market in its secondary aspect to promote budgetary discipline.
5. Establish a small and medium enterprises platform to encourage businesses to list their securities and finance their growth.
6. Enhance the independence of the various institutions of the capital market and raise their technical and technological competences.
7. Align existing legislations with the existing Securities Law to reach a legislative environment that governs the workings of capital market institutions in accordance with international best practices.

8. Appendix 1: The Market-Making Mechanism in the ASE

The trading mechanism in the Amman Stock Exchange is order driven. Below, we outline few scenarios which explain the weaknesses of this mechanism.

First Scenario: An investor could come to the market and instruct his / her broker to buy 1,000 shares at JD 10.0 each. What happens if no counter sell order comes forward (Table A)? **The investor cannot buy. The market is illiquid in its "ability to buy immediately". To buy, this investor must increase his / her price.**

TABLE A: Order-Driven Market			
Buy Orders		Sell Orders	
Shares	Price	Shares	Price
1,000	JD 10.0		

Second Scenario: An investor could come to the market and instruct his / her broker to sell 1,000 shares at JD 10.0 each. What happens if no counter buy order comes forward (Table B)? **The investor cannot sell. The market is illiquid in its "ability to sell immediately". This investor must decrease his / her price.**

TABLE B: Order-Driven Market			
Buy Orders		Sell Orders	
Shares	Price	Shares	Price
		1,000	JD 10.0

Third Scenario: An investor could come to the market to sell 1,000 shares at JD 10.0 each. What happens if the existing counter buy order is at JD 9.5 (Table C)? **The buying investor cannot buy, and the selling investor cannot sell. The market is illiquid in its "ability to buy and sell". The buying investor must decrease his / her price, and or the selling investor must decrease his / her price.**

TABLE C: Order-Driven Market			
Buy Orders		Sell Orders	
Shares	Price	Shares	Price
1,000	JD 9.5	1,000	JD 10.0

Fourth Scenario: An investor could come to the market to sell 1,000 shares at JD 10.0 each while another investor wants to buy at JD 9.5 each. If a third investor comes to the market to buy, he / she can immediately do so at the best available ask / sell price (JD 10.0 each). If he / she changes mind immediately after buying, the best available buy price (JD 9.5).

TABLE D: Order-Driven Market			
Buy Orders		Sell Orders	
Shares	Price	Shares	Price
1,000	JD 9.5	1,000	JD 10.0

In this case, the investor could buy immediately at JD 10.0 and sell immediately after buying at JD 9.5. The difference between these two prices (spread / liquidity cost) is equal to:

(10.0 - 9.5) / [(10.0 + 9.5)/2] = 5.1%.

The market is liquid in its ability to trade immediately, but illiquid in its "high trading / liquidity cost". This cost (liquidity) would be much higher if the stock price was low. Indeed, it would be extremely high if the price of the stock is less than one Dinar. Here, it is worth noting that in the ASE, prices are allowed to change by multiples of one penny (minimum tick).

Fifth Scenario: An investor could come to the market to sell 1,000 shares at JD 10.0 each. The absence of a counter buy order makes him / her reduce the selling price to say, JD 9.8. If no counter buy order arrives at this price (JD 9.8), the selling price might be lowered to JD 9.6, and to even JD 9.4. If a counter buy order comes in the market at JD 9.4, a transaction will occur at JD 9.40 (Table E).

TABLE E: Order-Driven Market			
Buy Orders		**Sell Orders**	
Shares	**Price**	**Shares**	**Price**
1,000	JD 9.4	1,000	JD 10.0
		1,000	JD 9.8
		1,000	JD 9.6
		1,000	JD 9.4

In such a case, the relevant question is simple: What is the reason behind the **"sudden"** decrease in price, within a brief time, from JD 10.0 to JD 9.4? The answer is the absence of **LIQUIDITY** (inability to transact / sell immediately).

Sixth Scenario: An investor could come to the market to buy 1,000 shares at JD 10.0 each. The absence of a counter sell order makes him / her increase the buying price to, say JD 10.2. If no counter sell order arrives at this price (JD 10.2), the buying price might be increased to JD 10.4, and to even JD 10.6. If a counter sell order comes in the market at JD 10.6, a transaction will occur at JD 10.6 (Table F). In such a case, the relevant question is simple:

What is the reason behind the **"sudden"** increase in price, within a brief time, from JD 10.0 to JD 10.6? The answer is the absence of **LIQUIDITY** (inability to transact / buy immediately).

TABLE F: Order-Driven Market			
Buy Orders		**Sell Orders**	
Shares	**Price**	**Shares**	**Price**
1,000	JD 10.0	1,000	JD 10.6
1,000	JD 10.2		
1,000	JD 10.4		
1,000	JD 10.6		

Relative to the last two scenarios (fifth and sixth), two observations and one question are relevant:

Observations:

1. In the case of the selling investor (fifth scenario), the price decreased from JD 10.0 to JD 9.4 or by **JD 0.6.**
2. In the case of the buying investor (sixth scenario), the price increased from JD 10.0 to JD 10.6 or by **JD 0.6.**

Question:

In real life, would the price decrease (the selling case) and the price increase (the buying case) be equal in magnitude? Would they be symmetrical? More likely than not, the answer is simply no.

An investor who wants to sell his / her shares **might be** prepared to reduce the price by JD 0.6 to attract a buying investor.

An investor who wants to buy the shares **might not be** prepared to increase the price by JD 0.6 to attract a selling investor.

Based on these scenarios, one can understand why the performance of the ASE, in terms of the IMF's efficiency and depth measures, are weak. After all, because of its trading mechanism (order-driven), the ASE suffers from low turnover ratio (efficiency). In addition, because price decreases and price increases are not symmetrical, this problem tends to discourage price increases over time. The market is weak in its capitalization to GDP ratio and in its trading volume to GDP ratio (depth). In addition, the ASE, given its existing trading mechanism, suffers from lack of liquidity.

Main Observations on Jordan's Performance on the Financial Development Indices

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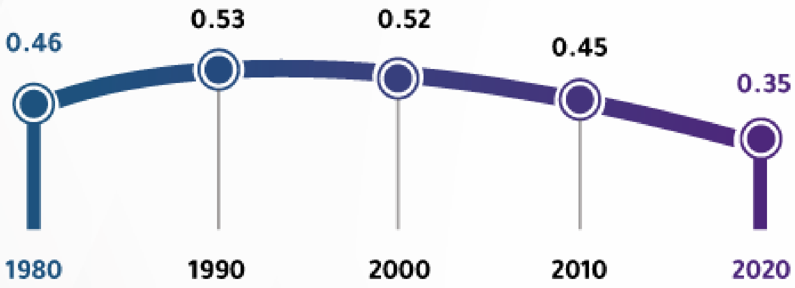
The IMF's Financial Development Index

This index ranks countries' financial development index based on how developed their financial institutions (banks and insurance) and financial markets (stock markets) are in terms of three sub-pillars: Depth, Access, and Efficiency.

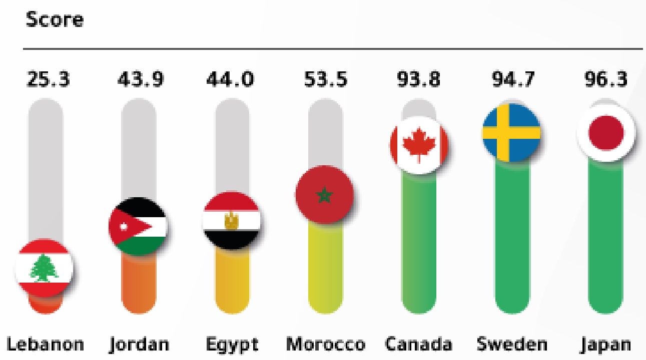
Jordan's Score on the IMF's Financial Development Index



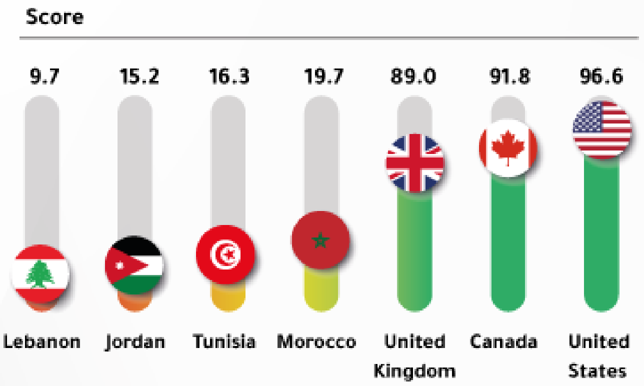
The EBRD's Financial Development Index

This Index includes 50 economies and is composed of two sub-indices:

1. The Necessary Conditions for Sustainable Market Development: This sub-index covers "macroeconomic conditions, legal and regulatory frameworks, market infrastructure and the depth of the local investor base (which is, to some extent, determined by the pension system and other structural policies)".



2. Asset Class-Specific Indicators Reflecting the Extent of such Development: This sub-index "captures market outcomes in terms of the depth, liquidity and diversification of markets across several asset classes: fixed income, equities, money markets and derivatives".



Date: February 2023
Source: The Financial Development Indicators by the International Monetary Fund (IMF) and the European Bank for Reconstruction and Development (EBRD)

Recommendations by the Jordan Strategy Forum to achieve the Economic Modernization Vision's initiatives to Improve the Jordanian Capital Market

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Short Term

Encourage reverse stock splits to increase stock prices and reduce liquidity cost.

Medium Term

Enhance the independence of the various institutions of the capital market and raise their technical and technological competencies.

Introduce Market Makers to provide liquidity.

Promote the establishment of Special Purpose Vehicles (SPVs) to accelerate Public-Private Partnership (PPP) contracts.

Long Term

Establish a government securities (bond) market in its secondary aspect to promote budgetary discipline.

Establish a small and medium enterprises platform to encourage businesses to list their securities and finance their growth.

Jordan's Capital Market: deeper & more liquid

Date: February 2023

Source: Jordan Strategy Forum's Policy Paper entitled: "Financial Development in Jordan: The Way Forward"

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