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The impact of external financial liberalization on financial inclusion in Egypt over the period: 2004-2021 by using access indicators

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Abstract---This study aims to know the impact of external financial liberalization on financial inclusion in the Arab Republic of Egypt. In order to know this relationship, we relied upon three indicators that reflect external financial liberalization, which were built on the basis of foreign direct investment, investment in the financial portfolio and exchange rates, while the financial inclusion index was adopted as a composite index using the basic components analysis method. Using the least squares method, we reached the conclusion that there is a statistically significant negative relationship between investment in the financial portfolio and the financial inclusion index on the one hand, and the same thing applies to unemployment, while the financial inclusion index was not affected by the rest of the external financial liberalization indicators.

Keywords---external financial liberalization, internal financial liberalization, financial inclusion.

1- Introduction:

Most developing countries made efforts during the 1980s and 1990s to implement financial liberalization policies to reduce the economic problems they faced after the failure of government intervention policies in achieving acceptable economic growth rates. However, like other policies, this

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one did not have a particularly positive impact in the long term and had negative effects when there was a rush to implement liberalization policies without following gradual policies, as confirmed by many international experiences.

These policies varied in their implementation between the local and international levels. It included, in particular, the reduction of interest rates and the removal of credit controls either partially or completely, and making the allocation of investment more efficient by giving more freedom to the movement of capital as well.

The idea of financial inclusion is a relatively recent concept compared to the idea of financial liberalization; it was first mentioned in the late twentieth century coinciding with the publication of the works of Leishon and Thrift (1995). Their work primarily focused on the idea of narrowing the gap between the poor and the rich by emphasizing financial aspects and enabling the majority of groups within society, regardless of gender, age, and other differences, to access various types of financial services.

Egypt, as one of the developing countries, began financial liberalization procedures early compared to most Arab countries in order to keep pace with the changes that the world was witnessing at that time and moved towards a market economy. The first signs of reform and liberalization appeared starting in 1974 when the government granted foreigners the freedom to own and invest, in addition to the expansion of the Egyptian stock market, which is considered one of the oldest financial markets in developing countries in general and Arab countries in particular. Thus, Egypt opened its market to competition, which may have subsequent effects on the Egyptian economy in general and on the Egyptian individual across different social classes, especially the weaker segments.

1.1 Problem of the Study: The main question that must be raised is to what extent do external financial liberalization policies affect financial inclusion indicators?

1.2 Research Objective: The results of the impact of financial liberalization vary from one country to another depending on a set of factors, leading to differing studies and further discussions among economists. The research aims to estimate the relationship between external financial liberalization and financial inclusion based on the ancient Egyptian experience compared to some Arab countries and its impact on various financial inclusion indicators.

1.3 Research Hypothesis:

Null Hypothesis (H0):There is no statistically significant effect of external financial liberalization on financial inclusion. **Alternative Hypothesis (H1): External financial liberalization has a statistically significant effect (either positive or negative) on financial inclusion**

1.4 Research Methodology:

In our study, we used various analytical methods, including the descriptive analytical approach, which was used to cover all theoretical aspects, and the econometric method to determine the relationship between liberalization and financial inclusion. In light of this study, we used various sources: the bank's domain database, and the annual reports provided in the World Bank data specifically covering the period from 2004 to 2021, in addition to other sources.

1-5-Previous Studies:

There are not many previous studies that have examined the direct relationship between financial liberalization and financial inclusion indicators, but there are studies that addressed the impact of financial liberalization on aspects that can be linked to financial inclusion indicators. Among these studies are the following:

- The study by Richard Dwumfour and Elikplimi Komla Agbloyo (2024), titled "Foreign Direct Investment and Financial Inclusion: Do Financial Markets and Institutional Quality Matter?" This study relied on a carefully constructed external source capturing variations in bilateral investment treaties as a novel instrumental variable (IV) for net foreign direct investment (FDI) flows. Utilizing annual data from 90 countries spanning the period 2004–2017, the analysis yielded several key findings: First, foreign direct investment demonstrably enhances financial inclusion, specifically improving both 'access to finance' and 'usage of financial services.' Second, higher levels of financial market development and institutional quality exhibit a direct positive effect on financial inclusion. Additionally, the study reveals that financial market development and institutional quality serve as both potential transmission channels and moderating variables through which foreign direct investment exerts its influence on financial inclusion.

- The study by "Davide Furceri and Prakash Loungani" (2018) titled "The Distributional Effects of Capital Account Liberalization, relied on aggregated data encompassing 149 countries over the period 1970–2010. The analysis yielded several key conclusions: First, the effect of financial liberalization on inequality proves more pronounced in contexts where credit markets lack depth and financial inclusion remains low; similarly, liberalization's positive impacts on poverty reduction diminish when financial inclusion is insufficient. Second, the influence on inequality becomes particularly strong when liberalization follows a financial crisis. Third, financial liberalization appears to alter the balance of bargaining power between firms and workers, as evidenced by a measurable decline in labor's share of income following capital account liberalization

- A study by "Ekemini Usuah et al. (2016)" titled "Financial Liberalization and Growth of Small and Medium Enterprises in Nigeria". The study utilized annual data spanning the period 1981–2012. To capture the nuanced progression and institutional transformations associated with financial liberalization, a specialized index was developed for this research. The analysis revealed several noteworthy findings. First, financial liberalization generally alleviates financing constraints for small and medium-sized enterprises (SMEs), thereby fostering their growth; however, in the Nigerian context, it exhibited a negative—though statistically insignificant—effect on SME growth. Second, inflation demonstrated a positive and statistically significant impact on SME growth in Nigeria. Third, investment showed a positive yet statistically insignificant influence on Nigerian SME growth. Finally, GDP growth was found to have a significant negative effect on the growth of small and medium-sized enterprises.

- The study by Abdul Hafiz Al-Dhorfi and Samir Makhtouf (2013) titled "Financial Liberalization and Poverty: The Impact of the Financial Development Threshold," Using panel data from 49 developing countries (1990-2011) analyzed with a system GMM estimator, the study established two key findings: First, financial liberalization demonstrates a statistically significant positive association with poverty reduction, with its effectiveness contingent on the host country's financial development level. Second, the analysis identified a financial development threshold effect - economies with lower initial liberalization exhibited greater poverty reduction sensitivity, particularly when private sector credit reached approximately 56% of GDP.

- The study by "Dunya Karzabi and Mohammed Ben Zian" titled: "Banking Crisis and External Financial Liberalization: An Analysis of Panel Data from Select MENA Countries' conducts an econometric examination of external financial liberalization's impact on banking systems, utilizing data from five Middle East and North African nations (1980–2013). The analysis reveals an inverse relationship between liberalization levels and banking crisis probability, demonstrating that lower degrees of external financial liberalization significantly increase the likelihood of banking crises.

- The study by "James T. Bang et al." titled "Financial Liberalization and Remittances: Recent Longitudinal Evidence". This study examines the impact of financial liberalization on remittances across

84 countries from 1990 to 2005, employing the Arellano-Bond (1991) Generalized Method of Moments (GMM) estimator. The analysis reveals three key findings: First, distinct dimensions of financial reform differentially influence remittance flows. Increased economic freedom in the financial sector generates immediate positive effects, whereas enhancements in financial market strength—characterized by effective, non-political regulations and market-enhancing policies—exert negative effects with temporal lags. Second, financial liberalization's remittance effects vary by policy objective: pursuing external balance correction through greater financial freedom attracts higher remittance inflows, while strategies aimed at mitigating external risks benefit more from policies strengthening domestic financial markets

- study by "Tega H. Williams and others which titled "Do illiteracy and unemployment affect financial inclusion in the rural areas of developing countries?; This study investigated the impacts of illiteracy and unemployment on financial inclusion in rural Nigeria using an ex-post facto research design. The methodology incorporated systematic sampling, dummy variables for latent factors (erratic power supply and rural insecurity), and autoregressive distributed lag (ARDL) modeling techniques. Key findings revealed: (1) a significant negative relationship between illiteracy and financial inclusion ($\beta = -0.5318$), indicating that higher literacy rates promote financial access; and (2) a stronger negative association for unemployment ($\beta = -2.1977$, $p < 0.05$), demonstrating that job creation is particularly crucial for enhancing financial inclusion in rural areas.

1- The concept of financial liberalization: Historically, Paget is considered as the first British journalist and economist who used the concept of financial liberalization in his writings, where he highlighted the importance of the financial system in better mobilizing resources by relying on techniques that ultimately encourage economic growth. There are many definitions of financial liberalization, but generally,

1-1- Definition of Financial Liberalization:

Shaw and McKinnon commonly defined financial liberalization as the optimal solution to overcome financial repression, and the only effective means to develop financial intermediation, to initiate capital accumulation, and to enhance economic growth in developing countries. (Touaheri, 2000)

According to Kaminsky and Schmukler, financial liberalization consists of liberalizing the capital account of the foreign sector, liberalizing the domestic financial sector, and viewing the stock market (capital market) separately from the domestic financial sector. (Arestis & Carner, 2004)

Financial liberalization is also referred to as an attempt to ease government restrictions on financial institutions, their mechanisms, and tools. (Assia, 2018)

Financial liberalization is known as a process of reform and liberation of the financial sector and involves a set of measures taken by the government to remove controls on the financial system and restructure it in a manner consistent with the economic system directed towards a market economy, all within a suitable legislative framework.

It is known that financial liberalization is considered complete when at least two of the three sectors are fully liberalized, and the third sector is partially liberalized; whereas partial financial liberalization occurs when at least two sectors are partially liberalized.

2- External Financial Liberalization (LEFS):

External financial liberalization refers to the removal of restrictions on transactions in the capital account and the financial accounts of the balance of payments, as well as the elimination of restrictions on foreign exchange transactions and other controls related to these transactions. (Mediani & Talhaoui, 2015) , Three broad types of transactions can be distinguished in this regard: (Yilmaz & Ginther, 1993)

A- Domestic transactions: By allowing residents to borrow freely in international financial markets, and non-residents to invest freely in local financial markets;

B- External transactions: By allowing residents to transfer capital and hold financial assets abroad, and non-residents to issue liabilities and borrow in local financial markets;

C- Local transactions in foreign currencies: By allowing debtor-creditor relationships between residents in foreign currencies, such as bank deposits and lending in foreign currencies.

2-1- Procedures for External Financial Liberalization:
2-1-1- Liberalization of the Capital Account: it can be broadly defined as the process of removing restrictions on international transactions related to capital movement. This may include the removal of controls imposed on international financial transactions for local residents and on investments in the home country by foreigners. Liberalization can apply to both incoming and outgoing capital flows.. (Cobbam, 2002)

2-1-2- Justifications for Liberalizing Capital Accounts: According to classical economic theory, international capital movement allows countries with limited saving resources to attract financing for their domestic investment projects, while investors can diversify their investment portfolios, and risks are distributed over a broader spectrum. Moreover, intertemporal exchanges—goods today for goods tomorrow—are preferred. More precisely:
• Households and businesses, and even entire countries, can borrow when their income is low and repay when their income is high, which can have an effect on facilitating the consumption curve. Thus, the ability to borrow abroad may mitigate fluctuations in the economic cycle by preventing households and businesses from having to drastically reduce their consumption and investments, and consequently further decrease domestic demand, when domestic production and income decline.
• By lending abroad, households and businesses can diversify the risks associated with disruptions that only threaten their own countries. Companies can protect themselves from cost and productivity shocks by investing in subsidiaries spread across countries. Therefore, capital movement can enable investors to achieve higher risk-adjusted rates of return. In turn, higher rates of return can encourage saving and investment, which can lead to accelerated economic growth. (Barry, Michael, Giovanni, Enrica, Gian, & Andrew, 1999)
In theory, capital account liberalization should allow for a more efficient allocation of capital globally, from capital-rich industrial countries to capital-poor developing economies. This should have widespread benefits—by providing a higher rate of return on people's savings in industrial countries and increasing growth, job opportunities, and living standards in developing countries. Access to capital markets should allow countries to "insure" themselves somewhat against fluctuations in their national income, so that national consumption levels are relatively less volatile. Because good and bad times often do not coincide across countries, capital flows can somewhat compensate for fluctuations in national incomes of countries.
Capital account liberalization can also be interpreted as a signal of the country's commitment to sound economic policies. For a country with an open capital account, a noticeable deterioration in its policy environment could be penalized by local and foreign investors. .(Ayhan & Eswar, 2000)

2-1-2- Financial Market Liberalization (LMF): The financial market refers to the market that mediates between individuals, banks, and various savings institutions that gather savings, and the projects that need capital. Thus, financial and economic balance is achieved within the market. (Bouali & Eumimar, 2016)
The liberalization of financial markets includes removing restrictions on the ownership of securities by local and foreign investors, which are usually from local companies listed on the stock market, and removing restrictions on the repatriation of capital and the payment of dividends, interest, and profits. .)saoussen و Mickael(2008 ،
According to proponents of financial liberalization, it allows for more diverse and specialized intermediation between savers and borrowers, utilizing a wide range of institutions, tools, and products. It also facilitates a freer flow of funds to where they can be best invested, that is, at higher risk-adjusted rates of return. As in other economic markets, it is expected that the "invisible hand" of the financial market, under financial liberalization, will efficiently reconcile supply and demand. Additionally, the "invisible hand" is capable of determining who wants to save and/or lend, for what purpose, as well as

who wants to borrow and under what conditions. (Nicholas, 2011)

2-2- Obstacles to External Financial Liberalization: There are a number of obstacles that prevent the liberalization of the external financial sector, and in the below are the most important of these obstacles:

A- Changing exchange rate levels: Central governments often implement exchange rate controls to prioritize foreign currency allocation for essential imports and address balance of payments deficits. However, such restrictions inadvertently harm international trade flows while destabilizing global exchange rate systems.

B- Imposing direct financial returns on the flow of capital across countries: Capital controls impose direct financial charges on cross-border capital flows, including taxes on citizens' overseas deposits or foreign-owned domestic funds. These measures typically reduce investment activity by increasing transaction costs or lowering expected returns.

C- Imposing indirect financial returns on the flow of capital across countries: Monetary authorities implement credit restrictions by adjusting the reserve requirement ratio for commercial banks. When excessive credit expansion threatens economic stability - particularly during inflationary periods - central banks raise reserve ratios. This forces commercial banks to either reduce new lending or impose stricter credit conditions, effectively tightening the money supply.

3. Financial Inclusion:

3-1- Definition of Financial Inclusion: —also termed *financial encompassing* or *financial deepening*— denotes the expansion and improvement of financial systems to integrate underserved populations. It involves strengthening financial institutions, enhancing monetary policy effectiveness, and diversifying financial tools to reach low-income individuals and remote communities. The ultimate goal is universal access to banking services, whether through direct provision by financial institutions or indirect channels, ensuring no segment of society is excluded from the formal financial ecosystem. (Saadouni, 2021)

Financial inclusion denotes universal access to affordable, needs-based financial services - including payments, savings, credit, and insurance - delivered through sustainable and responsible channels. (Mammeri & Oukil, 2019)

On the other hand, it focuses on the poorest groups and companies, with an emphasis on medium and small-sized enterprises, and the ability of each party to access financial services.. (Naoyuki & Morgan, 2016) In the end, the inclusion committee defined it as the process that ensures individuals within the vulnerable group access financial services and benefit from adequate credit in a timely manner and at reasonable interest rates and costs from the main players. (Aymen, Ismail, & Salah, 2021)

3-2- The Importance of Financial Inclusion: Financial inclusion plays a pivotal role in developing economies by integrating productive sectors into formal financial networks, unlocking their creative potential and boosting sustainable domestic demand. By empowering vulnerable groups, it reduces poverty and inequality while amplifying their economic impact. Increased participation in formal savings systems expands aggregate savings across the population, enabling access to credit and investment opportunities that further stimulate broader economic growth. (Harun, 2012) Some points can be clarified in the following elements : (Chenbi & Benlakhder, 2019)

-Mobile financial services prove transformative in developing economies, as evidenced by Kenya's experience: a 20% rise in savings, 150,000 workers transitioning to higher-value sectors, and a 22% decline in household poverty—highlighting how digital tools can accelerate inclusive growth

- Digital financial services enhance resilience by enabling efficient risk-sharing and reducing transaction costs. Research in Kenya shows mobile money users maintained family spending during income shocks, while non-users cut food expenditures by 7-10%. In Niger, digitizing government social payments saved recipients 20 hours monthly in travel and wait times compared to cash distribution

- Financial services assist in the accumulation of savings and increased spending. In Kenya, for example, after providing sellers, particularly women, with savings accounts, their savings and investments in projects increased by nearly 60%. Household spending on essential foods in Nepal for meat and fish increased by 15%.

3-3-Dimensions of Financial Inclusion:

The sources of financial inclusion data are divided into two main categories; the first is the supply side, meaning it is collected from data from financial institutions and other financial service providers, and the second is the demand side, which comes from studies conducted at the level of households and individuals (Bankable Frontier Associates, 2010)

Some studies relied on the percentage of adults who have access to formal financial services, while international financial institutions relied on giving different dimensions to financial inclusion based on Sarma's study, which divided it into three dimensions as follows :(Azka, Lukytawati, & sahara, 2018)

3-3-1- Access to Financial Services: Improving households' access to savings accounts can lead to growth in savings, productive investment, consumption, and a reduction in poverty .(Lahrour & Horr, 2023), Banking sector penetration is quantitatively evaluated through three core dimensions: individual access (deposit/credit accounts per 1,000 adults), population coverage (% of adults >15 with formal accounts), and SME inclusion (% with institutional accounts) - providing a multidimensional view of financial system reach.(Ngono, 2020)

3-3-2- Quality of Financial Services:

The quality dimension assesses financial service effectiveness through product relevance, choice diversity, and consumer understanding. Measured via comfort, suitability, transparency and protection indicators, it relies on dual-perspective surveys capturing both user experiences and provider offerings to evaluate true market alignment. (Pearce & Ruiz, 2012)

3-3-3- Usage: The demand-side dimension of financial inclusion, tracked in FAS databases, measures actual service usage through multiple indicators: account penetration rates (deposit/credit), insurance coverage (policyholders/1,000 adults), digital transaction volumes (cashless retail/mobile payments), and account activity metrics (regular usage and 12-month retention) . (Haroun & Moustefaoui, 2020)

Table N° (01) Financial inclusion indicators

N°	Indicator	Definition
A	**Access Indicators**	
01	Bank accounts	Percentage of adults with an account at a formal financial institution
02	ATM	Number of ATMs per 1000 square kilometers
		Number of ATMs per 100,000 adults
03	Bank branches	Number of Commercial Bank branches per 1000 square kilometers
		Number of commercial bank branches per 100,000 people
B	**Usage Indicators**	
01	Deposits	Outstanding deposits with commercial banks as a percentage of GDP
		Number of deposit accounts per 1,000 adults
02	Loans	Outstanding loans with commercial banks as a percentage of GDP
03	credit card	Percentage of adults who own credit cards
04	Debit card	Percentage of adults who own debit cards
C	**Quality indicators**	
01	Digital payments	Percentage of adults who made or received digital payments
02	Government payments	Percentage of adults who received government payments into a financial institution account
03	Government transfers	Percentage of adults who received government transfers to a financial institution account

04	Wages	Percentage of adults with wages in a financial institution account

(Upasana & Banajit, 2022)

3-4- Barriers to Financial Inclusion: Financial inclusion barriers stem from both user limitations (financial literacy, cultural norms) and institutional shortcomings (physical access, product design). Addressing these requires tackling cited obstacles like distance, cost, documentation, and trust - commonly expressed as 'too far,' 'too expensive,' or 'lack of money' in user feedback." ".(Novi, Bernhard, Joubert, & Mariam, 2018) , These obstacles are divided into two categories:

3-4-1-Obstacles from the supply side: These barriers are also called involuntary barriers, and they are also referred to as physical barriers, which prevent customers, especially from poor classes, from accessing financial services. These obstacles include: (Gourav, 2019)
-The distance to the bank: Three systemic barriers hinder inclusion: (1) physical branch scarcity in rural areas, (2) exclusionary documentation policies, and (3) financial products designed without user needs in mind. These manifest as 'distance deserts,' paperwork paralysis, and irrelevant offerings that collectively maintain financial exclusion
-Attitudes of bank agents: Research indicates prejudicial treatment by bank staff - through demonstrated disinterest or procedural delays - erodes trust among low-income clients. This behavioral barrier explains why many poor individuals voluntarily exclude themselves from formal banking despite physical access

3-4-2- Demand-side barriers: Research confirms that poverty itself generates financial behaviors that perpetuate exclusion. Through financial diaries, Findex data, and provider experience, we observe how low-income individuals' necessary coping strategies—while economically rational—often conflict with formal financial systems' requirements, creating demand-side barriers that complement structural access challenges (Burjorjee & Scola, 2015)
These barriers include the following:
- Ignorance: This is the most common demand-side barrier to financial inclusion due to people's ignorance of the various banking products, services, and plans offered to them, as well as their lack of logical engagement with the specific schemes prepared for them. Illiteracy and a lack of advertising are the main reasons for their unawareness.
- Low income level: Low or irregular income characterizes low-income groups who mostly do not deal with banks due to their disbelief in the necessity of opening an account, as they tend to spend almost all of what they earn, and what they save is likely a very small amount that can be kept at home.
Financial illiteracy: Due to the illiteracy of most people, they cannot comprehend that there are products and services available to them, and they have no awareness even of the details of the schemes presented to them. As a result, they will hesitate to go to the bank.
- Lack of trust: An unwelcome approach for rural residents to be received by banks leads officials to a lack of trust and a negative experience, causing certain groups of people to lose their confidence in all banking channels. Numerous negative experiences, such as standing in line for very long periods or being asked to gather some required documents again, will create distrust among the poor
- High cost: Service providers often charge consumers fees for their services related to financial services or products such as credit cards, debit cards, checking accounts, and checkbooks, which are considered a cost to them, in addition to account requirements to maintain a minimum balance and fees for issuing debit cards and ATMs. All of the above makes poor individuals hesitant to open bank accounts.

4- Financial Liberalization in Egypt:
Launched in January 1991, Egypt's financial liberalization program introduced sweeping reforms including: interest rate deregulation, banking and capital market reforms, strengthened central bank supervision, treasury bill market regulation, and a unified floating exchange rate regime - collectively

transforming the country's financial landscape. (Kevser, 2007) The true beginning of reforms in the financial sector may have been since 1974. These reforms included the adoption of a series of laws:
* Law 43/1974, which reduced Egyptian ownership to 51%, allowing foreigners to own the remaining 49%.
* Law 120/1975, which granted the Central Bank of Egypt supervisory and regulatory authority over the banking sector, also making it an independent legal authority.
* Law 43/1974, which liberalized the foreign exchange market and some imported goods, providing incentives/subsidies for local and foreign private companies.
* Law 32/1977, which offered more tax exemptions and benefits for private companies, leading foreign and joint banks to establish themselves to benefit from these incentives and reforms. (sana, 2011)

The 1981-1991 period saw Egypt's financial sector operate under paradoxical conditions: while theoretically pursuing greater financial intermediation, the system remained overwhelmingly state-dominated (80% public bank share). This reflected the government's risk-averse approach to reform, where financial policy restrictions deliberately slowed liberalization despite nominal commitments to change. (Arestis, Financial sector reforms in developing countries with special reference to Egypt, 2003)

External Financial Liberalization: In order to present and simplify the trend of external financial liberalization in Egypt, it is necessary to provide a brief overview of the key measures for liberalizing the Egyptian financial market and capital market as follows:

The financial market in Egypt: The development of the stock market in Egypt has largely followed the same path as the banking sector. The activity of the capital market in Egypt began in 1988, and at its peak, the Egyptian stock exchange ranked fifth among the world's most active exchanges. (Bolbol, 2005)

The nationalization era (1960s) devastated Egypt's stock market, reducing listed firms from 925 to 30 and paralyzing trading activity. This regulatory vacuum prompted the 1957 Stock Exchange Law - a foundational attempt to restore order to a market that had effectively ceased functioning as a modern exchange. (Kevser, Financial Structure of Egypt, 1994)

Egypt's 1974 Open Door policy ambitiously targeted capital market development through new institutions (Capital Market Authority) and regulations (Decree 520/1979). Yet stock market stagnation persisted for two decades due to tax disincentives, regulatory shortcomings, and macroeconomic headwinds - revealing how superficial reforms fail without complementary policy adjustments.. (Bolbol, 2005)

Egypt's 1992 capital market reforms (Law 95) successfully transformed the stock exchange into an effective investment channel through: securities tax exemptions, bond market liberalization, retail-friendly mutual funds, and strengthened broker regulation - collectively boosting private savings mobilization. (Kevser, Financial Structure of Egypt, 1994)

As of December 31, 2006, the market capitalization reached 93.6 billion USD with the listing of 595 companies. The stock market offers a variety of products including shares (ordinary and preferred) and certificates on CASE 30 and GDR (Global Depositary Receipts) that allow Egyptian companies to access international markets.

Obstacles and Challenges of the Financial Market in Egypt:

One of the main challenges facing the financial market is the development of the non-cash market sector by introducing new products such as futures contracts, options, margin trading, securitization, and trading of index-linked bonds. However, before launching more advanced and complex products in the market, the regulatory and supervisory framework must be improved, and the capabilities of the Financial Markets Authority, as the institution responsible for regulating the market, must be enhanced. Other challenges facing the financial market include: (1) improving the quality of listed companies by introducing stricter listing standards and regulations, which require greater disclosure of information and transparency; (2) improving the quality of market participants (consulting services, researchers, etc.), including by enhancing the participation of qualified asset managers and regulating the investment management profession; (3) improving market structure (reducing volatility and concentration); (4) the issue of ownership of market institutions (Taiwo, 2006)

Liberalization of Capital Accounts in Egypt:
We will limit our presentation of some features of capital account liberalization in Egypt to the following elements:

Exchange Rate Liberalization: Egypt's 1991-1994 forex reforms transformed currency policy through careful staging: first simplifying to dual rates (Feb 1991), then full unification (Oct 1991), and finally codifying market freedoms through Law 38/1994. This sequence successfully balanced liberalization with financial system stability .(Hariri, The Effects of Financial Liberalization on the Economies of Arab Countries, 2006)
Egypt's 2003 float decision initiated a carefully sequenced reform: initial depreciation (2003), interbank market creation (2004), and IMF Article VIII compliance (2005). This progression transformed the pound into a market-determined currency while achieving current account convertibility - with stability emerging by 2005.(Mouley, 2012)

Table N° (02) Development of the exchange rate of the pound against the dollar in Egypt

year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
	3.47	3.97	4.50	5.85	6.20	5.78	2.73	5.64	5.43	5.54	5.62	5.93
Year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
	6.06	6.87	7.08	7.69	10.03	17.78	17.77	16.77	15.76	16.64	19.16	30.63

Reference: World Bank data from the website:
https://data.albankaldawli.org/indicator/PA.NUS.FCRF?locations=EG

We notice from the table above that there was fluctuation in the exchange rate between the years 2000 and 2004, with the exchange rate ranging from 3.47 pounds per dollar to 6.20 pounds per dollar in 2004. It is worth noting that, in parallel, the foreign currency reserves at the Central Bank of Egypt experienced fluctuations ranging from 14.1 billion dollars in 2001 to 12.5 billion dollars in 2002, before rising again to 14.3 billion dollars in 2004. This change was accompanied by the pound losing about 20% of its value in 2002. (Talha, 2022)

During the period from 2005 to 2011, the exchange rate remained relatively stable at a rate greater than 5 pounds per dollar, which was a result of Egypt's commitments to the requirements of Article VIII of the International Monetary Fund's Articles of Agreement. As for the subsequent period, after 2011, there was a decline in the exchange rate of the pound from 6.06 pounds per dollar in 2012 due to the internal conditions Egypt experienced and the decrease in its reserves at the Central Bank, which reached 11.6 billion dollars. The dollar was placed in a currency auction, and as a result, the pound depreciated against major currencies such as the dollar, euro, and British pound. (Talha, 2022)

The pound continued its decline after 2014, dropping from 7.08 dollars per pound in 2014. This decline is attributed to a number of reasons, the most important of which are: (Ali & Hind, 2021)
- Decrease in remittances from workers abroad: For seven years, Egypt maintained remarkable stability in: Remittance levels (consistently comprising ~75% of expatriate income) ; Exchange rates (fixed at EGP 6.20/USD in both official and parallel markets)
This equilibrium was disrupted in early 2011 when remittances plummeted to just 5% of expatriate earnings, marking a significant deterioration in this critical source of foreign currency
- Increase in the dollar exchange rate against other currencies: The 2014-2015 , dollar surge stemmed from divergent monetary policies: first as the SNB/ECB cut rates (Nov 2014), then when the Fed raised rates (2015). This policy asymmetry triggered a two-stage currency appreciation that reshaped global exchange dynamics
- Egyptian current account deficit: Egypt's $10 billion Q1 2015 trade deficit reflected the Middle East's broader oil price shock impacts. While lower crude prices reduced some import costs, the net

effect was negative due to: (1) diminished petroleum export revenues, and (2) secondary effects on related trade sectors.
From the above, the exchange rate liberalization during the period from 2004 to 2023 witnessed different levels that can be quickly indicated through the following table:

Table N° (03) the levels of exchange rate liberalization in Egypt

Year	Classification	Year	Classification
2004	**Managed floating with no preannounced path for the exchange rate**	**2014**	**Stabilized arrangement**
2005	**Conventional pegged arrangement**	**2015**	**Other managed arrangement**
2006	**Conventional pegged arrangement**	**2016**	**Floating**
2007	**Managed floating with no pre-determined path for the exchange rate**	**2017**	**Stabilized arrangement**
2008	**Other managed arrangement**	**2018**	**Stabilized arrangement**
2009	**Other managed arrangement**	**2019**	**Crawl-like arrangement**
2010	**Crawl-like arrangement**	**2020**	**Crawl-like arrangement**
2011	**Stabilized arrangement**	**2021**	**Stabilized arrangement**
2012	**Crawl-like arrangement**	**2022**	**Crawl-like arrangement**
2013	**Stabilized arrangement**	**2023**	**Crawl-like arrangement**

Source: IMF AREAER DATABASE

Liberalization of the Capital Account from the Egyptian Balance of Payments: In order to complete the financial liberalization procedures, the Egyptian authorities proceeded with the liberalization of the capital account from the balance of payments. The liberalization of both interest rates and exchange rates, along with the reduction of inflation rates and new measures taken by the authorities to improve the investment climate, significantly contributed to the increase in foreign capital inflows, whether in the form of direct or indirect investments, i.e., portfolio investments through financial institutions, the most important of which are investment funds. This was especially true with the granting of full freedom to investors to transfer the principal and returns of their investments abroad. Law No. 95 of 1992 represented a new phase in organizing the securities market and completing the financial sector.

Table N° (04): Development of net foreign investment in Egypt

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Value	**1.24**	**0.51**	**0.65**	**0.24**	**1.25**	**5.38**	**10.04**	**11.58**	**9.49**	**6.71**	**6.39**	**0.48**
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Value	**2.8**	**4.19**	**4.61**	**6.93**	**8.11**	**7.41**	**8.14**	**9.01**	**5.85**	**5.12**	**11.04**	**9.84**

Reference: World Bank data from the website:
https://data.albankaldawli.org/indicator/BX.KLT.DINV.CD.WD?locations=EG

We notice from the table above a growth in net foreign investment in Egypt during the period from 2000 to 2005, as a result of the reform steps taken by the Egyptian government through the development of the financial and banking sector, enhancing regional trade liberalization, simplifying investment procedures, establishing a center for the settlement of investment disputes, and implementing programs to increase the competitiveness of the industrial sector, in addition to starting the application of a new regulatory system on Egyptian factories to ensure performance safety and efficiency, protect consumers, and encourage innovation. (Saber, 2024)

Then this growth was followed by a decline during the period 2008-2010 due to the repercussions of the financial crisis that affected all countries. The significant decline in 2011 was attributed to political instability and the downgrade of Egypt's credit rating. Meanwhile, the period from 2012 to 2019 witnessed a remarkable improvement in the volume of foreign direct investment, rising from $2.8 billion to $9.01 billion. This phase coincided with a renewed attempt to signal the government's support for investment by issuing Law No. 72 of 2017, which officially replaced Investment Law No. 8 of 1997 and its subsequent amendments. This was immediately followed by the adoption of the corresponding executive regulations in October 2017, thus marking a significant milestone for the government and reaffirming its strong political will to improve the business environment and the country's competitiveness. (Ali & EL Hamlaoui, 2022)

Obstacles to Capital Account Liberalization:

There are many obstacles facing capital account liberalization in Egypt, similar to other developing countries, primarily manifested in: instability of the financial sector, lack of political stability, public sector deficits, and external debt. However, the legal environment is considered one of the most important of these obstacles, and although the Egyptian government has issued a set of various laws that increase Egypt's openness to foreign investors. Among these laws are: Law No. 43 of 1974 as amended; Law No. 230 of 1989; Law No. 159 of 1981; the new Investment Law No. 8 of 1997; Law No. 203 of 1991 regarding the sector; Capital Market Law No. 95 of 1992; Tax Law No. 96 of 1992; Law regulating the ownership of non-Egyptians of real estate; and Law allowing the private sector to establish airports No. 3 of 1997. These obstacles are represented in: (Maryse, El Mahdy, & Handoussa, 2004)

- Absence of a unified political framework for reforms;
- The ambiguous and arbitrary nature of laws, which often refer to other laws or parts of laws for their repeal or amendment;
- Unconstitutionality of many laws;
- The speed at which laws are passed, negatively impacting the credibility of the legislative process;
- Frequent amendments to laws, raising questions about their credibility.

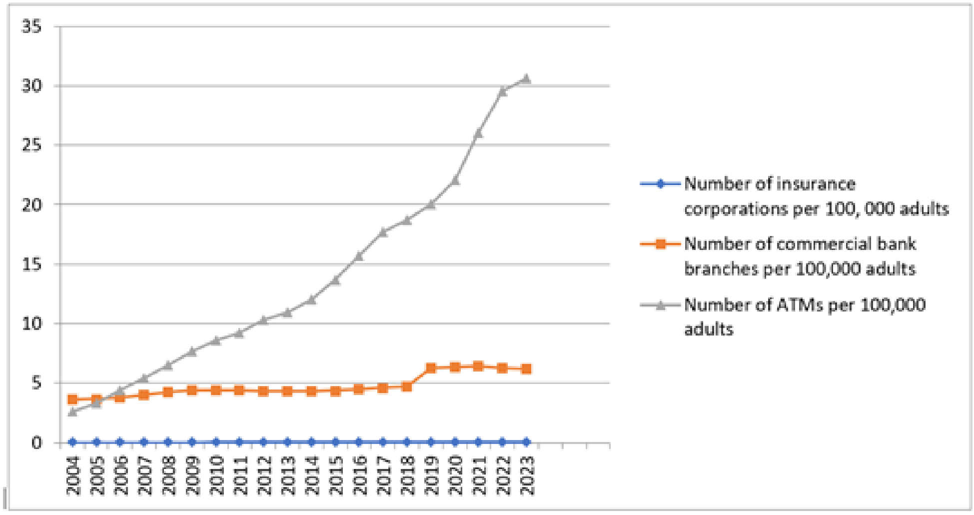
Financial inclusion in Egypt:

The Central Bank of Egypt is responsible for promoting and coordinating financial inclusion in Egypt, considering it a strategic goal that can be pursued alongside its primary objective of ensuring a stable and sound financial system. With the launch of Egypt's sustainable development strategy, incorporating Egypt's financial vision 2030 has become a national priority, due to the ability of financial inclusion to create more opportunities for inclusive growth, maintain financial and social stability, and achieve other national objectives. (Hassen Elbadaoui, 2019)

Analysis of Financial Services Access Indicators:

The development of access indicators to financial services in Egypt is illustrated in the following figure:

Figure N° (01) Development of Access Indicators to Financial Services in Egypt



Reference: Prepared by the researcher based on data from the World Bank

Through the table above, we notice that there is an increase in the number of branches of commercial banks, both in terms of the area they cover and the number of people served. This number has risen from 1.86 branches in 2004 to nearly 5 branches in 2023. Meanwhile, the number of branches per 100,000 adults increased from 3.66 branches in 2004 to over 6 branches per 100,000 adults in 2023.

As for the number of ATMs, there has been a significant development, with this number rising from over 2 ATMs per 100,000 people in 2004 to over 30 ATMs per 100,000 adults in 2023. This positive development is attributed to the policies adopted by the central bank, which aim to enhance financial inclusion by reducing the required capital for establishing small branches of banks operating in the Egyptian banking sector. It also directs the general policy to diversify the locations of branches to cover all segments of society, including rural and remote areas, ultimately aiming to improve individuals' access to financial products and meet their necessary financing needs as well as access to their funds and savings.

Barriers to Financial Inclusion in Egypt:

Supply-side factors are the obstacles faced by financial intermediaries in providing their financial services to various beneficiaries in an optimal manner. The first barrier to financial inclusion is the ability to access financial services, which is linked to the capability of financial institutions to offer financial services in line with the regulatory framework and legal environment. Regulatory constraints are a key factor, as requirements for account opening such as Know Your Customer (KYC) and minimum balance limits discourage Egyptians from opening accounts. The second barrier is symptoms of a lack of financial markets, such as the geographical presence of banks, which are mainly located in major cities with a total of 3,800 branches and very limited access in villages, except for the Egyptian Agricultural Bank, which operates in villages. Other examples of underdeveloped financial markets include the lack of stable internet and mobile phone networks, hindering the growth of digital payment channels such as mobile banking and e-wallets.

Demand-side barriers are factors related to the customer's ability to use financial services. Financial incapacity emerges as the first barrier to financial inclusion when a significant percentage of people live

below the poverty line and cannot afford to access formal financial services due to the absence of a previous credit history or lack of collateral. Moreover, there is a common culture and tendency among Egyptians to use cash transactions due to cultural legacies. For example, many families and small businesses prefer to remain in the informal sector to avoid paying taxes, a practice known as "tax evasion." The low level of financial literacy also contributes to this issue. (Ghabrial, 2019)
In addition to various other obstacles, we mention the following: (Ahmed Al-Hanfi, 2023)

- Corruption: Corruption severely undermines the formal economy, widening the wealth gap and distorting economic efficiency. It discourages investment, hampers human capital development, and fuels inflation by diverting resources to illicit gains—placing disproportionate strain on low-income households. Additionally, corruption drives smuggling operations, depleting local markets of goods and further inflating prices, which compounds inflationary pressures.
2- Financial Crisis: It has greatly contributed to a decline in the level of aid provided to poor countries, including assistance in accessing financing. It has led to caution among financial institutions and investors regarding the ability of clients to repay loans, making it more difficult for the poor to obtain liquidity through banks.
3- Incorrect Policies: Particularly in agriculture, some politically stable countries fail to address core issues through their economic or agricultural reforms. Instead, these policies often create new challenges. Effective reform requires a data-driven approach, focusing on citizens' actual needs rather than political or economic agendas. Misguided policies have resulted in agricultural neglect and rural-to-urban migration as people seek better livelihoods
4- Increase in the Size of the Informal Economy: This term refers to businesses operating outside formal regulations in industry, trade, and services—evading taxes, ignoring laws, and avoiding oversight. In Egypt, estimates suggest nearly 2 million such informal enterprises exist.
04. Empirical Study:
Model: To test the relationship between external financial liberalization and financial inclusion in the Egyptian context, we use time series data covering the period (2004-2023). A multiple regression model will be used to estimate this relationship by writing the econometric model as follows:

$$\boxed{FIn = \alpha + B_1\, EL + B_2\, FG + B_3 PG + B_4\, EMP + \acute{\varepsilon}}$$

Each variable was expressed as follows:
FIn: represents the financial inclusion index
LIBext: represents the external financial liberalization Including:
EL: The index that represents the exchange rate liberalization, for this purpose, we used the price elasticity rate and which calculated according to the following equation
El= delta exchange rate / delta exchange rate + delta foreign reserves .
FG: It refers to the capital liberalization index by dividing the inward and outward flows of indirect foreign investment into the total gross national product.
PG: It refers to the financial market liberalization index and is calculated by dividing inward and outward portfolio investments by the gross national product.
EMP: represents the Unemployment index
α: regression constant
Bi: coefficients of the variables
$\dot{\varepsilon}$: error
Financial inclusion index :
- Composite index of access to services: This index is based on five sub-indices:
-Number of commercial bank branches per 100,000 adults
- number of ATM per 100.000 adults
- number of insurance corporations per 100.000 adults

Using the principal components analysis method for this index yields the following results:

Table N° (05): Results of the method of analyzing the components of the basic data for the composite indicator of access (per 100.000 adults).

	Eigen value	Variability	Cumulative
F1	2.7770	92.5672	92.5672
F2	0.1557	5.18.90	97.7562
F3	0.0673	2.2438	100

Source: E-Views 11

It is clear from Table No. (03) that the first principal component explains 92.5672 % of the total variance of the original data, and therefore, the first principal component is considered more appropriate for measurement because it has high explanatory power.

Model estimation and results analysis: Via Eviews11 program, we estimate the model by depending on annual data spanning from 2004-2021, we got the following model:

$$\mathbf{Fin}=-1.166675\ \mathbf{PG}\ -0.293170\mathbf{UMP}+4.592380$$

$$(0.0000)\qquad (0.0062)\qquad (0.0002)$$

R-squared=0.776018 N=20 Prob(F)= 0.000003 DW=0.676461

Statistical Evaluation of the Model:

*Prob (F) =0, model as whole is statistically significant, there is at least one explanatory variable to reflect the relationship between External financial liberalization and Financial Inclusion.

* *The adjusted coefficient of determination :(R-squared=0.776018):77.6 % of changes can be explained by these variables, and the rest of changes may be due to other variables which are not used within the model.

Statistical Evaluation of Variables:

Variable	Coefficient	Probability	Statistical significance	Observation
Constant	1.166675	0.0000	Significant at 5%	Accept H1
Index of portfolio liberalization	-1.166675	0.0062	Significant at 5%	Accept H1
Unemployment	-0.2931	0.0002	Significant at 5%	Accept H1

- Each of The variables: External Financial Liberalization which represented by (Index of portfolio liberalization), and unemployment are negatively correlated and significantly with the indicator of financial inclusion (FIn).

The analysis of these results according to the economic theory would normally be as follow:

*** Negative correlation between the unemployment and financial inclusion:**

The results were consistent with economic theory, thus High unemployment reflects weak economic activity, which makes banks more stringent in granting loans (especially to the unemployed or small business owners) preferring financing to larger companies with higher collateral.

Egypt was focusing in Promoting youth employment, It launched the Emergency Employment Investment Project (EEIP) in 2014 (ended in December 2017). EEIP was a grant in the amount of EUR 67.6 million financed by the European Union (EU). EEIP was administered by the World Bank and implemented by the Micro, Small and Medium Enterprise Development Agency (MSMEDA) (formerly the Social Fund for Development). EEIP was a stand-alone complementary financing to the World Bank-funded Emergency Labor Intensive Investment Project. (Elsayed, Hempel, & Osman, 2018)

Negative correlation between liberalization of financial portfolio and financial inclusion:
Although there are limited studies that showed the same results, but we can explain it economically in some points:
Concentration of portfolio investments among wealthier individuals: according to the study which held by " Abeer Rashdan , Noura Eissa" , financial portfolio investments in Egypt are predominantly held by wealthier , more educated and older individuals. This concentration suggests that increases in portfolio investments do not necessarily translate to breader financial inclusion, as lower income and less- educated populations remain underrepresented in the financial system . (Rashdan & Eissa, 2019).
Urban-Rural Disparities and Limited Financial Infrastructure: according to the study which held by " Hiba Mahmoud Elbez", Finaancial services and portfolio investments opportunities are largely concentrated in urban area, leaving rural populations with limited access . the lack of financial infrastructure in rural regions contributes to the exclusion of these communities from formal financial systems. (Mahmoud, 2020)

Limited Impact of Financial Inclusion on Banking Performance: according to the study held**.**
Increased Market Volatility and Risk Aversion: Sudden capital inflows/outflows can destabilize economies, making banks more cautious about lending to low-income borrowers.
Investments in foreign portfolios in Egyptian stocks in Egypt are witnessing fluctuations, as they recorded net negative fluctuations during different periods of the mentioned period, indicating a decline in interest in long-term investment, as it reached– 252.9 million dolar in 2023.

Conclusion:

Studies examining the impact of external financial liberalization on financial inclusion in Egypt have revealed a negative relationship between one of its key indicators—portfolio investment liberalization—and the level of financial inclusion. This adverse effect can be attributed to the volatile nature of portfolio flows, which may increase instability in domestic financial markets, undermining public and institutional confidence in the financial system and limiting opportunities to expand financial services to underserved segments of society.

On the other hand, other components of external financial liberalization—such as foreign direct investment (FDI) liberalization and exchange rate liberalization—did not show a significant impact on financial inclusion. This may be due to the relatively stable nature of these components, which attract long-term investments that support financial infrastructure without causing immediate disruptions to the accessibility of financial services.

Recommendations:
These findings highlight the importance of adopting well-calibrated external financial liberalization policies that strike a balance between attracting foreign investment and maintaining domestic financial stability. They also underscore the need for stronger regulatory frameworks, particularly for portfolio investment liberalization, to ensure that its growth does not hinder financial inclusion but rather supports it through effective governance mechanisms and financial literacy initiatives. Ultimately, deepening financial inclusion in Egypt depends on integrated policies that carefully consider the interplay between external financial liberalization and local developmental priorities.
From the foregoing analysis, we can derive the following recommendations:
1- Strengthen regulatory frameworks for portfolio Investments through the implement capital flow management measures to reduce volatility, and encourage long-term institutional investors over short-term speculative capital.
2- Leverage FDI to expand financial Infrastructure by Incentivizing FDI in fintech, digital banking, and mobile payment solutions to improve access for unbanked populations, and promote public-private partnerships to develop rural banking networks and microfinance institutions.

3- Adopt a Gradual and Managed Exchange Rate Liberalization and working quietly to avoid sudden shocks by phasing exchange rate flexibility while maintaining central bank interventions to curb excessive volatility.

4. Promote Fintech and Digital Financial Inclusion by encourage foreign fintech firms to enter the market under sandbox regulations to foster innovation, and expand digital ID systems requirements with global payment providers to lower transaction costs.

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Annexes:

DependentVariable:CCF
Method: Least Squares
Date: 05/10/25 Time: 22:31
Sample: 2004 2023
Includedobservations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.592380	0.966215	4.752959	0.0002
PG	-1.166675	0.180956	-6.447304	0.0000
UMP	-0.293170	0.093962	-3.120078	0.0062

R-squared	0.776018	Meandependent var	-1.20E-15
Adjusted R-squared	0.749667	S.D. dependent var	1.709730
S.E. of regression	0.855434	Akaike info criterion	2.663066
Sumsquaredresid	12.44005	Schwarz criterion	2.812426
Log likelihood	-23.63066	Hannan-Quinn criter.	2.692223
F-statistic	29.44943	Durbin-Watson stat	0.676461
Prob(F-statistic)	0.000003		