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Department of Economy and Finance

FINANCIAL INCLUSION AND SUSTAINABLE ECONOMIC DEVELOPMENT IN IRAQ 2003 - 2019

Master Thesis

Ali Jasim Mohammed AL DULAIMI

Supervisor

Asst. Prof. Dr. Onur ÖZDEMİR

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Turkish Abstrac **:** Bu çalışma Irak'ta sürdürülebilir ekonomik kalkınmanın desteklenmesinin öneminin değerlendirilmesi ve analiz edilmesinin yanı sıra, finansal kapsayıcılık kavramının, Irak'taki öneminin ve hedeflerinin ve seviyesinin tartışıldığı dönemde (2003-2019) sürdürülebilir ekonomik kalkınma seviyesinin artırılmasında ve bunun önündeki zorlukların tartışılmasında, finansal kapsayıcılık düzeyini ölçmeyi amaçlamaktadır.

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

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Signature

Director *Asst. Prof. Dr. Onur ÖZDEMİR*
(Supervisor)

Member *Signature*

Assoc. Prof. Dr. Semra BOĞA

Signature

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I approve that the signatures above signatures belong to the aforementioned faculty members.

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Prof. Dr. İzzet GÜMÜŞ

Director of the Institute

ABSTRACT

This study aims to measure the level of financial inclusion and indicates its importance in enhancing the level of sustainable economic development in Iraq during the period (2003 – 2019), where the concept of financial inclusion, its importance and objectives and its level in Iraq were discussed, and the challenges facing it are examined, in addition to an assessment and analyze its importance in promoting sustainable economic development in Iraq.

The study relies on the descriptive analytical method in the theoretical aspect, while the practical aspect related to the standard study is used in it by using a series of temporal data, to test the hypotheses of the study, determine the relationship between the study variables and build a multiple linear regression model that shows the relationship between the independent variables represented by In (bank deposits, number of ATMs, number of bank branches, population growth, and inflation rate), which express financial inclusion, and the dependent variable represented in the gross domestic product, which expresses sustainable economic development, using the statistical program EViews mainly to apply all Statistical and standard methods.

The study concludes with a set of results, the most important of which is the instability of the economic growth rate, as it fluctuates between high and low and negative in some years of study, reaching an annual average of 8.56% during the study period. This extreme fluctuation in the rate of economic growth does not contribute to promoting sustainable economic development. The results also show the weak ability of banks to attract bank deposits, which means a weak degree of financial inclusion, as the average annual growth rate reached 1.11% during the study period. The results also indicate a long-term relationship that goes from the independent variables to the dependent variable.

The study comes out with several recommendations, the most important of which is that the Central Bank of Iraq encourages Iraqi banks to provide banking services via the Internet, mobile and ATMs, and urges banks to own electronic wallets, with awareness campaigns to educate customers financially. In addition to urging government and private banks to improve and develop their electronic services in proportion to the consumer to attract the largest number of users, encourage the flow of foreign funds and increase the sources of financing the economic development process. The study also recommends the need to provide the consumer with all the necessary information at all stages of their dealings with providers of financial and banking services, and to make greater efforts to protect the consumers to ensure that they obtain banking services with ease and at appropriate prices.

Keywords: financial inclusion, financial stability, financial education, sustainable development.

ÖZET

Bu çalışma Irak'ta sürdürülebilir ekonomik kalkınmanın desteklenmesinin öneminin değerlendirilmesi ve analiz edilmesinin yanı sıra, finansal kapsayıcılık kavramının, Irak'taki öneminin ve hedeflerinin ve seviyesinin tartışıldığı dönemde (2003-2019) sürdürülebilir ekonomik kalkınma seviyesinin artırılmasında ve bunun önündeki zorlukların tartışılmasında, finansal kapsayıcılık düzeyini ölçmeyi amaçlamaktadır.

Çalışma teorik açıdan tanımlayıcı analitik yönteme dayanırken, standart çalışma ile ilgili pratik yön bir dizi zamansal veri kullanılarak ilgili hipotezleri test etmek, değişkenler arasındaki ilişkiyi belirlemek ve bağımsız değişkenler arasındaki ilişkiyi gösteren çoklu doğrusal regresyon modeli oluşturmak için ele alınmakta (banka mevduatları, finansal kapsayıcılığı ifade eden ATM sayısı, banka şubelerinin sayısı, nüfus artışı ve enflasyon oranı) ve sürdürülebilir ekonomik kalkınmayı ifade eden gayrisafi yurt içi hasılada temsil edilen bağımlı değişken ilgili istatistiksel ve standart yöntemleri uygulamak için EViews istatistik programından yararlanılmaktadır.

En önemli değişkenlerden biri olarak ekonomik büyüme hızının istikrarsızlığı bir dizi sonucu ortaya çıkarmakta ve bazı yıllarda yüksek ve düşük ve negatif dalgalanmaya maruz kalarak yıllık ortalama %8.56'ya ulaşmaktadır. Ekonomik büyüme oranındaki bu aşırı dalgalanma, sürdürülebilir ekonomik kalkınmanın desteklenmesine katkıda bulunmamaktadır. Sonuçlar ayrıca, ortalama yıllık büyüme oranı %1,11'e ulaştığında bankaların banka mevduatlarını çekme yeteneğinin zayıf olduğunu ve bunun da zayıf bir finansal kapsayıcılık derecesi anlamına geldiğini göstermektedir. Sonuçlar ayrıca bağımsız değişkenlerden bağımlı değişkene giden uzun vadeli bir ilişkiyi ifade etmektedir.

Çalışmanın bulguları takip edilerek Irak Merkez Bankası'nın mevcut bankaları internet, mobil ve ATM'ler aracılığıyla hizmet vermeye teşvik etmesi ve müşterileri finansal olarak eğitmek için farkındalık kampanyalarıyla elektronik cüzdan sahibi olmaya çağırması gibi çeşitli tavsiyelerde bulunulmaktadır. Hükümet ve özel bankalara, yabancı fon akışını teşvik etmek, ekonomik kalkınma sürecini finanse ederek kaynaklarını artırmak ve en fazla sayıda kullanıcı çekmek için elektronik hizmetlerini tüketiciyle orantılı olarak geliştirmeye ve ilerletmeye çağırmanın yanı sıra tüketiciye finansal ve bankacılık hizmetleri sağlayıcılarıyla ilişkilerinin tüm aşamalarında gerekli tüm bilgilerin sağlanması ve tüketicinin bankacılık hizmetlerini kolaylıkla ve uygun fiyatlarla almasını sağlamak için korunması için daha fazla çaba sarf etmesi gerektiği önerilmektedir.

Anahtar Kelimeler: finansal katılım, finansal istikrar, finansal eğitimi, sürdürülebilir kalkınma.

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ABBREVIATIONS

G20	**:**	Group20
OECD	**:**	Organization for Economic Co-operation and Development
INFE	**:**	International Network for Financial Education
SMES	**:**	Small, medium and micro enterprises
MENA	**:**	Middle East and North Africa
GPFI	**:**	Global Partnership for Financial Inclusion
CGAP	**:**	Consultative group to assist the poor
AFI	**:**	Alliance for Financial Inclusion
ISIP	**:**	Inclusion and the Linkages to Stability, Integrity and Protection
CBI	**:**	Central Bank of Iraq
GDP	**:**	Gross Domestic Product
TFP	**:**	Total Factor Productivity
HDI	**:**	Human Development Index

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To whom I owe gratitude and grace

To those who taught me that life is a giving before receiving

To who gave me the honor to his belonging ... Dear Father

To my dear mother.... gratitude and appreciation

To my dear brothers whom stood by me and helped me to overcome the difficulties of life

To my family (my dear wife and children)

To those who encouraged me and gave me their right in my time and shared my concerns

To my professors in my studies

To everyone who literally taught me

I dedicate this work

Researcher

Ali Jasim MOHAMMED

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Financial inclusion has emerged as a major challenge in the field of development, and its issues have received wide attention in recent years at the level of financial policymakers and development workers, in various countries of the world, specifically in developing economies (Sharma, 2015), as a result of the implications of the global financial crisis (2007-2008). In fact, the basis of financial inclusion has been integrated into seven of the seventeen sustainable development goals, such as (eradicating poverty, eliminating hunger, reducing inequalities, clean and affordable energy, decent work and economic growth, quality education, and clean water and sanitation health).

Financial inclusion has also been identified as one of the primary areas in the G20's economic and financial development agenda (Arab Financial Inclusion Day, 2019). Many countries have also created plans and taken practical efforts to improve all sectors of the population's access to finance and financial services; this include such as sectors of poor societies that are unable to access and integrate into basic banking services in 2011. The World Bank Group launched the Global Financial Inclusion Index, a database that tracks efforts towards financial inclusion around the world, the third edition was released in April 2018, at the same time, and as part of the World Bank Group’s efforts to improve the stability of the financial sector. It includes developing a thriving private sector, and create jobs, the bank realized that many people did not have bank accounts, which is what it would have helped them participate in economic activities. The data of the Global Financial Inclusion Index for 2011 showed that 2.5 billion adults did not have any dealings with banks.

Furthermore, the institutional survey database showed that nearly 200 million (micro to medium) projects in developing countries lack access to financial and credit services at their cost affordable. For this reason, the World Bank Group announced in 2013 a global vision for access to financial services and began rolling out financial services by 2020 to enable adults around the world to open savings accounts. Since then, more than 30 partners in the financial sector have organized to help achieve this goal. The latest data of the Global Financial Inclusion Index indicate that significant progress has been made over the past few years towards expanding access to financial services, and a decline in the number of adults not dealing with banks to 1.7 billion people, and the number of people who do not have any dealings with banks continues to decrease, even when accounting for population growth increase (World Bank, 2018).

Experience has shown that improving the quality of financial services and expanding the reach of individuals and institutions to them. Therefore, works to spread equality of opportunities and benefit from the potentials inherent in the economy. Such services help to enable the poor, women, and youth to possess economic power, and provide them with the ability to implement their small productive investments. There by raise productivity and incomes, which in turn may increase consumption and move the economic wheel. The opening of a checking account could help pave the way for a wider range of more appropriate financial services, which would enable individuals and companies to achieve smooth consumption, manage the financial risks they face, and invest in education, health, and businesses. Therefore, financial inclusion has become an unequivocal measure that complements the accelerating economic growth and is considered essential for achieving comprehensive development in the country as both contribute fully to poverty alleviation (Jamison, et al, 2014). While financial sector development acts as an engine of economic growth, indirectly reducing poverty and inequality, adequate financial services for the poor can enhance their well-being. Moreover, the comprehensive financial system is a real means of economic development and growth due to its ability to ensure improvement in the provision of effective services, creation of savings opportunities, and acceleration of capital formation among the poor (Karlan, et al., 2016). Hence, interest in financial inclusion has appeared more recently in various countries of the world, due to its impact on improving opportunities for growth and economic stability and contributing to achieving social justice and combating poverty, and thus achieving sustainable economic development.

Over the past few decades, the world has witnessed the emergence of various types of financial services that provide new possibilities for the poor, these services are not limited to banks, but rather include cooperative societies, insurance companies, non-governmental organizations, community development institutions, specialized lending institutions, and leasing financing institutions, and others. With the tremendous development in technology and the acceleration of information transfer, and the emergence of many innovative services that have contributed to organizing and managing the operations of financial sectors and facilitating access to and use of financial services, it is certain that the spread of digital technology solutions will play an increasing role in accelerating financial inclusion. But these technological developments have brought to the market many innovative and advanced financial products, which require higher financial knowledge and culture than before, including gaining the ability and self-confidence in the use of computers, ATMs, phones, and smart tablets. As a result, the need for financial education increased to break the knowledge barrier to achieve financial inclusion, especially increasing the culture and awareness of lower income consumers and small investors and informing them of the risks and gains associated with the use of various financial products, and how to use and manage the financing that small enterprises need to grow and expand. This may help in activating innovation, driving market dynamics, accelerating change and economic development, and thereby reducing unemployment and poverty. Therefore, it is important that financial education begins in the early stages of education to instill financial concepts among individuals and stimulate innovation.

Financial education, according to the Organization for Economic Cooperation and Development (OECD), and the International Financial Education Network (INFE) is the process by which consumers and investors' awareness of the nature of the available financial services and products and the risks associated with their use is improved, this is by providing information, guidance and / or objective advice related to it, and developing their skills and confidence in financial services. By it important also to increase their awareness of financial opportunities and risks, to be able to make decisions based on correct information, and to inform them of the bodies they can go to in case they need help. These would help them to take another effective step to improve their financial well-being. Thus, it has become universally recognized that financial education is a fundamental and pivotal step to achieving financial inclusion. Financial literacy in the world has become a precautionary measure and a major complement to financial sector behaviors to ensure financial inclusion (Samir Abdullah, 2016).

Previous studies such as Al-Iraqi and Al-Nuaimi (2018), Aliwa (2019), and Jazia (2020) have shown that there is a close relationship between financial inclusion, financial stability and economic growth, where financial inclusion aims to provide segments of society with formal financial services at reasonable costs and through official channels. It is difficult to achieve financial stability and acceptable economic growth, while a large proportion of society and institutions are still financially excluded from the economic system. This is because the financial system that does not include all segments of the population does not have sufficient information about the volume of production and actual investment in society, and then the possibility of exposure to financial shocks increases and its ability to achieve stability decreases. Therefore, it can be said that achieving financial inclusion supports financial stability.

Furthermore, financial inclusion enhances competition between financial institutions, by working on the diversity of their products and paying attention to their quality, to attract the largest number of customers and transactions and legalize some informal channels. Financial inclusion affects the social aspect, in terms of greater concern for the poor and low-income groups, with special attention to women, access to individuals and Small, medium and micro enterprises (SMEs) and their integration into the formal financial sector, by making financial services available, and making them accessible to the poor and marginalized segments. This is in addition to the interest in achieving the public interest, which is related to creating job opportunities, which contributes to achieving economic growth and thus reducing poverty rates, improving income distribution, raising the standard of living, and thus achieving sustainable economic development (Shanbi and Bin Lakhdar, 2018).

1.2. FINANCIAL INCLUSION IN THE MIDDLE EAST

As for the reality of financial inclusion and its role in economic development at the level of Arab countries, the issue of enhancing access to finance and financial services has received great attention from the Board of Governors of Central Banks and Arab Monetary Institutions, in appreciation of the great opportunities that can be achieved through enhancing financial inclusion to support comprehensive and sustainable economic development and facing the challenges of unemployment and achieving social justice, as the Council took the initiative to adopt on April 27 of each year an Arab Day for Financial Inclusion, and celebrated this day in 2019 under the slogan “Financial Inclusion Towards Sustainable Development”, confirming its support for the efforts of the international community in promoting financial inclusion and its relevance Achieving sustainable development (Arab Financial Inclusion Day, 2019).

In spite of all those Arab efforts made to achieve financial inclusion, it is still characterized by weakness, compared to the rest of the world, only about 18% of the population in the Arab countries have an account with a financial institution, with the exception of the countries of the Gulf Cooperation Council, the matter differs in terms of the spread of banking services. According to the International Monetary Fund, the Arab region still records one of the lowest levels in the world in terms of financial inclusion, as only 18% of the population in the Arab region had accounts with financial institutions in 2014 compared with 43% in developing countries, and 24% in sub-Saharan Africa, and this percentage drops to 13% for women. The figures of the Global Financial Services Universalization Index in 2014 indicate that the Arab region, except for the six Gulf countries, records the lowest percentage of adults excluded from financial services, as 80% of the population, or the equivalent of about 200 million people, do not have an account banking. According to the Arab Monetary Fund, the Arab countries, with the exception of the Gulf countries, are the most deprived of financial services and products in the world, as the percentage of financial inclusion in the Arab average did not exceed 21% - 29% in 2016, and it owned only about 30% of the adult population has adequate financial knowledge, and this percentage is lower than the global average 34%. While the gap in financial awareness among men and women reaches 5% in the world, it rises to 8% at the level of Arab countries. Statistics indicate that 93% of young people between the ages of 15 to 24 in the Arab region do not have bank accounts in any official financial institution, which is the lowest rate in the world (Marwan and Rasheed, 2015).

1.3. FINANCIAL INCLUSION IN IRAQ

Despite the conceptual framework that indicates the logical relationship between the work of banking institutions and their access to the stage of financial inclusion and raising the indicators of sustainable development, and despite the Central Bank of Iraq to develop a strategic plan for the period 2016 -2020 and make the strategic priority that he seeks to achieve is financial inclusion in the country, but the reality often shows the confusion of this relationship. This can be justified by a set of reasons, the most prominent of which is the weakness of the Iraqi banking sector’s contribution to development and investment indicators, which is due to subjective reasons related to the management and structure of banking work and its failure to keep pace with modern banking procedures and information systems and its analysis, and objective reasons related to the reality of the Iraqi rentier economy and its dependence on oil mainly as a source for growth - as oil revenues constitute more than 90 percent of the total state budget revenues, and these revenues are controlled by state-owned companies. This feature reduces the role that mediation institutions play in providing more financial services due to the lack of demand (Khalaf and Ali, 2015), in addition to the Iraqi economy's dispersed mechanisms between the market economy and the central economy.

This situation appears clear when looking at the low ratio of credit granted to GDP in Iraq, as this ratio ranges from 9.21% of this output in 2015 compared to 55% in the total of the Middle East and North Africa (MENA) region and 126.03% at the world level for the same year. If we compare the volume of credit to the banks' capital and sound reserves, it does not exceed 2.1 times, while the central bank's instructions allow the credit to reach eight times the bank's capital and sound reserves. It is also noted that most of the credit provided to the private sector goes to individuals, not companies, it amounted to about 86% in 2010 of the total credit provided to the private sector, compared to 14% for companies. It is also noticed that the number of banking services is inconsistent with the economic requirements and needs of Iraq, as the number of services is up to (20) services compared to what was provided by Article (27) of the Banking Law, which amounted to more than (50) banking services, which is less than what Arab and foreign banks provide. This has greatly limited the desire of individuals to deposit with banks and the efforts of small and medium enterprises to request borrowing from them (Fahd and Al-Auqaidi, 2019).

1.4. PROBLEM OF THE RESEARCH

Financial inclusion has become an important program at the international and local levels, due to its importance in enhancing financial stability and its contribution to achieving sustainable economic growth. At the international level, studies measuring financial inclusion have shown that there are nearly 4 billion -that is more than two-thirds of the world's population - are deprived from access to financial and banking services (Pickens, et al, 2009). Either at the national level, the percentage of Iraqi adults who have a bank account reached (11%) in 2014, meaning that (89%) of Iraqi adults do not have a bank account, but rather deal with cash in settling their commercial transactions and paying their financial obligations (CBI, 2017). This study seeks to answer the fundamental question:

Due to vital role of financial inclusion in sustainable economic development, is there any important to it in Iraq? Therefore:

1. Is the reality and level of financial inclusion in Iraq meet international standard?
2. Is financial inclusion important in enhancing the level of sustainable economic development in Iraq?

1.5. OBJECTIVES OF THE RESEARCH

The main objective of the study is to demonstrate the importance of financial inclusion in achieving sustainable economic development in Iraq during the period between (2003-2019), and this is done through:

1. To explore the level of financial inclusion in Iraq.
2. To evaluate and analyze the importance of financial inclusion in promoting sustainable economic development in Iraq.

The ARDL model has been chosen in this study, because this model of analyzing variable can be applied on models where variables included in the equations are stationary at different levels, and when the sample is small.

1.6. SIGNIFICANCE OF THE RESEARCH

The importance of the study lies in its modernity and compatibility with global trends to enhance financial inclusion, and with the local efforts led by the Central Bank of Iraq in building a national strategy for financial inclusion, in addition to that, it deals with a vital topic that has not received its share of the study in Iraqi academic and research institutions. Moreover, the study is important from the results and recommendations that come out, which the decision-makers in Iraqi banks and the Iraqi Monetary Authority are interested in, which helps them take the necessary procedures and measures, which in turn raise awareness and financial capabilities of the Iraqi community, as well as help them in developing financial products in line with consumer requirements. Furthermore, this study also draws researchers' attention to the interest in studying financial inclusion and its importance in promoting the growth of the Iraqi economy, and how to propose policies that contribute to its support and spread.

1.7. STUDY HYPOTHESIS

The main hypothesis of the study can be expressed as follows: There is a positive relationship between financial inclusion and sustainable economic development in Iraq from 2003 to 2019.

The following hypotheses are derived from:

1- A positive expulsion relationship between the number of bank branches and sustainable economic development in Iraq from 2003 to 2019.

2- A positive expulsion relationship between bank deposits and sustainable economic development in Iraq from 2003 to 2019.

3- A positive expulsion relationship between ATMs per 100,000 adults and sustainable economic development in Iraq from 2003 to 2019.

1.8. DEFINITION OF KEY TERMS

1.8.1. Financial Inclusion

Financial inclusion is the accessibility and utilization of all monetary administrations for the different gatherings of society in its establishments and individuals, particularly the underestimated ones, through true channels including bank and savings accounts, payment and transfer services, insurance services, financing and credit services, and the making of more suitable monetary administrations at cutthroat and reasonable costs. This is in addition to working to protect the rights of consumers of financial services and encouraging these groups to properly manage their money and savings in order to avoid some resorting to informal channels and means that are not subject to any of the supervisory authorities that impose relatively high prices, which leads to misappropriation of the needs of those channels for banking services (Karkar, 2019).

In the context of the foregoing, financial inclusion can be defined as a process consisting of a set of plans, policies, decisions, and strategies that enable formal financial institutions to reach all groups of society, especially those with limited income and attract them to reach them and identify their services and their use of these services at cost, time, quality and dignity, and thus integrate them into the system. Official on the one hand, improving their living conditions and meeting their requirements on the other hand (Mohamed, 2019a).

1.8.2. Sustainable Economic Development

One of the most important and widely spread definitions of sustainable development is that contained in the Brundtland Report, which defined sustainable development as “development that meets the needs of the present generation without sacrificing or harming the ability of future generations to meet their needs”.

Sustainable development is also defined as a socio-economic term that means maintaining and developing the means of production in ways that do not lead to the depletion of natural resources to ensure the continuation of production for future generations (Mohamed, 2019b).

1.9. RESEARCH ARRANGEMENT

The research divided to five chapters: Chapter one is the introduction: this chapter reviews background of the study, financial inclusion in the Middle East, and financial inclusion in Iraq. Chapter two is the literature review: this chapter shows financial inclusion, sustainable economic development, and reviews the previous studies, Chapter three shows methodology. Chapter four shows analysis of hypothesis and variables. Chapter five reviews findings and conclusion.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Issues of strengthening financial inclusion have been increasingly important in recent years in various countries of the world, specifically developing countries, as a result of the repercussions of the global financial crisis, where the G20 has adopted financial inclusion as one of the main axes of the economic and financial development agenda, and numerous nations have taken on techniques and made viable strides towards improving access to finance and financial services in order to improve opportunities for growth and economic stability, contribute to social justice and combat poverty, where financial inclusion aims to improve access to financial services to a larger segment of citizens. Whether individuals or enterprises, attract excluded to the formal financial system by providing all financial services (e.g., savings, payments, remittances, credit, insurance, pensions).

Global interest in financial institutions, central banks and monetary institutions has become clear about financial inclusion, among other equally important topics, such as the interest in strengthening the capacities and capabilities of SMEs, establishing credit information offices and exchanging data of investors and borrowers across borders to protect the economies of countries (Al-Bashir, 2020).

Although many developing countries have initiated and implemented long-term programs aimed at achieving financial inclusion, the successes achieved in this regard have been very modest compared to the ambitions and hopes that were held, with the exception of a small group of them. The reason for the failure of these programs is often attributed to the premise that these programs have focused primarily on physical aspects and considerations and overlooked other non-material (behavioral) aspects that are complementary, if not more important than those aspects and intangible considerations. In this context, the right start of financial inclusion programs requires a kind of satisfaction and firm conviction on both sides of the financial sector (on the supply side and on the demand side) to change trends attitudes and change pattern of Behavior's pattern of behavior towards a new path that is quite different from that of before the start of financial inclusion programs (Al-Laithi, 2016: 102).

2.1. FINANCIAL INCLUSION

2.1.1. The emergence and development of financial inclusion

The term financial inclusion (the opposite of exclusion) first appeared in 1993 in the Leyshon and Thrift study on financial services in south-east England, addressing the impact of the closure of a bank branch on the effective access of the region's residents to banking services. During the 1990s, several studies emerged on the difficulties some groups of society face in accessing banking and non-banking financial services. In 1999, the term financial inclusion was used for the first time more broadly to describe the determinants of individual access to available financial services, and it should be noted here that the optional abandonment of the pursuit of the use of financial products and services because of their lack of need, cultural and/or ideological reasons, should be differentiated from lack of access and non-use due to their lack of availability or inability to own them (Leyshon and Thrift, 1995).

International interest in financial inclusion has increased in the wake of the global financial crisis in 2008, represented by the commitment of different governments to achieve financial inclusion by implementing policies aimed at promoting and facilitating access to financial services for all segments of society and enabling them to use them properly. In addition to urging financial service providers to provide diverse and innovative services at low cost, the G20 adopted the goal of financial inclusion as one of the main axes of the economic and financial development agenda, and the World Bank considered the generalization of financial services and facilitating access to all segments of society as a key pillar to fight extreme poverty and promote shared prosperity. In 2013, the World Bank Group launched the Global Program to Leverage Innovation through the Rollout of Financial Services, with an additional focus on innovative payment and retail payments systems. Many global institutions (e.g., CGAP and IFC) have also launched financially inclusive programs, and the UK and Malaysia were among the first countries to develop and implement national financial inclusion strategies in the world in 2003 (Ghazal and Barakat, 2020).

The Central Bank of Iraq recognizes the challenges ahead of it to increase financial inclusion, and recognizes that achieving this requires a transition from scattered efforts and individual initiatives to promote financial inclusion to unifying and framing these initiatives and efforts under a single umbrella to avoid duplication of efforts and waste of resources, and to achieve the desired goals efficiently and effectively to ensure access to the widest possible range of segments and target groups. This requires the development and building of a national financial inclusion strategy with the participation of all stakeholders. Iraqi regulatory bodies for the financial sector, government institutions, civil society institutions, independent bodies and the private sector. The implementation of this strategy requires identifying the responsibilities, roles, and resources necessary to implement it, and strengthening follow-up and oversight mechanisms to verify that their objectives are achieved.

2.1.2. The Concept of Financial Inclusion

Financial inclusion means expanding the customer base with its components from banks, financial institutions, insurance, social security funds, etc., by ensuring that financial services reach the largest segment of the population on an ongoing basis at a lower cost and that financial inclusion policies are implemented through the implementation of a comprehensive financial inclusion strategy by setting clear and easy-to-measure objectives (Bigirimana and Hongyi, 2018).

According to Garg & Agarwal (2014), Bank of India defined financial inclusion as the process of ensuring timely and affordable access to financial services and credit by vulnerable groups such as low-income groups. Sarma (2010), added that financial inclusion is a process that ensures easy access, availability, and formal use of the financial system for all members of the community, so financial inclusion is the process by which access to high quality financial services, including loan, deposit, and payment system services, is expanded. Triki and Faye (2013) explained that financial inclusion is a situation in which all individuals can access a full range of quality and affordable financial services, where financial services can be accessed through providers, including those with special needs, the poor, rural and marginalized areas.

Subsequently the Global Financial Inclusion Alliance (Alliance for financial inclusion, 2013) believe that financial inclusion is actions taken by regulatory bodies to enhance the access and use of all segments of society, including marginalized and well-off groups, for financial services and products that suit their needs, and to provide them fairly, transparently and at reasonable costs.

As for the World Bank, financial inclusion means that individuals and companies have access to useful and affordable financial products that meet their needs - transactions, payments, savings, credits, and insurance - that are presented in a responsible and sustainable manner (Abu Dayyeh, 2016).

The researcher concludes that the following procedural definition of financial inclusion is 'expanding access to financial services to all segments of society, including marginalized and low-income groups, at a low cost without discrimination, which helps them to continue and grow their projects to become part of the formal economic activity, and this definition is appropriate; Small business owners to integrate into formal economic activity to become part of it.

2.1.3. Objectives of financial inclusion

Given the global interest in expanding financial inclusion and creating alliances between global financial bodies and institutions to coordinate and operate within common and unified mechanisms, the benefits of financial inclusion are growing, as the CGAP believes that building a comprehensive financial system as the only way to reach the poor and low-income. To achieve the following financial inclusion goals: as stated in Gupte et al. (2012), Kumar (2013), and Change (2017) financial inclusion seeks to enhance access to financial services and products (such as bank savings account, credit, insurance, payments, transfers and financial and credit advisory services), to inform citizens of the importance of financial services and how to obtain and benefit from them to improve their social and economic conditions. Financial inclusion also contributes to the dissemination of banking awareness and financial culture through the participation of all parties concerned and in optimal ways. In addition to enabling SMEs to invest and expand, thereby reducing poverty and unemployment levels, reducing income inequality and accelerating economic growth. Financial inclusion also enables women to access financial services and reduce the gender gap. It also supports the banking sector by diversifying the banking asset base, attracting banks to new customers, stabilizing deposits, and thereby reducing liquidity risk.

2.1.4. The importance of financial inclusion

Financial inclusion is an effective, high-priority tool that helps in the social aspects and economic and strategic development of countries, especially those that are still developing, as the importance of financial inclusion is reflected in three main benefits: (i) social benefit, (ii) economic benefit, and (iii) strategic benefit.

2.1.4.1. Social benefit

Promoting financial inclusion helps reduce poverty, financial exclusion and raise awareness among people about how to benefit from their savings (Omar and Inaba 2020). It also affects the social aspect in terms of greater attention to the poor and low-income people with special attention to women, access to individuals, small, medium, and micro enterprises (Duvendack and Mader, 2020; Pomeroy, et al, 2020; Ibor, et al, 2017). It also achieves the public interest of creating jobs that contributes to reducing unemployment and thus reducing poverty rates, improving income distribution, raising the standard of living and achieving economic growth (Bakhta et al., 2018) and one of the priorities of achieving financial inclusion is to achieve financial education aimed at creating an integrated financial education system, reaching a financially educated society, and promoting and developing levels of awareness among all segments of society (Atkinson and Messy, 2013).

2.1.4.2. Economic benefit

Studies such as Siddik and Kabiraj (2018), Dienillah et al. (2018), and Neaime and Gaysset (2018) have demonstrated a close relationship between financial inclusion, financial stability and economic growth, as increased use of financial services and the availability of financing to SMEs contribute to increased deposits with banks, supporting economic growth and financial stability. The dissemination of financial services also contributes to improving the standard of living, empowering women, financing mini-projects, reducing poverty and inequality, creating jobs, and integrating the informal economy into the formal economy, by formalizing SMEs and thus raising economic growth rates (Rachida and Saida, 2019). Moreover, financial inclusion enhances competition among financial institutions by diversifying their products and paying attention to their quality to attract the largest number of customers, transactions and rationing of some informal channels.

2.1.4.3. Strategic benefit

Financial regulators are keen to strengthen the integrated framework of financial inclusion and harmonize financial inclusion as a strategic objective and other established objectives: financial stability, financial integrity, and consumer protection, which is called inclusion and the linkages to stability, integrity and protection “ISIP” (Al Hasawi, 2017).

2.1.4.3.1. Financial stability: Studies have confirmed a close long-term relationship between financial inclusion and financial stability, as it is difficult to achieve financial inclusion without stability in the financial system, and it is difficult to imagine continued financial stability with an increasing proportion of society and the economic sector still financially excluded such as rural residents, a group of the least fortunate in poor urban areas, and the poor (Ghali, 2020: 233).

2.1.4.3.2. Financial integrity: International standards promote financial integrity through the fight against money laundering and terrorist financing and support the fight against crime. The incorrect implementation of these standards in emerging markets is key to excluding millions of low-income earners from official financial services because of banks refraining from dealing with them if their data is incomplete, thereby resorting to informal financial services, affecting social and economic progress and hindering regulators based on the implementation of these laws from promoting financial integrity as they are unable to track the movement of funds.

International anti-money laundering and terrorist financing standards should also be flexible, enabling States to implement anti-money laundering laws and create effective and appropriate control tools without adversely affecting access and use of financial services for low-income earners (Daghi, 2017:12).

2.1.4.3.3. Consumer financial protection: Consumer financial protection seeks to create a balance in the relationship between financial service providers and consumers. Consumer protection and financial education is one of the most important priorities of regulatory authorities because of their positive impact on financial inclusion, improving financing opportunities and accessing financial services, which in turn leads to financial stability (Hamdan, 2018: 182).

2.1.5. Dimensions of Financial Inclusion

The concept of financial inclusion has evolved into four main dimensions: easy access to financing for all families and companies, institutional guidance by regulatory rules and financial supervision, financial sustainability of companies and institutions, as well as competition among financial service providers to achieve the best alternatives for customers (Mohieldin at al., 2012). G20 leaders agreed with GPFI’s global financial inclusion recommendation to support global and national financial inclusion data efforts at the (Los Cabos) summit in June 2012 on a core set of indicators measuring financial inclusion, which address the measurement of three dimensions (GPFI, 2013): (i) access to financial services, (ii) usage of financial services, and (iii) quality of financial services.

2.1.5.1. Access to financial services

The dimension of access to financial services refers to the ability to provide or use financial services from official institutions, where it requires determining levels of access to identifying and analyzing potential barriers to opening and using a bank account through certain indicators such as cost and proximity to banking points, branches, and ATMs (AFI, 2013). Tuesta and Camara (2014) indicates that these indicators are traditional indicators of measuring access to financial services and are currently inadequate. New technology adopted in the banking sector goes beyond traditional banking access measured by the number of branches and ATMs. New banking developments allow the use of mobile and internet financial services, a new door for official financial services that are used in certain circumstances, such as overcoming the barrier of distance to access to financial services. Banking also plays an important role in improving access to banking services as technology and banking correspondence have greatly expanded financial services access (Ajjour, 2017).

2.1.5.2. Usage of financial services

The dimension of the use of financial services refers to the extent to which customers use financial services provided by banking institutions, by determining the extent to which financial services are used, which requires data collection on the regularity and frequency of use over a certain period (Bakhta et al., 2018). To assess the extent of the use of official financial services, there are three different indicators: having at least one financial service, keeping savings and loans from an official financial institution, as well as taking advantage of global financial statements to measure financial inclusion. Another indicator can also be added to see how individuals use at least one official financial service by knowing individuals who have a bank account, and individuals who use mobile banking but do not have an account. Therefore, individuals who use financial services are identified indirectly. Loan and savings indicators represent the proportion of adults who save and have loans with official financial institutions, respectively (Tuesta and Camara, 2014).

2.1.5.3. Quality of financial services

Indicates the suitability of the service or financial product to the needs and lifestyle of the consumer (Hannig, and Jansen, 2010), quality is an unclear and direct dimension, where the process of developing indicators for measurement after quality is a challenge in itself, where there are many factors affecting the quality and quality of financial services such as the cost of services, consumer awareness, the effectiveness of the compensation mechanism in addition to consumer protection services and financial guarantees, transparency of competition in the market as well as intangible factors such as consumer confidence (AFI, 2013).

2.1.6. Financial Inclusion in Iraq

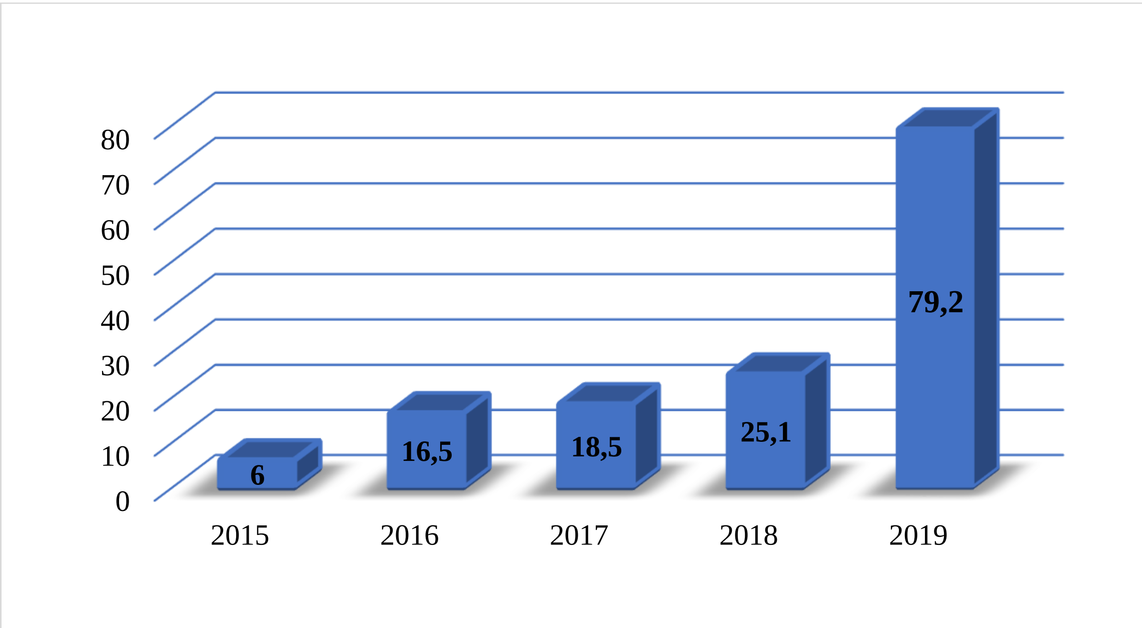
Globally, significant progress has been made in expanding financial inclusion, with the number of people with an account in a financial institution increasing by about 700 million between 2011 - 2014. In 2011, 51% of the world's adult population had a bank account, rising to 62% in 2014, while in 2017 it reached 69% and continues to move upwards (World Bank, 2018). On the other hand, there are wide regional differences in account ownership, with 94% of adults in OECD countries having a bank account in 2014 compared to 63% in developing economies (CBI, 2017). To date, about 2 billion people, or 38% of the world's adults, do not have formal financial services, or do not deal with banks because of high costs, distances, and often burdensome requirements to open a financial account (World Bank, 2016).

As for Iraq, the issue of financial inclusion has recently topped the reform and development agenda in Iraq, and this has been evident through the implementation of some reforms in the financial sector aimed at strengthening the financial inclusion ratios of different segments of society, including strengthening the infrastructure of the legal and regulatory framework of the financial sector, protecting consumer rights, awareness and financial education, and extending to the microfinance sector (CBI, 2019).

Financial inclusion has become a priority for the Central Bank of Iraq, which seeks to achieve its objectives to ensure the strengthening of a stable, competitive financial system as well as sustainable economic growth. The Central Bank of Iraq has launched a small, medium and large project financing initiative that began in 2015 with a sum of 6 trillion Iraqi dinars to enable industrialists, farmers and entrepreneurs, in addition to the poor groups in society to obtain concessional loans for acceptable deadlines, and at appropriate interest rates, which will result in many positives, the first of which will be increasing the rate of financial inclusion, addressing unemployment and providing jobs, and improving the level of banking and investment awareness. In addition to increasing the credit-to-GDP ratio, which currently stands at approximately (9.8%), the Central Bank of Iraq's initiative to finance small, medium, and large enterprises was distributed as follows: (CBI, 2019).

1- SME finance initiative: For the purpose of stimulating the economy and the belief of the Central Bank of Iraq to create and support new ideas that contribute to the process of economic growth, the Central Bank of Iraq launched the initiative (1) trillion dinars to grant small and medium-sized loans to citizens through private banks; this initiative was launched in 2015, with 6 billion dinars disbursed at that stage, and these loans have grown increasingly year after year to reach (79.2) billion dinars in (2019), as shown in Figure (1), the total amount disbursed to customers from 2015 to 2019 was (145.114) billion dinars, which accounts for (14.51%) of the amount allocated from the Central Bank of Iraq, which amounts to (1) trillion dinars, but this does not mean that the initiative has not yet reached the level required in achieving the central bank's proliferation objectives for SMEs, but the amount allocated is very large, so that the percentage remains low, even if the grant process increases. (CBI, 2019).

Figure 1. The Initiative Granted by the Central Bank



Source: Central Bank of Iraq

(33) Private banks participated in the granting of initiative funds, divided into (18) Islamic banks, (15) traditional banks and two foreign banks, which contributed to the creation of some (4,776) small projects Contributed to job creation for the unemployed, the Central Bank has simplified grant procedures and completed transactions as quickly as possible, while urging banks to expand this activity, which is one of the tools of financial inclusion, in addition to the central bank has conducted advertising, promotion and awareness campaigns in the media and various social media.

2- Large projects financing initiative: The Central Bank of Iraq has been keen to support large projects that have a clear impact on the economic development process, so the Central Bank of Iraq has launched a large project financing initiative of (5) trillion dinars, as the initiative amounts have been pumped through the competent banks, at a low interest rate, so as not to burden the investor, for the purpose of continuing to work, to raise production rates in important economic sectors (agricultural, industrial, and real estate) which contribute to increased economic growth, as well as contribute to solving the housing crisis by providing concessional loans to build housing units, or to build large housing complexes. Table (1) shows the nature of the distribution of these amounts to the relevant banks and the Housing Fund (CBI, 2019).

Table 1. The Market Share of Banks in the Initiative to Finance Large Projects (Million Dinars)

Source: Central Bank of Iraq

Growth rate in grants	Operating Ratio			Interest rate	Actually Granted			Amount Allocated	Name of Bank
	2019	2018	2017		2019	2018	2017		
%84	3.04	1.65	0.95	%4	50801	27,559	15,832	1,666,000	**Agricultural Bank**
%4	5.80	5.73	1.06	%4	96652	92,606	17,667	1,666,000	**Industrial Bank**
%0	79.7	79.7	0.07	%3	665000	665,000	600	834,000	**Real Estate Bank**
%17	75.6	64.39	0.10	%2	1009000	859,000	824	1,334,000	**Housing Fund**

As a result of citizens’ demand for loans from the Housing Fund, the fund’s amount has been increased from (834) billion dinars to (1,334) billion dinars, bringing the initiative’s amount to more than (5) trillion dinars to become (5.5) trillion dinars.

The salaries of state employees for 2019 have been settled at (208) expenditure units, this brings the total number of spending units that have been settled since the beginning of the project (398) units (self-funded and centrally funded), and (8) banks have been set up and added to the list of banks approved by the Central Bank, bringing the total number (29) banks and spots (6) government banks and (18) private banks, as well as (5) branches of foreign banks. The number of employees whose salaries were localized during 2019 was (812,998), with a total of (993,540) employees and (333,997) beneficiaries of the National Public Pension Authority (CBI, 2019).

Iraq's financial inclusion indicators, the level of Access to Financial Services Index, the Bank Density and Banking Proliferation Index, and banking density increased from (44.16) in 2018 to (44.25) in 2019, while banking penetration (2.25) in 2019 was (2.26) in 2018, the results indicate that the aggregate index of financial inclusion in Iraq increased from (10%) in 2016 to (22.09) in 2018, while the ratio increased to (25.4%) in 2019, reflecting the success of the Central Bank of Iraq's policies in encouraging financial inclusion, and increasing the confidence and interaction of individuals with the formal financial sector. This increase in the value of the Financial Inclusion Index is due to the marked increase in the number of bank accounts because of the salary settlement policy as well as the marked increase in the number of ATMs and points of sale that have increased in the recent period.

2.1.7. Challenges Facing Financial Inclusion

According to previous studies such as Beck (2014), Datta and Singh (2019), Al-Badawi (2019) and Ajjour (2019), there are several challenges facing Arab countries that limit the promotion of financial inclusion, including illiteracy, low income, low savings and low level of awareness. In the absence of these factors, individuals are unable to access financial services and products, and the high cost of providing services. The provision of financial products and services to low-income families is costly, as the high cost of providing services does not encourage financial institutions to provide financial services to low-income people, the lack of competition between financial and banking institutions has made them part of the tradition of financial services, and the lack of development of infrastructure for the Arab financial sectors to the extent that it ensures increased access to finance, despite the relative improvement in the infrastructure levels of the Arab financial sectors in recent times, and the absence of a specific financial and legal classification of microfinance institutions in the Arab countries.

Some of the challenges facing financial inclusion are due to religious factors. Arab-Islamic societies are moving away from transactions that do not conform to Islamic law, and despite the development of Islamic financing formulas, they still need marketing and creating new products that meet the requirements of the Islamic society, in addition to the lack of awareness about financial goods and services, limited culture, and social exclusion: many financial products are not commensurate with the poor and there is not enough effort to design products that meet their needs, and the unfriendly and unsympathetic attitudes of banks towards customers play an important role in weakening the demand for financial services, excessive and non-transparent fees, along with onerous terms and conditions related to financial products, reduce the demand for financial services as well (Al-Badawi, 2019).

2.2. SUSTAINABLE ECONOMIC DEVELOPMENT

2.2.1. The Concept of Sustainable Economic Development

According to the Dictionary of Meanings: (Development) is a source of grew, development, and seeking to develop his business: means raising and increasing its profits and capital, and economic development: raising the level of production and national income, means transforming uninvested natural resources into productive resources such as the reclamation of desert or waste land, the establishment of new industries, the government has faced the fundamental problems of development policy, and sustainable development: development that has successful and stable components to ensure continuity, so development is defined as a comprehensive process in various fields, so the concept is defined according to this comprehensive vision of the work developmental.

As for economic development, it means providing a minimum standard of living for individuals, which is achieved by increasing production, which in turn leads to the economic well-being of social welfare, making development from this perspective mean creating a self-growth economy (Qala'a, 2013: 148).

Economic development has been given many definitions as a tool for increasing income, productivity or consumption, as economic development has been seen as the process used by the unfinished State to exploit its real economic resources in order to increase its real national income, thereby increasing its average per capita income.

Sustainable economic development is defined as 'a set of measures and measures aimed at building a self-economic mechanism that includes a real increase in per capita income for a long period of time (Sarma and Pais, 2011).

Sustainable economic development can be defined as comprehensive and constructive modernization that increases economic growth rates while ensuring that this growth is balanced and sustained for a long period of time to meet the needs of individuals and achieve as much social justice as possible for the poor class without harming the environment or resources (Ghanem, 2014: 67).

2.2.2. Elements of Sustainable Economic Development

According to previous definitions of development, it contains several elements, the most important of which is inclusiveness, development is a comprehensive change that involves not only the physical economic aspect, but also the cultural, political, social and moral aspect. One of the elements of sustainable economic development is a continuous increase in the average real income per capita for a long period of time, this means that development is a long-term process, that is, it is characterized by continuity, as well as an improvement in income distribution for the poor: a correct understanding of the development process means that the fruits of growth are distributed more equitably in society, through which society as a whole can satisfy its necessary needs. Thus, development not only requires growth in per capita output, but also improvements in consumer goods available to the largest proportion of the population, including low-income individuals.

In addition to the need to improve the quality of goods and services provided to individuals, the increase in cash income does not in itself ensure an improvement in the economic and social level of individuals, as various studies show that one of the most important characteristics of the poor class in underdeveloped societies is: malnutrition, high illiteracy, poor health, poor housing and overcrowding, and changing the production structure to ensure the expansion of production capacity in a way that allows for accumulation through diversification of production from different sectors, allowing for the creation of a market for various products, allowing for further expansion of production capacity, especially if production depends on productively flexible industrial sectors (Salem, 2012).

2.2.3. Sustainable Economic Development Objectives

The United Nations has set 17 sustainable development goals, which of them can be ranged as follows: **i)** The eradication of poverty: The eradication of poverty in all its forms remains one of the greatest challenges facing humanity. Although the number of people living in extreme poverty has more than halved, more than 800 million people still live on less than $ 1.25 a day. **ii)** The eradication of hunger: Rapid economic growth and increased agricultural productivity over the past two decades have resulted in nearly half the number of undernourished people. **iii)** Good health and well-being: Since 1990, preventable child deaths have decreased by 50% globally. Maternal mortality has decreased by 45 % worldwide. **iv)** Quality Education: Since the year 2000, tremendous progress has been made in achieving the goal of universal primary education. The number of out-of-school children in the world has decreased by almost half, and there are far too many girls who are enrolled in school more than ever before. **v)** Gender equality: the elimination of all forms of discrimination against women and girls is not only a basic human right, but also a critical factor in accelerating the achievement of sustainable development. **vi)** Clean water and sanitation: Water scarcity affects more than 40 percent of the population worldwide, a worrying number that is expected to increase as global temperatures rise due to climate change. **vii)** Affordable and clean energy: The number of people with access to electricity services increased by 1.7 billion people worldwide. Between 1990 and 2010, the demand for cheap energy is expected to increase with the continuous increase in the global population. **viii)** Decent work and economic growth: The number of workers living in extreme poverty has decreased dramatically over the past 25 years. Today in developing countries the middle class makes up more than 34 percent of the total workforce. **ix)** Industry, innovation, and infrastructure: Investments in industry, infrastructure and innovation are critical factors for economic growth and sustainable development. **x)** Reducing inequalities: Evidence has documented evidence of rising income inequality, with the richest 10 percent of the world's population earning up to 40 percent of total global income while the poorest 10 percent earning between 2 percent and only 7 percent of total global income. **xi)** Sustainable cities and communities: Today, more than half of the world's population lives in urban areas. By 2050, this number will increase to 6.5 billion individuals, about two-thirds of all humanity. Sustainable development cannot be achieved without making a significant change in the way our urban spaces are built and managed. **xii)** Responsible consumption and production: achieving economic growth and sustainable development requires us to reduce our ecological footprint, urgently, by changing the ways in which we produce and consume goods and resources. **xiii)** Climate action: There is no country in the world that does not directly suffer from the dangerous effects of climate change. Greenhouse gas emissions are still rising, and today they are 50 % higher than their 1990 levels. **xiv)** Life underwater: The oceans - through their temperature, chemical composition, water currents, and biological richness - are one of the most important components of the natural systems that make the earth habitable for humankind. **xv)** Life on land: to the extent that it depends on the oceans, human life also depends on the land for sustenance and livelihood. Plant life on earth provides 80% of human food, and humans depend on agriculture as an important economic resource and as one of the most important means of development. **xvi)** Peace, justice and strong institutions: Without peace, stability, human rights and effective governance, based on the rule of law - we cannot hope for sustainable development. **xvii)** Partnerships to achieve the goals: The sustainable development goals can only be achieved with a strong commitment to partnership and cooperation at the international level.

2.2.4. Sustainable Economic Development in Iraq

Iraq's modern economy is one of the rentier economies that depend on natural resource revenues, primarily oil, to finance government activity and the state budget, so this economy has remained dependent on the continued volatility of oil prices and thus government revenues. In years when oil prices were high, the Iraqi economy was booming, as in the 1970s, unlike the years when oil prices deteriorated, which led to a decline in government revenues, as in the 1990s.

2.2.4.1 Challenges of sustainable economic development in Iraq

Before addressing the current problems and constraints and we mean post-occupation since 2003, we must go back to the pre-2003 phase with some of the basic features that have a significant impact on current problems and challenges (Manati and Majeed, 2017).

2.2.4.1.1. pre-occupation stage 2003

Despite the high and acceptable economic growth rates achieved over certain periods of time, they do not reflect the development of the Iraqi economy, particularly its commodity sectors such as industry and agriculture, and reflect the growth of the crude oil extraction sector, which is more linked to external economic and political variables than domestic economic factors, to name a few, during the period (1953-1969) the annual growth rate of GDP was approximately (6.4%) At constant prices, this rate during the Explosive Development Plan for the period (1976-1980) was approximately (7.2%) at constant prices. During that period, Iraq was expected to be at the level of high-income developing countries, but economic policies and the foreign political environment produced a different path, which is the economy of problems and crises (Resan, 2012). Then, a difficult and dangerous stage came during the period (1981-2003), which witnessed wars and blockades that led the Iraqi economy to stop its development relatively to face the extraordinary circumstances facing the country. In general, the features of the stumbles and problems in the Iraqi economy during the period (1981-2003) can be observed through the following features:

- The deterioration of economic capacity, the destruction of a large part of it, the distortion of the economic structure and the decline of agriculture and manufacturing.
- The adoption of a deficit financing policy (new cash issuance) that led to the growing monetary mass and led to higher inflation rates.
- Chronic deficit in the public budget.
- Significant disparity in the distribution of income and wealth.
- The external debt crisis, which in 2003 reached nearly $125 billion, worsened.
- Manifestations of administrative and financial corruption emerge.
- Pollution of the environment (soil, water, air).

2.2.4.1.2. post-occupation stage 2003

In 2003, the Iraqi economy entered a new phase that saw the destruction of most of its pre-occupation structure, while the U.S. occupation authority passed laws and measures to transform the economy from its central form to a market economy, although it did not have the ingredients of this system (abundance of production). Then came oil and gas license contracts with several Western companies, inviting foreign investment to work in Iraq and encouraging them, property laws, tax cancellation, opening the borders to the flow of various goods and services to the country and flooding the domestic market of poor consumer goods, free circulation of foreign currencies, and other laws. All of this has exacerbated economic problems and crises, especially the following:

- Deepening the deterioration of economic capacity after most of them have been destroyed.

- Almost complete halt to economic development.
- The waste of economic resources and the loss of financial resources from foreign currencies, whose gate was the disappearance of billions of dollars during the existence of the U.S. civilian governor (Paul Bremer).
- The phenomenon of administrative and financial corruption is widespread in state institutions.
- Lack of economic stability.
- Worsening unemployment and widening poverty.

Moreover, there has been no clear economic program by successive governments in Iraq since 2003, the instability of the security and political situation and tribal disruption in the country.

2.3. REVIEW OF FINANCIAL INCLUSION AND ECONOMIC DEVELOPMENT STUDIES

Several studies have been conducted aimed at identifying the relationship between the dimensions of financial inclusion and sustainable economic development, and most of these studies have shown a positive relationship, including:

Dardour (2020) aimed to measure the impact of financial inclusion on Algeria's economic growth during the period 1980-2017 using the ARDL model, using indicators of financial inclusion (loans, deposits, number of bank branches) as independent variables and the use of GDP as a dependent variable representing economic growth. The research has reached the existence of a long-term balance relationship as well as the short-term relationship (error correction model) between variables of financial inclusion and economic growth, with a positive relationship between banking branches and loans on the one hand and economic growth on the other hand. According to Hariharan and Marktanner (2013), financial inclusion can boost economic growth and development. They discovered a strong positive relationship between a country's financial inclusion and total factor productivity (TFP), meaning that financial inclusion can generate capital. According to the findings, financial inclusion has the potential to increase the financial sector's savings portfolio and improve intermediation performance, which ultimately results in economic growth.

Study of Tala'a (2020), the study aimed to present the most important concepts about financial inclusion, its importance and ways to strengthen it, and to identify its most important indicators, and then address the reality of financial inclusion in Algeria and

Jordan and the most important challenges in the two countries, where the study found that financial inclusion provides advanced financial services and products, as well as plays an important role in mobilizing savings and developing the financial system in developed countries in general and developing countries in particular and thus positively affects sustainable economic development. Sharma (2016) used VAR analysis and the Granger causality test to investigate the relationship between financial inclusion and economic growth in India from 2004 to 2013. He discovered a favorable relationship between financial inclusion and economic growth as well as a bidirectional causality between financial inclusion and economic growth.

Hamdan (2018) study aimed to measure the impact of financial inclusion on economic development in Palestine during the period 1995-2015. The study found a strong positive relationship between economic development in Palestine and financial inclusion. As for Mbutor and Uba (2013), it examined the impact of financial inclusion on Nigerian monetary policy from 1980 to 2012. The study's findings indicate that increasing financial inclusion will improve monetary policy effectiveness., thus contributing positively to sustainable economic development. With ARDL-based cointegration study, Lenka and Sharma (2017) investigated the effect of financial inclusion on economic growth in India from 1980 to 2014 and found a unidirectional causality between financial inclusion and economic growth. Furthermore, financial inclusion has a strong short- and long-term effect on economic development.

Karpowicz’s (2016) study used the descriptive method to demonstrate the impact of financial inclusion on economic growth and its role in achieving equality in Colombia. The study emphasized the positive role of reducing restrictions on access to banking and banking services in achieving economic growth and that reducing the costs of financial services will contribute positively to addressing the problem of inequity. With regression study, Onaolapo (2015) studied the influence of financial inclusion on economic growth in Nigeria from 1982 to 2012 and found that financial inclusion has a positive impact on economic growth. Babajide et al. (2015) used regression analysis to look at the impact of financial inclusion on Nigerian economic development and found that it had a favorable impact on capital per worker and overall factor of output.

In the Sarma’s study (2012), another development was made on the mechanism of measuring the financial inclusion index by adopting the distance from the worst and best point of financial inclusion. Where the researcher calculated the financial inclusion index to 94 countries based on these dimensions during the period (2004-2010) and classified these countries into high, medium, and low financial inclusion, stressing the existence of a positive relationship between financial inclusion and sustainable economic development. Gourene and Mendy (2017) used the panel causality test of Dumitrescu and Hurlin (2012) to investigate the causality between economic growth and financial inclusion in the West African Economic and Monetary Union from 2006 to 2015 and found a two-way causality between economic growth and financial inclusion. Gretta (2017) used a VAR regression to investigate the relationship between financial inclusion and economic growth in the MENA field and found a bidirectional causality between financial inclusion and growth indicators.

The study of Yorulmaz (2012) studied the relationship between financial inclusion, economic development and economic well-being during the period (2004-2010) using linear regression method in the cities of the Turkish Republic, between the Turkish Republic and the European Union countries through calculating the Human Development Index (HDI) and the Financial Inclusion Index using Sarma's method, and the study found that each of these indicators developed in parallel with each other, meaning that there is a direct relationship between economic development and financial inclusion. Williams et al. (2017) used regression analysis to investigate the impact of financial inclusion on poverty alleviation and economic development. They discovered that financial inclusion has a substantial impact on poverty alleviation and economic growth. Kim et al. (2018) used complex panel regression analysis to examine the association between financial inclusion and economic growth in 57 Organization of Islamic Cooperation countries, finding that financial inclusion has a positive impact on economic growth.

Wang'oo study (2008) where the analytical descriptive method and standard method were used to investigate the relationship between economic development and financial inclusion in Kenya during the period (2005-2011), the study used the Human Development Index (HDI) variable representing economic development and the number of bank branches and bank accounts independent variables representing financial inclusion, and the results showed a positive relationship between financial inclusion and economic development as increased financial inclusion leads to increased economic development. Mwaitete and Albert (2018) used regression analysis to investigate the impact of financial inclusion on economic growth in Tanzania from 2008 to 2015 and found that financial inclusion has a favorable impact on economic growth.

Conclusion

All previous studies have proven the existence of a positive relationship between the dimensions of financial inclusion and sustainable economic development, and the researcher did not find a study that proved otherwise. However, despite the expansion of the idea of financial inclusion and the international interest associated with it, there are still great challenges facing the expansion of this idea. Including the lack of understanding or fear of many members of the target group of the idea, as rational financial inclusion requires everyone to better understand financing, and according to what was stated in the World Bank report that several countries rushed to provide basic bank accounts for those who do not deal with banks, but millions of those accounts are still dormant, and what is also worrisome is that in the absence of healthy competition and effective regulations, credit can often be provided to people who are not qualified to obtain it, and the credit process without regard for cost exacerbates the problem of economic instability.

CHAPTER THREE

METHODOLOGY

Introduction

The main objective of this chapter is to identify the nature and importance of financial inclusion and its role in achieving sustainable economic development in Iraq, as well as its importance in promoting financial stability and its contribution to sustainable economic development at the international level, which is the first objective of the study. This goal will be attempted, based on historical methodology, through historical statistical data, derived from historical sources, the most important of which are:

1- Some of the annual reports of the Central Bank of Iraq.

2- Some of the annual reports of the Iraqi Ministry of Planning.

3- Some of the annual reports of the Iraqi Ministry of Finance.

4- Some annual statistics books issued by the Central Statistical Organization.

Absolute numbers and growth rates will be used to analyze data related to variables during the period 2003-2019, and analyze them descriptively, to identify the size of financial inclusion in Iraq (the size of bank deposits, ATMs, bank branches, population growth, inflation rate).

Economic growth has become a new concern for the advancement of the state and societies as well, relying on tangible improvements in the basics of life, and has been a destination for all countries to be a very important destination for raising low living standards, as their attempt to raise economic growth to a level that society is satisfied with.

In this chapter, we will discuss the knowledge of the variable data of the Financial Inclusion Index and growth rates during the study period, and the importance of the relationship between financial inclusion and sustainable economic development.

Accordingly, the chapter is divided into three sections, the first section deals with definitions of variables of financial inclusion and economic development, the second section will address the sources of data collection for the study variables, and the third section is devoted to discussing and analyzing all the variables under study.

Section One: Indicators of financial inclusion and sustainable economic development

Any country aims to promote financial inclusion to achieve economic growth in the end, and many countries have adopted strategies and taken effective steps towards improving access to finance and financial services with the aim of improving opportunities for growth and economic stability and contributing to social justice and combating poverty, where financial inclusion aims to improve access to financial services to a larger segment of citizens, both individuals and enterprises, and attract the excluded to the formal financial system by providing all financial services (savings, Payments, remittances, credit, insurance, pensions).

3.1. GROSS DOMESTIC PRODUCT (GDP)

Is the key factor in determining economic performance and is an important indicator of determining the well-being of the State and the standard of living of the individual within it.

Global central banks are using the rate of economic growth disclosed on specific dates to decide whether to implement broad monetary policies to stimulate the economy and prevent recession, or to move toward tighter monetary policies to prevent inflation. GDP is the best way to measure the performance of the country's economy, as it represents the total value of everything the country produces during a period. In other words, GDP represents the monetary value in the local currency of the state for all final economic goods and services produced within that country within a specified period of time, whether domestic or foreign investments.

3.2. VOLUME OF BANK DEPOSITS

These deposits are deposited in deposit accounts such as savings accounts, current accounts and money market accounts, and the account holder has the right to withdraw the deposited funds as described in the terms and conditions governing the account agreement. For example, commercial banks are a type of financial institution that accepts deposits, provides checking account services, grants commercial, personal, and real estate loans, and provides basic financial products.

3.3. AUTOMATED TELLER MACHINES (ATMs)

An electronic device that provides financial institution customers with financial transactions in public places using a credit card as an alternative to the need for an employee to perform any operation, and from the financial operations allowed through the ATM to access bank accounts, withdraw money, know accounts and deposit money as well, and count ATMs per 100,000 adults

3.4. BANK BRANCHES

Most Arab countries and Iraq have recently adopted a strategy that includes achieving financial inclusion, which means that financial products and services reach individuals and companies in order to meet their financial needs, regardless of their economic level, where the availability of financial services, facilitates the provision of daily life to members of the community, and helps companies to plan and use financial services such as credit and insurance to start a business and expand investment, the number of branches of commercial banks is calculated per 1000 square kilometers, and for every 100,000 adults.

3.5. POPULATION GROWTH

The change in population over time because of natural increase and migration around the world is the increase in the population due to low mortality rates, high birth rates and immigration, which can be measured as a change in the number of individuals using each measurement time unit. Population growth in demography is informally used for the term more specific population growth rate and is often used to refer to the growth of the world's population. The growth rate indicates that the population is increasing, while the negative growth rate indicates that the population is decreasing, and the Zero growth rate indicates the same number of individuals at the beginning and end of the period

3.6. INFLATION RATE

Inflation can be defined as an economic term that reflects the amount of change in commodity prices towards a significant increase, that is, the continued rise in the general level of prices, over a certain period of time, where there is an opposite term that reflects the amount of change in the prices of goods, services towards decline, called deflation rate, and the rate of inflation, or contraction for a given year is considered as a basis year, to be compared accordingly. Also, it is the percentage of increase or decrease in prices over a limited period, and this percentage tells you how high prices are during this period. Price inflation leads to a decline in the purchasing value of different currencies, as the constant increase in prices leads to lower purchasing power, as the money itself buys less things than it did before, leading in the future to a lower standard of living for individuals, and inflation is a sensitive thing that determines the poverty index. In these cases, the country's monetary authority (such as the central bank) must take the necessary measures to keep inflation within the permissible limits.

Section Two: Variables and Data Collection Sources

3.7. THE VARIABLES USED IN THE STUDY

These variables have been used since financial inclusion was newly born in Iraq, so it was not possible to measure financial inclusion according to the different dimensions and indicators that a number of researchers referred to such as Sarma and Mandira (2008), Arora and Rashmi Umesh (2010), such as the dimensions of use, access, quality, cost and access due to the lack of necessary data for that. It must be noted here that the period chosen by the researcher for measurement extended from (2003 - 2019), and since this period was not sufficient for the purposes of building the standard model because some variables do not contain data for some years due to the circumstances that Iraq experienced in those years, so the researcher had to divide this 17-year period into 68 views by converting the annual data into quarterly (this was done by using the program EViews10).

When measuring financial inclusion, a set of indicators reflecting financial inclusion, such as the volume of deposits, the number of ATMs, the number of bank branches, population growth, inflation rate and GDP, were taken according to a standard model based on certain foundations, based on previous studies, the variables were as below:

- The financial inclusion measure included some variables (as indicators of independent variables).

1- Bank deposits.

2- Number of ATMs.

3- The number of bank branches.

4- Population growth.

5- Inflation rate.

- The measure of sustainable economic development was expressed in the GDP variable.

whereas:

GDP (constant 2010 US$) = Gross domestic product.

BD = Bank deposit.

ATM = Number of automated teller machines.

BB = Number of bank branches.

PG = Population growth.

IR = Inflation rate.

3.8. Data Collection Sources

Where the data under study was extracted from some of the following websites:

1- Some annual reports extracted from the Central Bank of Iraq.

2- Some annual reports of the Iraqi Ministry of Planning. http://cosit.gov.iq.

3- Some annual reports of the Iraqi Ministry of Finance.

4- Some annual statistics books issued by the Central Statistical Organization, and other sources. https://databank.worldbank.org/source/world-development-indicators.

Table 2. Data of the Variables under Study during the Period 2003 - 2019

years	GDP	BD	ATMs	BB	PG	IR
2003	64710698307	-	-	525	2.818021457	33.6162
2004	99756572240	-	-	525	2.576587583	26.9619
2005	1.04146E+11	-	-	525	2.285938465	36.9595
2006	1.14726E+11	-	-	542	1.934347802	53.231
2007	1.16353E+11	9.19856	-	549	1.673193853	-10.0675
2008	1.25926E+11	9.98149	0.7	560	1.685735606	12.6629
2009	1.30182E+11	9.98149	1.2	774	2.048283545	6.8736
2010	1.38517E+11	18.9473	2.22	871	2.618942811	2.8777
2011	1.4897E+11	19.0569	2.17	899	3.252703811	5.8015
2012	1.69731E+11	18.4069	2.17	994	3.720640652	6.0891
2013	1.8263E+11	18.4144	1.08	1,014	3.896253775	1.8795
2014	1.83909E+11	20.2867	1.61	948	3.714855313	2.236
2015	1.88466E+11	25.4701	1.86	830	3.316223191	1.3933
2016	2.17136E+11	24.126	2.38	866	2.877254128	0.5565
2017	2.11719E+11	22.1497	2.66	843	2.540874669	0.1841
2018	2.10526E+11	-	3.83	864	2.318464028	0.3674
2019	2.19791E+11	-	4.12	888	2.254134219	-

Source: Prepared by the researcher based on
- The Central Bank of Iraq.
- The Iraqi Ministry of Planning.
- The Iraqi Ministry of Finance.

Table 2 shows that the first four years at the beginning of the time series and the last two years at the end of the time series for the variable (bank deposits, BD), there are no data for the variable, due to the unavailability of the necessary data for that, due to the circumstances or conditions that Iraq went through, in those years. As well as the other variable (ATMs), the data was not available for the first five years at the beginning of the time series, due to the unavailability of the necessary data for this, due to the circumstances or conditions that Iraq experienced during that period.

The data used to measure financial inclusion, should be noted that the series or duration chosen by the researcher for measurement lasted from 2003 to 2019, and therefore this period is insufficient for the purposes of building the standard model, it was necessary for the researcher to divide this time series from 17 years to 68 views, and the researcher divided the data into quarterly through the EViews program. The researcher divided the data into quarterly, so the more views the more accurate and correct the results required, and the more comfortable the time gaps (as shows in Table 3.).

Table 3. Split Quarterly Data Used in Standard Analysis

Year	GDP	BD	ATM	BB	PG	IR
2003Q1	1.12E+10	0	0	131.25	0.72445	9.94
2003Q2	1.48E+10	0	0	131.25	0.71167	8.74
2003Q3	1.8E+10	0	0	131.25	0.69811	7.81
2003Q4	2.07E+10	0	0	131.25	0.68379	7.13
2004Q1	2.29E+10	0	0	131.25	0.6687	6.71
2004Q2	2.46E+10	0	0	131.25	0.65285	6.56
2004Q3	2.58E+10	0	0	131.25	0.63622	6.66
2004Q4	2.65E+10	0	0	131.25	0.61882	7.03
2005Q1	2.54E+10	0	0	130.586	0.60111	8.06
2005Q2	2.58E+10	0	0	130.852	0.582	8.78
2005Q3	2.62E+10	0	0	131.383	0.56193	9.6
2005Q4	2.68E+10	0	0	132.18	0.5409	10.5
2006Q1	2.8E+10	-0.36	0	134.297	0.51302	14.9
2006Q2	2.86E+10	-0.22	0	135.203	0.49245	14.7
2006Q3	2.89E+10	0.072	0	135.953	0.47331	13.2
2006Q4	2.92E+10	0.503	0	136.547	0.45557	10.5
2007Q1	2.86E+10	1.766	-0.027	136.438	0.43209	0.06
2007Q2	2.89E+10	2.209	-0.016	136.938	0.42004	-2.56
2007Q3	2.92E+10	2.521	0.0055	137.5	0.41228	-3.82
2007Q4	2.97E+10	2.702	0.0383	138.125	0.40878	-3.75

2008Q1	3.08E+10	2.453	0.1172	131.039	0.40659	2.15
2008Q2	3.13E+10	2.489	0.1578	134.898	0.41284	3.12
2008Q3	3.17E+10	2.514	0.1953	141.93	0.42456	3.65
2008Q4	3.21E+10	2.526	0.2297	152.133	0.44175	3.74
2009Q1	3.2E+10	2.145	0.2328	178.008	0.46995	2.19
2009Q2	3.23E+10	2.285	0.2722	189.555	0.49586	1.86
2009Q3	3.27E+10	2.565	0.3197	199.273	0.52503	1.55
2009Q4	3.32E+10	2.986	0.3753	207.164	0.55744	1.27
2010Q1	3.38E+10	4.242	0.5012	211.352	0.59877	0.82
2010Q2	3.43E+10	4.664	0.5482	216.336	0.63542	0.68
2010Q3	3.49E+10	4.948	0.5785	220.242	0.67306	0.65
2010Q4	3.55E+10	5.093	0.5921	223.07	0.71169	0.72
2011Q1	3.59E+10	4.784	0.5452	219.508	0.76024	1.28
2011Q2	3.67E+10	4.779	0.5429	222.305	0.79726	1.42
2011Q3	3.76E+10	4.762	0.5413	226.148	0.83169	1.52
2011Q4	3.88E+10	4.733	0.5405	231.039	0.86352	1.58
2012Q1	4.08E+10	4.637	0.5851	242.523	0.89771	1.67
2012Q2	4.2E+10	4.607	0.568	247.289	0.92239	1.62
2012Q3	4.3E+10	4.587	0.534	250.883	0.9425	1.5
2012Q4	4.39E+10	4.577	0.4829	253.305	0.95804	1.3
2013Q1	4.49E+10	4.53	0.3089	254.984	0.97155	0.69
2013Q2	4.55E+10	4.56	0.2661	254.891	0.97694	0.49
2013Q3	4.6E+10	4.618	0.2486	253.453	0.97676	0.37
2013Q4	4.62E+10	4.706	0.2564	250.672	0.971	0.32
2014Q1	4.57E+10	4.767	0.3638	245.219	0.95421	0.57
2014Q2	4.59E+10	4.936	0.3925	240.281	0.93947	0.58
2014Q3	4.6E+10	5.156	0.4169	234.531	0.92135	0.56
2014Q4	4.63E+10	5.428	0.4369	227.969	0.89983	0.53
2015Q1	4.57E+10	6.137	0.431	212.547	0.868	0.43
2015Q2	4.64E+10	6.359	0.4509	207.578	0.84246	0.37
2015Q3	4.74E+10	6.479	0.4749	205.016	0.81628	0.32
2015Q4	4.89E+10	6.496	0.5032	204.859	0.78948	0.27
2016Q1	5.29E+10	6.182	0.5556	215.43	0.75646	0.2
2016Q2	5.42E+10	6.088	0.5844	216.758	0.73063	0.15
2016Q3	5.49E+10	5.985	0.6094	217.164	0.7064	0.12
2016Q4	5.51E+10	5.871	0.6306	216.648	0.68377	0.09
2017Q1	5.33E+10	6.511	0.604	211.188	0.6623	0.06
2017Q2	5.3E+10	6.072	0.6354	210.438	0.64306	0.04
2017Q3	5.28E+10	5.318	0.6807	210.375	0.6256	0.04
2017Q4	5.27E+10	4.249	0.7399	211	0.60992	0.04
2018Q1	5.23E+10	1.211	0.8822	213.914	0.59429	0.1
2018Q2	5.24E+10	0.173	0.9416	215.273	0.58286	0.1
2018Q3	5.27E+10	-0.52	0.9872	216.68	0.5739	0.09
2018Q4	5.31E+10	-0.87	1.0191	218.133	0.56741	0.08
2019Q1	5.37E+10	-0.87	1.0372	219.633	0.56339	0.06
2019Q2	5.44E+10	-0.52	1.0416	221.18	0.56184	0.02
2019Q3	5.53E+10	0.173	1.0322	222.773	0.56276	-0.02
2019Q4	5.64E+10	1.211	1.0091	224.414	0.56615	-0.06

Section Three: Discussion and analysis of study variables

Table 4. Development of Growth Rates for Indicators of Financial Inclusion and Economic Development during the Period (2003-2019)

Years	GDP	Growth rate %	BD	Growth rate %	ATMs	Growth rate %	BB	Growth rate %	PG	Growth rate %	IR	Growth rate %
2003	64710698307	-	0	-	0	-	525	-	2.818021457	-	33.6162	-
2004	99756572240	54.16	0	0	0	0	525	0	2.576587583	-8.57	26.9619	-19.79
2005	1.04146E+11	4.40	0	0	0	0	525	0	2.285938465	-11.28	36.9595	37.08
2006	1.14726E+11	10.16	0	0	0	0	542	3.24	1.934347802	-15.38	53.231	44.03
2007	1.16353E+11	1.42	9.19856	0	0	0	549	1.29	1.673193853	-13.50	-10.0675	-118.91
2008	1.25926E+11	8.23	9.98149	8.51	0.7	0	560	2.00	1.685735606	0.75	12.6629	-225.78
2009	1.30182E+11	3.38	9.98149	0.00	1.2	71.43	774	38.21	2.048283545	21.51	6.8736	-45.72
2010	1.38517E+11	6.40	18.9473	89.82	2.22	85.00	871	12.53	2.618942811	27.86	2.8777	-58.13
2011	1.4897E+11	7.55	19.0569	0.58	2.17	-2.25	899	3.21	3.252703811	24.20	5.8015	101.60
2012	1.69731E+11	13.94	18.4069	-3.41	2.17	0.00	994	10.57	3.720640652	14.39	6.0891	4.96
2013	1.8263E+11	7.60	18.4144	0.04	1.08	-50.23	1,014	2.01	3.896253775	4.72	1.8795	-69.13
2014	1.83909E+11	0.70	20.2867	10.17	1.61	49.07	948	-6.51	3.714855313	-4.66	2.236	18.97
2015	1.88466E+11	2.48	25.4701	25.55	1.86	15.53	830	-12.45	3.316223191	-10.73	1.3933	-37.69
2016	2.17136E+11	15.21	24.126	-5.28	2.38	27.96	866	4.34	2.877254128	-13.24	0.5565	-60.06
2017	2.11719E+11	-2.49	22.1497	-8.19	2.66	11.76	843	-2.66	2.540874669	-11.69	0.1841	-66.92
2018	2.10526E+11	-0.56	0	-100.00	3.83	43.98	864	2.49	2.318464028	-8.75	0.3674	99.57
2019	2.19791E+11	4.40	0	0	4.12	7.57	888	2.78	2.254134219	-2.77	0	-100.00
Average		8.56		1.11		16.24		3.82		-0.45		-31.00

Source: Prepared by the researcher based on Table No. (8).

Table 4 shows the development of indicators of financial inclusion and economic development during the period (2003-2019), as follows:

- The Gross Domestic Product (GDP) witnessed a fluctuation in the rise and decline in most years of study, as is evident in the growth rates, where the growth rate was positive in most years of study, but it fluctuated between rise and decline, as it ranged between 54.16% as a maximum in 2004 and 0.70% as a minimum in 2014, the growth rate was negative in 2017 and 2018, at a rate of (-2.49%, -0.56%), respectively. The average annual growth rate reached 8.56% during the study period.
- The volume of bank deposits also fluctuated significantly in most of the years of study, as evidenced by the growth rates, as we note in Table (3) that in the four years at the beginning of the time series as well as the two years at the end of the series the data did not available because there was insufficient data for those years, due to the circumstances in the country at the time, we note from the table that the growth rate was positive for most of the years of study but fluctuated between the rise and the decline, ranging from a maximum of 89.82% in 2010 to a minimum of 0.04% in 2013, while the growth rate was zero in 2009 where bank deposits remained constant at 9.98149 million dinars, and the growth rate was negative in 2018 as a higher percentage (100.00%), and in 2012 as the lowest (3.41%), bringing the average annual growth rate to 1.11% during the study period.
- ATMs also experienced significant volatility in the rise and decline in most of the years of study, as evidenced by the growth rates, as we note in Table (3) that the data in the five years at the beginning of the time series did not have the data available because there was not enough data for those years, due to the conditions in the country at that time, and we note from the table that the growth rate was positive for most of the years of study but fluctuated between the rise and decline, as it ranged between 85.00% as a maximum in 2010, and 7.57% as a minimum in 2019,while the growth rate was zero in 2012 where ATMs remained constant at 2.17, and the growth rate was negative in 2011 and 2013 by (2.25%, 50.23%) Respectively, bringing the average annual growth rate to 16.24% during the study period.
- The number of bank branches increased significantly to its peak of 1,014 branches in 2013, and then saw a decline to 830 branches, and then began to rise in

the rest of the study years, as evidenced by the growth rates where the rate was Growth is positive for most of the years of study but fluctuating between the rise and the decline, ranging from a maximum of 38.21% in 2009 to a minimum of 1.29% in 2007, while the growth rate was zero in 2004 and 2005, respectively, the number of bank branches remained constant at 525, and the growth rate was negative in 2015 as a higher percentage (12.45%) and in 2017 as a lowest rate (2.66%), bringing the average annual growth rate to 3.82% during the study period.

- Population growth has fluctuated significantly in most years of study, as evidenced by growth rates, where the growth rate was positive in most years of study but fluctuated between rise and decline, ranging between 27.86% as a maximum in 2010 and between 0.75% as a minimum in 2008, and the growth rate was negative for most years of study as it was in 2006 as a higher percentage (15.38%) and in 2019 as a lower rate (2.77%), bringing the annual growth rate to negative on average 0.45% during the study period.
- Inflation fluctuated significantly in most years of study, as evidenced by growth rates, where the growth rate was positive for most years of study but fluctuated between the rise and the decline, ranging between 101.60% a maximum in 2011 and 4.96% as a minimum in 2012, and the growth rate was negative for most years of study, with a highest rate (225.78%) in 2008 and the lowest rate (19.79%) in 2004, bringing the annual growth rate to negative on average 31.00% during the study period.

CHAPTER FOUR

ANALYSIS OF HYPOTHESES AND VARIABLES

Introduction

In the third chapter, an attempt was made to achieve the first objective of the study, to explore the level of financial inclusion in Iraq. In this chapter, an attempt will be made to achieve the second objective of the study, which is to evaluate and analyze the importance of financial inclusion in promoting sustainable economic development, according to the available data on the relevant variables.

Financial inclusion has tools that seek to achieve the target values that aim to achieve the ultimate goal of economic development, and since we aim at this study to estimate the impact of financial inclusion on sustainable economic development, our target values are the size of bank deposits, the number of ATMs, the number of bank branches, population growth, and inflation rate, and based on previous studies the study model was formed.

Accordingly, this chapter has been divided into three sections, the first section deals with the description of the standard model of the study, the second section is devoted to testing the stability of the time series, while the third section is devoted to presenting and analyzing the results of the standard analysis of the impact of financial inclusion indicators on the level of sustainable economic development.

Section One: Description of the Standard Model of the Study

In this section, the description of the study model is addressed to describe the relationship between the independent variables and the dependent variable, and then the standard model is estimated.

Several previous studies such as the Shereen Ghali (2020) have indicated the truth of the relationship between financial inclusion and economic stability, finding that there is a positive relationship between financial inclusion and economic stability. Doma's (2020) study also indicated the test of the relationship between the financial inclusion index and its dimensions with the total assets and financing of Islamic banks and the test of the relationship between financial inclusion and economic growth, where the study found that there is a positive relationship between financial inclusion and economic growth.

The standard model for estimating the impact of bank deposits (independent variable) on GDP (dependent variable) has been formulated. It takes the form of a simple linear regression model as follows:

$$\mathbf{GDP} = \alpha_0 + \beta\,\mathbf{BD} + ut$$

whereas:

GDP = Rate of change in gross domestic product (a measure of sustainable economic development).

BD = Bank Deposit Rate (a measure of financial inclusion).

α_0= constant value.

β = marginal inclination.

U_t = random error.

It is evident from the standard function above that it has been assumed that the independent variable (bank deposits BD) and the dependent variable (GDP) have a direct relationship.

The above standard model was used to estimate the impact of bank deposits and the GDP, and after the shape of the standard model was determined, data on the study variables were collected, represented by (bank deposits) data as an independent variable, as well as data on the rate of GDP as a dependent variable, taken from annual financial reports issued by the Iraqi Central Bureau of Statistics, for the studied period (2003-2019). This data was divided into a quarterly period, and that was based on previous scientific studies. The larger the sample size, the more comfortable the time gaps, and the better the results as shown in Table (4).

Before estimating the standard model that was previously formulated, the stability of the time-series data of the model variables was tested, which we will refer to in the next section.

Since some variables did not have data for some years, such as the lack of data for the independent variable (BD bank deposits), four years at the beginning of the time series and two years at the end of the time series, as well as the other variable (number of ATMs), the data was not available for the first five years, due to the lack of necessary data for that, due to the circumstances or conditions that Iraq went through in those years.

Based on what has been previously explained about the nature of the relationship between financial inclusion and sustainable economic development, this study assumes a positive relationship between financial inclusion and sustainable development. Therefore, a standard model has been formulated to estimate and measure the impact relationship between the variables of financial inclusion and the gross domestic product as a measure for economic development.

The model has been described based on economic theory and in addition to the models used in previous studies for the same subject of study, the following equation will be estimated for the purpose of measuring the effect of financial inclusion on sustainable economic development in Iraq, during the period 2003-2019. As in the following equation:

GDP = f (BD, ATM, BB, PG, IR)

Section Two: Testing of Time-Series Stability

The instability of time series data is one of the main problems in standard analysis, as most economic data suffer from this problem due to the presence of a trend factor that reflects certain conditions affecting all variables either in the same direction or in opposite directions, and this is due to the arithmetic mean and variance of time series change over time, and therefore regression that depends on unstable time series data is often false, and leads to conclusions that are shade. Consequently, the results of using the OLS method in estimating these functions are imprecise.

The testing process was conducted for the stability of the time series of the study variables represented in the rate of change in bank deposits (as an independent variable), and the rate of GDP (as a dependent variable), as follows:

4.1. STABILITY TEST OF TIME SERIS FOR GDP RATE DATA

Data on the GDP rate were not stable at first level and time trend at (*p*-value = 0.2160), which is higher than the significant level of 5%. The first difference was then taken and found to be stable at the first difference as the value (*p*-value) was less than 5%, reaching (*p*-value =0.0027), as shown in Annex (1). Accordingly, the time-series data for the GDP rate were stable after taking the first difference.

4.2. TIME SERIES STABILITY TEST FOR BANK DEPOSIT CHANGE RATE DATA

A test is required to ascertain the stability of the time series of study variables, with the (Dickey-Fuller Augmented extended test) applied at first level with constant and time trend, and after testing the data of bank deposits (BD), it was found to be insignificant at level (1) with (*p*-value = 0.7171), which is higher than a level of significance of 5%. The first difference was then taken and found to be significant at the first difference as the value (*p*-value) was less than 5%, reaching (*p*-value = 0.0028), which means that bank deposit change rate data is stable at the first difference.

4.3. TEST THE STABILITY OF THE TIME SERIES OF DATA ON THE RATE OF NUMBER OF BANK BRANCHES

The data on the rate of number of bank branches were not significant at first level with constant and time trend, reaching (*p*-value = 0.5609), which is higher than the significant level of 5%. The first difference was then taken and found to be significant at the first difference, as the value (*p*-value) was less than 5%, reaching (p-value = 0.0006), accordingly, the time series data for the number of bank branches was significant after taking the first difference.

4.4. TIME SERIES STABILITY TEST FOR ATMs RATE DATA

Data on the number of ATMs were not significant at first level with constant and time trend, with *p*-value = 0.1287, which is higher than the significant level of 5%. The first difference was then taken and found to be significant at the first difference as the value (*p*-value) was less than 5%, reaching (*p*-value = 0.0499), so the time series data for the ATMs rate was significant after taking the first difference.

4.5. TESTING THE STABILITY OF THE TIME SERIES OF POPULATION GROWTH RATE DATA

Data on population growth rate were not stable at first level with constant and time trend, reaching (*p*-value = 0.5226), which is higher than the significant level of 5%. The first difference was then taken and found to be significant at the first difference as the value (*p*-value) was less than 5%, reaching (*p*-value =0.0086), so the time series data for the population growth rate were significant after taking the first difference.

4.6. TEST THE STABILITY OF THE TIME SERIES OF INFLATION RATE DATA

Inflation rate data were not stable at first level with constant and time trend, reaching (*p*-value = 0.7119), which is higher than the significant level of 5%. The first difference was then taken and found to be significant at the first difference, as the value (*p*-value) was less than 5%, reaching (*p*-value = 0.0021), so the time series data for the inflation rate were significant after taking the first difference.

Section three: Presentation and Analysis of the Results of the Standard Analysis of the Impact of Financial Inclusion on Economic Development

After testing the stability of the time series of data on study variables in Iraq, the equation of the previously identified standard model was estimated in order to measure the impact of financial inclusion on achieving economic development, one variable expressing financial inclusion, namely the impact of bank deposits (represented by the rate of change) as an indicator of independent variables under study, was selected for sustainable economic development (represented by the GDP rate).

Based on data on the rate of change of bank deposits and data on the rate of GDP, and after dividing it into a quarterly (The data was divided into quarterly through a software (EVIEWS 10), the multiple linear regression equation on that data was estimated using the Ordinary Squares Method (OLS) where tests for model estimates, best model of slowing, long-term error correction testing, long-term relationship search testing from independent variable to dependent variable in the estimated model, and Finally, testing for a serial self-bonding problem.

4.7. MODEL ESTIMATION

The model was estimated by OLS method within a special software and in the ARDL model, in order to choose the best slowdown model. The ARDL model has been chosen in this study, because this model of analyzing variable has many advantages over traditional cointegration model and these advantages are:

- the estimators resulting from this model are characterized by unbiasedness and efficiency, as well as helping to get rid of problems related to deleting variables and problems of autocorrelation.

- ARDL model can be applied on models where variables included in the equations are stationary at different levels where traditional cointegration is not suitable to apply.
- We can also apply ARDL model for small sample size while cointegration model is suitable for relatively large sample size.
- When the sample of the study is relatively small because of that we selected ARDL model in this study.

and after the estimation process, the results shown in the following table were obtained:

Table 5. Estimation of the Linear Regression Equation According to the ARDL Model				
Statement / variables	**GDP**	**BD**	**BB**	**ATM**
Number of slowing models selected	500			
Best number of slowdowns selected	**2**	0	**2**	**0**
Views	66			

Source: Prepared by the researcher based on the statistical analysis program (EVİEWS) and Appendix data (2).

It is clear from the table above that the number of slowing models tested by the program is (500) tests, as evidenced by the table that the best model of slowing selected is the number of slows (0) for the independent variable (rate of change in the number of ATMs) and (2) For the independent variable (rate of change in the number of bank branches (BB) and (0) for the independent variable (rate of change in bank deposits (BD) and (2) for the dependent variable (rate of GDP), where tested here based on Akaike Info Criterion (AIC) test results, the table shows that the number of views is (66) views due to the slowdowns taken by the model.

4.8. TESTING THE POSSIBILITY OF CORRECTING ERRORS IN THE LONG TERM (ɧ)

In this step, a test was conducted that there was a possibility of correcting short-term errors over the long term, and a proportion of short-term errors that would be addressed over the long term in the time unit to return to balance mode, and after the EVİEWS test, the results described in the following table were obtained.

Table 6. Results of error correction factor ʄ				
Error correction coefficient	**Parameter value**	**Standard error**	**T-test**	**P-value**
ʄ	-0.0370	0.0169	-2.1867	0.0328
Independent variables				
BD	2.643	1.260	0.210	0.8347
BB	8.420	9.823	0.858	0.3949
ATM	2.245	1.052	2.124	0.0380
a_0	1.931	1.365	1.424	0.1596
GDP = 1.931 + 2.643 (BD) + 8.420 (BB) +2.245 (ATM)				

Source: Prepared by the researcher based on the statistical analysis program (E-VEIWS), and Appendix data (3).

The above table data shows that the value of the error correction parameter ʄ is (-0.0370) and with a negative signal, which is moral in terms of its probability of (*p*-value = 0.0328), which is smaller than the significant level (5%), and here we come to the conclusion that the conditions of the correcting parameter are met, so there is a possibility to correct short-term errors through the long term and return to balance.

Table 6 shows that the marginal tendency value of the rate of change in GDP was (1.931), for the rate of change in bank deposits (2.643), for the rate of number of bank branches (8.420) and for the rate of number of ATMs (2.245).These results are positive, and therefore are consistent with previous literature and studies, where the GDP rate has been associated with a positive relationship with the rate of changes in indicators of financial inclusion, so the higher the rate of change in indicators of financial inclusion (BD) (BB) (ATM) by one unit, this increased the GDP rate as a measure of sustainable economic development by (2,643) (8,420) (2,245), respectively.

However, this result should be treated with caution as the table above shows the value (t) of the variable (BD) which reached (0.210) and a significant level of (*p*-value = 0.8347), which is greater than the significant level (5%), and also the value (t) of the variable (BB) which reached (0.858) and at a significant level of (*p*-value = 0.3949), these values are greater than the significant level (5%), indicating that the value of the parameter was not statistically significant at a level (5%), means the lack of statistical morality of the impact bank deposits, and the impact of the number of bank branches on GDP in the short term. This means accepting the null hypothesis that states (there is no statistically significant relationship between bank deposits and the number of bank branches and GDP in the short term).

Whereas the value of (t) for the variable (ATM), was (2.124) and at a moral level of (p-value = 0.0380), which is smaller than the level (5%), indicating that the value of the parameter is significant a statistic at level (5%), means the statistical significance of the impact of the number of ATMs on GDP in the short term. This means accepting the alternative hypothesis that states (there is a statistically significant relationship between the number of ATMs and GDP in the short term).

4.9. A SEARCH TEST OF A LONG-TERM RELATIONSHIP IN THE ESTIMATED FORM

Through this test, it will be judged whether there is a long-term relationship that goes from the independent variables of financial inclusion rates to the dependent variable o the GDP rate, the judgment of the interpretive capacity of the estimated long-term and short-term model, and the judgment of the morale of the estimated model and therefore the (EViews) program is used, and after the test process the results described in the following table were obtained.

Table 7. Wald Test to Examine a Long-Term Relationship

Number of independent variables K	F-Test	Critical value at 5% level	
		H_1	H_0
3	1.831	-	-
BD	-	3.67	2.79
BB	-	3.86	2.92
ATM	-	3.89	2.97

Source: Prepared by the researcher based on the statistical analysis program (EVİEWS) and Appendix data (3).

The table above shows that at the number of independent variables (3) included in the estimated model, the estimated value of (f-statistic) reached (1.831) it is between the critical value (maximum H_1) of (3.67) (3.86) (3.89), respectively, and (minimum H_0) of (2.79) (2.92) (2.97), respectively, and therefore the null hypothesis for this test was rejected, and it was decided that there was a long-term relationship moving from the independent variables included in the estimated standard model (rate of change in bank deposits (BD), the rate of change in the number of bank branches (BB),and the rate of change in the number of ATMs, to the dependent variable GDP rate.

4.10. TEST THE EXISTENCE OF A SERIAL CORRELATION PROBLEM

According to ARDL methodology, the test on serial correlation results is (BREUSCH-GODFERY TEST) which based on the idea of a Lagrange multiplier (LM test) for serial correlation, and after the test is applied to (EVIEWS) the results described in the following table were obtained:

Table 8. Results of Serial Correlation LM Test

	Test value	***p*-value**
F-statistics	1.0839	0.3453
chi-square	2.4597	0.2923

Source: Prepared by the researcher based on the statistical analysis program (EViews) and Appendix data (4).

Table 8 shows that the probability of (F-statistics) and the probability of (chi-square) statistics were moral in terms of their probabilities, which was greater than the moral level (5%), thus accepting the null hypothesis that states there is no serial correlation in the estimated model, which we estimated, that is the variation of errors is homogeneous.

This standard analysis aims to find out the reality of the relationship between financial inclusion and sustainable economic development in Iraq, which is shown by testing and measuring the most prominent variables, and the impact of financial inclusion on four indicators of sustainable economic development, which is the rate of GDP, (as indicators of the dependent variable), the size of bank deposits, the number of ATMs, the number of bank branches (as indicators of independent variables), and as an indicator of the interpretation of results represented by the rest of the variables studied, during the period from 2003 to 2019.

By testing the variables, it is clear that there is a direct relationship between financial inclusion and sustainable economic development and a positive impact on some variables, which indicates that financial inclusion has an impact or role in achieving sustainable economic development in Iraq, during the period from 2003 to 2019.

CHAPTER FIVE
FINDINGS AND CONCLUSION

This study aimed to clarify the importance of financial inclusion in achieving sustainable economic development in Iraq during the period (2003-2019), through exploring the level of financial inclusion in Iraq, and assessing and analyzing the importance of financial inclusion in promoting sustainable economic development in Iraq.

The sources of data collection and the variables were first: the variables used in the study, namely: the measure of financial inclusion, which included some variables (as indicators of independent variables), bank deposits, number of ATMs, number of bank branches, population growth, and inflation rate. As for the measure of sustainable economic development, it was expressed by the GDP variable (as an indicator of the dependent variable). Second: Sources of data collection: The data under study was extracted from some of the following websites: some annual reports extracted from the Central Bank of Iraq, some annual reports of the Iraqi Ministry of Planning, some annual reports of the Iraqi Ministry of Finance, and some annual statistics books issued by the Central Statistical Organization, and other sources.

5.1. The Results

The following are the main findings of the study:

1- The Gross Domestic Product (GDP) witnessed a fluctuation in the rise and fall in most years of study, as is evident in the growth rates. The growth rate was positive in most years of study, but it fluctuated between rise and fall, as it ranged between 54.16% as a maximum in 2004 and 0.70% as a minimum in 2014, the growth rate was negative in 2017 and 2018 by (2.49%, 0.56%) respectively, bringing the average annual growth rate to 8.56% during the study period.

2- The volume of bank deposits also fluctuated significantly in most of the years of study, as is evident in the growth rates. The growth rate was positive for most of the years of study but fluctuated between the rise and the decline, ranging from a maximum of 89.82% in 2010 to a minimum of 0.04% in 2013, while the growth rate was zero in 2009 where bank deposits remained constant at 9.98149 million dinars, and the growth rate was negative in

2018 as a higher percentage (100.00%), and in 2012 as the lowest (3.41%), bringing the average annual growth rate to 1.11% during the study period.

3- ATMs also experienced significant volatility in the rise and decline in most of the years of study, as evidenced by the growth rates, the growth rate was positive for most of the years of study but fluctuated between the rise and decline, as it ranged between 85.00% as a maximum in 2010, and 7.57% as a minimum in 2019,while the growth rate was zero in 2012 where ATMs remained constant at 2.17, and the growth rate was negative in 2011 and 2013 by (2.25%, 50.23%) Respectively, bringing the average annual growth rate to 16.24% during the study period.

4- The number of bank branches increased significantly to its peak of 1,014 branches in 2013, and then saw a decline to 830 branches, and then began to rise in the rest of the study years, as evidenced by the growth rates where the rate was positive for most of the years of study but fluctuating between the rise and the decline, ranging from a maximum of 38.21% in 2009 to a minimum of 1.29% in 2007, while the growth rate was zero in 2004 and 2005, respectively, the number of bank branches remained constant at 525, and the growth rate was negative in 2015 as a higher percentage (12.45%) and in 2017 as a lowest rate (2.66%), bringing the average annual growth rate to 3.82% during the study period.

5- Population growth has fluctuated significantly in most years of study, as evidenced by growth rates, where the growth rate was positive in most years of study but fluctuated between rise and decline, ranging between 27.86% as a maximum in 2010 and between 0.75% as a minimum in 2008, and the growth rate was negative for most years of study as it was in 2006 as a higher percentage (15.38%) and in 2019 as a lower rate (2.77%), bringing the annual growth rate to negative on average 0.45% during the study period.

6- Inflation fluctuated significantly in most years of study, as evidenced by growth rates, where the growth rate was positive for most years of study but fluctuated between the rise and the decline, ranging between 101.60% a maximum in 2011 and 4.96% as a minimum in 2012, and the growth rate was negative for most years of study, with a highest rate (225.78%) in 2008 and the lowest rate (19.79%) in 2004, bringing the annual growth rate to negative on average 31.00% during the study period.

5.1.1. The Results of the Standard Test are as Follows

1- The marginal tendency value of the rate of change in GDP was (1.931), for the rate of change in bank deposits (2.643), for the rate of number of bank branches (8.420) and for the rate of number of ATMs (2.245).These results are positive, and therefore are consistent with previous literature and studies, where the GDP rate has been associated with a positive relationship with the rate of changes in indicators of financial inclusion, so the higher the rate of change in indicators of financial inclusion (BD) (BB) (ATM) by one unit, this increased the GDP rate as a measure of sustainable economic development by (2,643) (8,420) (2,245), respectively, and the null hypothesis was accepted, which states (there is no statistically significant relationship between bank deposits and the number of bank branches and GDP in the short term).

2- The value of (t) for the variable (ATM), was (2.124) and at a moral level of (P-value = 0.0380), which is smaller than the moral level (5%), indicating that the value of the parameter is significant a statistic at a moral level (5%), means the statistical morality of the impact of the number of ATMs on GDP in the short term. This means accepting the alternative hypothesis that states (there is a statistically significant relationship between the number of ATMs and GDP in the short term).

3- At the number of independent variables (3) included in the estimated model, the calculated value of (F-Statistics) reached (1.831) it is between the critical value (maximum H1) of (3.67) (3.86) (3.89), respectively, and (minimum H0) of (2.79) (2.92) (2.97), respectively, and therefore the null hypothesis for this test was rejected, and it was decided that there was a long-term relationship moving from the independent variables included in the estimated standard model (rate of change in bank deposits (BD), the rate of change in the number of bank branches (BB), and the rate of change in the number of ATMs, to the dependent variable GDP rate.

4- The probability of (f-statistics) and the probability of (chi-square) statistics were moral in terms of their probabilities, which was greater than the significant level (5%), thus accepting the null hypothesis that states there is no serial self-correlation of errors in the estimated model, which we estimated, that is the variation of errors is homogeneous.

This standard analysis aims to find out the reality of the relationship between financial inclusion and sustainable economic development in Iraq, which is shown by testing and measuring the most prominent variables, and the impact of financial inclusion on four indicators of sustainable economic development, which is the rate of GDP, (as indicators of the dependent variable), the size of bank deposits, the number of ATMs, the number of bank branches (as indicators of independent variables), and as an indicator of the interpretation of results represented by the rest of the variables studied, during the period from 2003 to 2019.

By testing the variables, there is a direct relationship between financial inclusion and sustainable economic development and a positive moral impact on some variables, which indicates that financial inclusion has an impact or role in achieving sustainable economic development in Iraq, during the period from 2003 to 2019.

CONCLUSION

Financial inclusion has appeared in the field of development, and its issues have received wide attention in recent years at the level of financial policy makers and development workers, in various countries of the world, specifically in developing economies because of the repercussions of the global financial crisis. In fact, the basis of financial inclusion has been integrated into seven among the seventeen sustainable development goals, such as the eradication of poverty, the total eradication of hunger, the reduction of inequalities, clean and affordable energy, decent work and economic growth, quality education. Over the past few decades, the world has witnessed the emergence of different types of financial services that provide new possibilities for the poor. These services are not limited to banks, but include cooperative societies, insurance companies, non-governmental organizations, community development institutions, specialized lending institutions, and others.

The spread of digital technology has played an increasing role in accelerating the wheel of financial inclusion, but these technological developments have brought to the market many innovative financial products that require a higher financial culture, including gaining the ability and self-confidence in the use of computers, ATMs, phones, and smart tablets. As a result, the need for financial education increased to break the knowledge barrier to achieve financial inclusion, especially to increase the culture and awareness of consumers from the lower income groups and small investors, and to familiarize them with the risks and benefits associated with the use of various financial products.

Studies have proven that there is a close relationship between financial inclusion, financial stability and economic growth, whereby financial inclusion aims to ensure that segments of society obtain official financial services at reasonable costs and through official channels. It is difficult to achieve financial stability and acceptable economic growth, while a large proportion of society and institutions are still financially excluded from the economic system. This is because the financial system, which does not include all segments of the population, does not have sufficient information about the volume of production and actual investment in society, and thus the possibility of its exposure to financial shocks increases and its ability to achieve stability decreases. Hence, achieving financial inclusion supports financial stability and enhances competition between institutions. Financial, by working on the diversity of its products and attention to their quality, to attract the largest number of customers. On the other hand, financial inclusion affects the social aspect, in terms of greater attention to the poor and low-income, with special attention to women, and access to individuals and small, medium, and micro enterprises. The issue of enhancing access to finance and financial services has received great attention from the Board of Governors of Arab Central Banks and Monetary Institutions, in appreciation of the great opportunities that can be achieved by enhancing financial inclusion to support comprehensive and sustainable economic development, face unemployment challenges and achieve social justice, despite Arab efforts to achieve financial inclusion, however, is still characterized by weakness, compared to the rest of the world.

As for financial inclusion in Iraq and its role in sustainable economic development, despite the intellectual framework that refers to the logical relationship between the work of banking institutions and their access to the stage of financial inclusion and raising the indicators of sustainable development, despite the fact that the Central Bank of Iraq developed a strategic plan for the period 2016-2020 and made a strategic priority What he seeks to achieve is financial inclusion in the country, but the reality has proven that this relationship is often confused; This may be due to many reasons, the most important of which is the weak contribution of the Iraqi banking sector to development and investment indicators, which is due to subjective reasons related to the management and structure of banking work and its failure to keep pace with modern banking procedures and information systems and their analysis, and objective reasons related to the reality of the rentier Iraqi economy and its dependence on oil mainly as a source of growth .

The study proved that there is a direct relationship between the rate of gross domestic product and indicators of financial inclusion. In addition to the significant effect of bank deposits and the number of bank branches on economic development as measured by the rate of gross domestic product, and thus the nihilistic hypothesis was accepted, which states that “there is no statistically significant relationship between bank deposits and the number of bank branches and sustainable economic development” in the short term. There is also a significant effect of the number of ATMs on economic development as measured by the rate of GDP, and thus the alternative hypothesis was accepted, which states that “there is a statistically significant relationship between the number of ATMs and sustainable economic development” in the short term.

Through the results of the previous study, the researcher recommends the following:

1- The Central Bank of Iraq encourages Iraqi banks to provide banking services via the Internet, mobiles, and ATMs, and urges banks to own electronic wallets, with awareness campaigns to educate customers financially.

2- The necessity of activating Iraqi banks to support small and medium enterprises and thus enhance financial inclusion in society.

3- Exploiting Iraq's population density to open bank accounts for young people aged 18 years and over, and exempting small enterprises in the informal sector from taxes for a certain period in order to motivate them to join the Iraqi banking sector, thus benefiting both parties in terms of lending and borrowing.

4- The necessity of benefiting from successful international experiences in financial inclusion methods and strategies.

5- Establishing specialized departments in Iraqi banks whose main task is to market their services and attract new customers.

6- The official economic authorities should promote and support financial inclusion and improve it, which contributes to improving the financial and banking capacity appropriate to the capabilities of the segments of society, to achieve sustainable economic development.

7- Work to monitor the movements of large capitals at home and abroad, which in turn work to destabilize the economy in the country.

8- The government should reconsider the economic policy pursued by the state represented in reducing the inflation rate to encourage exports in order to raise the level of the local currency against foreign currencies.

9- Working to encourage bank deposits, by granting incentives and facilities, which leads to an increase in the gross domestic product.

10- Urge government and private banks to improve and develop their electronic services in a consumer-appropriate manner to attract the largest number of users, in order to encourage the flow of foreign funds and increase the sources of financing for the economic development process.

11- Developing the infrastructure of banks in line with technological developments and benefiting from modern experiences and technologies.

12- Provide consumers with all the necessary information at all stages of their dealings with financial and banking providers and make greater efforts to protect consumers to ensure that they have access to banking services with ease and appropriate prices.

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APPENDICES

Data Analysis Test Set Via (EViews) Program

APPENDIX–A. Augmented Dickey-Fuller Unit Root Test on D(GDP)

Null Hypothesis: D(GDP) has a unit root
Exogenous: None
Lag Length: 4 (Automatic - based on AIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.071745	0.0027
Test critical values:	1% level	-2.602794	
	5% level	-1.946161	
	10% level	-1.613398	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP,2)
Method: Least Squares
Date: 05/24/21 Time: 16:27
Sample (adjusted): 2004Q3 2019Q4
Included observations: 62 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.317715	0.103431	-3.071745	0.0033
D(GDP(-1),2)	-0.033456	0.120571	-0.277483	0.7824
D(GDP(-2),2)	0.138212	0.116735	1.183979	0.2413
D(GDP(-3),2)	0.185440	0.114833	1.614871	0.1119
D(GDP(-4),2)	-0.333662	0.113001	-2.952742	0.0046

R-squared	0.377543	Mean dependent var	-10355921
Adjusted R-squared	0.333862	S.D. dependent var	7.87E+08
S.E. of regression	6.42E+08	Akaike info criterion	43.47509
Sum squared resid	2.35E+19	Schwarz criterion	43.64663
Log likelihood	-1342.728	Hannan-Quinn criter.	43.54244
Durbin-Watson stat	2.027303		

APPENDIX–B. Estimation of the linear regression equation according to the ARDL model

Dependent Variable: GDP
Method: ARDL
Date: 05/25/21 Time: 10:47
Sample (adjusted): 2003Q3 2019Q4
Included observations: 66 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): BD BB ATM
Fixed regressors: C
Number of models evaluated: 500
Selected Model: ARDL(2, 0, 2, 0)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	1.562010	0.091662	17.04089	0.0000
GDP(-2)	-0.599043	0.086544	-6.921855	0.0000
BD	9786581.	47590103	0.205643	0.8378
BB	58561717	20019598	2.925219	0.0049
BB(-1)	-1.17E+08	35191080	-3.337081	0.0015
BB(-2)	61992004	19854109	3.122376	0.0028
ATM	8.28E+08	5.54E+08	1.494007	0.1406
C	7.15E+08	6.13E+08	1.167695	0.2477

R-squared 0.997087 Mean dependent var 3.94E+10 Adjusted R-squared 0.996735
S.D. dependent var 1.09E+10

S.E. of regression	6.23E+08	Akaike info criterion	43.45047
Sum squared resid	2.25E+19	Schwarz criterion	43.71589
Log likelihood	-1425.866	Hannan-Quinn criter.	43.55535

F-statistic 2836.054
Durbin-Watson stat 2.260767
Prob(F-statistic) 0.000000

*Note: p-values and any subsequent tests do not account for model selection.

APPENDIX- C. Results of a moral test and a correction laboratory signal ʄ - and the WALD TEST for a long-term relationship (Bonds Test)

ARDL Long Run Form and Bounds Test
Dependent Variable: D(GDP)
Selected Model: ARDL(2, 0, 2, 0)
Case 2: Restricted Constant and No Trend
Date: 05/25/21 Time: 11:01
Sample: 2003Q1 2019Q4
Included observations: 66

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.15E+08	6.13E+08	0.000000	0.0000
GDP(-1)*	-0.037033	0.016936	-2.186600	0.0328
BD**	9786581.	47590103	0.000000	0.0000
BB(-1)	3118234.	3634890.	0.000000	0.0000
ATM**	8.28E+08	5.54E+08	0.000000	0.0000
D(GDP(-1))	0.599043	0.086544	6.921855	0.0000
D(BB)	58561717	20019598	0.000000	0.0000
D(BB(-1))	-61992004	19854109	0.000000	0.0000

* p-value incompatible with t-Bounds distribution. ** Variable interpreted as Z = Z(-1) + D(Z).

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BD	2.64E+08	1.26E+09	0.209665	0.8347
BB	84201093	98230196	0.857181	0.3949
ATM	2.24E+10	1.05E+10	2.123925	0.0380
C	1.93E+10	1.36E+10	1.424756	0.1596

EC = GDP - (264265201.9254*BD + 84201092.6121*BB + 22352736764.966 8*ATM + 19315655797.8616)

F-Bounds Test Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)

Asymptotic: n=1000
F-statistic 1.830948 10% 2.37 3.2 k 3 5% 2.79 3.67

2.5%	3.15	4.08
1%	3.65	4.66

Actual Sample Size 66

Finite Sample: n=70

10%	2.482	3.31
5%	2.924	3.86
1%	3.916	5.088

Finite Sample: n=65

10% 2.492 3.35 5% 2.976 3.896
1% 4.056 5.158

APPENDIX–D. Serial correlation LM test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.083897	Prob. F(2,56)	0.3453
Obs*R-squared	2.459685	Prob. Chi-Square(2)	0.2923

Test Equation:
Dependent Variable: RESID
Method: ARDL
Date: 05/25/21 Time: 12:07
Sample: 2003Q3 2019Q4
Included observations: 66
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	0.153936	0.154849	0.994105	0.3244
GDP(-2)	-0.142732	0.143820	-0.992436	0.3253
BD	-1423507.	47531733	-0.029949	0.9762
BB	1412129.	20017919	0.070543	0.9440
BB(-1)	-4571322.	35320473	-0.129424	0.8975
BB(-2)	2414677.	19911468	0.121271	0.9039
ATM	-1.81E+08	5.79E+08	-0.312900	0.7555
C	-3.12E+08	6.66E+08	-0.468547	0.6412
RESID(-1)	-0.297186	0.213202	-1.393915	0.1689
RESID(-2)	-0.055291	0.164949	-0.335199	0.7387

R-squared	0.037268	Mean dependent var	1.21E-05
Adjusted R-squared	-0.117457	S.D. dependent var	5.88E+08
S.E. of regression	6.22E+08	Akaike info criterion	43.47310
Sum squared resid	2.17E+19	Schwarz criterion	43.80486
Log likelihood	-1424.612	Hannan-Quinn criter.	43.60420
F-statistic	0.240866	Durbin-Watson stat	1.973149
Prob(F-statistic)	0.986714		