



## **FEMISE RESEARCH PAPERS**

## Financial Inclusion and Stability in the MED Region: Evidence from Poverty and Inequality

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# Financial Inclusion and Stability in the MED Region: Evidence from Poverty and Inequality

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#### **EXECUTIVE SUMMARY**

Despite a significant growth in profitability and efficiency, the Middle East (MED) well developed banking system seems to be unable to reach vast segments of the population, especially the underprivileged ones. To this end, the onus of policymakers in the region is to create effective opportunities for financial inclusion, and subsequently poverty and income inequality reduction. Whether they have succeeded in their endeavor is an empirical question we seek to address in this research project. Using Panel data, GMM and GLS econometric models, and a sample of six MED countries (Al GMM and GLS econometric models and a sample of six MED countries (Algeria, Egypt, Jordan, Lebanon, Morocco and Tunisia) over the period 2002-2018, this paper assesses empirically the impact of financial inclusion on income inequality, poverty, and financial stability in the MED region. While the empirical literature on the region is relatively scarce, this paper adds to that literature by bridging a significant existing gap, especially in the aftermath of the recent financial and debt crises and the recent political, social, and military turmoil that have been unfolding in several MED countries.

Our empirical results have shown that financial inclusion decreases inequality but has no significant effect on poverty. Inflation and population increase both inequality and poverty. Other empirical results have shown that the secondary enrollment ratio, female labor force participation and the trade openness variables are found to significantly affect poverty. While the empirical evidence indicates that enhanced financial integration is a contributing factor to financial instability, an increase in financial inclusion and in population contributes positively to financial stability. This study has also shown that greater access to financial services is positively contributing to the resilience of the banking system deposit funding base. This is particularly important during times of financial crises. Enhanced resilience of bank funding supports overall financial stability of the banking sector and the entire financial system. The latest debt and financial crises have shown that financial liberalization and inclusion in MED may not always be conducive to poverty reduction and financial stability improvements.

Our empirical findings have important policy implications. MED policy makers face tradeoffs when deciding whether to focus on reforms to promote financial development (financial inclusion, innovation, financial access, etc...) or whether to focus on further improvements in financial stability. However, synergies between promoting financial development and inclusion and financial stability can also exist. The results of this study could help foster a better policy to reform the financial sector by demonstrating how broadening the use of banking can have a direct impact on income distribution.

The recent and uncoordinated liberalization attempts have rendered MED financial and banking sectors more vulnerable to the recent financial and debt crises. In particular, the fast attempts to liberalize and financially integrate the Egypt, Jordan, and Morocco's financial markets with the more mature markets of the United States and Europe has had devastating consequences on their banking sectors and stock markets.

When deciding on whether to focus on reforms to promote financial development (financial inclusion, innovation, access to financial services, etc.) and reduce poverty and income inequality, or on whether to focus on further improvements in financial stability, MED policy makers will have to bear in mind, the tradeoff that exits between financial liberalization and integration and financial stability. Carefully designed financial liberalization policies need to be timely introduced in order not to destabilize the financial system. Moreover, the latest debt and

financial crises have shown that financial liberalization and development may not always be conducive to poverty and inequality reduction on the one hand, and to stimulate growth and development, on the other. On the contrary, and in many instances policies aimed at fostering financial development and innovations have triggered recessions and in many MED countries have had detrimental effects on growth and development and have further widened the gap between the rich and poor.

The MED region stands at a crossroad, with changes sweeping many of its countries and creating an environment conducive to financial and economic reform. Having missed a number of opportunities to reduce poverty and inequality, to introduce extensive financial and institutional reforms, and make substantial progress in financial inclusion, more effort still needs to be devoted in the future. The social movements in the region and the earlier series of financial crises have exposed the weaknesses of the adopted financial development model and have raised questions as to how to reshape financial policies most effectively and create the space to address the needs of everyone in society, reaching even the most deprived. The slow pace of financial development and liberalization policies adopted in most MED countries in the past has yielded a relatively acceptable level of economic growth and, in general, managed to meet the goals of economic and financial stability. Oil booms have generated acceptable growth rates, with oilabundant MED countries delivering much more than those less developed. However, the impact of such economic and financial policy choices has not led to the desired outcomes in terms of human development, poverty reduction and financial stability. Growth has not been inclusive and has widened the gap between the rich and poor; a case in point is Egypt and Morocco. Indeed, in certain cases, financial liberalization has actually contributed to further financial instability. In light of a critical reassessment of the achievements and failures of MED countries, a new financial development approach should be adopted. This new model should be more holistic, integrating the financial and social spheres in combination with strong financial institutions. It is vital that MED policymaking should expand to accommodate these spheres and place them on equal footing in the service of a long-term rights-based financial developmental vision.

The new model will reconsider financial policies that incorporate developmental priorities and would thus achieve structural change. Financial policies will have to be reshaped to achieve not only financial stabilization, adjustment and economic growth, but to also trigger the transformation required to generate growth that is broad-based, inclusive and sustainable. Within this context, such policy tools as financial development and inclusion, and financial sector diversification and liberalization will have to be addressed. At the same time, financial policies should not shy away from meeting the same objectives as social policy under this new financial development paradigm, in which the interests and welfare of every person in society are the target. It is also of central importance to ensure that social policy goes hand-in-hand with financial development policies to bring about the required transformation and ensure inclusive financial and economic growth. While the social and financial spheres should interconnect to create synergies, this new financial development model will not achieve its goals if political and institutional reforms remain shallow. Finally, sustainable poverty and income inequality reduction requires an acknowledgement that politics, institutions, financial and socio-economic policies are intertwined and have an impact on each other. Synchronizing financial and social policies with institutional and political reform would bring about positive, sustainable change under a clearly defined financial development vision.

### **<u>RÉSUMÉ EXÉCUTIF</u>**

Malgré une croissance significative de la rentabilité et de l'efficacité, le système bancaire bien établi du Moyen Orient (MED) semble incapable de couvrir de vastes segments de la population, notamment les groupes les plus défavorisés. Pour ce faire, il incombe aux responsables politiques de la région de créer de réelles opportunités pour l'inclusion financière, afin de réduire la pauvreté et les inégalités de revenu. La question empirique de ce projet de recherche est de savoir si les pays MED sont parvenus à atteindre cet objectif. Ce papier évalue empiriquement l'impact de l'inclusion financière sur l'inégalité de revenu, la pauvreté et la stabilité financière dans la région MED, en utilisant des modèles économétriques GMM et GLS sur un échantillon de six pays (Algérie, Egypte, Jordanie, Liban, Maroc et Tunisie). La littérature empirique sur le sujet et pour cette région est assez restreinte. Ce papier contribue donc à cette littérature en comblant un manque important, tout particulièrement à la suite des récentes crises, financière et de la dette, et des récents troubles politiques, sociaux et militaires qui ont frappé plusieurs pays MED.

Nos résultats empiriques montrent que l'inclusion financière réduit les inégalités mais n'a pas d'impact significatif sur la pauvreté. D'autre part, l'inflation et la taille de la population augmentent à la fois les inégalités et la pauvreté. D'autres résultats indiquent que le taux d'enrôlement dans le secondaire, le taux de participation des femmes au marché du travail et l'ouverture aux échanges contribuent significativement à la réduction de la pauvreté. Nous trouvons également qu'une intégration financière renforcée est un facteur aggravant de l'instabilité financière, quand l'accélération de l'inclusion financière et l'accroissement de la population contribuent positivement à la stabilité financière. Cette étude a également établi qu'un meilleur accès aux services financiers contribue positivement à la résilience du système bancaire avant comme base de financement les dépôts. Ceci est particulièrement important en périodes de crises financières. L'amélioration de la capacité de résilience du financement bancaire participe à la stabilité générale du secteur bancaire et au soutien de l'ensemble du système financier. Comme l'ont montré les récentes crises, de la dette et financière, la libéralisation et l'inclusion dans la région MED ne conduisent pas toujours à la réduction de la pauvreté et à l'amélioration de la stabilité financière. Nos résultats empiriques ont d'importantes implications politiques. Les responsables politiques devront trouver un compromis et décider s'ils souhaitent opter pour des réformes qui encouragent le développement financier (inclusion financière, innovation, accès aux services financiers, etc...) ou s'ils préfèrent mettre l'accent sur de nouvelles améliorations dans le domaine de la stabilité financière. Toutefois, des synergies entre la promotion du développement financier, l'inclusion et la stabilité financière peuvent exister. Les résultats de cette étude pourraient favoriser la mise en œuvre d'une meilleure politique de réforme du secteur financier en démontrant combien l'accroissement de l'utilisation du système bancaire peut avoir un impact direct sur la répartition des revenus.

Les tentatives récentes et insuffisamment coordonnées de libéralisation ont rendu les secteurs financier et bancaire MED plus vulnérables aux récentes crises de la dette et financière. En particulier, les tentatives précipitées de libéralisation et d'intégration financière des marchés financiers égyptien, jordanien et marocain avec des marchés américains et européens plus matures ont eu des conséquences désastreuses sur leurs secteurs bancaires et leurs marchés boursiers. Pour décider s'il convient de se concentrer sur des réformes de promotion du développement financier (inclusion financière, innovation, accès aux services financiers, etc...)

et de réduire la pauvreté et l'inégalité de revenu ou sur des améliorations dans le domaine de la stabilité financière, les décideurs politiques devront faire des choix entre libéralisation financière, intégration et stabilité financière. Des politiques de libéralisation financière soigneusement conçues doivent être mises en place en temps opportun pour ne pas déstabiliser le système financier. Par ailleurs, les dernières crises, financière et de la dette, ont démontré que la libéralisation financière et son développement ne conduisent pas toujours à la diminution de la pauvreté et des inégalités, ou à stimuler la croissance et le développement. Au contraire, et dans de nombreux cas, les politiques visant à favoriser le développement financier et les innovations ont provoqué des recessions et eu des effets préjudiciables sur la croissance et le développement de nombreux pays MED, où l'écart entre riches et pauvres s'est creusé encore davantage.

La région MED se trouve à un tournant décisif, avec des changements qui bouleversent un grand nombre de ces pays et créent un environnement favorable à la réforme économique et financière. Ayant manqué un certain nombre d'opportunités de réduire la pauvreté et les inégalités, d'introduire de vastes réformes financières et institutionnelles, et de réaliser des progrès substantiels en termes d'inclusion financière, les pays MED doivent déployer davantage d'efforts dans le futur. Les mouvements sociaux dans la région et les séries antérieures de crises financières ont dévoilé les faiblesses de leur modèle de développement financier et soulevé la question de comment réformer le plus efficacement les politiques financières et créer l'espace nécessaire pour répondre au mieux aux besoins de tous dans la société, pour atteindre même les plus défavorisés. Le rythme lent de développement financier et les politiques de libéralisation adoptées dans la plupart des pays MED dans le passé ont toutefois donné un niveau de croissance économique acceptable, et permis d'atteindre les objectifs de stabilité économique et financière. Les booms pétroliers ont généré des taux de croissance acceptables, avec de meilleurs résultats pour les pays producteurs de pétrole que pour ceux moins développés. Néanmoins, l'impact de telles politiques économiques et financières n'a pas conduit aux résultats escomptés en termes de développement humain, de réduction de la pauvreté et de stabilité financière. La croissance n'a pas été inclusive et a creusé l'écart entre les riches et les pauvres, ce qui est particulièrement le cas en Egypte et au Maroc. En fait, pour certain, la libéralisation financière a aggravé l'instabilité financière. A la lumière d'une réévaluation critique des accomplissements et échecs des pays MED, une nouvelle approche de développement financier doit être adoptée. Ce nouveau modèle doit être plus holistique, intégrant les sphères financières et sociales, et être combiné à des institutions financières fortes. Il est essentiel que les politiques se développent pour accueillir ces sphères en les plaçant à un même niveau d'importance, et au service d'une vision de long terme axée sur le développement financier.

Le nouveau modèle doit repenser les politiques financières pour qu'elles intègrent des priorités de développement et opérer des changements structurels. Les politiques financières devront être redéfinies pour atteindre non seulement la stabilisation financière, un ajustement et la croissance économique, mais également pour amorcer la transformation requise et générer une croissance généralisée, inclusive et durable. Dans ce contexte, les instruments politiques tels que le développement financier et l'inclusion, la diversification et la libéralisation du secteur financier devront être traités avec attention. En même temps et dans le cadre de ce nouveau paradigme, les politiques financières ne devront pas se dispenser de répondre aux objectifs de la politique sociale où les intérêts et le bien-être de tous dans la société doivent être la cible. Il est donc de prime importance de garantir que la politique sociale soit indissociable des politiques de développement financier pour induire les transformations nécessaires et assurer l'inclusion financière et la croissance de conomique. Si les sphères sociales et financières doivent être reliées

pour créer des synergies, ce nouveau modèle de développement financier n'atteindra pas ces objectifs si les réformes politiques et institutionnelles restent superficielles. Enfin, pour réduire durablement la pauvreté et les inégalités il faut admettre que les politiques, les institutions, les politiques financières et socio-économiques sont étroitement liées et ont un impact les unes sur les autres. Coordonner les politiques financières et sociales et les réformes institutionnelles et politiques induira des changements positifs et durables en vertu d'une vision de développement financier clairement définie.

#### 1. Introduction

Financial inclusion<sup>1</sup> implies that all economic agents are granted access to a range of sophisticated financial services, designed based on their needs and provided at affordable interest cost. Formal financial inclusion begins with having a deposit or transaction account at a bank for the purpose of making and receiving payments, as well as, storing or saving money (Demirguc-Kunt et al. 2017). At a later stage, financial inclusion also involves access to appropriate credit from formal financial institutions, in addition to the use of insurance products that enable people to alleviate risks such as fire, illness, or old age. Furthermore, access to commercial bank accounts through financial inclusion is expected to increase savings among economic agents, leading subsequently to greater consumption and investment spending. This particularly matters for those people who live under the poverty line and mostly in rural areas. In this regard, financial inclusion helps reduce poverty and inequality. On the other hand, there is now a clear recognition that financial stability and inclusion go hand in hand because they represent two sides of the same coin. In several MED countries, the banking sector is by far the dominant financial sector, and it tends to be large relative to the Gross Domestic Product (GDP) when compared with other more developed countries. Yet, despite their size, access to banking and other financial institutions (credit, bank accounts, number of banks, and accessibility to payment services) is relatively restricted. A recent analysis by the World Bank (Demirguc-Kunt and Klapper, (2012)) found that only 13% of young people in the region had a bank account compared to a world average of 37%, and 17% in Sub-Saharan Africa. And for women in the region, this figure is only 13%. Equally disturbing, bank loans to small and medium enterprises represent only 8% of total bank loans, despite the fact that these institutions are considered the engines of private sector growth and job creation. Moreover, and despite many initiatives introduced to promote financial inclusion in the MED region, fostering financial inclusion remains a critical challenge.

The pursuit of financial inclusion aimed at drawing the unbanked population into the formal financial system now represents a recent preoccupation for policymakers in the region (Pearce, 2011). There is a realization that lack of access to finance adversely affects economic growth and income inequality and poverty alleviation as the impoverished find it difficult to accumulate savings, build assets to protect against risks, as well as invest in income-generating projects. In some MED countries, bank branch expansion and the spread of microfinance institutions have not succeeded in reducing financial exclusion, poverty, and income inequality. Scant access to basic financial services remains a deprivation suffered by large segments of the population. Policymakers are increasingly recognizing that despite a significant growth in profitability and efficiency, banks have been unable to reach vast segments of the population, especially the underprivileged sections of the society (Pierce, 2011). To this end, the onus of policymakers is to create effective opportunities for financial development and inclusion. Key to such interventions are policies that accelerate the introduction of innovative technology,

<sup>&</sup>lt;sup>1</sup> Financial inclusion is defined in the finance literature as a process that marks improvements in quantity, quality, inclusiveness, and efficiency of banking services, which helps improve standards of living, foster economic growth, and strengthen economic development. Domestic savings are enhanced through financial inclusion, leading to increases in productive investments and subsequently in economic growth.

regulatory reforms, and the acquisition of infrastructure that reduce transaction costs and allow the delivery of financial services more rapidly, efficiently and conveniently to broad sections of the population.<sup>2</sup>

During the past decade, several leading studies like for instance, Honohan (2004), and Demirguc and Klapper (2012), among others, established a strong link between financial access to banking services and economic development and growth.<sup>3</sup> Empirical evidence indicates a distinct rise in income level of the countries with higher number of bank branches and deposits. Higher number of branches and deposit accounts are more observed in high income countries than countries in the low and middle income categories. While these studies show that financial inclusion boost the growth rate of per capita GDP, they do not necessarily suggest that financial inclusion helps the poor. The inability of financial development to reach the poor is evident in several MED countries where there is a perception that financial development and inclusion increase average growth only by increasing the incomes of the rich and leaves behind those with lower incomes.<sup>4</sup> How financial inclusion affects income inequality and how it could improve income distribution in the region is not clear (Dhrifi, 2013). Another little understood area of research in MED is the interplay between financial inclusion and financial stability. In its recent report, the World Bank admits: "there is limited empirical work exploring the specific linkages between financial development and financial stability" (World Bank Brief, 2012).<sup>5</sup>

The recent global financial and debt crises<sup>6</sup> have brought the focus on financial stability<sup>7</sup> to the forefront. It is now recognized that financial crises could have damaging effects on the rich as well as on the poor. In particular, people with low levels of income have no headroom to bear downside risks, and their livelihoods can be disrupted by financial instability. Another area where financial inclusion fosters financial stability is by improving the process of intermediation between savings and investments. Today, financially excluded individuals rely primarily on cash transactions and make their decisions independent of the Central Bank's monetary policy. Financial inclusion brings those individuals into the mainstream and makes the transmission mechanism of monetary policy more effective.<sup>8</sup> Finally, financial inclusion, through careful policy orientation, may help reduce income inequalities, bridge the gap between the rich and poor, and foster social and political stability. This is particularly relevant through the turbulent times many MED countries are currently experiencing.

Using Panel data, GMM and GLS econometric models, and a sample of six MED countries, this paper assesses empirically the impact of financial inclusion on income inequality, poverty, and financial stability in the MED region. While the empirical literature on the region is relatively scarce, this paper adds to that literature by bridging a significant existing gap,

<sup>&</sup>lt;sup>2</sup> Keynote speech by Masood Ahmed, Director of the Middle East and Central Asia Department, IMF, at the Arab Policy Forum on Financial Inclusion in the Arab World, Abu Dhabi, December 10, 2013.

<sup>&</sup>lt;sup>3</sup> MED policymakers have yet to establish whether the lack of access to financial services is precluding that the generated economic growth is equitable and inclusive.

<sup>&</sup>lt;sup>4</sup> See for instance: Greenwood & Jovanovic, (1990); Lundberg and Squire, (2003); and Beck et. al (2007a & 2007b). <sup>5</sup> A World Bank Brief, Cull et al. (2012).

<sup>&</sup>lt;sup>6</sup> For an in-depth analysis of the recent financial and debt crises see Neaime (2012, 2016, and 2015a&b), and Neaime et al (2018).

<sup>&</sup>lt;sup>7</sup> In the literature, financial stability is considered as the ability of the financial system to absorb shocks without causing a collapse of financial institutions, financial markets, and payment systems (Motelle and Biekpe, 2015; and Nelson and Perli, 2007).

<sup>&</sup>lt;sup>8</sup> Keynote speech by Frank Moss, Director General of the European Central Bank, Frankfurt, June 28, (2013).

especially in the aftermath of the recent financial and debt crises and the recent political, social, and military turmoil that have been unfolding in several MED countries. The remainder of the paper is divided as follows. Section 2 overviews related literature. Section 3 lays down the empirical methodology and the motivation of the empirical models to be estimated. The data set and empirical estimations and results are all summarized in Section 4. Finally, the last section offers some conclusion and policy recommendations.

#### 2. Related Literature

The literature on financial inclusion could be divided into three distinct headings, namely: (1) constructing indicators of financial inclusion;<sup>9</sup> (2) examining the determinants of financial inclusion;<sup>10</sup> and (3) investigating the nexus between financial inclusion and different dimensions of financial and economic development,<sup>11</sup> which is the strand we follow in this research project. Despite compelling evidence in the literature that rich and middle income countries have been converging to parallel growth paths over the past 50 years, the gap between those countries on the one hand, and the very poor, on the other continues to persist and to widen (Aghion et al. (2015), and Michelis and Neaime 2004)). Since 1980, the year which earmarked the liberalization era for most emerging markets, the general belief that there is a positive impact of financial development and inclusion on income inequality and poverty has motivated analyzing the impact of financial inclusion on income inequality, poverty, and financial stability, in the context of bank/stock market development. For example, Merton and Bodie (1995) point to the role of financial markets in providing ways of transferring economic resources through time and among industries, which in turn contributes to alleviating poverty burden and income inequality. Beck and Levine (2004), as well as, King and Levine (1993) supported the notion that well-functioning financial markets can boost economic growth and reduce poverty. In this respect, Beck et al. (2008), and Galor & Zeira, (1993) found that there exists a robust, positive relationship between financial market developments and both per capita GDP growth and total factor productivity. Using data for 40 developed and developing countries over the period 1947-1994, Li, Squire, and Zou (1998) found that financial development and inclusion lead to less income inequality. Similarly, Jalilian and Kirkpatrick (2002) showed that financial development contributes to poverty reduction. More recent work corroborated these findings too, Uddin et al. (2014) showed that there exists a long run relationship between financial inclusion, growth, and poverty reduction in Bangladesh. Likewise, Abosedra et al. (2015) used data for Egypt spanning the period 1975Q1-2011Q4 to investigate the linkage between financial development and poverty reduction and concluded that financial development reduces poverty.

However, and interestingly enough, both theoretical models and empirical evidence provide conflicting predictions about the impact of financial development and inclusion on income inequality and poverty reduction. Other studies have pointed to the fact that financial inclusion may fail to reduce income inequality and poverty. Claessens and Perottii (2007) argued

 <sup>&</sup>lt;sup>9</sup> See for instance: Honohan, (2008); Sarma, (2012); Demirgüç-Kunt and Klapper, (2012, and 2013); Sarma, (2015).
 <sup>10</sup> See for instance: Demirgüç, -Kunt et al, (2013); Kumar, (2013); Fungácová and Weill, (2015); Allen et al, (2016);

Zins and Weill, (2016).

<sup>&</sup>lt;sup>11</sup> For the link between financial inclusion and financial development see De la Torre et al, (2011); García and José, (2016); Mehrotra and Yetman, (2015); Neaime and Gaysset,(2017, and 2018). For the link between financial inclusion and economic development see Estrada et al, (2010); Sarma and Pais, (2011); Swamy, (2014); Babajide et al, (2015); Kim, (2016); Sharma, (2016); Kim et al,(2018).

that financial liberalization might in practice lead to inequality. The latter perspective was reinforced by Jeannine and Kpodar (2008) who argued that financial inclusion is reduced and perhaps eliminated by financial instability. The negative effect that might arise from financial development on income inequality and poverty is due to rapid financial liberalization in the absence of strong political and economic institutions to supervise and regulate the market. Their absence could trigger a financial/economic crisis, widening economic inequality and aggravating poverty via several channels. Furthermore, Liang (2006) finds a negative relationship between financial inclusion and income inequality in urban China. Park and Shin (2015) examined the relationship between financial inclusion and income inequality only up to a point, after which as financial inclusion proceeds further, it contributes to greater inequality. For instance, using a dataset of 138 developed and developing countries between 1960 through 2008, Jauch and Watzka (2015) found that financial development and inclusion promote income inequality after they controlled for endogeneity problems.

On the other hand, the literature on measuring financial inclusion is relatively new but growing rapidly. Honohan (2008) measured financial inclusion by econometrically estimating the proportion of adult population/households (of an economy) that have a bank account. By so doing, the study provides a one-time measure of financial inclusion across countries for as many as 160 countries. These estimates might effectively quantify one aspect of financial inclusion, that is, financial penetration. Such a measure of financial inclusion, however, has many deficiencies since several crucial aspects of an inclusive financial system are ignored, including availability, affordability, quality and usage of the financial services that together form an inclusive financial system (Sarma, (2015)). Furthermore, a number of studies have shown that merely having bank accounts may not be sufficient to imply financial inclusion if there are some barriers or limitations preventing people from adequately using the accounts, such as remoteness of bank branches, cost of transactions, psychological barriers (see, for instance, Kempson, (2006) and Diniz et al. (2011)). Kempson et al. (2004) defined the notion of "underbanked" or "marginally banked" people as those who do not adequately utilize their bank accounts, in spite of having a bank account. In fact, in many countries, a significant portion of the so-called banked population was using informal non-bank financial services in lieu of the banking facilities. These households constitute a portion of so-called "underbanked" or "marginally banked" households, which has been regarded in the literature as equivalent to being financially excluded households (Sarma, (2012)).

While several MED countries have taken some steps to enhance financial inclusion and reduce financial instability, progress has been slow across much of the region (Pierce, 2011). Bank penetration and financial services in general have not been able to expand significantly. In the MED region, a number of reasons explain why financial inclusion is low. Among those reasons are: (1) underdeveloped financial infrastructure and lack of credit information; (2) Insufficient competition among banks (which are the dominant financial institutions); (3) Limited availability and diversity of specialized financial products and bank branches; (4) Barriers to women in accessing finance; (5) Poor financial education; (6) Insufficient supervision of microfinance providers; and (7) Little regulatory support of non-bank financial service providers. It is not clear how significant these issues are in explaining the slow pace of financial development and inclusion in the MED region where the research has not kept pace with these glitches. To that end, this paper adds to the limited literature on the MED region, by proposing to assess the state of financial inclusion and stability in the region, in order to

identify constraints, opportunities, and priorities for significantly improving access to finance and to address issues such as income inequality, poverty, and financial liberalization and stability. Policy recommendations for improving financial inclusion and reducing poverty and inequality will be developed. In addition, the study evaluates the effectiveness of the current financial system in reducing financial instability and assesses how increased financial liberalization and integration may be harmful to financial stability. Finally, the study examines the linkage between financial inclusion and integration on one hand, and financial stability on the other; an area recently recognized to be under-examined by the World Bank in many less developed countries (LDCs) including the MED region.

#### 3. Data and Empirical Methodology

The data set spans the period 2002-2018, and is retrieved from various sources, depending on availability. Data specific to the number of Automatic Teller Machines (ATMs) and commercial banks per 100,000 adults for each country is retrieved from the International Monetary Funds' (IMF) Financial Access Survey database. Other variables for each country are also obtained from the Global Financial Development Database, and the World Development Indicators. The MED countries under investigation are: Egypt, Tunisia, Algeria, Morocco, Jordan and Lebanon. The growth rate of poverty is constructed using the log difference of the poverty headcount ratio at national poverty lines.

	# of Obs.	Mean	SD	Min	Max
ATM per 100000 adults	102	25.61	19.23	1.5	69.52
Banks per 100000 adults	102	10.51	7.05	4.12	25.04
GINI	102	39.56	2.03	36.21	42.31
Gross enrolment ratio	102	75.21	15.23	48.01	118.6
Labor force female (% of all)	102	16.52	4.55	12.65	29.89
Population (in million)	102	2.53	2.03	782096	102e+06
Inflation (%)	102	5.23	5.12	-5.12	20.36
Age dependency ratio of working age (years)	102	47.45	17.45	15.23	72.56
Trade openness (% of GDP)	102	95.51	31.23	38.89	180.56
GDP per capita growth (%)	102	1.55	5.36	-18.65	9.12
Growth rate of poverty (%)	102	-0.25	0.039	-0.21	0.14

#### Table 1. Summary of Descriptive Statistics, 2002-2018

Source: Authors' Estimates.

Notes: SD is the standard deviation; Obs. refers to the # of observations, Min to Minimum values, and Max to Maximum values.

We begin our analysis by evaluating the impact of the depth of financial inclusion on poverty levels and income inequality in the MED region. We point out that the relationship between financial inclusion, income distribution and poverty is not unidirectional and could include reverse causation. This occurs when poverty alleviation increases the demand for banking services, or when economic growth is coupled with significant reductions in income inequality, leading to political pressure for more financial inclusion. These endogeneity effects lead to potential biases in the estimated coefficients. To address these potential biases, we propose to use a dynamic panel estimator based on a Generalized-Methods-of-Moments (GMM) developed for such specifications initially by Arellano and Bond (1991) and expanded to a system of equations with restrictions on the instruments by Arellano and Bover (1995), and Blundell and Bond (1998).

Recent revitalization of interest in long-run growth has generated interest among economists in estimating dynamic models with panel data. Dynamic fixed effect models are a common choice for macroeconomists since they address endogeneity problems, which arise from an unobserved country-specific effect in the data. A dynamic panel data model has the form:

$$Z_{it} = \alpha_i + \sum_{j=1}^p \varphi_j Z_{it-1} + \sum_{j=1}^N \gamma_j X_{jit} + \sum_{k=1}^L \beta_k Y_{kit} + \varepsilon_{it},$$
(1)

where  $\varphi_j$  are p parameters to be estimated,  $X_{jit}$  and  $Y_{kit}$  are a set of predetermined and exogenous variables,  $\alpha_i$ : are the panel-level fixed effects, and  $\varepsilon_{it}$  are the independently and identically distributed errors over the whole sample with constant variance.

Since by construction the lagged dependent variables are correlated with the unobserved panel-level effects, standard estimators such as fixed effect estimators (LSDV) generate bias and inconsistency. Several estimators have been proposed in the empirical literature to circumvent the endogeneity problem embedded in equation (1). Nickell (1981) derived an estimate of the bias  $\gamma$  in LSDV estimator and proved that this bias goes to zero when the time dimension T approaches infinity. When T does not tend to infinity, Anderson and Hsiao (1981) proposed an instrumental variable procedure whereby fixed effects are removed by the first difference of equation (1), i.e.,

$$Z_{it} - Z_{it-1} = \alpha_i + \sum_{j=1}^p \varphi_j \left( Z_{it-1} - Z_{it-2} \right) + \sum_{j=1}^N \gamma_j \left( X_{jit} - X_{jit-1} \right) + \sum_{k=1}^L \beta_k \left( Y_{kit} - Y_{kit-1} \right) + \left( \varepsilon_{it} - \varepsilon_{it-1} \right)$$
(2)

In differenced equation (2),  $(\varepsilon_{it} - \varepsilon_{it-1})$  is correlated with  $(Z_{it-1} - Z_{it-2})$  via  $Z_{it-2}$  and, therefore,  $(Z_{it-1} - Z_{it-2})$  is instrumented by  $Z_{it-2}$  or  $Z_{it-2} - Z_{it-3}$ . Accordingly, the W matrix of instruments is formed by  $Z_{it-2}$  or  $Z_{it-2} - Z_{it-3}$  in addition to other exogenous variables used in the model. On the other hand, Arellano and Bond (1991) proposed a GMM-type estimator where  $(Z_{it-1} - Z_{it-2})$  is instrumented by all available lagged levels of the dependent variable.<sup>12</sup> Also, other estimation methods can be applied depending on the data structure in which the number of cross sections N and/or time span T is large enough to derive consistent, as well as, efficient

<sup>&</sup>lt;sup>12</sup> See Holtz-Eakin, Newey, and Rosen (1988) for discussions of GMM-type instruments.

estimators such as the corrected LSDV estimator proposed by Kiviet (1995), Arellano and Bover (1995), and Blundell and Bond (1998) who show that the lagged-level instruments in the Arellano–Bond estimator become weak as the autoregressive process becomes too persistent or the ratio of the variance of the panel-level effect  $\alpha_i$  to the variance of the idiosyncratic error  $\mathcal{E}_{it}$  becomes too large. They propose a system estimator that uses moment conditions in which lagged differences are used as instruments for the level equation.

Following Rioja and Valev (2004), Beck and Levine (2006), and Beck et al. (2007 a & b), we estimate the following dynamic panel-data model:

$$Z_{it} = \alpha_i + \varphi_j Z_{it-1} + \sum_{j=1}^N \gamma_j X_{jit} + \sum_{k=1}^L \beta_k Y_{kit} + \varepsilon_{it},$$
(3)

where, i stands for the i<sup>th</sup> cross-sectional unit (country); t for the t<sup>th</sup> time period (year); X refers to the proxy for financial inclusion variables; Y is a vector of independent economic variables; Z refers to the measure of income inequality (Gini Coefficient), ranging from 0 to 100;  $\alpha_i$  is the unobserved fixed effect; and  $\mathcal{E}_{it}$  is an error term. This specification is extensively used in the growth and finance literature to investigate the relationship between financial development and inclusion, income inequality, and poverty using Blundell and Bond's (1998) estimators, who more precisely articulated the necessary assumptions for the augmented estimator. The system GMM estimator provides consistent and efficient estimates, overcomes the endogeneity problem, and is a better fit for panel studies with fewer time observations.

To gauge the strength of the linkage between financial inclusion and income inequality/poverty, we make use of standard control variables widely used in the literature.<sup>13</sup> We control for the lagged level of inequality and poverty indicators, which allows testing persistency in poverty and inequality, as in Beck et al. (2007a&b). The secondary school enrolment rate (education) is used to control for human capital accumulation, and total trade<sup>14</sup> to GDP to capture MED economies' degree of trade openness. Further, the rate of inflation is added as a control variable following Ravallion and Datt (1999), Easterly and Fischer (2001), and Dollar and Kraay (2002) who document evidence that the inflation rate is indeed a significant determinant of poverty. Moreover, it is crucial to control whether financial inclusion affects those in the low-income bracket because of its effects on GDP per capita. Thus, real per capita GDP growth is also included.

In the second part, the study looks at how bank penetration, access to financial services and increased financial integration can promote financial stability or instability. To explore these linkages, we propose a model of the form:

$$STAB_{i} = a + \sum_{j=1}^{N} b_{ij}X_{ij} + \sum_{k=1}^{L} c_{ik}M_{ik} + \varepsilon_{i} \quad , \tag{4}$$

where the subscript *i* represents the respective MED country, STAB is the standard deviation of the growth rate in bank deposits between 2002 and 2018, X is a vector of *j* measures of access to banking services defined earlier, and *M* is a vector of *k* factors pertaining to country i; *a*, *b*<sub>*j*</sub>, and

<sup>&</sup>lt;sup>13</sup> For a survey, see Christiaensen, *et.al*, 2003.

<sup>&</sup>lt;sup>14</sup> Total trade is defined as total exports plus imports.

 $c_k$  are parameters, and  $\varepsilon_i$  is an error term. The STAB variable measures the volatility in the deposit base of country *i* during the period under consideration. The vector of variables *M* will be selected from the following: (1) Log of the population size; (2) Measure of financial integration;<sup>15</sup> (3) Average growth in GNI (Gross National Income, constant US\$/per capita); (4) GINI coefficient for income inequality; and (5) Average CPI during the observation period (2002-2018). It is important to point that model (4) is not a function of time and the variables change only across countries. All variables will be based on their average values between 2002 and 2018. To avoid multicollinearity problems, the model is estimated using the Generalized Least Square (GLS) estimation procedure for linear models within the context of panel data. The model's estimation method allows for the presence of AR (1) type of autocorrelation within panels and cross-sectional correlation, as well as, heteroscedasticity across panels.

#### 4. Empirical Results

The empirical analysis starts by estimating the OLS regressions, which according to the empirical literature are biased and inconsistent (models (1)-(3) in Tables 2 and 3). These preliminary biased results are subsequently compared with the more robust, meaningful, and consistent GMM estimators (models (4)-(6) in Tables 2 and 3). Column 4 is the baseline equation, whereas in column 5 and 6, GDP and GDP squared are included in order to allow for non-linear specifications.

With the GINI coefficient as the dependent variable (Table 2), our empirical results point to a negative and significant relationship between the proxies of financial inclusion: the number of banks and ATMs per 100,000 adults, and the GINI coefficient at the 1% level of significance. This indicates that in the MED countries of Egypt, Tunisia, Algeria, Morocco, Jordan and Lebanon, financial inclusion reduces income inequality. This suggests that having a higher number of ATMs and banks will facilitate the access to financial services for the poor and alleviate income inequality. When the empirical specification is modified, the relationship remains negative and significant when the control variable is GDP (Model (5)) and GDP squared (Model (6)).

Population and trade openness are also found to significantly affect income inequality among the control variables. All MED countries included in our sample have been registering high population growth rates. This growth in population has further widened the gap between the rich and the poor and has rendered financial and economic inclusion an even more difficult objective to achieve. Despite a decline in fertility rates in the past couple of decades, the combination of low infant mortality and high fertility rates between 2000 and 2018 led to high population growth rates, which translated into high labour force growth rates. Between 2002 and 2018, employment creation failed to keep pace with the growth of the labour force in most MED countries.<sup>16</sup> Trade openness significantly reduces income inequality in the MED region. Further

<sup>&</sup>lt;sup>15</sup> Financial integration is defined as the ratio of foreign direct investment to GDP.

<sup>&</sup>lt;sup>16</sup> Moreover, and with the second youngest population in the world after Sub-Saharan Africa, the MED region has registered unprecedented high levels of youth unemployment rates. The youth unemployment problem is due to a number of economic and social factors, including discrimination, social disadvantage, structural and cyclical trends which pushed the young into exclusion and inequalities. Moreover, this situation is an additional burden on the

trade and economic integration is benefiting the MED region in terms of income inequality reduction. This is also pointing to income convergence between MED countries in the South and their European trade partners in the North. Lebanon, Morocco, and Tunisia have already ratified the trade agreements with the European Union (EU) and have extensively opened up their economies to trade with the EU. The same is true for Algeria and Egypt who have maintained significant trade relationships with the EU and with the United states. Jordan has recently signed several unilateral and bilateral trade agreements with the EU, US and other Arab countries. The trade openness of the MED countries is contributing positively in reducing income inequality in the region. This increase in trade is stimulating GDP growth and is trickling down to the poor segment of the MED population reducing thus the income disparities between the rich and the poor.

Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)
GINI	OLS	OLS	OLS	GMM	GMM	GMM
ATM per 100,000 adults	0.033	-0.011	0.027	-0.014	-0.019	-0.016
-	(4.28)**	(5.11)**	(4.12)**	(1.22)**	(1.09)**	(1.11)**
Banks per 100,000 adults	0.066	-0.088	-0.077	-0.029	-0.019	-0.028
	(4.11)**	(4.56)**	(6.23)**	(2.99)**	(3.118)**	(3.551)**
Secondary enrolment ratio	-0.011	-0.022	-0.014	-0.006	-0.007	-0.01
	(4.11)**	(5.09)**	(3.14)**	(0.12)	(0.23)	(0.31)
Labor force female (%)	0.36	0.16	0.12	-0.05	-0.03	-0.04
	(7.11)**	(4.56)**	(5.87)**	(0.98)	(0.99)	(1.35)
Log population	-0.04	-0.029	0.033	0.017	0.010	0.014
	(6.56)**	(4.22)**	(7.65)**	(2.89)**	(3.26)**	(3.78)**
Inflation	0.044	-0.039	0.011	0.018	0.042	0.018
	(0.68)	(0.03)	(1,05)	(0.65)	(1.01)	(0.01)
Trade openness (% GDP)	0.011	-0.025	-0.014	0.012	0.005	0.012
	(4.06)**	(0.08)	(0.01)	(3.55)**	(2.98)**	(3.25)**
Age dependency ratio	0.011	0.019	0.033	-0.015	-0.012	-0.014
8 arr and 9	(4.65)**	(2.99)**	(5.45)**	(1.11)	(1.05)	(1.11)
GDP per capita growth	-0.011	(,)	((()))	0.012	()	()
I III O	(0.45)			(0.98)		
GDP	(0000)	0.012		((())))	0.012	
		(1.02)			(0.88)	
GDP Square		()	0.011		(0.000)	0.013
			(1.22)			(1.08)
Lag (GINI)			(1)	0.506	0.875	0.563
				(2.39)*	(2.11)*	(2.01)*
Constant	45.22	22.56	66.45	22.65	11.12	15.14
	(32.56)**	(35.12)**	(34.23)**	(6.56)**	(5.55)**	(4.66)**
$R^2$	0.75	0.81	0.82	(0.00)	(0.00)	(1.00)
N	102	102	102	86	86	86
AR(2)	- · <b>-</b>			0.112	0.256	0.256

Table 2. Regression Results- OLS & GMM Estimations, 2002-2018

Source: Authors' estimates.

Notes: GMM-type instruments were created using lag 2 of n from on back. A \*, \*\* denote statistically significant coefficients at 5% and 1 % respectively.

poorest households that overall have more dependent children and have subsequently experienced declines in their income.

With the growth rate of poverty as the dependent variable (Table 3), we find that financial inclusion has no statistically significant effect on poverty. Indeed, the coefficients for the financial inclusion indicators are insignificant in all the estimated GMM specifications. The insignificant effect arising from financial inclusion on poverty is because MED's banking structure is not developed enough in terms of access to financial services to effectively impact poverty in a positive way, and the benefits of having a relatively well-developed banking system seem not to have reached the poorer segments of the population. The efficiency of the banking sector will have to be enhanced in order to increase bank penetration, with more support for small and medium enterprises. The ineffectiveness of the financial sector leads to low labor productivity due to a sub-optimal allocation of funds, which will have to be corrected. Likewise, an underdeveloped financial system with a low number of bank branches and accounts induces a low level of competition and therefore high banks' lending margins with low long-term interest rate that does not provide incentives for savings. The financial system's development must be enhanced particularly in rural areas where banking institutions need to expand their presence and facilitate exchanges and the flow of funds towards investment opportunities with the highest social rate of return. Moreover, as the access to loans is still restricted in several MED countries, the poor are becoming poorer and are not able to leave the informal sector and move out of social exclusion.

Population and inflation are found to significantly affect poverty among the control variables. An increase in the rate of inflation reduces the purchasing power, and therefore, the real income of individuals, which subsequently increases poverty. Moreover, the secondary enrollment ratio and trade openness are found to significantly affect poverty. While the commitment of MED governments to education has been impressive, with secondary school enrollment rates above 70 percent in most MED countries, increases in school enrollment rates and the massive spread of education have been contributing factors to poverty reduction. Finally, economic openness and the participation of female in the labor force are contributing to poverty reduction in MED. In Lebanon, Morocco, Jordan, and Tunisia, female labor participation in the labor force has been significantly enhanced over the past couple of decades with gender equality registering significant improvements. This increase in the labor force has stimulated GDP growth rates and has contributed positively to gender inclusion in the labor force and in poverty alleviation. The recently ratified trade agreements with the EU are impacting positively on poverty in the MED region. Egypt, Tunisia, Algeria, Morocco, Jordan and Lebanon have all ratified the EU-MED trade agreements. Enhanced economic integration in the region is pushing up income levels in the MED and is contributing positively to poverty reduction in those countries.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> See also Neaime (2000, 2008, & 2010), and Mansoorian and Neaime (2003).

8		,						
Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)		
<b>Poverty Growth Rate</b>	OLS	OLS	OLS	GMM	GMM	GMM		
ATM per 100,000 adults	-0.02	0.07	0.01	0.08	0.11	0.021		
	(0.19)	(0.25)	(0.55)	(0.45)	(1.45)	(0.98)		
Banks per 100,000 adults	0.01	-0.05	-0.02	-0.01	-0.07	-0.05		
	(1.22)	(1.11)	(1.08)	(0.77)	(0.55)	(1.45)		
Secondary enrolment ratio	-0.08	-0.11	-0.01	-0.08	-0.03	-0.01		
-	(4.11)**	(5.11)**	(4.66)**	(2.88)**	(3.98)**	(3.55)**		
Labor force female (% of all)	-0.01	-0.02	-0.06	-0.08	-0.01	-0.05		
	(4.11)**	(3.22)**	(2.99)**	(5.11)**	(3.55)**	(5.40)**		
Log population	0.01	0.014	0.011	0.055	0.07	0.06		
	(3.55)**	(2.99)**	(2.45)*	(2.41)*	(5.22)**	(5.66)**		
Inflation	0.01	0.02	0.03	0.08	0.04	0.01		
	(2.99)**	(3.56)**	(2.98)**	(2.05)*	(5.22)**	(3.65)**		
Trade openness (% GDP)	-0.01	-0.04	-0.08	-0.06	-0.06	-0.04		
Trade openness (/v GDT)	(4.55)**	(3.66)**	(5.45)**	(2.09)*	(2.22)*	(3.55)**		
Age dependency ratio	0.01	0.02	0.01	0.08	0.02	0.05		
The dependency fullo	(0.44)	(1.01)	(1.77)	(0.02)	(0.01)	(0.33)		
GDP per capita growth	0.07	(1.01)	(1., , )	0.01	(0.01)	(0.55)		
GDI per cupita growth	(1.05)			(0.44)				
GDP	(1.05)	-0.02		(0.11)	-0.03			
GDI		(0.55)			(0.74)			
GDP Square		(0.55)	-0.01		(0.74)	-0.01		
GDI Square			(1.22)			(1.44)		
Lag poverty growth rate			(1.22)	0.01	0.06	0.09		
Eag poverty growin face				(0.55)	(0.66)	(0.98)		
Constant	0.10	0.04	0.08	0.14	0.77	0.45		
Constant	$(2.04)^*$	(0.45)	(0.88)	(0.66)	(0.14)	(0.43)		
$R^2$	(2.04).	(0.43) 0.72	(0.88) 0.76	(0.00)	(0.14)	(0.00)		
к N	0.74 96	0.72 96	0.76 96	80	80	80		
	90	90	90	80 0.114	80 0.232	80 0.125		
AR(2)				0.114	0.232	0.123		

Table 3. Regression Results- OLS & GMM Estimations, 2002-2018

Source: Authors' estimates.

Notes: GMM-type instruments were created using lag 2 of n from on back. A\*, \*\* denote statistically significant coefficients at 5% and 1 % respectively.

Robustness checks of the validity of the instruments are conducted using the Sargan test which is in effect an over-identification test. The null hypothesis assumes that the model is correctly specified and that the over-identifying conditions are correct. Further, we test the null hypothesis of the existence of auto-correlation. The Arellano–Bond test's null hypothesis assumes no autocorrelation. The tests for the AR (1) process in first differences reject the null hypothesis, since  $\Delta \varepsilon_{i,t} = \varepsilon_{i,t} - \varepsilon_{i,t-1}$  and  $\Delta \varepsilon_{i,t-1} = \varepsilon_{i,t-1} - \varepsilon_{i,t-2}$ , that is, both have the error term  $\varepsilon_{i,t-1}$ . However, the test for the AR (2) in first differences is more important because it detects autocorrelation in levels. Both Sargan and Arellano–Bond's auto-correlation tests point to the fact that the model is correctly specified, as well as, to the absence of auto-correlation in the errors in levels.

With the standard deviation of the growth rate of deposits (as a proxy for financial stability) as the dependent variable (Table 4), we run the model again using the same set of independent variables in addition to the GINI coefficient and the poverty variable. Our results point to a negative and significant relationship with financial inclusion, proxied by the number of

ATMs and banks per 100,000 adults. This means that as the number of ATMs and banks increases, financial stability increases. In other words, financial inclusion in the MED region contributes positively to financial stability. Moreover, while the population variable, is found to contribute positively to financial stability at the 1 % significance level, inflation seems to contribute negatively to financial stability at the 5 % significance level. A wider customer base for banks as a result of a bigger population expands their balance sheets to new areas of business and makes them more risk diversified and resilient to withstand unexpected losses. Also macroeconomic instability through higher rates of inflation is a contributing factor to financial instability in the MED region.

More importantly, financial integration in the MED region is found to contribute negatively to financial stability; i.e., an increase in financial integration reduces financial stability. The lack of strong political and economic institutions to supervise and regulate financial markets, especially those which have initiated the liberalization of their markets has been a contributing factor in financial instability. The absence of these institutions could trigger a financial/economic crisis, further widening economic inequality and poverty. Another possible explanation is that increased financial integration of MED's financial markets, mainly those of Egypt, Tunisia, Morocco, and Jordan, in the absence of a well-functioning regulatory environment has caused financial instability and has triggered capital flights. This was particularly the case during the 2008 financial crisis, when Egypt's banking sector experienced a significant outflow of bank deposits, further widening the gap between the rich and poor and contributing further to increasing the poor segment of the population. Timely financial adjustment measures have, however, prevented a currency and banking crisis to unfold in Egypt; a crisis, which could have been similar to the 2009 Dubai financial crisis, with devastating consequences on a highly growing poor Egyptian population.

Dependent Variable: Standard Deviation of Dep Growth Rates	oosit
Number of ATMs per 100,000 adults	-0.01
<b>L</b> <i>r</i>	(5.29)**
Number of banks per 100,000 adults	-0.02
•	(6.55)**
GINI	-0.001
	(0.40)
Inflation	0.05
	(2.45)*
Financial integration	0.04
	(5.11)**
Log population	-0.017
	(4.49)**
Growth rate of GNI	0.036
	(2.45)*
Growth rate of poverty	0.03
1 5	(2.99)**
Constant	0.45
	(2.55)*
Ν	102

#### Table 4. Regression Results- GLS Estimation, 2002-2018

Source: Authors' estimates.

Notes: a \* (p < 0.05) indicates significance at the 5% level; A \*\* (p < 0.01) indicates significance at the 1%. N is the number of observations.

The recent and uncoordinated liberalization attempts have made those financial and banking sectors more vulnerable to the recent financial and debt crises. In particular, the fast attempts to liberalize and financially integrate the Egypt, Jordan, and Morocco's financial markets with the more mature markets of the United States and Europe has had devastating consequences on their banking sectors and stock markets.<sup>18</sup> This has also further widened the gap between the rich and poor with more than 39% of Egypt and Morocco population now living under the poverty line.

When deciding on whether to focus on reforms to promote financial development (financial inclusion, innovation, access to financial services, etc.) and reduce poverty and income inequality, or on whether to focus on further improvements in financial stability, MED policy makers will have to bear in mind, the tradeoff that exits between financial liberalization and integration and financial stability. Carefully designed financial liberalization policies need to be timely introduced in order not to destabilize the financial system. Moreover, the latest debt and financial crises have shown that financial liberalization and development may not always be conducive to poverty and inequality reduction on the one hand, and to stimulate growth and development, on the other. On the contrary, and in many instances, policies aimed at fostering financial development and innovations have triggered recessions and in many MED countries have had detrimental effects on growth and development and have further widened the gap between the rich and poor.

#### 5. Conclusion and Policy Recommendations

This paper studied the effects of financial inclusion on income inequality and poverty, as well as, the effects of financial liberalization and integration on financial stability in 6 MED countries. The empirical results have shown that financial inclusion decreases inequality but has no significant effect on poverty. Inflation and population increase both inequality and poverty. Other empirical results have shown that the secondary enrollment ratio and the trade openness variables are found to significantly affect poverty. Finally, while the empirical evidence indicates that enhanced financial integration is a contributing factor to financial instability, an increase in financial inclusion and in population contributes positively to financial stability. This study has also shown that greater access to financial services is positively contributing to the resilience of the banking system deposit funding base. This is particularly important during times of financial crises. Enhanced resilience of bank funding supports overall financial stability of the banking sector and the entire financial system. The latest debt and financial crises have shown that financial liberalization and inclusion in MED may not always be conducive to poverty reduction and financial stability improvements. Our empirical findings have important policy implications. MED policy makers face tradeoffs when deciding whether to focus on reforms to promote financial development (financial inclusion, innovation, financial access, etc...) or whether to focus on further improvements in financial stability. However, synergies between promoting financial development and inclusion and financial stability can also exist. The results of this study could help foster a better policy to reform the financial sector by demonstrating how broadening the use of banking can have a direct impact on income distribution.

<sup>&</sup>lt;sup>18</sup> See also Guyot et al (2014), and Mora et al (2013) and Neaime et al (2018).

The MED region stands at a crossroad, with changes sweeping many of its countries and creating an environment conducive to financial and economic reform. Having missed a number of opportunities to reduce poverty and inequality, to introduce extensive financial and institutional reforms, and make substantial progress in financial inclusion, more effort still needs to be devoted in the future. The social movements in the region and the earlier series of financial crises have exposed the weaknesses of the adopted financial development model and have raised questions as to how to reshape financial policies most effectively and create the space to address the needs of everyone in society, reaching even the most deprived. The slow pace of financial development and liberalization policies adopted in most MED countries in the past has yielded a relatively acceptable level of economic growth and, in general, managed to meet the goals of economic and financial stability. Oil booms have generated acceptable growth rates, with oilabundant MED countries delivering much more than those less developed. However, the impact of such economic and financial policy choices has not led to the desired outcomes in terms of human development, poverty reduction and financial stability. Growth has not been inclusive and has widened the gap between the rich and poor; a case in point is Egypt and Morocco. Indeed, in certain cases, financial liberalization has actually contributed to further financial instability. In light of a critical reassessment of the achievements and failures of MED countries, a new financial development approach should be adopted. This new model should be more holistic, integrating the financial and social spheres in combination with strong financial institutions. It is vital that MED policymaking should expand to accommodate these spheres and place them on equal footing in the service of a long-term rights-based financial developmental vision.

The new model will reconsider financial policies that incorporate developmental priorities and would thus achieve structural change. Financial policies will have to be reshaped to achieve not only financial stabilization, adjustment and economic growth, but to also trigger the transformation required to generate growth that is broad-based, inclusive and sustainable. Within this context, such policy tools as financial development and inclusion, and financial sector diversification and liberalization will have to be addressed. At the same time, financial policies should not shy away from meeting the same objectives as social policy under this new financial development paradigm, in which the interests and welfare of every person in society are the target. It is also of central importance to ensure that social policy goes hand-in-hand with financial development policies to bring about the required transformation and ensure inclusive financial and economic growth. While the social and financial spheres should interconnect to create synergies, this new financial development model will not achieve its goals if political and institutional reforms remain shallow. Finally, sustainable poverty and income inequality reduction requires an acknowledgement that politics, institutions, financial and socio-economic policies are intertwined and have an impact on each other. Synchronizing financial and social policies with institutional and political reform would bring about positive, sustainable change under a clearly defined financial development vision.

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