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Financial Integration and Spillovers in the Euro-Mediterranean Region: The Way Forward for SMCs Financial Markets [1]

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1. Executive Summary

Using a Structural Vector Auto Regression (SVAR) model, this study analyses the dynamic financial spillovers of the European Union's (EU) leading economies on their neighbors in the south (Lebanon, Tunisia, Morocco, and Jordan) and their implications on regional financial integration and stability.

Our empirical results show that major EU's economies can generate significant regional spillovers through regional financial market linkages. We therefore argue with enhanced Euro-Mediterranean financial integration and vulnerability of the South Mediterranean Countries (SMCs), financial liberalization should be implemented gradually because there is a need to ensure that proper institutional infrastructures, such as strong prudential regulations and supervision, are put in place in order to avoid any potential future financial instability or crises. Moreover, the development of the domestic SMCs' bond market should be made a priority to reduce financial instability and to tackle the existing negative spillover effects within the Euro-Mediterranean region.

2. Introduction

There is a growing body of empirical literature on the magnitude of financial spillovers from one set of countries [2] to another in various geographical settings (intra-regional, inter-regional and global) and the different channels of transmission through which these spillover effects are passed over.

The literature on regional spillovers shows that regional linkages could occur through a wide range of channels including **financial**, **foreign direct investment (FDI)**, **trade**, **tourism**, **bank lending**, **labor mobility**, and **remittances**.

Using a Structural Vector Auto Regression model (SVAR), impulse response functions and Granger causality tests, we analyze in this study the dynamic financial spillovers of the EU's leading economies on a selected sample of their neighbors in the south (Lebanon, Tunisia, Morocco, and Jordan) and their implications on financial integration and stability within the Euro-Mediterranean region.

So far, SVAR models have not yet been used in the literature to explore the dynamic financial interrelationships between the two sets of countries within this region. According to the wider literature, in addition to the financial and trade channels for the transmission of financial shocks within a region, there may also be significant spillovers through less measurable channels, including through political instability or security channels.

[2] In our case between the European Union (EU) countries and a selected sample of South Mediterranean Countries (SMCs) including Morocco, Tunisia, Jordan and Lebanon.

3. Mediterranean Context

The International Monetary Fund (IMF) and the EU's Macroeconomic and Financial Assistance (MFA) programs have been designed to foster international and regional financial stability and dampen therefore the negative spillover effects of hastened financial liberalization on one hand, and the transmission of financial crises on the other.

In the absence of financial stability, it is now recognized that the past financial and sanitary crises have had amplified damaging effects on macroeconomic and financial stability, economic growth, and social welfare in the Euro-Mediterranean region. It is also well known that promoting financial stability is a matter of avoiding economic and financial crises, large swings in economic activity, and excessive volatility in foreign exchange and financial markets.

Financial instability has so far increased economic uncertainty, discouraged investment, and impeded economic growth, destabilizing thus the Euro-Mediterranean regional financial integration, and hurting living standards on both sides of the Mediterranean.

Moreover, the increased financial integration of the SMCs' financial markets with the more mature markets of the EU, in the absence of a well-functioning regulatory environment, could cause financial instability and could trigger further capital flights.

This was particularly the case during the recent sanitary crisis in Tunisia and Jordan, where an IMF rescue financial package coupled with timely financial adjustment measures have restored regional financial stability and have prevented a currency and debt crises from unfolding. Efforts continue to be devoted in Jordan and Tunisia to introduce a more comprehensive reform program supported by IMF and EU's loans in a bid to further restore macroeconomic and financial stability and improve economic activity. It is clear the IMF and EU's intervention in Jordan and Tunisia has not only helped those countries stabilize their financial sector but has also had positive spillover effects on the SMCs' regional trading partners.

Lebanon, Jordan, Morocco, and Tunisia qualify as small open economies with significant trade and financial relations with the EU. Financial shocks or increased financial instability emanating from the EU are expected to have significant regional spillover effects. It is now well known that the SMCs are highly sensitive to shocks in oil prices and to shocks originating in the EU; the SMCs' main source of FDI and capital flows and main trading partner.

For instance, a negative oil price shock will negatively impact the SMCs which are classified as oil importers. Tunisia and Morocco have been particularly affected by the negative spillover effects of the debt and the recent Covid-19 crises in the EU which lowered EU's demand for both countries' exports, as well as the flow of FDI to the two SMCs.

The IMF and EU's programs, designed to foster macroeconomic and financial stability in Jordan and Tunisia, have so far contributed to regional financial stability. They have also had a positive impact on political stability in a region that is prone to political/military turmoil. Since FDI and remittance flows originate mostly from EU countries, promoting financial and economic stability in the SMCs will reduce domestic and regional political tensions, will increase tourism and remittance revenues, as well as investment flows.

While FDI inflows to Tunisia have averaged 2 % of GDP over the period 2014-2022, they were slightly higher at 3% of GDP in Morocco. The same is true for remittances which averaged 4% of GDP in Tunisia but were slightly higher in Jordan at 9% of GDP over the same period. Remittances, which averaged 25% of GDP in the last couple of years, have kept Lebanon's economy running despite the sever financial crisis which is still unfolding.

4. Approach and Results

The theoretical and empirical finance literature are rich in studies analyzing financial stability and integration, and the transmission mechanisms of financial shocks in developed and developing economies.[3]

The literature argues that with increased financial and trade integration across the globe, economic and financial shocks are transmitted through two main channels: **the financial** and **trade flows channels**. Labor mobility, tourism, and remittances are also factors through which economic shocks are transmitted from one country or region to another. In addition, the recent financial and debt crises and their negative spillover effects on both developed and developing economies have brought the focus on the transmission channels of those shocks and their impact on financial stability to the forefront.

Moreover, there is significant empirical evidence in the literature that financial linkages are highly important in times of crises, and in terms of spillovers from advanced towards emerging and developing economies. The estimated spillover effects for the same set of countries differ in terms of magnitudes, signs, as well as with respect to detected operative transmission channels and factors determining these spillovers.

It should be emphasized that Morocco, Tunisia, and Jordan and under either the EU or IMF funded programs have also implemented capital restrictions and macroeconomic prudential reforms. Surprisingly, however, there is evidence that those macro-prudential policies implemented have succeeded, and to some extent, in attracting rather than preventing capital flows.

The implemented macro-prudential policies in Morocco, Tunisia, and Jordan have created higher levels of trust regarding domestic institutions and have led to better expectations that a possible future financial and debt crisis will be effectively handled and averted (see Belke and Volz, (2019), and Belke, and Dubova, (2018)).

[3] For a detailed discussion of issues pertaining to financial integration, financial stability, and financial crisis see Neaime (2012a, 2012b, 2016, 2017, & 2022).

Moreover, and after the Covid 19 pandemic, the recent financial crisis in Lebanon, the numerous downgrades of Tunisia, Jordan, Morocco and Lebanon's sovereign debts coupled with restrictions on access to the international financial market, some SMCs started recently to develop their domestic financial markets; mostly their bond markets as an alternative source of financing for the respective government and as a contributing factor to financial stability.

On the other hand, it is well known that VAR models (Sims, 1980) have become an increasingly powerful macroeconomic/financial tool to gauge the dynamic response of a set of endogenous variables to exogenous shocks, and to identify the particular shocks that dominate the intrinsic volatility in a set of endogenous variables.

Within this context and following Kong (2012), the SMCs under study (i.e. Lebanon, Jordan, Morocco, and Tunisia) qualify as small open economies subject to exogenous shocks originating in the EU and proxied by France,[4] which is one of the largest economies within the EU with significant economic relations with the SMCs. It is also well known that the EU is the SMCs' main financial and trading partner. SMCs do not only import EU goods and services and receive remittances and FDI from the EU, but also export agricultural and food products to the EU.

It is, therefore, indeed the case that nominal oil price shocks and EU's business cycles and financial shocks have adversely affected SMCs' economies with devastating consequences on financial markets, balance of payments, public debt, and fiscal and current account deficits. As noted above, it is not only domestic factors that are contributing factors behind SMCs' financial imbalances, but also the external financial policies of EU member countries. Other factors that can potentially ignite a financial crisis in emerging SMCs' economies may also include further increases in interest rates resulting from negative inflationary shocks in the EU.

[4] The choice of France to proxy for the EU's economies is justified by the extensive cultural, trade, and financial relations existing between France and Tunisia, Morocco, Jordan and Lebanon.

Granger causality and Impulse response functions deduced from the estimated SVAR model indicate that for the 4 SMCs under investigation, all shocks appear to be transitory in nature over a period of 3 quarters and tend to vanish in the long run.

Moreover, France's stock market index shocks have permanent effects on Morocco and Tunisia's FDI and stock market indices. This points to a higher degree of financial market integration of Morocco and Tunisia's financial markets with those of the EU, and therefore greater vulnerability of the two SMCs to French financial shocks.

This, however, appears not to be the case for Lebanon and Jordan where fluctuations in the French stock market index appear to only impact the flows of FDI into Jordan and Lebanon but not their respective stock markets, pointing to a lower degree of financial market integration of Jordan and Lebanon's financial markets with those of the EU, and therefore less vulnerability of those financial markets to financial shocks in the EU.

Moreover, shocks to French interest rates, affect Morocco and Tunisia's SMI and FDI flows significantly with either an alternating or pure negative effects, i.e.; Morocco and Tunisia's stock market indices and FDI inflows respond negatively to French monetary policy shocks. This has been indeed the case, whereby, higher French interest rates have had negative effects on the Morocco and Tunisia's stock markets and have diverted FDI and capital flows away from the two SMCs back into the EU. Likewise, Lebanon and Jordan's SMI, FDI, and interest rates do not respond to shocks in French's interest rates due on the one hand to the ineffectiveness of monetary policy under the fixed exchange rate regime to the US dollar in place, and the low financial market integration of those markets with the more mature EU's financial markets.

The significant impact of French interest rates on Morocco and Tunisia is because the two SMCs are vulnerable to external financial shocks emanating in the EU. This has further widened their interest rate differential with France. Since these EU shocks have been persistent over the last decade, they could potentially trigger a balance of payment crisis in both SMCs. Accordingly, SMCs' current account deficits have been widening, so have the interest rate differentials, further worsening the national debt and the government budget deficit via increases in Morocco, and Tunisia's debt service (see also Neaime 2015b).

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5. Conclusion

From the few existing references, in line with the literature on growth spillovers, two main spillover channels were identified: **(1) Macroeconomic and financial channels** and **(2) other less important channels**. Moreover, nations in transition often observe and emulate developments in others. With the above in mind, this study added to the existing literature on financial and economic spillovers by looking at the Euro-Mediterranean region and by employing and for the first time a SVAR model to model financial spillovers within the region.

Limited Regional Integration

With the exception of a few agricultural exports to the EU, Lebanon and Jordan qualify as small open economies with insignificant trade and financial relations with the rest of the Middle East and North Africa (MENA) region, including the Gulf Cooperation Council (GCC). The same is true for Morocco and Tunisia, which also have insignificant trade and financial relations with the rest of the MENA region, including the GCC, but maintain significant imports and exports of goods and services and financial flows with the EU.

Sensitivity to External Shocks

While economic and financial shocks or increased financial stability emanating from other MENA countries are expected to have insignificant regional effects, all four economies are highly sensitive to shocks originating in the EU due to extensive FDI, trade, and remittances. They are also sensitive to shocks from the GCC because of their heavy reliance on GCC oil imports, as well as on GCC remittances and FDI.

Impact of Declining Oil Prices

The decrease in oil prices, which resulted from the recent financial and sanitary crises, has reduced the current account deficits of the Southern Mediterranean Countries (SMCs). However, it has also led to a decline in remittances, FDI inflows, and tourism revenues originating from the EU.

Negative Spillovers on Tunisia and Morocco

Tunisia and Morocco have been particularly affected by the negative spillover effects of the EU's debt and sanitary crises, which have lowered EU demand for their exports. This has contributed to further economic vulnerabilities in these two economies.

Using a Structural Vector Auto Regression (SVAR) time series model, this paper investigates the dynamic effects of the EU's financial shocks on a selected sample of Southern Mediterranean Countries (SMCs) through impulse response functions and Granger causality tests.

Findings on Financial Shocks

- **Transitory Nature of Shocks:**
  - Contrary to the case of Morocco and Tunisia, shocks in Jordan and Lebanon appear to be transitory in nature over a period of three quarters and tend to vanish in the long run.
  - Fluctuations in France's stock market index have permanent effects on Morocco and Tunisia's FDI and stock market indices.
- **Stock Market Integration:**
  - This points to a higher degree of financial market integration of Morocco and Tunisia's financial markets with those of the EU, and therefore greater vulnerability of the two SMCs to French financial shocks.
  - In the case of Lebanon and Jordan, fluctuations in France's stock market index appear to only impact the flow of FDI into these two countries but not their respective stock markets, pointing to a lower level of financial market integration of these countries' financial markets with those of the EU

Impact of French Interest Rates

- **Morocco, Lebanon and Jordan:**
  - French interest rates are found to granger cause Morocco's interest rates, FDI, stock market indices (SMI), exchange rates, and GDP.
  - While changes in French interest rates are found not to granger cause Lebanon's interest rates and the stock market index, they have a significant impact on FDI.
  - While French interest rates granger cause Jordan's GDP, there is no impact of France's interest rate changes on Jordan's FDI, SMI, and interest rates.

6. Implications & Recommendations

Our empirical results have shown that financial stability in the SMCs should become one of the main and more important goals of monetary policy in order to foster financial stability within the Euro-Mediterranean region. Monetary policy can become a contributing factor to financial stability and a more effective contributing macroeconomic tool to financial and economic stability in the Euro-MED region after moving away from fixed exchange rates in the presence of an open capital account, as is now the case in Lebanon and Jordan. This is referred to in the literature as the impossible trinity where fixed exchange rates and an open capital render monetary policy ineffective in counteracting the effects of domestic and foreign financial shocks.

Monetary and Fiscal Policies

Moreover, it is well known that monetary and fiscal policies, when used together effectively, can also promote macroeconomic and financial stability. Therefore, rendering the 4 SMCs' central banks more independent from their respective governments and other fiscal considerations (such as financing the budget deficits through money printing), would also constitute a contributing factor to the financial and macroeconomic stability in the Euro-MED region.

Development of Domestic Bond Markets

On the other hand, the enhancement/development of the domestic bond market should be made a priority to reduce regional financial instability and to tackle the existing public debt issues. SMCs' demonstrated financial vulnerabilities will continue to have a negative impact on their financial sector and on the inflow of FDI, causing further downgrades of Morocco, Jordan, Lebanon, and Tunisia's public debts with further hikes in interest rates.

Moreover, weak local bond markets in the 4 SMCs under investigation and the delays in implementing the required fiscal, monetary, and financial reforms, which are urgently needed to foster macroeconomic and financial stability in the SMCs, have slowed down any potential financial support from multilateral donors (IMF, EU, and World Bank). This has made it more difficult for Lebanon, Morocco, Jordan, and Tunisia to continue managing their public debt.

Those reforms, when timely implemented, will help SMCs approach bilateral donors for further financial support and would also pave the way for better access to the EU's financial market and other EU funding opportunities, like for instance the MFA assistance programs currently in place. In the absence of international funding and access to financial markets, the servicing of the public debt would become rather costly owing to rising interest rate differentials and the depreciation of the domestic currency—which would further exacerbate the current financial imbalances.

Gradual Financial Liberalization

SMC's financial liberalization and financial integration with the EU should be implemented gradually because there is a need to ensure that proper institutional infrastructures, such as strong prudential regulations and supervision, are put in place in order to avoid any potential future financial crises.

Unfortunately, these infrastructures were not in place when financial liberalization occurred in Morocco and Tunisia. Moreover, since implementing these reforms is a lengthy process, financial liberalization may have to be phased in gradually. Financial liberalization and globalization in themselves would not lead to financial crises in the SMCs. Rather, it is the mismanagement of these two processes that might lead to financial crises. However, emerging SMCs lack the institutions that can supervise and manage these two processes effectively.

Key Proposal: Domestic Bond Markets as a Solution

Finally, and more importantly, due to the accumulation of sizeable levels of debt in the 4 SMCs under investigation, and as was argued previously, the access to the international financial market to bridge the gap between the selected SMCs' government expenditures and revenues through the issue of government bonds is becoming problematic.

Thus, we propose in this study that the development of the local bond market will provide the needed financing for the 4 SMCs under investigation to reduce interest rates and to finance their budget deficits and their debts without resorting to the international financial market or the European market. This will also contribute to enhancing financial stability within the European-SMCs region and will reduce the probability of a debt crisis in the future. Therefore, the development of the domestic SMCs' bond market should be made a priority to tackle the existing public debt issues, to reduce regional financial instability, and to ensure new sources of funds to bridge SMCs' financing gaps.

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