International Capital Markets Intertemporal Financial Integration: A Review

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Abstract
In this paper we review existing literature on the process of financial integration of international capital markets for the last three centuries. Our focus is on the specific steps existing literature reports that have contributed to the enhanced degree of financial integration in the concurrent era and on the dynamic development of the degree of financial integration, relating to specific political events and economic junction. Review of the relative literature offers enlightening insight on the intertemporal procedure of financial integration and highlights the challenges and hazards of the concurrent procedure. Additionally we provide a comparative resuming of the relative literature of significant authors –e.g Bordo et al. (1998), Mundell (2002), Lothian (2001)– in order to extract in a robust fashion significant perspectives on the procedure covering the European financial markets.

Keywords: Financial markets, integration, globalization

Introduction

Economic and financial integration are the main drives of contemporaneous global economic developments and have been a significant effect in the respective European process. The present paper reviews existing literature reporting the intertemporal sources of financial integration and relating the European to the international capital markets' interactions. Our scope is to trace reported views on the relation of the European and the global financial integration processes and to review research on previous trends of strengthening financial linkages across countries and regions, aiming thus to provide a comparative platform for researchers dealing with the contemporaneous financial markets trend. Additionally the reported determinants of financial integration, both for the past and the recent processes are reviewed as well.

Financial integration has been directly related in the respective literature with monetary unification across international regions, Mundell (1961), and as a result it is viewed as a very significant issue especially for the European unified monetary area. Servais (1995) in a report for the European Commission on the effects of European financial markets integration, reported that an additional growth of the European GDP of approximately 4.3-6.5% is expected to be the effect solely of financial integration process due to efficient allocation of capital across countries and sectors. However recently financial integration as the drive for the globalisation of economic activity has

[1] *The usual disclaimer applies*

concentrated criticism as it is viewed as the source of significant spill over effects of financial crises across markets and economies. However, Obstfeld and Taylor (2002) argue that this is the effect of specific-country protectionist acts rather than short-run profit exploitation on behalf of financial markets.

Overall financial integration is an intriguing issue and existing literature provides insights on previous developments and past procedures thus offering useful lessons for the current process. Our focus is on the perspectives the literature on historical financial integration adopt in order to assess the issue and the results they come to. Specifically we aim to exploit results on the countries participating in the procedure reported by each paper, the financial sector the authors focus on, the period they cover and the overall results. Thus we aim to combine previous research results on historical and contemporaneous financial integration processes in order to establish a firm view of the current European financial markets integration project.

The rest of the paper is organised as follows. Section 2 reviews existing literature on the issue of financial integration from a historical perspective and section 3 reviews the factors that are viewed as the main causes of the process of financial integration in the past. Section 4 discusses the prospective queries for the contemporaneous process of financial integration that could be dealt effectively gaining from past experience. Finally section 5 summarises thus concluding the paper.

Reported Evidence of Early Financial Integration

Although the process of strengthening the linkages among international financial markets is frequently seen as solely a modern development, works by significant academics have been dedicated to the identification of previous periods in world's economic history for which financial markets' linkages were similarly or even more enhanced than today. In order to proceed to the detailed examination of the respective literature we firstly provide the opinion of professor Mundell (2002), the theorist of Optimal Currency Areas (Mundell 1961), on the European monetary unification. Specifically, largely in contrast with public sentiment, Mundell argues that the European history is dominated by periods of monetary and economic integration rather than fragmentation. The latter, he argues, was a result of political reforms, during Renaissance, and post-imperialistic conflicts rather than a steady-equilibrium state of the European continent. After the 18^{th} century, which brought deliberation of trade and markets, and the gradual deterioration of the exercise of sovereignty rules on economic activity, the process of economic convergence of European countries was revived. Additionally, among others, Haberler (1964), the then president of the American Economic Association, and Fishlow (1985) express the opinion that the contemporaneous European process is the outcome of the global financial integration process, having began in the late 18^{th} century. This view is supported by other researchers as well, e.g. Bordo et al. (1998), Bordo and Jonung (2000), Lothian (2001a and b) and Obstfeld and Taylor (2002) which argue for the existence of dynamic patterns in the international financial process.

Specifically a U-shape formulation of the degree of financial integration across ages, is reported by many relevant studies that find evidence of changing degrees of financial integration, separating thus the degree of the strength of the linkages among the international financial system in three major periods: 1870-1914 for which most researchers argue that strong financial integration is found under various measures, 1914-1945 a period of decomposition of the financial linkages and of fragmentation of the markets and 1945-today a period for which enhancement of the linkages is the common ground, while some of the researchers argue that financial integration is still not so strong as it was in late 19th early 20th century (Bordo and Murshid 2006). In this spirit in another paper Obstfeld and Taylor (2001) argue that only by the end of the 20th century can financial linkages in modern world be compared to those of the period prior to WWI. Neal (1985) analyses the degree of financial integration among stock markets for the period from the 18th to the 20th century and finds a high degree of integration existing from the mid-18th century till the crisis of 1907 among international financial markets. In another paper (Neal 1987) he supports this view by providing evidence of synchronisation of the pricing procedures between the stock exchanges of London and Amsterdam during the 18th century. Additionally Quinn and Voth (2006) provide evidence from stock markets data covering the period of 1890-2000 showing the dynamic pattern of the correlations of returns among markets. They interpret their findings by arguing that investors tend to exploit diversification opportunities, thus bringing financial markets closer, when international capital inflows are treated in a more friendly way by market regulators.

The relation among financial markets for the early periods of globalisation is investigated among others in Good (1977), Neal (1985, 1987), Choi and DuPont (forthcoming) and Baltzer (2006). Good (1977) investigated the integration of financial markets in the Austrian empire of the 19th century and found that a convergence procedure had put markets in trail towards integration and was disrupted by WWI and the emergence of the new national states. Neal's (1985) work highlights strong linkages between the stock markets of London and Amsterdam from the end of the 18th century, thus underlying this period as being the route of the financial integration process. Baltzer (2006) based on the Law of One Price, examines financial integration among Paris, London, Vienna, Berlin and Frankfurt, by examining pricing of common listings in these markets. He finds evidence of strong long run relations among Berlin and Frankfurt and weaker for the pair of Berlin and Vienna. Choi and DuPont (2006) examine the integration among the capital markets of the American regions. They find that the markets have shifted towards greater financial integration at the beginning of the 20th century.

Factors that Have Caused Financial Integration

On the factors affecting financial integration, political decisions, the harmonisation of economic policy and legal framework deliberation are the main drivers of the process of financial integration, according to existing literature. Specifically Lothian (2000, 2001b) examining the development of the degree of financial integration for the last three centuries defines the political aspect of the process as being the most important, as he argues that the Great War, together with the Great Depression of the 30's, were the main causes of financial disintegration. Supportive to this opinion is the position of Obstfeld and Taylor (2002) who specify political factors and specifically the political stability of the 19^{th} century as being the main reason for strong financial integration. Additionally they supplement their view by indicating that technological evolution (birth of telecommunications, industrial production boost) was also important for the unified framework markets were operating in. Neal (1992) argues that while political factors (Napoleonic wars in late 18^{th} century, WWI in early 20^{th} century) set the overall direction of the international markets, technological changes play key role in stable periods thus contributing to the financial integration process with a silent and constructive manner.

The work of Mundell (2002) lies on the side of the significance of economic factors for financial integration, arguing that there is no economic reason behind relating sovereignty of a state to its own money circulation, as this is a heritage of previous rulers that exercised imperialistic and dynastic power. In contrast he argues that there should be common money for regions with similar economic conditions, as this characteristic dominates the greatest part of the European history. Good (1977) investigating the reasons of the delayed financial integration of the Austrian regional markets gives support to the political paragon as a key feature for the development of a single market. Combining the economic reason with political factors, the work of Einaudi (2000) argues that the Latin Monetary Union between France, Italy, Belgium and Switzerland (1865-1873) failed to insulate the monetary unification to the rest of the European countries because of political reasons. Specifically the target of the German and the newly formed US accession to the LMU failed because of the political tensions with Prussia and Great Britain at the time. Additionally several distinctions on economic fundamentals as the bimetallism of the LMU member-states in contrast to countries outside the union made the accession even more difficult as the central banks at the time, being private, needed to be persuaded upon political decisions in order for the latter to be implemented. However the LMU illuminated the benefits of the monetary unification and leaded to the adoption of the gold-standard by 1870.

Finally several researchers approach the issue historically by exploring the enhancing linkages by investigating strictly cross-country economic relations as the main driver of the trend towards increased financial integration. Williamson (1996) argues that economic and financial convergence of the late 19^{th} century that lasted until 1914, was due to enhanced global trade linkages and increased migration. On the side of economic fundamentals as drivers of financial integration stands the opinion expressed by Quinn and Voth (2006) who argue that economic openness leads to increases in stock markets correlations while the reverse procedure leads to divergences in the pricing procedure. On this side of the literature one could contain research relating infrastructure developments to the enhancement of financial integration. Such is the work of Michie (1985) that relates the integration between the Edinburgh and London markets to the creation of telegraph connections in 1840. Respectively Neal (1985) mentions the submarine cables connecting London and Amsterdam as an important feature enabling the common pricing between the two markets.

The answer to the debated issue of the drivers of globalisation, being either political or economic factors, is perhaps the combination of the two, a point of view expressed in Fishlow (1985). The author argues that the direction of the finance offered by markets plays a very important role to the resulting effect of strengthening the trade linkages between economies. However he gives support to the opinion that markets entail a degree of bias towards the national origination of the funds' receiver: London as a political center tends to direct funding to British-origin investments, Paris to French investments and so on. In general the author, while not underestimating the economic influence on the trend towards greater financial integration, focuses on the political relations as the steering wheel of the procedure.

Valuable Lessons for the Present Process

On the side of the lessons past developments can provide for the present, Meissner and Taylor (2006) compare the integration process of the late 19th century and the relevant role of the British empire to the contemporaneous financial integration process and the respective role of the United States. They trace the 19th century's financial integration's routes to the need for control of greater economic sources from the part of the empire. The authors focus on economic imbalances and the balancing of power in the two epochs. Specifically they relate the hegemonic role of the two countries to their transformation from net lenders to net borrowers and argue that as the imbalances experienced by the British empire's current accounts were not sustainable for the long run, adequately unsustainable will the US deficits be. Einaudi (2000), in his review of the monetary unification of European countries in late 19th century, traces the political commitment to the union together with the inadequate convergence procedure as the main factors for the failure of transmitting the 'franc union' to a 'Europe union'. DeLong (1999) compares the strength of financial crises both of the past and the present and finds that crises in the past international financial integration period were less severe than today's. Thus the author concludes that stable exchange rate conditions would lead to increased growth and less severe financial crises and suggests that dollarisation would provide an adequate degree of immunisation of the financial system against crises. In another paper studying the changes in the crises' patterns between the late 19th century and today Bordo and Eichengreen (2002) indicate that there exist several similarities in the two main financial integration processes they study. However their findings indicate that adoption of a strong monetary rule, such as the gold standard of the late 19th-early 20th century, makes crises more infrequent. As a result they propose that the soft pegs should be abandoned and hard pegs (dollarization or euroization) should take their place instead, thus leading to a world money, proposition that is formally made in a latter paper. Specifically Bordo and James (2006) propose the emergence of a world exchange rate in order to secure stable world monetary conditions and enhance international economic integration, following the paradigm of the late 19th century. However a significant modification should, according to the authors, be also encompassed in the new world monetary system as the *de jure* rule of the past is found to have been vulnerable to political changes in the commitment degree. Specifically they propose to allow the currencies to adjust intrinsically (Einsteinian approach, according to the authors) to stable world monetary equilibria, as this is shown to be more efficient and long lasting than the implementation of a stable rule such as the gold standard (Newtonian approach).

Overall the past process of financial integration can render valuable knowledge for investigating the present procedure. First, financial integration process and more broadly, globalization, is not a phenomenon of the present economic junction but rather, as Mundell (2002) argues, an intertemporal state at least for the European countries. In this context, as reported among others by Bordo et al. (1998), this process' degree of interrelatedness is not characterised by linearity. In simple words, financial integration is subject to dynamic changes according to the relative stance of financial markets. Additionally economic developments, like the monetary unification, certainly contribute to the enhancement of financial markets' linkages but could not be viewed separately from political factors. In the work of Eichengreen and Wyplosz (1993) dealing with the failure of the EMS, the authors stand on the incentives of political commitment to the convergence criteria as a key point which has led to the break of the early trial of linking European exchange rates. Specifically even though the reasons driving markets together are mainly economic, the reasons that have driven them apart in the past were always political.

Concluding Remarks

Summarising, financial integration is the main characteristic of today's markets around the globe. However this phenomenon is everything but an exclusive characteristic of the present era, as it has been observed to dominate the financial sector's developments again in the past. As a result researchers dealing with financial integration should keep in mind that economic developments, e.g. the introduction of the euro, do not provide an adequate answer to the question what brings markets together. Instead they may stem from the same reasons as the overall financial integration process and they could be summarised to the '*laisser faire laisser passer'* motive.

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