REGIONAL FINANCIAL INTEGRATION AND ITS IMPACT ON FINANCIAL DEVELOPMENT: EVIDENCE FROM SADC COUNTRIES

Jonathan Tembo

National University of Science & Technology, Bulawayo, Zimbabwe.

Email: jonathan.tembo@nust.ac.zw

Daniel Makina

University of South Africa, Pretoria, South Africa

Email: makind@unisa.ac.za

ABSTRACT

The study investigated the impact of regional financial integration on banking sector development with specific focus on the impact of the SADC protocols on trade and finance and investment. A total of 14 countries made up the study sample and the panel cointegration fully modified ordinary least squares model alongside the GMM were used to estimate the nature of impact. Study findings showed regional integration through the protocol on trade had a positive and significant impact on size and efficiency of the banking sector using the FMOLS estimator. GMM estimations for the same variables were largely insignificant. Study findings also pointed to an improvement in global financial integration indicators as a result of the trade protocol, which in turn also contributed to an increase in the level of monetization of regional financial markets. The finance and investment protocol had a positive and significant impact on private sector credit for both estimators and largely insignificant relationship with broad money. The impact of the finance protocol was not significant enough to be detected in global integration measures, implying their implementation may not have significantly improved global integration for SADC countries. The study also uncovered the complimentary relationship between institutional quality and social capital in the financial development process.

Key terms: Regional financial integration, Financial development, SADC

1.0 Introduction

The Inter-American Development Bank (2015, p.102) defines financial integration as "the process through which a country`s financial markets become more closely integrated with those of other countries or with those in the rest of the world". This definition implies the elimination of barriers for foreign financial institutions from some or all countries to operate or offer cross border financial services in others (ibid). When financial links are deepened and broadened within a region comprising of two or more countries that form of integration is referred to as regional financial integration (Wakeman-Linn and Wagh, 2008, p.2). Regional financial integration has become of paramount importance to nations worldwide. The Southern African Development Community (SADC) region is no exception to this phenomenon and since its formation; has always sought to promote regional integration across all spheres amongst member countries. This has seen the regional bloc signing 26 protocols as of 2015, which focus on a wide range of areas including trade, finance and investment, energy, transport and communication amongst others (SADC, 2015).

According to the African Financial Markets Initiative (AFMI, 2014), "recognizing the need for the pooling of financial resources, member states are beginning to support regional capital market initiatives to overcome the limitations of their fragmented capital markets and consolidate their markets as a vehicle for promoting economic development in the region". However, despite ratification and implementation of these economic agreements by individual SADC countries, we still have differences in levels of economic growth, economic stability and significant differences in levels of financial development amongst SADC countries. Historically, financial integration has largely been associated with positive economic growth as demonstrated by the works of Sedik and Sun (2012), Zenasni (2015), Klein and Olive (2000), Levine (1997), and Quinn (1997). Further studies by David, Mlachila and Moheeput (2014) and Mishkin (2007a) remove ambiguity on the link between financial integration and economic growth by reflecting financial integration as a channel of financial development which leads to economic growth. Therefore, according to these studies financial development takes place first, before economic growth occurs. On the other hand, financial development has in some cases, been observed to be dependent on other factors such as institutional quality (Law and Azman-Saini, 2012) and social

capital (Guiso, Sapienza and Zingales, 2004). Institutional quality elements include a strong legal system, property rights, a sound framework for regulation and corporate governance (Mishkin, 2007b, pp.1-2), whilst social capital refers to the "networks together with shared norms, values and understandings that facilitate co-operation within or amongst groups" (OECD, 2015, p.103).

It also involves civic involvement, quality of civil service and the level of confidence the public has in public institutions (Putnam et al., 1993; Sabatini, 2007; Knack and Keefer, 1997). It has been suggested that low levels of institutional quality and social capital may limit the level of financial development of a country. This study contributes to the body of knowledge by examining the impact of institutional quality and social capital in the financial development process after regional integration has occurred.

Are the differences in levels of financial development amongst countries in a financially integrated bloc such as SADC a result of differences in institutional quality and social capital? Does regional integration result in greater global financial openness and better links with the outside world for regionally integrated countries? Such links have not been uncovered in previous studies. Therefore, this study sought to examine the links between regional financial integration and global financial openness for the integrated region and how these links impact financial sector development taking into account the institutional quality and social capital of individual countries.

1.1 Overview of the financial sector of SADC

The financial sector represents one of the biggest opportunities for growth across the African continent (KPMG, 2013). The successful expansion of financial services to include the lower income and 'unbanked' sectors of the continent`s population has the ability to provide jobs, create safety networks, and ultimately have a hand in reducing poverty (ibid, 2013). In its quest to achieve the aforementioned, the SADC community has tried to build towards a market driven regional financial services sector through advocating for liberalized financial markets. This has gone on to shape the financial markets structure of the region. The financial sector of SADC countries is made up of different financial intermediaries which include; central banks, commercial banks, investment banks, pension funds, insurance companies, microfinance institutions as well as bond and stock markets. The level of activity and

development of these varies from one country to another. However, across the region, a study by Finmark Trust (2013) shows that the insurance sector has the greatest opportunity for growth as 94.5% of the population in the region is not formally insured. In the region, South Africa has the best developed markets which include highly sophisticated stock exchange and a significantly bonds market (Mahawiya, 2015, p.7). As a result, in some instances South Africa`s financial sector dominates the region more than that of other regional countries (ibid, 2015, p.7).

Table 1: SADC banking sector indicators

	Private sector credit Percent of GDP Average (1995-2015)	Broad Money Percent of GDP Average (1995-2015)
Angola	9.68	25.46
Botswana	-18.85	39.3
DRC	3.42	6.75
Lesotho	-3.38	35.53
Madagascar	13.9	21.65
Malawi	18.87	21.78
Mauritius	89.22	92.04
Mozambique	14.35	29.73
Namibia	48.2	45.67
Seychelles	74.86	78.03
South Africa	162.81	64.96
Swaziland	13.51	23.12
Tanzania	12.72	21.75
Zambia	31.01	20.65
Zimbabwe	46.92	133.36

Source: Author compilation from World Development Indicators

The SADC financial sector still has low levels of development and is mainly dominated by the banking sector. Table 1.1 shows the banking sector indicators for the years 1995 to 2015. As expected South Africa have the highest average private sector credit as percentage of GDP. The Seychelles and Mauritius also have high private sector credit percentages of 74% and 89 % respectively. The higher private sector credit figures in these countries are indicative of the high efficiency of financial intermediaries in these countries in allocating credit to the private sector. It is also indicative of the investment opportunities available in the countries which are

perceived to be more attractive than those of other regional countries. The rest of the remaining 12 countries have lower private sector credit percentages with all of them failing to reach the 50% mark. This might be reflective of the efficiency of the financial sector in these countries with less of the credit allocation going to private enterprise in contrast with South Africa, Seychelles and Mauritius. This might imply that the public sector dominates in terms of credit allocation; therefore most of the financial intermediation in these countries might not be for productive purposes.

The lower private sector credit in the 12 countries may also be a result of fewer attractive investment opportunities there. In terms of liquidity of the sector measured by broad money, Zimbabwe has the highest average broad money to GDP percentage though this might be spurred by the hyperinflationary period the country went through. Zimbabwe aside, Mauritius, Seychelles and South Africa again are shown to have the most liquid banking sectors as they have the highest broad money percentages. This again confirms the size and depth of the financial sector in these countries when compared to other regional countries. The remaining 11 countries have lower broad money to GDP percentages below 50%, implying lower levels of monetization. This also confirms that financial markets in the SADC region are not that well developed. When financial markets are not that well developed, institutions like stock exchanges and capital markets will also be limited. This may also be true of the SADC region. South Africa is the only country with recognized bond and securities exchanges. Additionally, the AFMI (2014) picks South Africa, Namibia, Botswana Tanzania and Mauritius as the only countries in the region with advanced bond markets whilst for the remaining countries, the market is said to be still developing or non–existent. However, the extent to which regional integration through protocols has contributed to changes in the levels of financial development across the region is an area which has not been empirically uncovered, motivating the need to study the relationship between regional integration protocol implementation and financial development.

2.0   Financial integration and financial development: Theory and Evidence

Financial integration can be classified from a geographical viewpoint, in the form of global financial integration and regional financial integration. Global financial integration occurs when a country opens its financial markets and institutions to

foreign players as well as permitting local market participants to invest abroad (Garcia-Herrero and Wooldridge, 2007, p.58). "This can be done by removing barriers to the cross-border flow of capital and financial services, such as capital controls and withholding taxes" (ibid, 2007, p.58). Global integration can also be defined as a process by which the economies of the world become increasingly integrated leading to internationalization of production, capital flows and markets (Todaro and Smith, 2003; Wilding, 1997). Gehrig (1998) notes that global integration tends to take the form of increased financial links with major financial centres such as London and New York because network externalities give these centres an advantage in the provision of financial services.

On the other hand, regional financial integration refers to a process market driven and /or institutionalized, that broadens and deepens financial links within a region (Wakeman-Linn and Wagh, 2008, p.2). This involves eliminating barriers to cross border investments, differential treatment of foreign investors, harmonizing of national policies, laws and institutions at regional level (ibid, p.2). Hurrell (2007), Kucerova (2006) and Thompson (2007) also subscribe to the same view of regional integration as a process that draws nations together on the basis of their proximity, for economic and social interaction. Likewise, Ravenhill (2004, p.117) defines regional integration as the growth of economic interdependence within a given geographical area. Ravenhill (2004, p.118) notes regional integration arrangements are usually perceived as a hierarchy that runs from free trade areas through customs unions and common markets to economic unions. He classifies the forms of regional integration into the following:

1. A free trade area, where countries remove tariff and non-tariff barriers to the free movement of goods and services between them.

2. A customs union, which goes beyond the removal of barriers to trade within the region to adopt a common set of policies towards imports from outside the region.

3. A common market, which includes a customs union and also allows for free movement of labour and capital within the regional partnership for example COMESA.

4. An economic union, which includes a common market plus the adoption of a common currency and the harmonization of monetary, fiscal and social policies.

In this hierarchy, the economic union represents the highest level of integration and only the European Union has reached this level of integration (Ravenhill, 2004, p.118). Global financial integration is different from regional financial integration in the sense that, the former is not initiated by nations or states but occurs on its own through technological change, foreign investment, and formation of international links between firms and companies (OECD, 2005, p.11). From the aforementioned, one can affirm that regional integration is a process initiated by individual countries with the aim of achieving certain economic motives. An individual country`s decision to adopt either of the two forms of integration hinges on the perceived benefits of each of these forms of integration. Proponents of global integration suggest that regional financial integration is less likely than global integration to foster risk-sharing, insofar as business cycles tend to be more closely correlated among neighbouring countries than among distant ones (Garcia- Herrero and Wooldridge, 2007, p.59). In addition , it is argued that global integration increases capital flows for the less developed countries and provides economic stability to the developed ones (Fischer, 1998, Summer, 2000). Martin (2010, p.8) shows that global integration lowers transaction costs and enables rich economies to buy more assets of poor economies and vice versa.

However, empirical evidence on the impact of financial integration has shown divergent views. Earlier studies by Klein and Olivei (2000), Bekaert et al. (2001) and Edwards (2001) attest to the positive impact of financial integration on both economic growth and financial development. Later evidence from Quinn and Toyoda (2008), Delechat et al. (2009), Mahajan and Vermar (2015) Smith et al. (2014) also confirm the positive impact of financial integration on financial development. Though these studies has shown a positive relationship between financial integration and economic growth, in between these studies, there has also been a dissenting voice in the form of literature which has also shown a negative or mixed relationship. Alesina, Grilli and Milesi-Ferretti (1993) and Grilli and Milesi-Ferretti (1995) study the effects of capital controls for a panel of countries and find no robust correlation between capital controls and economic growth . Rodrik (1998), O'Donnell (2001), Gehringer (2013) Mougani (2006), concur with the view that liberalization does not

necessarily have positive effects on economic performance. Using evidence from around 100 countries, Rodrik argues that there is no evidence in the data that countries without capital controls have grown faster, invested more, or experienced lower inflation. According to Rodrik (2008, p.9), capital controls are essentially uncorrelated with long-term economic performance once other determinants are controlled for. Edison et al. (2002a) also contribute to the debate in their investigation of the impact of international financial integration and economic growth. Their study makes use of data from 57 countries and adopts both de jure and de facto measures of financial integration. To assess the relationship, the study makes adopts three approaches, the pure cross sectional OLS, two stage least squares and the dynamic panel model. Their study findings fail to show a robust relationship between international financial integration and economic growth. In addition the study also finds that international financial integration does not exert a positive influence on growth in countries with suitably high levels of GDP per capita or sufficiently high levels of educational attainment (Edison et al. 2002a, p.20-22). In contrast to Klein and Olivei (2000) and Edwards (2001), Edison et al. (2002b, p.20-24) also conclude that the integration-growth relationship does not depend on levels of bank or stock market development, greater institutional development, and sound macroeconomic policies .

Mougani (2014) investigates the impact of financial integration on economic activity from an African perspective. The study examines the cases of African countries that are classified as open and closed over a 33 year period. To estimate the relationship between financial integration and growth, Mougani (2014) uses cross sectional OLS and a dynamic panel estimation model. The findings of this study show considerable divergences on the impact of financial integration on economic growth (Mougani, 2014, p.17). Again, the study finds no evidence that supports the view that international financial integration accelerates economic growth, even under any particular economic and financial conditions (ibid, 2014, p.17). Mougani also argues that it is too early especially for African countries to expect any sound econometric impact of international financial integration as most African countries have only just started significant private investment flows from outside. However, these empirical studies have focused on regional financial integration or global financial independent of each other, this study attempts to explore the link between the two. It has been

proposed that regional financial integration enhances the attractiveness of the integrated region through removal of barriers and increase in market size (Marszk, 2014). This enhanced attractiveness is expected to result in increased FDI flows from countries within and outside the integrated region. This implies the possibility of improved global integration as a result of regional integration. Hence this study shows the complementary relationship between regional integration and global integration. On the other hand, Chinn and Ito (2006) and La Porta et al. (1996, 2000) emphasize the importance of institutional quality in financial development yet Perotti and Heber (2008), Benmelech and Moskowits (2008) argue that legal factors alone cannot spur financial development . This study then adds to the body of knowledge by examining if institutional quality can be complemented by other factors such as social capital in the financial development process.

3.0 Dating of financial integration

Frey and Volz (2011) identify removal of capital controls, creation of regional institutions, harmonization of payment systems and regulatory harmonization as the main elements of regional financial integration. In the SADC region these can be said to have been achieved by the signing and entry of two protocols, namely:

- The Protocol on Trade implemented by all SADC countries as from 26 September 2003.
- The Protocol on Finance and Investment implemented as from 24 April 2010.

These protocols were signed with the intention of creating economic growth through increased cooperation, coordination and management of macroeconomic, monetary and fiscal policies, progressive elimination of obstacles to the to free movement of capital, labour, goods and services (SADC, 2015). Hartzenberg (2012, p.3) notes that the trade protocol was central to the implementation of the SADC`s economic integration agenda. The trade protocol called on the SADC grouping to eliminate barriers to intra SADC trade, eliminate import and export duties, quantitative restrictions on exports and imports and all other non-tariff barriers to trade, remove any obstacles to the free movement of labour , cross border FDI, goods and services, and cooperate in regional capital markets (SADC, 2015). Through the trade protocol, member countries embraced economic integration as opposed to

cooperation and committed to a rule based dispensation for economic integration (ibid, p.13). On the other hand, the finance and investment protocol facilitated coordination on investments and exchange controls, regional and foreign direct investments and cooperation in capital markets. Implementation of these protocols allowed the SADC region to achieve regional integration in a manner similar to the regional integration theory proposed by Ravenhill (2004).

3.1 Empirical Models

The study applied three dynamic panel models with lagged values of the dependent as explanatory variables to explain the impact of regional financial integration on financial development given varying levels of institutional quality and social capital across 14 SADC countries. The dynamic panel models follow work by Mougani (2014), Schularick and Steger (2006), and Klein and Olivei (2000) and Chinn and Ito (2006). The difference in the models was on the measures of regional financial integration adopted. Thus the empirical models were specified as follows:

Model 1: Trade protocol model

$$FD_{it} = \beta_0 + \beta_1 FD_{it-1} + \beta_2 GFI_{it} + \beta_3 IQSC_{it} + \beta_4 INFL_{it} + \beta_5 GDPC_{it} + \beta_6 TO_{it} + \beta_7 TRADEPRO_{it} + \varepsilon_{it} \qquad (1)$$

This model examined the impact of regional financial integration through the SADC protocol on trade. It assumed that regional financial integration was effectively achieved through establishment of a free trade area, through removal of tariffs and other barriers to trade for goods and services.

Model 2: Finance and investment protocol model

The second model examined the impact of regional financial integration through implementation finance and investment protocol. The model was specified as follows:

$$FD_{it} = \beta_0 + \beta_1 FD_{it-1} + \beta_2 GFI_{it} + \beta_3 IQSC_{it} + \beta_4 INFL_{it} + \beta_5 GDPC_{it} + \beta_6 TO_{it} + \beta_7 FINVPRO_{it} + \varepsilon_{it} \qquad (2)$$

Model 2 retained the same variables as model 1 except that the measure for regional financial integration changed from the trade protocol dummy to the finance and investment protocol dummy. The underlying assumption for model 2 was that regional financial integration was attained through harmonization of taxation,

exchange control, central bank and capital markets practices through the finance and investment protocol and not through the trade protocol. In essence, the finance and investment protocol was assumed to have achieved customs union level of financial integration in line with Ravenhill`s (2004) theory. For the finance and investment protocol, the pre-integration period was from 1996 to 2009 and the post-integration period was from 2010 to 2015.

Model 3: Combined trade and finance protocols

The third model analyzed the impact of regional financial integration through both the protocol on trade and the finance and investment protocol. Its specification is as follows:

$$FD_{it} = \beta_0 + \beta_1 FD_{it-1} + \beta_2 GFI_{it} + \beta_3 IQSC_{it} + \beta_4 INFL_{it} + \beta_5 GDPC_{it} + \beta_6 TO_{it} + \beta_7 TRADEPRO_{it} + \beta_8 FINVPRO_{it} + \varepsilon_{it} \tag{3}$$

The model also retained the same variables as defined in model 1 but had two dummy variables representing regional financial integration through the trade protocol and the finance and investment protocol. The underlying assumption for this model is that regional financial integration was attained through the trade protocol and enhanced through the finance and investment protocol. Therefore, the model attempted to show the combined effect of both protocols.

In the models, FD denotes the level of financial development, while i and t are subscripts for country and the time period respectively. The study used two indicators of financial development, focusing on size and efficiency of the banking sector. In line with Ndlovu (2013), King and Levine (1993), Hassan et al. (2011) the ratio of broad money (BM) was picked as the measure of size of financial markets. The ratio of private sector credit (PSC) was applied as the indicator of financial efficiency.

FD_{it-1} represents lagged values of financial development. Previous empirical studies, notably Mhadhbi (2014), Makina and Tsaurai (2017) have shown that current levels of financial development are dependent on their past levels. Taking this into account, it was prudent to include the immediate past level of financial development as an explanatory variable for its current level.

TRADEPRO represents the proxy for regional financial integration represented by a dummy variable taking the value of 1 for the post integration year and 0 for the pre-integration year. For the trade protocol, the pre-integration period was from 1996 to 2003 and the post-integration period was from 2004 to 2015.

GFI is the proxy for global financial integration represented by two sets of data namely, the ratio of FDI inflow stock to GDP (FDI) and the capital account (KAOPEN) openness index. The FDI inflow stock to GDP was used as a de facto indicator of global financial integration. The higher the FDI stock to GDP ratio the greater the level of financial integration. The KAOPEN was applied as a de jure measure to capture the intensity of capital controls. The index is based on the IMFs AREAER indicators of restrictions on the capital account of a country. The higher the index, the more open is the capital account of the country.

IQSC denotes the interaction variable of institutional quality and social capital. This variable measured the complementary effect of social capital on institutional quality in financial development. Institutional quality was based on three world governance indicators (WGI) indicators by Kaufmann et al. (2010). These include regulatory quality, rule of law, and control of corruption represent dimensions which have a direct impact on corporate governance. These indicators have been used as a measure of institutional quality in previous studies (see Kaasa, 2013; Law and Azman, 2012; Charron et al., 2010; Meon and Weill, 2005). Social capital was measured through the social variables of the WGI indicators namely voice and accountability, political stability and absence of violence, government effectiveness. Sabatini (2007), Putnam et al. (1993), Knack and Keefer (1997) agree that trust, civic involvement, civic norms, and levels of confidence in public institutions are major components of social capital. The WGI social dimensions captured perceptions of the extent to which a country`s citizens are able to participate in selecting their own government (civic involvement), quality of civil service, quality of government policy formulation and implementation, and perceptions of the public on peace and stability in a country (World Bank, 2015) .

The models also controlled for other variables which impact financial development. Colombage (2009), Yang and Yi (2008), Calderon and Liu (2003) note that GDP per capita is a major determinant of financial development, hence GDP per capita

(GDPC) was included as a control variable. The model also controlled for inflation (INFL) and trade openness (TO) as changes in the rate of inflation may promote or discourage investment in financial assets (Frey and Volz, 2011, p.15) and trade openness has been seen to be another determinant of financial development (Law , 2009, Chinn and Ito, 2006, Baltagi et al., 2009). Variables not captured in the model were represented through the error term ε.

3.2 Panel regression estimators applied

All the modeled equations were estimated using the fully modified ordinary least squares (FMOLS) in line with Stock and Watson (1994), Kao and Chiang (2000), Pedroni (2000) and Jawaid (2017). For robustness, results of FMOLS were also compared with the Arellano and Bover (1995)/ Blundell Bond (1998) generalized method of moments (GMM) estimator. The FMOLS approach involved three steps, panel unit root tests, cointegration tests and then estimation of the model using FMOLS. There are various methods to test for panel unit root. The methods used to test for panel unit roots in this study included the Levin, Liu and Chu (2002) test, IM, Pesaran and Shin (2003) test, Fisher –ADF test (Madala and Wu, 1999) and Fisher –PP test (Choi, 2003). These tests have been applied extensively in previous panel data studies (see Chindo and Rahim, 2017; Baltagi, 2008). In all the tests the null hypothesis assumed existence of unit root in the panel and rejection of the null implied stationarity of the data. The tests were carried out at both level and at first difference.

Having confirmed that the data were non-stationary at level but stationary after first difference, the next step involved determining the existence of a long run relationship through cointegration tests. Again, there are various methods of testing for panel cointegration, including Pedroni (1999) tests, Kao (1999) tests and the Johansen and Fisher (1999) panel tests. The Kao test is a residual based test which assumes a homogenous panel, while the Pedroni tests allow for estimation of cointegration at cross sectional level in a similar manner to the Johansen and Fisher tests. Therefore, the Pedroni test was used to test for cointegration as it allowed for heterogeneity in the panel whilst Kao tests which assume homogeneity in the panel were also applied for comparison. In both tests, the null hypothesis assumed that the variables were not cointegrated. Rejection of the null confirmed the existence of

cointegration amongst the variables. According to Pedroni (2000) in the presence of cointegration for macro panels, one can apply panel cointegration estimators. FMOLS requires that both the dependent and explanatory variables be integrated of order (1). Having confirmed that the variables were cointegrated, equation (1) could then be estimated using FMOLS. The FMOLS estimators are extremely consistent even in the presence of endogeneity and serial correlation (Phillip and Hansen, 1990). The Arellano and Bover (1995)/ Blundell Bond (1998) GMM estimator makes use of lags of the regressors as instruments. The GMM was selected on the basis of its ability to be applied in situations of endogeneity, when there are dynamic terms in estimation equations, and when there is heteroskedasticity and autocorrelation (Pedroni, 2000; Pesaran and Smith, 1995; Roodman, 2009).

4.0 Empirical Findings

Results of unit root tests showed all the variables had unit root at level, therefore the unit root tests were also conducted in first difference. The results of the unit root tests (Table 2) show all the variables stationary in first difference.

Table 2: Panel unit root tests at first difference with intercept and trend

Variable	Levin , Lin,Chu	IM Pesaran	Fisher-ADF	Fisher-PP
BM	-8.53289***	-8.39517***	118.430***	139.316***
PSC	-8.86256***	-10.2520***	151.646***	267.156***
IQSC	-6.70423***	-6.58529***	96.9856***	180.607***
FDI	-9.41429***	-10.5269***	158.756***	238.622***
KAOPEN	-16.9153***	-12.5455***	231.555***	162.400***
INFL	-52.1467***	-25.6350***	453.830***	338.181***
GDPC	-5.79011***	-7.31687***	103.488***	342.836***
TO	-9.59469***	-11.0069***	158.549***	245.575***

*/**/*** indicates significance at 1%/5%/10% respectively
Source: Author Computation

With all the variables stationary at first difference, the variables were taken to be integrated of order 1. This meant that the first requirement of panel cointegration regression had been satisfied. The next stage involved testing for cointegration amongst the variables. Findings of the Pedroni (1999 and 2004) and Kao (1999) tests are shown in Tables 3 and 4 below:

Table 3: Pedroni cointegration tests

	Series 1	Series2	Series 3	Series 4
Panel v	0.9432	1.1417	-0.4489	0.2369
Panel rho	1.5445	1.8268	2.4321	1.2411
Panel PP	-5.6324***	-6.3257***	-4.3297***	-6.0524***
Panel ADF	-5.4500***	-5.7807***	-4.0759***	-5.7789***
Panel v (W)	0.8074	0.3589	-1.2305	-1.1553
Panel rho (W)	1.6632	2.3239	2.7439	2.2864
Panel PP (W)	-6.1315***	-3.9471***	-4.6877***	-6.8374***
Panel ADF (W)	-6.0166***	-3.6770***	-3.7408***	-5.0444***
Group rho	2.6649	3.4788	4.1584	3.4350
Group PP	-7.8933***	-8.6186***	-5.4642***	-7.6347***
Group ADF	-7.2005***	-4.7685***	-3.3283***	-5.3873***
Series 1	BM LAGBM FDI IQSC INFL GDPC TO			
Series 2	BM LAGBM KAOPEN IQSC INFL GDPC TO			
Series 3	PSC LAGPSC FDI IQSC INFL GDPC TO			
Series 4	PSC LAGPSC KAOPEN IQSC INFL GDPC TO			

*/**/*** indicates significance at 1%/5%/10% respectively
Source: Author Computation

Table 4: Results of Kaopen cointegration tests

Series	ADF t statistic
BM BM_{t-1} FDI IQSC INFL GDPC TO TRADEPRO	-12.0264***
BM BM_{t-1} KAOPEN IQSC INFL GDPC TO TRADEPRO	-11.7923***
PSC PSC_{t-1} FDI IQSC INFL GDPC TO TRADEPRO	-12.5792***
PSC PSC_{t-1} KAOPEN IQSC INFL GDPC TO TRADEPRO	-12.7539***
BM BM_{t-1} FDI IQSC INFL GDPC TO FINVPRO	-12.1069***
BM BM_{t-1} KAOPEN IQSC INFL GDPC TO FINVPRO	-11.9080***
PSC PSC_{t-1} FDI IQSC INFL GDPC TO FINVPRO	-12.7613***
PSC PSC_{t-1} KAOPEN IQSC INFL GDPC TO FINVPRO	-13.0488***

*/**/*** indicates significance at 1%/5%/10% respectively
Source: Author Computation

The results of the Pedroni cointegration tests confirm the existence of a long run relationship between the model variables. Only five of the Pedroni statistics, especially the panel v and panel rho and group rho values accepted the no cointegration null. However, six of the eleven statistics generated by the Pedroni test, namely, the panel PP, Panel ADF, weighted panel PP, weighted panel ADF, group PP and group ADF strongly rejected the no cointegration hypothesis at the 1% level of significance respectively. The decision criteria of the Pedroni tests depend on whether the majority reject or accept the null hypothesis. In this case the majority of the generated statistical values reject the no cointegration null, therefore, it can be

concluded that there is presence of a long run relationship between financial development, regional financial integration and other explanatory variables such as institutional quality, social capital, inflation, trade openness and GDP per capita. All the Kao tests with variations in measures of financial development and protocols for regional integration rejected the null hypothesis of no cointegration at 1% level of significance. The results prove that in the long run there is a relationship between the selected variables. With the variables having been confirmed that they were integrated of order 1 and cointegrated, the requirements for panel cointegration regression had been met. Cointegration implied the presence of a long run relationship in the selected macroeconomic variables for SADC countries. Meaning the macroeconomic variables are expected follow the same long run path and will converge in the long run. To estimate the long run coefficients of the cointegrated variables, Chen et al. (1999) proposed the use of cointegrated panel regression estimations such as the fully modified ordinary least squares model (FMOLS).

4.1 Analysis and Presentation of Model Findings

Findings on the impact of the trade protocol are shown in table 5. The coefficients of the trade protocol dummy show a positive impact of regional integration on financial development. Under model 1, the findings show that the protocol on trade (TRADEPRO) had a positive effect on banking development in terms of both size and efficiency for both FMOLS and GMM regressions. Three of the four regressions under FMOLS turned out to be positive with two significant at 1% level of significance whilst for the GMM estimator, all the four regressions turned out to be positive but insignificant. This might imply that financial systems within the SADC region benefited from the removal of barriers to trade and lowering of tariffs amongst SADC countries. This could have possibly seen countries in the region having access to broader regional markets, low cost capital and improved competition levels within the region through foreign entry. Such changes could have attracted greater outside investment as investors could have been enticed by the possibility of having access to a bigger market in the form of a regional bloc. In turn, this could have led to increased capital flows to the region and enhanced financial deepening at the same time improved allocation of funds to the private sector.

Table 5: Model 1- Trade protocol impact on banking development

	FMOLS				GMM			
Dependent Var	BM	PSC	BM	PSC	BM	PSC	BM	PSC
Coeff: BM $_{t-1}$	0.4690*** (11.94)		0.5407*** (13.600)		0.8968*** (35.75)		0.8892*** (35.39)	
PSC $_{t-1}$		0.3122*** (9.6306)		0.4802*** (14.002)		0.8491*** (31.38)		0.8429*** (31.35)
FDI	-0.001 (-0.5475)	0.0476 (1.2677)			0.0207** (2.07)	0.023 (0.85)		
KAOPEN			-2.0311*** (-5.005)	0.8520 (1.1684)			-0.0011 (-0.06)	0.0383 (0.73)
IQSC	0.0083*** (3.5542)	0.02184*** (5.5990)	0.0043*** (2.2779)	0.0134*** (3.9740)	0.2501*** (5.12)	0.5057*** (4.84)	0.2282*** (4.64)	0.4589*** (4.00)
INFL	-0.064 (-0.1401)	-0.33175*** (-3.2648)	-0.14533*** (-3.4476)	-0.3278** (-2.5160)	-0.029** (-2.49)	-0.017 (-0.48)	-0.0318*** (-2.65)	-0.0094 (-0.26)
GDPC	0.4115*** (4.3573)	0.5459*** (5.9060)	0.2770*** (2.7225)	0.5644*** (5.5892)	-0.007 (-0.42)	-0.0343 (-0.64)	0.0078 (0.45)	-0.026 (-0.51)
TO	-0.0021 (-0.077)	0.0254 (0.3091)	0.0422 (1.3170)	0.1680 (1.5741)	-0.0634*** (-2.71)	-0.2765*** (-4.01)	-0.051** (-2.25)	-0.2883*** (-4.10)
TRADEPRO	2.5423*** (4.0775)	0.6600 (0.6470)	2.3781*** (4.4262)	-2.6982* (0.0812)	0.9958 (1.60)	0.4869 (0.26)	0.8400 (1.36)	0.5467 (0.30)
Observations	266	266	266	266	280	280	280	280

Source: Author compilation   *** , ** and * denote significance at 1, 5 and 10% levels

Results also show that the trade protocol could have led to financial development through an improvement in global financial integration for the examined period. When the ratio of fdi to gdp (FDI) is used as a comparative indicator of global financial integration, the effect on size and efficiency of financial institutions is largely positive. Two of the FDI coefficients were positive (0.0476 and 0.023) but insignificant for both broad money and private sector credit under both FMOLS and GMM whilst one was positive and significant at 5% and the fourth negative and insignificant. This might imply SADC attempts at increased integration through the trade protocol might have attracted more FDI from outside the SADC region as investors anticipated the benefits of a bigger regional market. Therefore, increased levels of regional integration had a positive corresponding effect on the depth of regional financial markets.

When FDI was replaced by the capital account openness (KAOPEN) index as a measure of global integration, the results were mixed for broad money and private sector credit. Whilst the KAOPEN coefficient was negative for broad money (-2.03); it became positive when private sector credit replaced broad money as the measure of financial development. This might be an indicator that improvement in capital account openness through the trade protocol might have had a negative effect on monetization levels of SADC regional financial systems, and reduced depth of financial systems. On the other hand greater capital account openness was observed to allow for more efficient allocation of resources through an increase in allocation of funds to the private sector. This is corroborated through the positive coefficients for the KAOPEN for private sector credit. Both the FMOLS and GMM outputs show that there is a positive impact of institutional quality and social capital on both private sector credit and broad money at 1% significance level. This implies countries in which the legal system upholds property rights and investor protection laws, where there is control on corruption levels and where the citizens of a country have confidence and trust in these legal systems, and where there is effective policy implementation by institutions, are more likely to attract greater capital flows from investment than countries which have weaknesses in all these aspects. Such countries are also likely to have more competitive and efficient financial systems than those without. The results justify the strong positive associations between institutional quality, social capital, private sector credit and broad money.

Table 6: Model 2: Finance & investment protocol impact on banking development

Dependent Var	FMOLS				GMM			
	BM	PSC	BM	PSC	BM	PSC	BM	PSC
Coeff: BM $_{t-1}$	0.5625*** (0.0000)		0.4932*** (0.0000)		0.9021*** (0.0000)		0.8934*** (0.0000)	
PSC $_{t-1}$		0.3799*** (0.0000)		0.4568*** (0.0000)		0.8511*** (0.0000)		0.8450*** (0.0000)
FDI	-0.0297 (0.1711)	-0.053 (0.2799)			-0.01964** (0.049)	0.0200 (0.466)		
KAOPEN			-0.6911 (0.1150)	0.1157* (0.072)			-0.0038 (0.834)	0.0410 (0.433)
IQSC	0.3429* (0.0559)	1.1331*** (0.0056)	0.1854 (0.2373)	0.9070*** (0.0063)	0.2145*** (0.0000)	0.5327*** (0.000)	0.2016*** (0.0000)	0.4879*** (0.0000)
INFL	-0.1569*** (0.0022)	-0.2680* (0.0797)	-0.3308*** (0.0000)	-0.5106*** (0.0001)	-0.03328*** (0.0005)	-0.01854 (0.600)	-0.0345*** (0.004)	-0.0110 (0.758)
GDPC	0.5881*** (0.0000)	0.3383*** (0.0083)	0.3941*** (0.0000)	0.2048** (0.0440)	0.01349 (0.453)	-0.0622 (0.248)	0.0260 (0.144)	-0.0577 (0.285)
TO	0.0305 (0.3489)	-0.1051 (0.3607)	0.0838** (0.028)	0.2136** (0.0414)	-0.0629*** (0.007)	-0.2543*** (0.0000)	-0.0509** (0.025)	-0.2676*** (0.0000)
FINVPRO	-0.6326 (0.5176)	3.0516 (0.1208)	-3.8132*** (0.0000)	-1.2189 (0.3807)	-0.6525 (0.274)	2.1425 (0.212)	-0.5569 (0.352)	2.3030 (0.177)
Observations	266	266	266	266	280	280	280	280

***, ** and * denote significance at 1, 5 and 10% levels

Source: Author compilation

Table 6 shows the findings when the finance and investment protocol replaced the trade protocol as the measure of regional integration. The results show the finance and investment protocol dummy (FINVPRO) had negative coefficients (-0.6326, -3.8131, -0.6525 and -0.5569) when broad money was used as the dependent for banking sector development. This indicates that the protocol had a negative impact on the level of monetization in the SADC region. However, the findings should be taken with caution as only one of the four negative FINVPRO coefficients were significant for broad money. On the other hand, the FINVPRO dummy coefficients for private sector credit were also largely positive suggesting an improvement in financial efficiency for the banking sector when the protocol was implemented. This might suggest that the banking sector benefited from sharing information and information technology as required by the investment protocol. This might have reduced information asymmetry and allowed banks to be more efficient in selecting investment projects to be funded.

De facto global financial integration indicators for SADC countries for the period covered by the protocol show a possible negative impact on broad money, implying that the protocol might not have had the desired impact in terms of increasing size of the financial sector through improved links with countries outside the region. The FDI coefficients with broad money as the dependent were negative for both FMOLS (-0.0297) and GMM (- 0.019) with the latter coefficient significant at 5%. The de facto global integration FDI coefficients for private sector credit had contrasting results with FMOLS showing a negative but insignificant impact and GMM showing a positive yet again insignificant impact. The insignificance of the coefficients could be an indicator that regional financial integration through the finance and investment protocol did not significantly improve the SADC region`s links with countries outside the region and in turn failed to significantly impact private sector credit allocation, and as a result did not have any effect on efficiency of the regional banking sector. When the de jure measure of global integration (KAOPEN) was applied, a unit increase in capital account openness for the region would lead to a decrease in broad money by 0.6911under the FMOLS method and 0.0038 for the GMM estimation. The findings are again corroborated by the FINVPRO dummy which shows the negative effect of the protocol on broad money for both estimation methods. When broad money was replaced by private sector credit, the KAOPEN

coefficient turned out positive (0.1157) and significant at 10% under the FMOLS method and again positive (0.0410) yet insignificant under the GMM method.

The results also show that a combination of institutional quality and social capital contributes significantly to financial development. A unit increase in the institutional quality and social capital variable is observed to lead to increases of 0.3429 and 0.1854 in broad money under the FMOLS method, with the former coefficient significant at 10% level. On the other hand, at 1% level of significance, a unit increase in institutional quality and social capital is also observed to lead to a 1.13 and 0.90 change in private sector credit under the FMOLS method, proving the existence of a strong relationship between institutional quality, social capital and the lending activities of banks. GMM estimations produce the same results for both broad money and private sector credit with all the four coefficients significant at 1%. The results again emphasize the importance of institutional quality and social capital in the financial development process. Given that financial market participants consider all these factors before engaging before investing in any products, social capital becomes an important determinant of financial development. Therefore, from the findings, it can be said that institutional quality should not be looked at independent of the level of social capital because elements of social capital have a significant impact on financial development. Previous studies (see Chinn and Ito, 2006; Beji, 2007; Law and Azman-Saini, 2012) have emphasized on the importance of institutional quality alone in the financial development process. . The rate of inflation was observed to have a negative impact on both broad money and private sector credit for both estimation methods. The inflation coefficients were all negative and largely significant at 1% level. This means implies that inflation reduces the size and efficiency of financial markets. The findings agree with findings from model 1, which also showed a negative relationship between the rate of inflation and financial development.

Table 7: Model 3 – Impact of both trade and finance protocols - Banking development

Dependent Var	FMOLS				GMM			
	BM	PSC	BM	PSC	BM	PSC	BM	PSC
Coeff: BM $_{t-1}$	0.4601*** (0.0000)		0.4823*** (0.000)		0.8991*** (0.000)		0.8904*** (0.000)	
PSC $_{t-1}$		0.2835*** (0.000)		0.4387*** (0.000)		0.8510*** (0.000)		0.8448*** (0.000)
FDI	-0.052** (0.0102)	-0.004 (0.9134)			0.0222** (0.027)	0.0199 (0.477)		
KAOPEN			-0.1203*** (0.0037)	0.5512 (0.3887)			-0.0031 (0.865)	0.0410 (0.434)
IQSC	0.6011** (0.0146)	2.024*** (0.000)	0.3705* (0.0536)	1.4650*** (0.0000)	0.2356*** (0.000)	0.5341*** (0.000)	0.2161*** (0.000)	0.4901*** (0.000)
INFL	-1.4906*** (0.0010)	-1.7714 (0.1349)	-0.2797*** (0.0000)	-0.3634** (0.0126)	-0.0297** (0.013)	-0.018 (0.609)	-0.031*** (0.008)	-0.104 (0.771)
GDPC	0.3370*** (0.0005)	-0.0010 (0.9946)	0.3479*** (0.0006)	0.1699 (0.1609)	0.0008 (0.965)	-0.0631 (0.284)	0.016 (0.381)	-0.0596 (0.307)
TO	0.043 (0.1303)	-0.076 (0.3867)	0.083** (0.012)	0.1597 (0.1301)	-0.065*** (0.005)	-0.2547*** (0.000)	-0.0514** (0.024)	-0.2685*** (0.000)
TRADEPRO	1.911*** (0.0027)	3.8866*** (0.0004)	2.1233*** (0.0001)	0.1128 (0.9404)	1.175* (0.065)	0.04781 (0.980)	0.9748 (0.121)	0.1194 (0.949)
FINVPRO	-0.099 (0.9060)	7.244*** (0.000)	-2.9404*** (0.0001)	0.7769 (0.5764)	-0.8771 (0.149)	2.1381 (0.222)	-0.7302 (0.229)	2.2861 (0.188)
Observations	266	266	266	266	280	280	280	280

***, ** and * denote significance at 1, 5 and 10% levels

Source: Author compilation

Table 7 shows the findings for model 3 which incorporates both the trade and finance protocols. The findings show regional integration through the trade protocol had a positive and strongly significant impact on broad money and private sector credit for the FMOLS estimator. The same positive impact of the trade protocol dummy was detected on the GMM estimator although with less significant coefficients. Implementation of the protocol on trade allowed the SADC region to achieve a semblance of a free trade area allowing for free movement of between regional countries thus attracting investment through a broader regional market. Removal or lowering of trade tariffs also enabled some firms within the region to have chances of greater profitability through access lower cost intermediate and capital goods, which might in turn have encouraged financial institutions to allocate more funds to these firms. The FINVPRO dummy again showed a negative impact on broad money and a positive impact on private sector credit.

In terms of global impact, Model 3 findings showed that for the de facto form of global integration, an increase in the level of integration had a negative impact on the levels of broad money and private sector credit in the long run under the FMOLS method. For the same measure of global integration, an increase in the level of global integration was observed to have a positive impact on broad money and private sector credit for the GMM method. The contrast in findings for the methods again confirms the sensitivity of the de facto measure of integration to the estimation method. When the de facto form of global integration was replaced by the KAOPEN measure, a unit increase in capital account openness was seen to have a negative and significant impact of 0.1203 on broad money and a positive but insignificant effect of 0.5512 on private sector credit under the FMOLS method. Similar results were obtained under the GMM method though the GMM coefficients were much smaller than the FMOLS coefficients. The findings appear to confirm that greater capital account openness has a negative impact on the level of monetization of SADC countries. This confirms earlier findings that greater capital account openness leads to capital flight from the less developed countries out of fear of negative government policies or to escape government controls (Epstein, 2017).

5.0 Conclusion and Recommendations

The study concluded that regional integration through the trade protocol had a positive and significant impact on size and efficiency of the banking sector using the FMOLS estimator. This was corroborated through the positive and significant trade protocol dummy coefficients under the FMOLS estimator. GMM estimations for the same variables were largely insignificant. In terms of the finance and investment protocol, the study concludes that the protocol had a negative impact on the size of the banking sector and a positive impact on efficiency of the sector. The study showed a weak and negative relationship between broad money and implementation of the finance protocol. The study also showed a positive and significant impact of the finance protocol on efficiency of the banking sector through private sector credit for both FMOLS and GMM. The study also concludes that implementation of the trade protocol could have led to an improvement in the level of global integration for SADC countries. Using the de facto measure of global financial integration, study findings showed a positive relationship between regional FDI and broad money for the time period when the SADC region adopted the protocol. In contrast to these findings, the de jure measure of global financial integration reflected a negative relationship with broad money. This can be explained by the fact that de jure measures of integration do not measure actual capital flows but are mainly focused on restrictions placed on the flows of capital.

Therefore, the change in capital flows after implementation of the protocol might not have been immediately detected in the de jure measures. In contrast to the trade protocol, the finance and investment protocol may not have improved the level of global financial integration for SADC countries. Empirical findings on the finance protocol showed negative yet insignificant impacts for both de jure and de facto measures of global integration applied under the period covered by the protocol. However, findings on the impact of the protocol on efficiency were largely positive though again insignificant for both fdi and the Kaopen measures. This could be due to the fact that the finance and investment protocol has been implemented for a shorter time period than the trade protocol. The interaction of Institutional quality and social capital was also observed to have a strong and significant relationship with the banking sector. From this it can be concluded that institutional quality and social

capital complement each other in financial development. . Findings from the study show that the trade and finance and investment protocols have yielded some positive gain in terms of financial development. The results also show that such positive gains are insignificant, implying that the effect of the protocol has not been robust enough. One of the reasons for the failure of the protocols to bring about much change in terms of investment attraction is that they are more of inward looking policies, which are meant to enhance trade and make it easier to move capital amongst regional countries. However, the SADC region is made up of countries with low per capita income, and small populations therefore the markets are smaller as compared to other regional blocks like the EU. In such a case promotion of intra-regional trade or intra-regional investment will not result in significant gains. Therefore regional integration policies should rather be outward looking to promote integration between the SADC region and the outside world, which brings about the possibility of greater investment from a bigger global market.

References

AFMI (African financial Markets Initiative). 2014. *Southern Africa Overview*. Available at: www.africanbondmarkets.org/en/country-profiles/southern-africa/ [accessed 12 November 2014].

Alesina, A. Grilli, V. and Milesi-Ferretti, G. M. 1993. The political economy of capital controls. Working Paper No. 4353, National Bureau of Economic Research.

Arellano, M. and Bover, O. 1995. Another Look at the Instrumental Variable Estimation of Error-Component Models. *Journal of Econometrics*, Vol 68: 29-52.

Baltagi, B.H. 2008. *Econometric analysis of panel data.* 4th Edition. West Sussex: John Wiley and Sons, Ltd.

Baltagi, B.H, Demetriades, P. and Law, S.H. 2009. Financial development and openness: panel data evidence. *Journal of Development Economics,* Vol. 89(2): 285-296

Beji, S. 2007. Institutions and economic development: Financial openness and financial development in the South Mediterranean sea countries. Institutional Approach and calculation of development thresholds. ERF Annual conference.

Bekaert, G., Harvey, C. R. and Lundblad, C. 2001. Does financial liberalization spur growth? National Bureau of Economic Research, Working Paper No. 8245.

Benmelech, E. and Moskowitz, T.J. 2008. The political economy of financial regulation: Evidence from the U.S States Usury Laws in the 19th century. *The Journal of Finance,* Vol. LXV (3): 1029-1073.

Blundell. R. and Bond, S. 1998. Initial conditions and moment restrictions in dynamic panel data models. *University College London Discussion Papers in Economics,* Vol. 97(7).

Calderon, C. and Liu, L. 2003. The direction of causality between financial development and economic growth. *Journal of Development Economics, Vol. 72: 321-334.*

Charron N., Lapuente, V. and Rothstein, B. 2010. Measuring quality of government and sub-national variation. Report for the European Commission of Regional Development. European Commission Directorate-General Regional Policy Directorate Policy Development, Brussels.

Chen, B., McCoskey, S. and Kao, C. 1999. Estimation and Inference of a Cointegrated Regression in Panel Data: A Monte Carlo Study. *American Journal of Mathematical and Management Sciences,* Vol. 19: 75-114.

Chindo, S.and Rahim, A.S. 2017. Air pollution and Life expectancy in G7 countries: An application of panel dynamic ordinary least squares (DOLS) approach. Kuala Lumpur International Communication, Education, Language and Social Sciences Conference.

Chinn, M. D. and Ito, H. 2006. What matters for financial development? Capital controls, institutions, and interactions. *Journal of Development Economics,* Vol. 81 (1): 163-192.

Choi, I. 2003. Unit root tests for panel data. *Journal of International Money and Finance,* Vol. 20:249-272.

Colombage, S.R.N. 2009. Financial markets and economic performances: Empirical evidence from five industrialized economies. *Journal of Development Economics,* Vol. 51(2): 387-411.

David, A. C., Mlachila, M. and Moheeput, A. 2014. Does openness matter for financial development in Africa'*? International Monetary Fund Working paper 14/94.*

Delechat, C., Ramirez, G., Wagh, S. and Wakeman-Linn, J. 2009. How global financial markets affect Sub-Saharan Africa. *IMF Staff Papers*, Vol. 57(1): 172-208.

Edison, H., Klein, M., Ricci, L., and Sløk, T. 2002a. Capital account liberalization and economic performance: A review of the literature. *IMF Working Paper* 02/120.

Edison, H.J., Levine, R., Slok, T. and Ricci, L.A. 2002b. International financial integration and economic growth. *IMF Working paper WP/02/145 (9164)*

Edwards, S. 2001. Capital mobility and economic performance: Are emerging economies different? *Working Paper No. 8076, National Bureau of Economic Research.*

Epstein, G. 2017. *Capital flight and capital controls in developing countries*. Available at: http://www.peri.umass.edu/fileadmin/pdf/chapter_1.pdf [accessed 05 December 2017].

Finmark Trust. 2013. *Presentation on Financial integration: Making financial markets work for the poor. SADC.* Trade and Services Forum Presentation.

Fischer, S. 1998. Capital account liberalization and the role of the IMF, in "should the IMF pursue capital-account convertibility?," *Essays in International Finance, Department of Economics*, Princeton University, Vol. 207: 1–10.

Frey, L. and Volz, U. 2011. Regional financial integration in sub-Saharan Africa: An empirical examination of its effects on financial market development. *Proceedings of the German Development Economics Conference, Berlin 29.*

Garcia-Herrero, A. and Wooldridge, P. 2007. Global and regional financial integration: Progress in emerging markets', *BIS Quarterly Review.*

Gehrig, T. 1998. Cities and the geography of financial centres. *CEPR Discussion Papers, No. 1894.*

Gehringer, A. 2013. Financial liberalization, financial development and productivity growth - an overview'. *Economics Discussion Papers No. 2013-46, Kiel Institute for the World Economy.*

Grilli, V. and Milesi-Ferretti, G.M. 1995. Economic effects and structural determinants of capital controls. *Staff Papers, International Monetary Fund*, Vol. 42: 517-551.

Guiso, L., Sapienza, P. and Zingales, L. 2004. The role of social capital in financial development. *The American Economic Review*, Vol. 94(3): 526-556.

Hartzenburg, T. 2012. Regional Economic Integration. Economic Integration Matters for the SADC. *SADC Think Tank Conference on Regional Integration.*

Hassan, M.K., Sanchez, B. and Yu, J.S., 2011. Financial development and economic growth: New evidence from panel data: *The Quarterly Review of Economics and Finance*, Vol. 51: 88–104.

Hurrell, A. 2007. One world? Many worlds? The place of regions in the study of international society'. *International Affairs, Vol. 83(1): 127-146.*

IADB (Inter-American Development Bank). 2015. Economic and social progress in Latin America in *IADB Beyond Borders The New Regionalism in Latin America*. Johns Hopkins University Press

Jawaid, T. 2017. Democracy and international financial integration in Pakistan. *Indian Growth and Development Review ,* Vol. 10(1):16-31.

Kaasa, A. 2013. Governance in the European Union and neighbouring countries. *SEARCH Working Paper wp5/13.*

Kao, C. 1999. Spurious regression and residual –based tests for cointegration in panel data. *Journal of Econometrics*, Vol. 90:1-44

Kao, C. and Chiang, M.H. 2000. On the estimation and inference of a cointegrated regression in panel data', in Baltagi B. H. (ed.), *Advances in Econometrics: nonstationary panels, panel cointegration and dynamic panels*, Vol. 15: 179–222.

Kaufmann, D. Kraay, A. and Mastruzzi, M. 2010. The worldwide governance indicators, methodology and analytical issues. *World Bank Policy Research working paper No. WPS 5430.*

King, R.G. and Levine. R. 1993. Finance and Growth: Schumpeter Might Be right. *Quarterly Journal of Economics*, Vol. 108(3): 717-737.

Klein, M. and Olivei, G. 2000. Capital account liberalization, financial depth, and economic growth. Federal Reserve Bank of Boston Working paper 99(6).

Knack, S. and Keefer, P. 1997. Does social capital have an economic payoff? A cross country investigation. *The Quarterly Journal of Economics, Vol. 112(4): 1251-1288.*

KPMG. 2013. African capital markets series. Africa in a changing global environment.   https://assets.kpmg.com/content/dam/kpmg/za/pdf/2017/03/foreign-direct-investment.pdf. [Accessed 23 September 2016]

Kucerova, I. 2006. Novy regionalismus versus geograficky regionalismus. Praha: In Sbornik Matfy Press: 67-89

Mhadhbi, K. 2014. Financial development and economic growth: A dynamic panel data analysis. *Science and Education Publishing*, Vol. 2.

La Porta, R., Florencio, L.S., Shleifer, A. and Vishny, R.W., 1996. Law and Finance. National Bureau of Economic Research working paper 5661.

La Porta, R., Florencio, L.S., Shleifer, A. and Vishny, R.W. 2000. Investor protection and corporate governance. *Journal of Financial Economics,* Vol. 58(1-2):3-27*.*

Law, S.H. 2009. Trade openness, capital flows and financial development in developing countries. *International Economics Journal,* Vol. 23(3): 409-426.

Law, S.H. and Azman-Saini, W.N.W. 2012. 'Institutional quality, governance and financial development. *Economics of Governance,* Vol. 13: 217-236.

Levin, A., Lin, C.F., and Chu, C.S.J. 2002. Unit root tests in panel data: Asymptotic and finite sample properties. *Journal of Econometrics*, Vol. 108:1-24.

Levine, R. 1997. Financial development and economic growth: Views and agenda. *Journal of Economic Literature, Vol. 35: 688-726.*

Madala, G.S. and Wu, S. 1999. A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*, Special issue: 631-652.

Mahajan, N. and Vermar, S. 2015. International financial integration and economic growth in India: An empirical investigation, *Eurasian Journal of Business and Economics, Vol.* 8(16): 121-137.

Mahawiya, S. 2015. Financial sector development, institutions and economic growth: A comparative study of Southern Africa Development Community and Economic Community of West Africa States. *Economic Research Southern Africa Working Paper 528.*

Makina, D. and Tsaurai, K. 2017. The impact of financial sector development on foreign direct investment in emerging markets. University of South Africa repository.

Marszk, A. 2014. Economic integration and foreign direct investment: Review of main theoretical concepts. *Entrepreneurial Business and Economics Review*, Vol. 2(3).

Martin, P. 2010. Regional and global financial integration. An analytical framework. *Presentation at Asian Development Bank Global and Regional Financial Markets Project Workshop.*

Meon, P. and Weill, L. 2005. Does better governance foster efficiency? An aggregate frontier analysis. *Economics of Governance Vol. 6(1):75-90.*

Mishkin, F.S. 2007a. Is financial globalization beneficial? *Journal of Money, Credit, and Banking,* Vol. 39(2-3): 259–294.

Mishkin, F.S. 2007b. Globalization and financial development. *IMF New Perspectives on Financial Globalization Conference.*

Mougani, G. 2006. Intégration financière Internationale, incidences macro-économiques et volatilité des flux de capitaux extérieurs: une analyse empirique

dans le cas des pays de la CEMAC, *Document de recherche* no 7, Université d'Orléans.

Mougani, G. 2014. An analysis of the impact of financial integration on economic activity and macroeconomic volatility in Africa within the financial globalization concept. *African Development Bank Group Working Series No 144.*

Ndlovu, G. 2013. Financial sector development and economic growth: Evidence from Zimbabwe. *International Journal of Economics and Finance.* Vol. 3(2): 435-446.

O'Donnell, B. 2001. Financial Openness and Economic Performance. Dublin, Ireland, Trinity College.

OECD. (Organization for Economic Co-operation and Development) 2005. Handbook on Economic Globalization Indicators.

OECD. 2015. Multidimensional Poverty. OECD Post 2015 Reflections Element 1, Paper 1. Available at: www.oecd/org/dat/post-2015/20multidimensional%poverty.pdf [accessed 5 August 2015].

Pedroni, P. 1999. Critical values for cointegration tests in heterogenous panels with multiple regressors. *Oxford Bulletin of Economics and Statistics*, Vol. 61: 653-678.

Pedroni, P. 2000. Fully modified OLS for heterogeneous cointegrated panels. In B. H. Baltagi (Ed*.), Nonstationary panels, cointegration in panels and dynamic panels*. Amsterdam: Elsevier.

Pedroni, P. 2004. Panel Cointegration: Asymptotic and finite sample properties of pooled time series data with an application to the PPP hypothesis. *Econometric theory*, Vol. 20: 597-625.

Perotti, E. and Haber, S. 2008. The political economy of finance. Tinbergen Institute Discussion Paper. Amsterdam, NL: Tinbergen Institute.

Pesaran, M.H. and Shin, Y. 2003. Testing for Unit Roots in Heterogeneous Panels. Journal of *Econometrics*, Vol 115: 53-74.

Pesaran, M.H. and Smith, R. 1995. Estimating long-run relationships from dynamic heterogeneous panels. *Journal of Econometrics*, Vol. 68(1): 79-113.

Phillips, P.C.B. and Hansen, L.P. 1990. Statistical inference in instrumental variables regressions with I (1) processes. *Review of economic studies*, Vol. 57: 99-125.

Putnam, R., Leonardi, R. and Nanetti, R.Y. 1993. *Making democracy work. Civic traditions in modern Italy.* Princeton, New Jersey: Princeton University Press.

Quinn, D. 1997. The Correlates of Change in International Financial Regulation. *American Political Science Review, Vol. 91: 531-51.*

Quinn, D.P. and Toyoda, A.M. 2008. Does capital account liberalization lead to growth, Review *of Financial Studies, Vol. 21: 1403-1449.*

Ravenhill, J. 2004. Regional trade agreements in Ravenhill, J. *Global Political Economy.* Oxford: Oxford University Press.

Rodrik, D. 1998. Who Needs Capital-Account Convertibility*? Essays in International Finance, Vol. 207 (Princeton: Princeton University).*

Rodrik, D. 2008. The real exchange rate and growth: Comments and discussion'. *Brooking Papers on Economic Activity, Vol. 2: 365–412.*

Roodman, D. 2009. How to do xtabond2: An introduction to difference and system GMM in stata. *The Stata Journal, Vol.* 9(1): 86-136.

Sabatini, F. 2007. The Empirics of Social Capital and Economic Development .A critical Perspective in Osborne, M., Sankey, K. E., Wilson, B. *Social Capital, Lifelong Learning Regions and the Management of Place: An international perspective.* Oxfordshire: Routledge Publishers.

SADC Southern African Development Committee. 2015. http://www.sadc.int/about-sadc/overview/sa-protocols/ [accessed 05 April 2015].

Schularick, M. and Steger, T.M. 2006. Does financial integration spur economic growth? New evidence from the first era of financial globalization. *CESifo Working Paper No. 1691.*

Sedik, T.S. and Sun, T. 2012. Effects of capital flow liberalization. What is the evidence from recent experiences of emerging market economies? IMF working paper wp/12/275.

Smith, D., Ketley, R. and Chaponda, T. 2014. Study on the liberalization of the capital and financial account of Malawi. Finmark Trust.

Stock, J.H. and Watson, M.W. 1994. A simple estimator of cointegrating vectors in higher order integrated systems. *Econometrica,* Vol. 61(4): 783-820.

Summers, L.H. 2000. International Financial Crises: Causes, Prevention, and Cures. *American Economic Review*, Vol. *90(*2): 1–16.

Thompson, G. 2007. Globalization versus regionalism. *The Journal of North African Studies Vol. 3(2): 59-74.*

Todaro, M.P. and Smith, W.C. 2003*. Economic development.* 6th edition. Boston: Addison Wesley.

Wakeman-Linn, J. and Wagh, S. 2008. Regional financial integration: Its potential contribution to financial sector growth. *Presentation at the International Monetary Fund. African Finance for the 21st Century Seminar*.

WDI World development indicators. 2015. Washington, D.C.: The World Bank.

Wilding, P. 1997. Globalization, regionalism and social policy*. Social Policy Administration,* Vol. 31(4): 410-428.

World Bank. 2015.World Governance Indicators. Washington, D.C: The World Bank.

Yang, Y.Y.,and Yi, M.H. 2008. Does financial development cause economic growth? Implication for policy in Korea. *Journal of Policy Modelling* . Vol 30 (5) : 827-840.

Zenasni, S. 2015. Recent Trends in Regional Financial Integration and Trade Liberalization in Maghreb Countries: A Multivariate Threshold Autoregressive Analysis. *FIW working paper series 145*