INVESTIGATING FINANCE-NON-RESSOURCES ECONOMIC GROWTH NEXUS; EVIDENCE FROM OMAN(1972-2012)

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Abstract

This paper aims to investigate the type of relationship between financial development indicators and non-resources based economic growth in the case of sultanate Oman by using annual data 1971-2012 retrieved from international financial statistics (IFS) of the International Monetary Fund (IMF) and the world Bank development indicators (WB), This study employs the Johansen and Juselius Cointegration test and Vector Error Correction Model (VECM) to reveal the long-run and short-run causality between the financial development and non-resources economic growth. The results show that there is a long-run causality from the non-resources Gross Domestic Product (GDP) to all the financial development selected indicators, the short-run deviations are corrected to the long-run equilibrium within one quarter. In the other side, it seems that in the case of Omani economy, the impact of financial development on the non-resources GDP is limited to run only in the short term. This study provides the policy makers in sultanate Oman with the appropriate evidences to redesign their policies in fostering the non-resources sector.

Keywords: Finance-Growth nexus, Granger causality, Cointegration, VECM, Oman

Introduction

There are several hypothesis tried to provide a realistic analysis in explaining the relationship between the financial intermediation development and economic growth in the long run. In this section we will try to discuss

the existing literatures. We can summaries the different opinion in four main categories; the first group of economist believes that the financial and banking deepening is considered to lead the development in the real sector realized in the economic growth in the long-run, this hypothesis is called *Leading-supply hypothesis*. The second group argued that the developments in the real sector is the main motivator to push the financial and banking institutions to improve their banking and financial services and provide the appropriate package of financial and banking product to fulfill the real sector requirements, this was known as *Following-demand hypothesis*. In the other side, there is a range of economist who suggested that the relationship between the financial sector and economic growth is bi-directional, which means the existence of double side causality. The extremist opinion was represented in the fourth category, academicians who believe that the financial development has no impact on the economic growth; in contrast it could harm the development in the real sector in some circumstances. (HerveHannoun, 2008).

According to the IMF report about the Omani Banking Sector resilience, the Omani financial system is dominated by banking intermediation. Banks' assets represent around 93% of the total assets of Omani financial system. The local banks dominate the banking sector. The foreign banks represent less than 15% of total banking system assets. A significant share of the banking system is state-owned.

Regarding depth and concentration benchmarks, the banking system in Oman is representing high level of concentration and lack of depth in comparison with the other financial system in GCC countries three banks in the Omani banking system represent around 65% in total assets and deposits. (Pologna and Prasad, 2009)

The liquidity in the Omani banking system is quite adequate, for example, assets that are readily marketable are estimated to be 67% of short-term funding and demand liabilities. The structural liquidity support provided by the government and public enterprises deposits might results in an inefficient allocation of liquidity within the system at an aggregate level. Bank may not have adequate incentives to monitor and fund their liquidity needs effectively.

The main vulnerability in the banking system is credit risk, the total credit-GDP ratio was 40.2%, not substantially different from those observed in previous years, and substantially lower than several other GCC countries. The level of household indebtedness has grown more than level of disposal income; the ratio of household debt to disposable income has grown from 78% in 2004 to 137% in 2008. The level of personal loans granted by banking system has increased from 1.3 billion rials in 2003 to 3.9 billion

rials in 2009. Most of such exposure is collateralized by the pre-assignment of salaries.(Pologna and Prasad, 2009)

The reminder of this paper is organized as follow; Section II makes a review of the existing literatures that explains the causal relation between economic growth and financial development indicators. Section III discusses data and methodology used to investigate the causal relation in the case of Oman. Section IV covers the main results and finding. Section V concludes with policy implications.

Literature Review

In this section we will try to discuss the existing literatures. We can summaries the different opinion in four main categories; the first group of economist believes that the financial and banking deepening is considered to lead the development in the real sector realized in the economic growth in the long-run, this hypothesis is called *Leading-supply hypothesis*. The second group argued that the developments in the real sector is the main motivator to push the financial and banking institutions to improve their banking and financial services and provide the appropriate package of financial and banking product to fulfill the real sector requirements, this was known as *Following-demand hypothesis*. In the other side, there is a range of economist who suggested that the relationship between the financial sector and economic growth is bi-directional, which means the existence of double side causality. The extremist opinion was represented in the fourth category, academicians who believe that the financial development has no impact on the economic growth; in contrast it could harm the development in the real sector in some circumstances. (HerveHannoun, 2008)

Supply-Leading Hypothesis

Is called also the external financial development (Franklin, Santomero, 2001,2008), it explained the phenomena where the existence of financial institutions and supply of financial assets and financial products related to it were setup before requested by the real sector, which means that financial development leads the economic growth, this hypothesis is widely accepted by economist, the main idea is that the well developed financial sector will provides a crucial functions through reducing information and transaction costs (Allen .F .Gale D, 1997), there are a lot of literatures that explained how could the well developed financial intermediation to reduce these costs and increasing saving, investment decisions and the technological innovation and as consequence the economic growth. (Levine, 1997) suggested that in order to well understand the finance-growth nexus, a functional approach should be considered, this approach focuses on the linkage between the key functions provided by the financial system and the

economic growth. The other approaches in explaining the finance-growth nexus focused more on the monetary aspects of the financial and banking system, in their contributions, (John Gurley, 1955) (James Tobin, 1965), (Renald McKinnon, 1973) they focused in their mathematical as well as the theoretical explanation on money, this narrow focusing on money could limit the understanding the finance-growth nexus.

Innovative Power of Credit

There is no doubt that the first contribution in this area belong to *Schumpeter,* he considered that financial services is in origin of the economic growth (Hendrik Hakenes, 2004), according to *Schumpeter*, the production process needs credits, so the main idea is that you cannot be an entrepreneur without being debtor for a while. From the *Schumpeter's* point of view, the entrepreneur couldn't realize his project without securing the required funding to materialize his technology in the new project (Schumpeter, Joseph, 1934). He considered that the main role of banks is to create money for the innovative entrepreneurs; because the innovation came by individuals they don't have means of productions, he mentioned that if the existing companies will materialize the new innovation, there will be no role for banks, but when the innovation came basically from individuals they don't have means of production, the money bank will be the tool through which the banks could control the means of production by take it away from the existing companies and provide it to the new entrepreneurs to achieve their innovative projects(Giancarlo Bertocco,2008) . With the absence of the money created by banks there will be no space for the new entrepreneurs to achieve their project because the new innovation will be financed by the effective saving but by using the expected saving[1]. (Laurence, 1999) Because the existing companies they would continue using resources in the traditional production process, and there is not reason for them to allocate the resources for the new entrepreneurs who would to change the existing production equilibrium. Many economists in Europe were convinced by this point of view which leads to arise many theories that give the leading role to the banking and financial system.

(Tobin, 1965) for example support the non-neutrality of money from the economic activity, he argued that the increase in money supply will decrease the cost of funding which will affect positively the accelerator effect. (Fisher, 1997) see that the relationship between financial and economic development exists only in the long term, he argued that the spread of banking practices has a positive impact on money and current deposits velocity that has a positive impact on economic activity. (Ibrahim Omar,

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[1]For more in this role see (David R, 2008)

2007). However, the more modern approaches that explained the impact of monetary variables on real sector is running through bank credit channel or so called banks' balance sheets (Bernanke, 1995,2008)

Financial intermediation Functions for the economic Growth

In his attempting to organize the literature related to Finance-Growth nexus, (Levine, 2004) distinguished five main functions of financial intermediation which each one has an impact on economic growth in the long-run:
- Facilitating trade, Hedge and risk diversification.
- Allocation of resources
- Monitoring managers and establishing corporate governance.
- Collect saving
- Facilitating exchanging goods and services

He demonstrated the existence of two main channels where each function of the previous could affect the economic growth; capital accumulation and technological innovation. Regarding the first channel, banks and financial institutions could maximize capital accumulation by increasing saving and allocating saving to the productive projects. Regarding the second channel, technological innovation that was a focus subject by the second generation of economic growth models, the financial and banking intermediation could contribute by providing funds to these projects. The incentive growth models focus on high-tech, they didn't consider the innovation as public good could be provided free of charge, scientific knowledge is not subject of diminishing returns law because the returns from high=tech will not decrease by increasing its accumulation.
   a) *Liquidity and economic Growth:*
   b) *Risk management and Economic Growth*
   c) *Information production and Economic Growth*
   d) *Delegate Monitoring and Economic Growth*
   e) *Collect saving and Economic Growth*
   f) *Transaction cost and Economic Growth*

Demand-Following Hypothesis

Is called also the internal financial development, is referring to the phenomena where the existence of financial institutions and supply of financial and banking services as response of demand by investors and savers, then the financial development is part of the economic development in other word the developments in financial and banking institutions id following the economic development. The pro economist for this theory believes that financial development is a positive function in the real wealth. (Khalid Al-Qadir, 2004). (Robinson, 1952) has stated this hypothesis is one

sentence: ' *when the projects lead, finance follow'.* He considered that finance and banks appear only as a response of economic agents internal demand.

Growth affect risk management and information production functions

An increase in economic growth rates, will push economic agents to ask for more intermediaries financial services, especially those services related to information production function in order to bridge the asymmetric information. Knowing that during economic upturns, the *Adverse Selection* risk rises, the entrepreneurs will be more risky during economic upturns, during these periods, banks and financial institutions increase their efforts to collect information in order to be able to distinguish among the good and bad debtors. In the other side, during the economic slowdown, *Moral Hazard risk* increases and adverse selection decreases. That will change the structure of information production for the banking and financial intermediaries, they will double their efforts in the delegated monitoring[2] in order to follow the agreed funded projects[3]. The main idea here is that the function of producing and collecting information of the banking and financial intermediaries is following the status of the economic activity in the real sector. The other argument is that the initial wealth of the debtors and the guarantees that they could provide it will contribute in decreasing asymmetric information effects in the banking credit market, which will save a lot of banking and financial costs related to information production. (Marc Hay, 2004)

What growth is providing for banking and financial intermediation

There is no doubt that the banking and financial system is affected by the changes occurring the real sector, changes in communication, computers, non-financial sector policies and the economic growth affect the financial and banking services as well as the financial structure. For example the changes in high-tech work to decrease the transaction cost and facilitate financial arrangements. (Merton, 1992). In the other side, the economic growth affects the investors and savers willingness to pay the participation cost in the financial and banking system. (Greenwood, Jovanovic, 1990)

In general, the GDP per capita could affect the financial and banking intermediation through different channels:
- In the High- Income countries, it appears to have big companies; the net assets for the big companies will decrease monitoring costs, which leads to decease intermediation costs (External Finance

[2] For more about the role of Banks in delegated monitoring see (DiamonDybvig, 1996) and (Handrik Hakenes, 2004).
[3] For more about asymmetric information and the role of banks to bridge the gap see (Franklin A, A Santomero, 2001) and (Bert Scholltens, Dick Wensveen, 2000,2003)

Premium) which will result in supporting financial and banking intermediation.

- It is observed that the increase of GDP per capita is accompanied by high amount of public goods, which facilitate and help the financial and banking intermediation to perform efficiently such as the accounting standards, legal framework.
- Huge number of companies with high level of net assets will allow stock markets to get more space in financing the real sector in the aim to provide liquidity to the small and mid savers, which will support the development of these markets.

Bi-Directional Causality hypothesis

A third hypothesis in explaining the causality between the financial, banking development and economic growth focused on the Bi-directional causality, and the type of causality depends on the stage of economic development (Ali Ahmad, 2004), during the low income periods, financial and banking development will lead the economic growth and support it until it reaches its regular levels, and during the late stages of economic development, this latter will lead the financial and banking development. (Robinson, 1979) has mentioned this bidirectional causality between financial and economic development. Regarding the first direction from Finance to economic growth; he argued that the company needs to a funding based on the bank credit, later when the project earn profits, it will be provided for the company to issue shares or bonds to pay its financial commitments. The second concept of causality from economic growth to finance as follow; when the investment increases, it will lead to more bank credit required from the banking system, which will result in an increase in bank deposits that could help the banks to create more money required for the new projects.

This bidirectional causality of Finance-Growth nexus will lead us to conclude that Schumpeter was right is his theory. (Robert G, R. Levine, 1993)

Direction of causality during development' stages

(Greenwood, Jovanovic, 1990) confirmed that during the early stages of development, the economic growth is weak and the trading process is unorganized, but when the national income increases, the financial structures start taking in a good positions, economic growth speed-up, but the inequality among individuals increases in the same time. In the other side, during the late stage of economic development, there will be well-organized financial arrangements with a stable mechanism of wealth distribution with high level of economic growth in comparison with the early stages of

developments. Verse versa, whenever the financial development could support growth, this latter will be able to reinforce the financial system whole performance.

Threshold effect in bidirectional causality

Another approach to understand the Finance-Growth nexus is to take in consideration the *Threshold effect,* starting from a certain level of financial and banking development, the economic growth will be more slowly and the possibilities to catch-up will be very difficult and the poverty trap start to appear (Berthemelemy, 1995). The weak economic growth leads to more weaknesses in the financial and banking sector which its return to weaken the economic growth. This could be described by pernicious feedback loop between the real sector and financial sector. This happens usually during the financial crisis, when the public policies fail to face the uncertainties in the business environment. Financial assets drop down, household wealth decreases, which leads to drop in the consumption. Businessmen postpone their projects; a wide credit crunch will result in creating pressures on household consumption, investment and economic growth.

Stylized Facts about the Omani Financial System
Economic Background

Since 1967, Oil has been considered as the main driving force of the Omani economy, The oil industry supports the country's high standards of living and is primary simulating its modern and expensive infrastructure, including electrical utilities, telephone services, roads, public education and medical services. Plus to its expensive oil reserves, Omani has considerable natural gas reserves, which are expected to play a leading role in Omani economy in the next future.

In order to reduce its dependence on oil/gas income, the government implements five-year development plans to encourage private sector to invest in various industries. About 59% of Omani's GDP is now generated outside the oil and gas sector, as compared to 33% in 1975, when the first plan was employed. Oman's Eight Five-year Development Plan (2011-2015) continues the policy of encouraging private sector investment into non-oil and non-gas industrial activities. With the objective of reducing the oil sector's contribution to GDP to 9% by 2020 and creating more jobs to employ the rising numbers of Omanis entering the workforce. The following chart shows the part of non-resources based GDP (GDP2) and the share or oil and gas rents in the total GDP of Omani economy (OIL) (Doing Business,2014).

Figure1: Growth Trend for resources and non-resources in Oman Economy
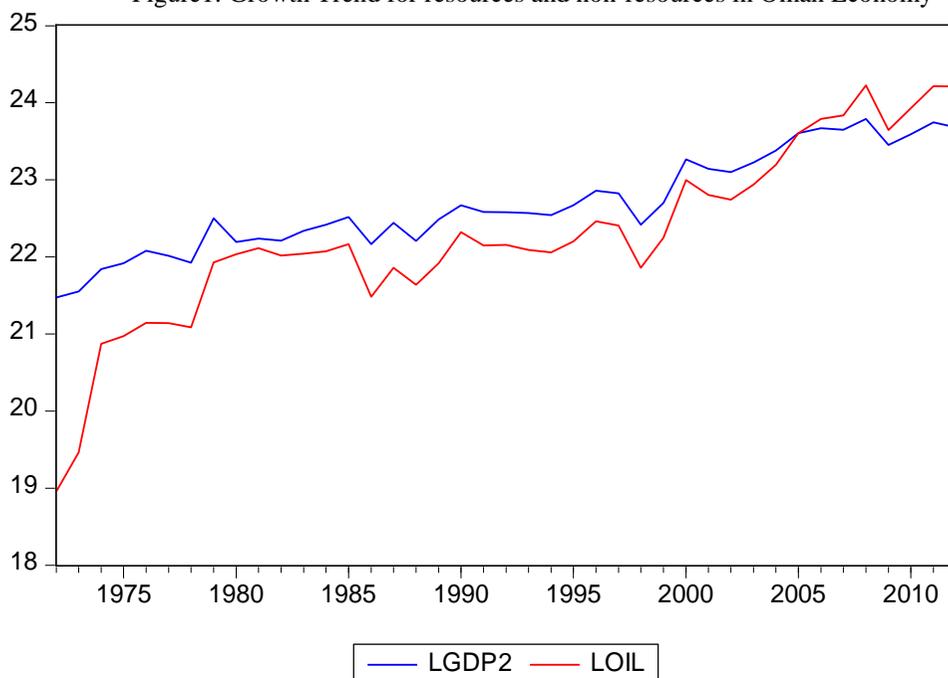
Source: Authors' estimates by using Eviews 8

From the above chart, it is clear that from 1975-2012, there is convergence between the natural resources rents (Oil and Gas) and the non-resources based GDP. The public investment program conducted by the government in the non-resources based sectors using the natural resources rents could explain this. According to the IMF concluding statement about Omani economy 2013, during 2014-2018, a large public investment program will support an average real growth of 5.4% in the non-oil sector. However, as crude oil production levels off and starts declining, overall GDP growth is projected to average 3.6%.

Banking sector in Oman's economy

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an inefficient allocation of liquidity within the system at an aggregate level. Bank may not have adequate incentives to monitor and fund their liquidity needs effectively.

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Figure 3. Bank Credit in the GCC Countries, 2004–2008
(In percent of GDP)
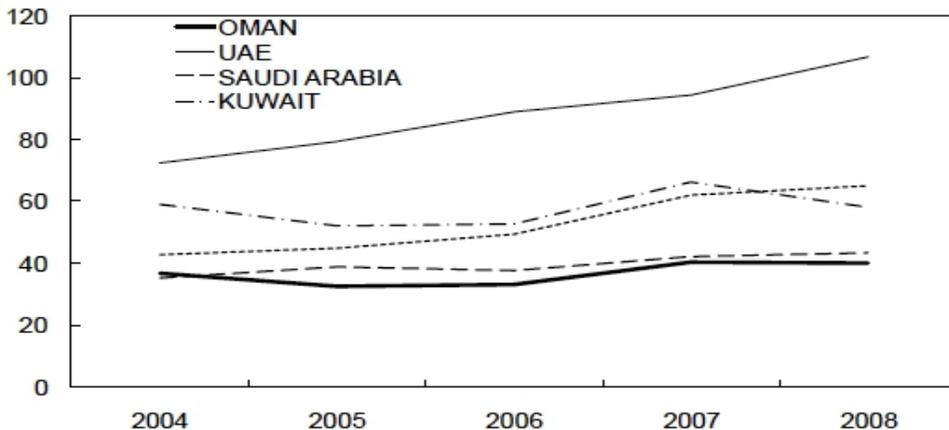
Sources: IMF World Economic Outlook; and authors' estimates.

Figure 4. Oman: Private Sector Credit Growth, 2007–2009
(In percent)
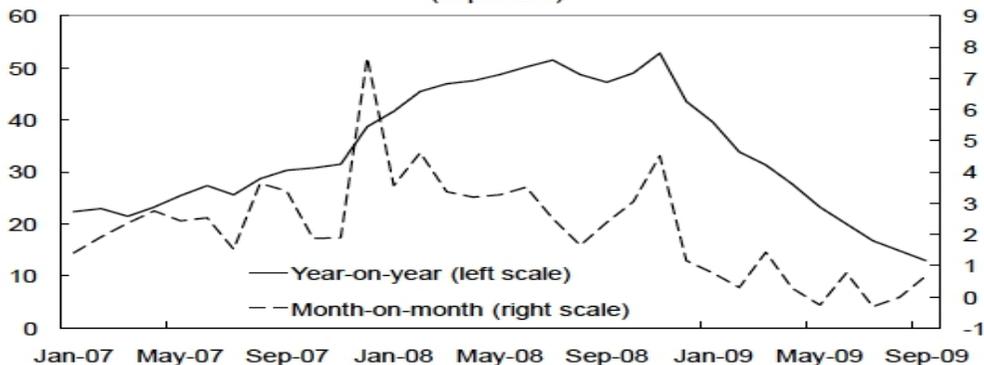
Source: Central Bank of Oman.

Data and Methodology

Data: In line with the main purpose of this paper which is to investigate the long term and short term causality between the financial development and non-resources economic growth for Oman, the selection of proxies to both financial development and non-resources economic growth are vey crucial. By reviewing the previous literatures, the majority of them use GDP to measure the economic growth either via GDP per capita or using the real GDP growth.

However for the case of the resources based economies, using the total GDP as proxy of the economic growth could alter the causality between financial development and economic growth. (Bekaert and Harvey, 1998) suggested that studies of finance-growth relationship in resource-based economies should focus on non-resource growth rather than total GDP, because windfall resource revenues affect the latter.

In our study we will use the Non-resources GDP as defined by the IMF;Non resource GDP is approximated by subtracting the real values of natural resources rents from total GDP in 2005 adjusted USD (see Hamilton and Ruta (2008). Natural resources give rise to rents because they are not produced; in contrast, for produced goods and services competitive forces will expand supply until economic profits are driven to zero. An economic rent represents an excess return to a given factor of production. (Rabah Arezki et al, 2011). Meanwhile, the selection of proxies for financial development was a subject for big divergence among the empirical studies. in this study we will use the following proxies for financial development variable[4]:

1. The monetary aggregate M2 as a ratio to nominal GDP; is a traditional proxy used to measure the weight of financial intermediaries.
2. PRIVATE: to mention the credit provided to the private sector as part of GDP.
3. QM: for the Quasi Money, it represent the ratio of financial saving to GDP, where financial saving is measured by the difference between M2 and M1, the exclusion of M1 focuses on the quasi liquid assets considered as the main source of investment. M1 is generally more oriented to finance current transactions. An increase of this ratio may reflect an increase in banks' deposit, which is required for accumulation and then the economic growth.

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[4]For more about financial intermediation measurements, see (Gunther Capelle-Blancard and al,2008)

Figures 5: Trend of LGDP2, LM2, LPRIVATE and LQM
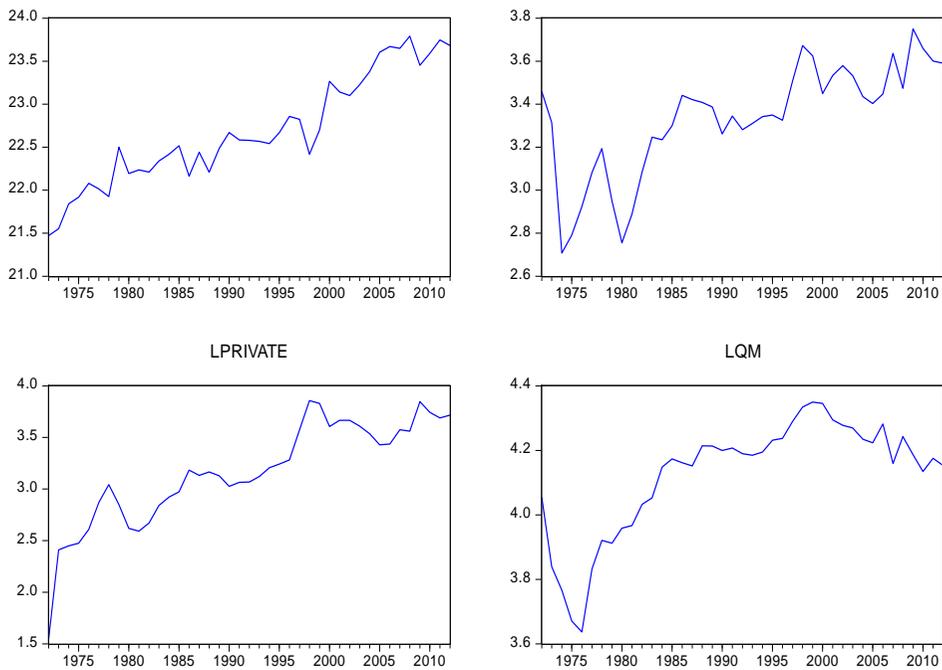
Source: Authors' Estimates using Eviews 8

- **Methodology:** in order to determine the relationship between financial development and non-resources GDP, the econometric technique that we will use consists of three phases: first we have to check whether the time series are stationary or not, in o model for a correct evaluation, time series should be separated from all effects, and the series should be stationary. Thus logarithms of time series were taken. Augmented Dickey Fuller (1981) test was used. After that, Johansen Cointegration test was used to investigate the long-run relationship between financial development and non-resources GDP. If the Johansen Cointegration test was positive, then we have to apply the Vector Error Correction Model (VECM). But if the Johansen test was negative means there is no Cointegration between the variables, we have to apply unrestricted Vector Autoregressive (VAR) Model. We use Eviews 8 software to test and analyze the results.

  1. *Unit Root Test:* we used the Augmented Dickey Fuller test. In ADF test, we test the null hypothesis that the series are not stationary (there is unit root), against the alternative one that the series are stationary by calculating the ADF *t-statistics* value with the critical *t-statistics* value obtained from McKinnon's table. If the series appears to be non-stationary, then we have to

run the test again using the first or the second difference until stationary is achieved.

2. ***Johansen test for Cointegration:***

The Johansen approach developed by Johansen and Jesulius (1990) and Johansen (1991) used to investigate the possible long-run relation existence between the study variables. Johansen approach uses two test statistics, as suggested by Johansen (1988) and Oseterwald-Lenum (1992) to determine the number of co-integrating vectors. These are the trace test and the maximum Eigenvalue test, represented by equation (3) and (4).

$$\lambda_{trace}(r) = -T + \sum_{i=(r+1)}^{n} \ln(1-\lambda_i) \tag{3}$$

$$\lambda_{max}(r, r+1) = -T \ln(1-\lambda_{r+1}) \tag{4}$$

Where λ shows the estimated values of the characteristic roots, in assuming that the series are I(1). This number of observations and r, is the rank of the vector matrix.

We test the null hypothesis of Trace test that there is at most (r) co-integrated relation against the alternative one that there are more than (r) co-integrated relations. In other words, a rejection of the null hypothesis means that there are more than (r) co-integrated relations. The Trace test rejects the null hypothesis if the trace statistics exceeds the critical value. On the other hand, we test the null that there is (r) co-integrated relation versus (r+1) co-integrated relations. The test rejects the null hypothesis if the Eigenvalue test statistics exceeds the respective critical value. If the null hypothesis for both statistics is rejected, this indicates that there is one co-integrated relation among the variables under testing.

Results and Discussion

- **Unit root test**

Results from ADF test implemented to the selected time series show that all the series belong to non-resources economic growth and financial development proxies are not stationary at level. So we run the ADF test aging but this time by using the first difference. ADF results are shown in Table 1; from this table, we conclude that all series are stationary at the first difference at 1%, 5%, 10% level of significant. For PRIVATE for example, the P (value) before the first difference is 86.43%, which more than 5%, so we cannot reject the null hypothesis of ADF test. But after the first difference the P(value) become 0% which is less than 5%, so we can reject the null

hypothesis of ADF test. The rejection of the null hypothesis indicates that all the variables are stationary after the first difference.

Table 1: Unit Root Test

Unit root test		ADF test		Phillips-Person Test	
		Level 1	1st difference	Level 1	1st difference
Variables		*t-statistics* *P (value)*	*t-statistics* *P (value)*	*t-statistics* *P (value)*	*t-statistics* *P (value)*

Lag	LogL	LR	FPE	AIC	SC	HQ
0	39.59559	NA	1.81e-06	-1.873452	-1.701075	-1.812122
1	173.2887	232.2037	3.71e-09	-8.067824	-7.205937*	-7.761171
2	193.4388	30.75551	3.07e-09	-8.286254	-6.734856	-7.734278
3	219.2787	33.99981*	1.98e-09*	-8.804141*	-6.563233	-8.006843*

LGDP	-1.387713 0.5787	-6.697002** 0.0000			
LM2	-0.004102 0.6754	-5.704709** 0.0002			
LPRIVATE	-1.322186 0.9506	-7.669324** 0.0000			
LQM	-1.333892 0.8643	-6.373995** 0.0000			
*, **,*** significant at 1%,5%,10% level respectively					

Johansen Co-integration Test

The number of optimum lags used for the Cointegration model is selected by VAR lag Order selection criteria which is based on AIC, FPE, LR, HQ. For this study we selected lag 3 to be used in Johansen and in VECM later.

Table 2 shows the results of Johansen test for the long relationship between financial development indicators and non-resources economic growth.

Table 2: Johansen test results

Cointegration Hypothesis		Trace statistics	Critical values (5%)	Max-Eigenvalue	Critical values (5%)
Null Hypothesis	None	69.32540	47.85613	46.80946	27.58434
Alternative hypothesis	At most 1	22.51594	29.79707	13.48577	21.13162

The first row of table 2 shows that the trace statistics (69.32540) is more than critical value at 95% confidence level (47.85613). So the null hypothesis of no cointegrating relationship is rejected. The results confirmed that there is a Cointegration relationship among the variables

Regarding the eigenvalue test, it rejects the null hypothesis if the test statistics exceed the respective critical value. From table 2, the results from the first row show that the eigenvalue of test statistics (46.80946) exceeds the critical value at 95% confidence level (27.58434). This confirmed that

the null hypothesis is rejected. the failure of rejection of the null hypothesis indicates that there is one Cointegration relationship between financial development indicators and non-resources economic growth in Oman.

Causality Test Results Based on VECM

Table 3: Causality Test Results Based on VECM

Dependent	ΔLGDP	ΔLM2	ΔLQM	ΔLPRIVATE
Lagged	Coefficient. P-Value ()	Coefficient. P-Value ()	Coefficient. P-Value ()	Coefficient. P-Value ()
ECT	0.005840 (0.9528)	-0.117898 (0.0087)*	-0.371784 (0.0010)*	-0.183860 (0.0182)*
DLGDP (-3) **Chi-square (P-Value)**	-	0.514940 (0.9156)	8.197469 (0.0421)*	4.235464 (0.2371)
DLM2 (-3) **Chi-square (P-Value)**	1.555989 (0.6694)	-	0.169324 (0.9824)	8.661314 (0.0341)*
DLQM (-3) **Chi-square (P-Value)**	7.844508 (0.0493)*	23.64626 (0.0000)*	-	12.68940 (0.0054)*
DLPRIVATE (-3) **Chi-square (P-Value)**	2.784552 (04260)	4.225059 (0.2382)	5.968847 (0.1131)	-
R^2	0.526366	0.724964	0.608092	0.681209
F-Statistics	1.966211	4.663497	2.745169	3.780588
P-value	0.075699	0.000655	0.016635	0.002649
F-ARCH test	0.419185 (0.7405)	0.681841 (0.5701)	0.568240 (0.6402)	0.355305 (0.7856)
JB Normal	3.890788 (0.142931)	0.099333 (0.951547)	1.535277 (0.464108)	3.126755 (0.209428)
Breusch-Godfrey	11.26203 (0.0104)	1.196342 (0.7539)	2.550492 (0.4662)	2.221779 (0.5277)

Long-run Causality Results

According to the first row in table (3) results we can conclude the following interpretations:

The coefficient on the ECT (Error Correction Term) for LGDP is positive and not significant at 5% level. Which means there is not long-run causality from financial development indicators (LM2, LPRIVATE, LQM) to.

Conclusion and Recommendation
Conclusion

In this paper, an investigation has been conducted to explore the relation between financial developments indicators and non-resources GDP

in sultanate Oman over the period 1972-2012, focusing on Granger causality effects within VECM environment. The results show that there is unidirectional long-run Granger causality from the Non-resources GDP to all the proxies of financial development. Regarding the short-run causality, there is bidirectional Granger causality only between the financial saving (QM) and the economic growth in non-Oil/Gas sectors. The other two financial development indicators; credit provided to private sector (PRIVATE), and M2, there is no evidence of short-run causality presence toward or from non-resources GDP in the case of Oman.

Recommendation

According to the finding, the absence of causality running from PRIVATE to GDP may be interpreted by somecommon factors in resources based economies and especially in the case of Oman:

1. In line with Beck (2011) who analyzed finance and growth relationship in resource-based economies and finds some indication of natural resource curse in financial development in form of limited funding supplies for enterprises, because banks prefer lending to household. Although firms' demand to external financing is comparable to non-resource based economies, in general, they use internal financing and some bank loans.

2. The role of Government in Oman is crucial especially in the non-resources economic sectors, through the public investment program. This public leadership in non-Oil/Gas sectors could explain the absence of causality between the non-resources GDP and the Credit provided to the private sector.

3. In the case of Omani economy, the role of private sector is to be an entrepreneur of the government in implementing the big infrastructure projects without need to the bank credit. We are suggesting separate government liquidity to be hold by the central bank with a separate account, also motivate more private companies to contribute in the public project by using banks funds.

4. The credit provided to the private sector was negative with the non-Oil/Gas GDP, because a considerable amount of this credit is oriented to personal loans for households, which could increase the import instead motivating the local tradable products.

5. Concentration and lack of competitiveness in the Omani Banking system may result in absence of incentives to provide more credit to corporation, we are recommending to decrease the personal and households' loans in order to push banks to search for more funding opportunities within the non-oil based companies.

6. We recommend to the policy makers to continue building a good environment for the business and reinforce the Private-Public partnership in achieving the mega project in non-Oil/Gas sectors by facilitating.

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