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Financial Deepening and Economic Growth Nexus: An Empirical Study on China and India

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Abstract

Through this paper we have tried to spot the relationship between financial deepening and economic growth using a panel data of India and China. Unlike previous studies, we attempted to assess the information content of non-linearities in the China and India finance–growth nexus. We also attempted to assess the impact of financial reforms on those country's economies, specifically in terms of economic growth. We have checked the relationship between GDP growth Rate and Quasi Money Growth Rate using the Johansen co-integration test. Data biasness is extensively monitored by checking stationarity of time series through unit root test. We have performed a linear Granger causality test to find out causal relations between financial development and real GDP growth in China and India. Following these, we expose an interesting result: for China there is both way association but for India there is a uni-directional association from financial development to economic development. On which we can deduce that both supply leading and demand following hypothesis holds true for China but only supply leading hypothesis is true for India.

Keywords*: Financial Deepening, Economic Growth, GDP, Supply Leading and Demand Following.*

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Introduction

Ample literatures are available emphasizing the relationship between financial development and economic growth with extensive theoretical and empirical evidence. Different economist like Schumpeter (1911), McKinnon (1973) and Shaw (1973) have played a large role in developing a theoretical foundation for recognizing relationship between development and economic growth. The word "financial development" refers to an expansion in the number of financial services provided by banks and other financial intermediaries, as well as financial transactions conducted on capital markets (Hussain & Chakrabortry, 2012). There hasn't been a unanimous agreement on the fundamental connection between financial expansion and economic growth yet. Theory and recent occurrence suggest several probable means through which an abnormal effect of finance on economic growth may arise. One of that may be the excessive sources or availability of capital market funding or excessive share of loans to household than business firm which foster negative relationship between financial development and economic growth (Beck et al., 2012). Indeed, empirical data reveals that the relationship between financial development and economic growth is sensitive to the financial development proxy used. In industrialized countries, the relationship between financial developments and economic growth has been extensively researched. But it is now a subject matter of extensive research for developing and underdeveloped countries as well. Institutional improvement is a critical factor for growth, but the quality of financial institutions in terms of operational efficiency, regulations, and supervision must be improved for banking sector developments to contribute positively to economic growth. On the other hand, stock market developments as measured by market capitalization and the quality of institutions have a significant positive impact on economic growth. The study uses India and China as samples to investigate the association between financial development and economic growth. The study also applied different tests such as Unit Root Test, Johansen Co-integration Test, Phillips-Perron Test, Johansen Co-integration, and Granger Causality Test to define a quantitative result of the data collected on India and China. The following is the article's structure: The second section of the article is a review of previous studies in the field. The third section describes research methodology. The fourth section presents the empirical findings and analyses, and the fifth section concludes with some policy implications.

Literature Review

Financial development and economic growth nexus attracted general research in the field of finance. A large number of literatures in different study have shown that financial advancement guides economic growth (King & Levine, 2004). Akimov et al. (2009) found a positive and robust experimental connection between financial development and economic growth in a panel of 27 countries in transition. Sample studies of the finance-growth nexus were employed by Gaffeo and Garalova (2014). The findings show that there is a favorable long-run connection between financial development and economic growth, but a negative short-run relationship. By inspecting at 10 new EU members from 1994 to 2007, Caporale et al. (2009) discovered that the causality of the finance-growth relationship is a single directional process (financial expansion to economic growth). In terms of the causal relationship between financial depth and economic growth, the literature suggests at least

four possibilities. First, despite the fact that economies grow in tandem with the financial sector, the two sectors—financial development and economic growth—take separate paths (Graff, 1999). Second, financial development is thought to be a determinant of economic growth, with a causal relationship moving from financial enlargement to economic expansion (McKinnon, 1973; Shaw 1973; King and Levine 1999). The third option is a demand-following response, which ensures that financial development keeps pace with economic expansion (Odhiambo, 2010). The fourth alternative, on the other hand, believes that both financial development and economic growth Granger-cause each other, implying that financial development and economic growth are bi-directional causative (Odhiambo, 2010). Theoretically, Chakraborty and Ray (2006), Deidda and Fattouh (2008), and Levine (1991) backing the thesis that financial development supports economic progress, but Robinson (1952) and Greenwood and Smith argue the reverse causation, that is, economic growth causes financial development (1997).

Some research (Chandavarkar, 1992; Lucas, 1988) completely dismisses any link between them. Koivu (2004) studied the relationship between efficiency, the size of the banking sector (using the interest rate and credit margin allocated to the private sector) and to economic growth using data from Panel for 25 transitional countries compared to the period 1993-2001. The result found from the study has led to declare that an effective banking sector, where interest rate margins are low, accelerates the growth of GDP. In Croatia financial development had a "supply leading" (Schumpeter, 1934/2010; Patrick, 1966) influence at the commencement of conversion, due to the lack of financial sources for economic activities on the market. Economic growth rates after 2000 averaging around 5% annually which is not possible without a good loan policy. A proper loan policy can lead to the development of financial sectors to be ready to fulfill any financial demand (Robinson, 1979). Previous studies (Koivu, 2004) show that the standardization of banking sector has helpful effects on economic growth, but the link between credits and economic growth is more ambiguous. Kenourgios and Samitas (2007) studied in their research, in the long term; loan giving facilities to non-government sectors is a vital factor of Polish economic growth. Folwarski (2016) investigated the growth trend of poland from 2005 to 2015 and discovered that both types of credits considerably promote economic growth. Petkovski and Kjosevski (2014) discovered that economic growth is spurred negatively by loan to the private sector and interest margin, and positively by the ratio of quasi money, using a sample of 16 transition economies from Central and South-Eastern Europe from 1991 to 2011. Sassi and Gasmi conducted a similar investigation (2014). The authors looked at the effects of household and corporate lending on economic development in 27 European nations between 1995 and 2012. In contrast to consumer borrowing, business lending has a beneficial effect on economic growth. Angjelkovska et al. (2016) confirmed that business credits accelerate economic growth in a study of thirteen transition economies where the range of years is 1995–2007, but the results for household credits are equivocal.

Over the period 1990–2008, Cojocaru et al. (2016) empirically examined the impact of financial sector development on economic growth in ten CIS and fifteen CEE nations. The findings of the study show that financial system efficiency and competitiveness are more

essential than the financial supports rendered to the non-government sectors by financial institutions. Research on the relationship between financial performance and growth usually uses panel data to analyze this relationship (Gaffeo & Garalova, 2013). Darrat (1999) exercised Granger causality tests on three MENA countries (Saudi Arabia, Turkey, and United Arab Emirates) for the period 1964-1993. Although the potency and steadiness of Darrat's research differs among nations, his findings offer some support for the supply-leading notion that financial deepening supports economic growth. You will find long-term positive and short-term negative connections. Another research dealing with the finance-growth nexus in 16 MENA countries is by Boulila and Trabelsi (2004), who applied co-integration and Granger causality tests based on a bivariate vector auto regression (VAR). Their findings back up the theory that causality flows from the real to the financial sectors. In recent years, multi-country or region-specific time-series studies utilizing vector auto regression (VAR) analysis to investigate the underlying association involving financial development and economic growth have also been a hot topic (Abdelhafidh, 2013; Abu-Bader & Abu-Qarn, 2008).

Methodology

Unit Root Tests

There are numerous co-integration techniques. But in most of them, there is a common rule which states that the time-series properties of the individual variables in discussion must be investigated. It needs to identify that the variables are stationary at level, *I(0)*. Or if they are not stationary at level, they must be stationary after differencing, *I(d)*. Here d indicates the number of times the variables in the model has been differentiated to get to the stationary point. It's an obligation. Because if we can't achieve the non-stationary variables, instead we set the model with them, it will provide a spurious kind of relationships. But if we can achieve the non-stationary variables and set the model with them, the model will provide a proper co-integration output and describe appropriate relationship.

To find out the existence of a unit root one of the highly suggested process is the Augmented Dickey-Fuller (ADF) test, which involves approximating a form of the following equation by OLS:

$$\Delta x_t = \gamma_0 + \gamma_1 t + \phi x_{t-1} + \varphi \Delta x_{t-1} + \cdots + \varphi \Delta x_{t-q} + \varepsilon_t \quad (1)$$

Here Δ means the difference. The t-statistic for the calculated coefficient ϕ is the Augmented Dickey-Fuller (ADF) statistic. But interesting fact is that, The ADF statistic does not have a usual student-t distribution; but it must be weighed against the specific tables such as those have been provided in MacKinnon (MacKinnon, 1996). The above equation (1) involves the most usual specification with q differences or lags. The outcomes below for variables are hence obtained by beginning with q equal to four (MacKinnon, 1996) and then scientifically excluding insignificant variables (may be in lags, or in constant, and/or even in trend) making certain that there is no serial correlation in the residuals. Once the chosen equation has been achieved in this manner, we get the t-statistic that gives the Augmented Dickey-Fuller statistics in the empirical analysis section. So, we are having a sign of the time-

series properties of the individual time series variable, but if we find the variables to be non-stationary in levels, we proceed for the differencing to achieve the stationary in the variables and eventually we get the opportunity for progressing to the co-integration techniques.

The Phillips-Perron test is also based on the same regression as the Augmented Dickey-Fuller test, but it doesn't include the lagged differences. The t-statistic of the particular coefficient in discussion is corrected for serial correlation by applying Newey-West (Newey & West, 1987) procedure from the adjustment of the standard errors.

a) Johansen Co-integration

We apply Johansen (Johansen, 1988) method to find out co-integrating relationship between non-stationary variables by applying maximum likelihood method. This method checks the number of distinct co-integrating vectors in a setting of multivariate model and also estimates the parameters of these particular co-integrating relationships. In this research paper we have used the following model that consist Two-dimensional vector autoregressive model:

$$X_t = A_1 X_{t-1} + \cdots + A_k X_{t-k} + \varepsilon_t, \qquad t = 1, \ldots\ldots, T \qquad (2)$$

Here in the Equation 2,$X_t = [GDP,\ FinancialDevelopment]_t$, X_t are fixed and $\varepsilon_t \sim IN(0, \sum)$. So, Equation 2 can be re-written in Error Correction Format as

$$\Delta X_t = \Gamma_1 \Delta X_{t-1} + \cdots + \Gamma_{k-1} X_{t-k+1} + \Pi X_{t-k} + \varepsilon_t, \qquad t = 1, \ldots\ldots, T \qquad (3)$$

If the data $\{X_t\}$ are integrated of order one, I(1), then $\Delta\{X_t\}$ is I(0). The matrix Πhas to be reduced to rank:

$$\Pi = \alpha\beta',$$

Here β may be interpreted as the $m \times m$ matrix of co-integrating vectors and α is the matrix of $m \times n$ matrix of loading weights.

If we find the unit-root tests outputs of the variables are *I(1)* (in the Empirical Section) they are entered as endogenous variables to calculate Vector Auto Regression by applying unrestricted method. In the unrestricted vector auto regression (VAR) Eq. (2) with a lag length of 6 years, in this way, we have achieved the Trace and Maximum Eigen Values to check the number of co-integrating vectors. When we have got this, it has been applied on the equation to calculate the co-integrating vector(s). The output has been presented in the Empirical section below.

b) Granger Causality Test

Granger causality test is a procedure to find out if one particular time series is significant to forecast another time series. Granger (Granger, 1969) provides the definition of the causality for two scalar-valued, stationary and ergodic time series $\{X_t\}$ and $\{Y_t\}$ by applying a very simple model:

$$X_t = \sum_{j=1}^{m} \alpha_j X_{t-j} + \sum_{j=1}^{m} \beta_j Y_{y-j} + \varepsilon_t$$

$$Y_t = \sum_{j=1}^{m} c_j X_{t-j} + \sum_{j=1}^{m} d_j Y_{y-j} + \eta_t$$

In the above equations, the white noise has been represented by ε_t and η_t. If we find that some values of $\beta_j \neq 0$, we get knowledge from the past values of Y. These value of Y helps us to predict both the current as well as the future values of X values. Then we can say that Y Granger causes X. In the same way, X Granger causes Y if we find that some values of $c_j \neq 0$. In simple words, one variable (X) is found to Granger cause another variable (Y) if we find that the lagged values of X can predict Y. We use Linear Least Square predictors to implement this test. Here the Hypothesis is:

H_0: $X(Y)$ does not Granger cause variable $Y(X)$

H_1: $X(Y)$ Granger causes variable $Y(X)$

Data and Empirical Analysis

To avoid the possibility of non-causal biasness, first of all, it's required to test the stationarity of the time series variables by applying unit root tests. Most widely used unit root tests are:

i) Phillips and Perron (PP) (Perron, 1988),
ii) Augmented Dickey-Fuller test (ADF), (Dickey & Fuller, 1979), and
iii) Kwiatkowski, Phillips, Schmidt, and Shin (KPSS) test (Kwiatkowski et al., 1992)

The result of the unit root tests have been showed in Table 1. If we find we through the graph (Presented in the Appendix) we find out that the variables though not stationary at *I(0)*, they are stationary in *I(1)*. Even it's getting ensured from the plots that there is a presence of co-integration among the variables.

Table 1: Unit Root Test

UNIT ROOT TEST TABLE (PP)									
	At Level					At First Difference			
		GDPCHN	GDPIND	M2CM	M2IM	d(GDPCHN)	d(GDPIND)	d(M2CM)	d(M2IM)
With Constant	t-Statistic	1.2658	-0.291	-2.7536	0.6228	-4.7472	-4.7055	-5.5539	-6.9325
	Prob.	0.9985	0.9229	0.0672	0.9901	0.0001	0.0001	0	0
		no	no	*	no	***	***	***	***
With Constant & Trend	t-Statistic	-3.4693	-1.8012	0.6171	-2.9553	-4.5078	-4.517	-6.6923	-6.9023
	Prob.	0.045	0.7014	0.9995	0.1473	0.0018	0.0017	0	0
		**	no	no	no	***	***	***	***
Without	t-Statistic	7.3338	16.5883	9.5449	19.869	-2.6597	-1.5531	-2.0158	-0.8144

Constant & Trend									
	Prob.	1	1	1	1	0.0078	0.113	0.0423	0.3623
		no	no	no	no	***	no	**	no
UNIT ROOT TEST TABLE (ADF)									
	At Level					At First Difference			
		GDPCHN	GDPIND	M2CM	M2IM	d(GDPCHN)	d(GDPIND)	d(M2CM)	d(M2IM)
With Constant	t-Statistic	-0.1034	-1.7078	-3.8943	-1.2218	-4.0406	-1.4667	-4.0261	-2.7626
	Prob.	0.9465	0.426	0.0026	0.6654	0.0015	0.5489	0.0016	0.0653
		no	no	***	no	***	no	***	*
With Constant & Trend	t-Statistic	-1.6584	-0.8317	-0.0021	-1.9568	-3.8589	-1.2914	-5.7295	-2.676
	Prob.	0.7665	0.9603	0.996	0.6213	0.0153	0.8875	0	0.2477
		no	no	no	no	**	no	***	no
Without Constant & Trend	t-Statistic	3.5721	0.7001	3.0928	2.062	-1.7299	-0.8801	-1.4269	-0.1573
	Prob.	0.9999	0.866	0.9995	0.9908	0.0793	0.3339	0.1428	0.6284
		no	no	no	no	*	no	no	no
Notes: (*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1%. and (no) Not Significant *MacKinnon (1996) one-sided p-values.									

Note: (GDPIND) Gross Domestic Product India, (GDPCHN) Gross Domestic Product China, (M2CM) (M2IM)

In the second step, we have checked the presence of co-integration among the variables. The association between GDP growth Rate and Quasi Money Growth Rate has been checked by using Johansen co-integration test (Johansen & Juselius, 1990), (Johansen, 1991), (Johansen, 1995). The output of the analysis has been presented in Table 2.

Table 2: Johansen Co-integration Test

Johansen-Juselius Cointegration Test Results				
Hypothesized No of CE(S)	Trace Statistics	Max-Eigen Statistics	Critical Values	Prob**
India				
R = 0	15.71819	0.059665	15.49471	0.0463
R=< 1	1.138063	0.00479	3.841466	0.2861
China				
R = 0	40.36987	0.15239	15.49471	0.0000
R=< 1	12.42835	0.070901	3.841466	0.0004
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level * Denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				

From the Johansen Co-integration test in Table 2 we can reject the Null hypothesis of no co-integration (r=0) for India and Null hypothesis of no co-integration (r=0) as well as Null hypothesis of one co-integration (r=1) for China, as they have been supported by Trace test and Max-Eigen test at 5% significance level. After checking for the presence of the unit root and co-integration, we have performed linear Granger causality test to find out causal relations between financial development which is Quasi Money and economic growth which is Real GDP Growth in China and India (Granger, 1969). The output of linear Granger causality test output has been presented in Table 3. And Table 4 summarizes the Supply Leading and Demand Following decision. For China there is a bi-directional causality but for India there is uni-directional causality from financial development to economic development. On which we can deduce that both supply leading and demand following hypothesis holds true for China but only supply leading hypothesis is true for India.

Table 3: Pair wise Granger Causality

Granger Causality	F-Statistic	Prob.
China		
M2CM does not Granger Cause GDPCHN	6.80834***	0.0014
GDPCHN does not Granger Cause M2CM	4.63212**	0.011
India		
M2IN does not Granger Cause GDPIND	2.92215***	0.0092
GDPIND does not Granger Cause M2IN	1.79697	0.1007
*** & ** represent significant at 1% & 5% respectively		

Note: (GDPIND) Gross Domestic Product India, (GDPCHN) Gross Domestic Product China, (M2CM) Molecular Materials, Colides and Modelin(M2IM)

Table 4: Supply Leading or Demand Following

Empirical Evidence of Supply-Leading and Demand-Following Hypothesis Presence				
Country	Finance Development Impact Economic Growth	Economic Growth Impact Financial Development	Bi-Directional Granger Causality	Support Ed Theory
China	Yes	Yes	Yes	Supply leading/ Demand following
India	Yes	No	No	Supply leading

Conclusion

In this paper, we have analyzed the contribution of financial development, or more extensive sources to finance, in promoting economic growth in a panel of China and India. Based on panel time-series analysis, the findings indicate that, when macroeconomic performance is considered, financial development does play a significant role in generating economic activity, innovation, and, as a result, economic growth occurs in the region. Our evidence suggests that financial sector development is positively related to growth in almost all cases, albeit insignificantly below the estimated thresholds. In China, we can find both the finance development and economic growth contribute each other to move forward. China is having an advantage the combination of both financial supply and demand mechanism. But in

India, only financial development leads to economic growth reverse is not true. Policy makers in those fields can contribute to develop the situation by offering sustainable financial and economic growth plan for the countries. Extensive further research can be done on the field of bi-directional impact of financial deepening and economic growth specially on Indian economy.

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References

Abdelhafidh, S. (2013). Potential financing sources of investment and economic growth in North African countries: A causality analysis. *Journal of Policy Modelling, 35*(1), 150–169.

Abu-Bader, S., & Abu-Qarn, A.M. (2008). Financial development and economic growth: Empirical evidence from MENA countries. *Review of Development Economics, 12*(4), 803–817.

Angjelkovska, T., Hani, E., & Eliskovski, M. (2016). The effect of enterprise and household credit on economic growth and real exchange rate dynamics: evidence from SEE countries, Working Paper, National Bank of the Republic of Macedonia, Skopje.

Akimov, A., Wijeweera, A., & Dollery, B. (2009). Financial development and economic growth: evidence from transition economies. Applied Financial Economics, 19. doi: 10.1080/09603100701857880.

Beck, T., Degryse, H., Kneer, C., is more finance better? Disentangling intermediation and size effects of financial systems, European Banking Center Discussion Paper 2012-2016.

Boulila, Ghazi, and Mohamed Trabelsi. 2004. The Causality Issue in the Finance and Growth Nexus: Empirical Evidence from Middle East and North African Countries. Review of Middle East Economics and Finance 2 (2):123-38.

Caporale, G. M., Rault, C., Sova, R., & Sova, A. (2009). Financial development and economic growth: evidence from ten new EU members. DIW Berlin Discussion Papers, 940.

Chakraborty, S., & Ray, T. (2006). Bank-based versus market-based financial systems: A growth-theoretic analysis. Journal of Monetary Economics, 53(2), 329–350.

Chandavarkar, A. (1992). Of finance and development: Neglected and unsettled questions. World Development, 22(1), 133–142.

Cojocaru, L., Falaris, E. M., Hoffman, S. D., & Miller, J. B. (2015). Financial system development and economic growth in transition economies: new empirical evidence from the CEE and CIS Countries. Emerging Markets Finance and Trade, 52. doi: 10.1080/1540496x.2015.1013828.

Darrat, Ali F. 1999. Are Financial Deepening and Economic Growth Causally Related? Another Look at the Evidence. International Economic Journal 13 (3):19-35.

Deidda, L., & Fattouh, B. (2008). Banks, financial markets and growth. Journal of Financial Intermediation, 17(1), 1–31.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. Journal of the American statistical association, 74(366a), 427-431.

Folwarski, M. (2016). Impact of bank loans on economic growth in Poland. Journal of Financial Management and Accounting, 4(3).

Gaffeo, E., & Garalova, P. (2013). On the finance-growth nexus: additional evidence from Central and Eastern Europe countries. Economic Change and Restructuring, 47. doi: 10.1007/s10644-013-9143-x.

Granger, C. (1969). Investigating causal relations by econometric methods and cross spectral. Econometrica, 37, 24-36.

Johansen, S. (1991). Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models. Econometrica, 59(6), 1551-1580. https://doi.org/10.2307/2938278

Johansen, S. (1995). A Stastistical Analysis of Cointegration for I(2) Variables. Econometric Theory, 11(1), 25-59. https://doi.org/10.1017/S0266466600009026

Johansen, S., & Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration — with Applications to the Demand for Money. Oxford Bulletin of Economics and Statistics, 52(2), 169-210. https://doi.org/https://doi.org/10.1111/j.1468-0084.1990.mp52002003.x

Kenourgios, D., & Samitas, A. (2007). Financial development and economic growth in a transition economy: evidence for Poland. Journal of Financial Decision Making, 3(1).

King, R., Levine, R., 1993. Finance and growth: Schumpeter might be right, Q. J. Econ. 108 (3), 717-737.

Kwiatkowski, D., Phillips, P. C., Schmidt, P., & Shin, Y. (1992). Testing the null hypothesis of stationarity against the alternative of a unit root: How sure are we that economic time series have a unit root? Journal of econometrics, 54(1-3), 159-178.

Levine, R. (1991). Stock markets, growth, and tax policy. Jouranl of Finance, 66(4), 1445–1465.

Levine, R. (2005). Finance and growth: Theory, evidence, and mechanisms. In P. Aghion & S. Durlauf (Eds), The handbook of economic growth. Amsterdam, The Netherlands: North-Holland.

Lucas, R.E., Jr. (1988). On the mechanics of economic development. Journal of Monetary Economics, 22(1), 3–42.

Odhiambo, N. M., (2010). Finance-investment-growth nexus in South Africa: an ARDL-bounds testing procedure, Springer Science+Business Media, LLC. 2010.

Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries. Economic Development and Cultural Change, 14. doi: 10.1086/450153.

Perron, P. (1988). Trends and random walks in macroeconomic time series: Further evidence from a new approach. Journal of economic dynamics and control, 12(2-3), 297-332.

Petkovski, M., & Kjosevski, J. (2014). Does banking sector development promote economic growth? An empirical analysis for selected countries in Central and South Eastern Europe. Economic Research-EkonomskaIstraživanja, 27(1). doi:10.1080/1331677X.2014.947107.

Robinson, J. (1952). The rate of interest and other essays. London, UK: Mcmillan. Robinson, J. (1979). The generalisation of the general theory and other essays. Springer Link. Palgrave Macmillan.

Sassi, S., & Gasmi, A. (2014). The effect of enterprise and household credit on economic growth: new evidence from European union countries. Journal of Macroeconomics, 39(A).

Schumpeter, J. A. (1934/2010). Capitalism socialism and democracy. Routledge. doi: 10.4324/9780203857090.