

# Knowledge Economy and Financial Sector Competition in African Countries

Simplice A. Asongu

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## Abstract

The goal of this paper is to assess how knowledge economy (KE) plays out in financial sector competition. It suggests a practicable way to disentangle the effects of different components of KE on various financial sectors. The variables identified under the World Bank's four knowledge economy index (KEI) are employed. An endogeneity robust panel instrumental variable fixed-effects estimation strategy is employed on data from 53 African countries for the period 1996–2010. The following findings are established. First, education and innovation in terms of scientific and technical publications broadly bear an inverse nexus with financial development. Second, the incidence of information and communication technologies is positive on all financial sectors but increases the non-formal sectors to the detriment of the formal sector. Third, economic incentives have positive implications for all sectors though the formal financial sector benefits most. Fourth, institutional regime is positive (negative) for the semi-formal (informal) financial sector. The findings contribute at the same time to the macroeconomic literature on measuring financial development and respond to the growing fields of informal sector importance, microfinance and mobile banking by means of KE promotion. Policy implications and future research directions are discussed.

## References

Abu-Bader, S. and A. S. Abu-Qarn (2008), 'Financial Development and Economic Growth: Empirical Evidence from Six MENA Countries', *Review of Development Economics*, Vol. 12, No. 4, pp. 803–17.

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Amavilah, V. H. S. (2009), 'Knowledge of African Countries: Production and Value of Doctoral Dissertations', *Applied Economics*, Vol. 41, No. 8, pp. 977-89.

[Web of Science®](#) | [Google Scholar](#)

Andrés, A. R., S. A. Asongu and V. H. S. Amavilah (2014), 'The Impact of Formal Institutions on Knowledge Economy', *Journal of the Knowledge Economy*, forthcoming. Available at: <http://link.springer.com/article/10.1007%2Fs13132-013-0174-3> (accessed 8 February 2014).

[Google Scholar](#)

Ang, J. B. and W. J. McKibbin (2007), 'Financial Liberalization, Financial Sector Development and Growth: Evidence from Malaysia', *Journal of Development Economics*, Vol. 84, pp. 215-33.

[Web of Science®](#) | [Google Scholar](#)

Anyanwu, J. (2007), 'Promoting Investment in Africa', *African Development Review*, Vol. 18, No. 1, pp. 42-71.

[Web of Science®](#) | [Google Scholar](#)

Anyanwu, J. (2009), 'Why Does Foreign Direct Investment Go Where it Goes? New Evidence from African Countries', *Annals of Economics and Finance*, Vol. 13, No. 2, pp. 425-62.

[Google Scholar](#)

Asongu, S. A. (2012), 'On the Effect of Foreign Aid on Corruption', *Economics Bulletin*, Vol. 12, No. 3, pp. 2174-80.

[Google Scholar](#)

Asongu, S. A. (2013a), 'How Has Mobile Phone Penetration Stimulated Financial Development in Africa', *Journal of African Business*, Vol. 14, No. 1, pp. 7-18.

[Google Scholar](#)

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Asongu, S. A. (2013d), 'How Do Financial Reforms Affect Inequality through Financial Sector Competition? Evidence from Africa', *Economics Bulletin*, Vol. 33, No. 1, pp. 401–14.

[Google Scholar](#) 

---

Asongu, S. A. (2013e), 'Investment and Inequality in Africa: Which Financial Channels Are Good for the Poor?', *African Finance Journal*, Vol. 15, No. 2, pp. 43–65.

[Google Scholar](#) 

---

Asongu, S. A. (2013f), 'How Would Population Growth Affect Investment in the Future? Asymmetric Panel Causality Evidence for Africa', *African Development Review*, Vol. 25, No. 1, pp. 14–29.

[Web of Science®](#)  | [Google Scholar](#) 

---

Asongu, S. A. (2014a), 'Financial Sector Competition and Knowledge Economy: Evidence from SSA and MENA Countries', *Journal of the Knowledge Economy*, forthcoming. Available at: <http://link.springer.com/article/10.1007/s13132-012-0141-4> (accessed 8 February 2014).

[Web of Science®](#)  | [Google Scholar](#) 

---

Asongu, S. A. (2014b), 'Liberalization and Financial Sector Competition: A Critical Contribution to the Empirics with an African Assessment', *South African Journal of Economics*, forthcoming. Available at: [http://econpapers.repec.org/paper/agdwpaper/13\\_2f031.htm](http://econpapers.repec.org/paper/agdwpaper/13_2f031.htm) (accessed 8 February 2014).

[Web of Science®](#)  | [Google Scholar](#) 

---

Asongu, S. A. (2014c), 'The Impact of Mobile Penetration on African Inequality', *International Journal of Social Economics*, forthcoming. Available at: <http://econpapers.repec.org/paper/pramprapa/46041.htm> (accessed 9 February 2014).

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Asongu, S. A. (2014f), 'The Impact of Health Worker Migration on Development Dynamics: Evidence of Wealth-effects from Africa', *The European Journal of Health Economics*, available at: <http://link.springer.com/article/10.1007%2Fs10198-013-0465-4> (accessed 10 February 2014).

[PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

Biekpe, N. (2012), 'The Competitiveness of Commercial Banks in Ghana', *African Development Review*, Vol. 23, No. 1, pp. 75-87.

[Web of Science®](#) | [Google Scholar](#)

Bodie, Z. and R. C. Merton (1998), 'A Conceptual Framework for Analyzing the Financial System', NBER Working Paper, No. 95-062.

[Google Scholar](#)

Boyce, J. K. and L. Ndikumana (2011), 'Capital Flight from Sub-Saharan Africa: Linkages with External Borrowing and Policy Options', *International Review of Applied Economics*, Vol. 25, No. 2, pp. 149-70.

[Google Scholar](#)

Britz, J. J., P. J. Lor, I. E. M. Coetzee and B. C. Bester (2006), 'Africa as a Knowledge Society: A Reality Check', *The International Information and Library Review*, Vol. 38, pp. 25-40.

[Web of Science®](#) | [Google Scholar](#)

Chandra, D. S. and K. Yokoyama (2011), 'The Role of Good Governance in the knowledge Based Economic Growth of East Asia: A Study on Japan, Newly Industrialized Economies, Malaysia and China', Graduate School of Economics, Kyushu University.

[Google Scholar](#)

Chavula, H. K. (2010), 'The Role of Knowledge in Economic Growth: The African Perspective', ICT, Science and Technology Division (ISTD), United Nations Economic Commission for Africa (UNECA).

[Google Scholar](#)

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[Google Scholar](#) 

---

Demombynes, G. and A. Thegeya (2012), 'Kenya's Mobile Revolution and the Promise of Mobile Savings', World Bank Policy Research Working Paper, No. 5988, March.

[Google Scholar](#) 

---

Fosu, A., R. Bates and A. Hoeffler (2006), 'Institutions, Governance and Economic Development in Africa: An Overview', *Journal of African Economies*, Vol. 15, No. 1, pp. 1–9.

[Web of Science®](#)  [Google Scholar](#) 

---

Fugazza, M. and N. Fiess (2010), 'Trade Liberalization and Informality: New Stylized Facts', Policy Issues in International Trade and Commodities Study Series No. 43. Available at: [http://unctad.org/en/docs/itcdtab44\\_en.pdf](http://unctad.org/en/docs/itcdtab44_en.pdf) (accessed 27 November 2013).

[Google Scholar](#) 

---

IMF (2008), 'International Financial Statistics Yearbook, 2008', IMF Statistics Department, October.

[Google Scholar](#) 

---

Ivashina, V. (2009), 'Asymmetric Information Effects on Loan Spreads', *Journal of Financial Economics*, Vol. 92, pp. 300–19.

[Web of Science®](#)  [Google Scholar](#) 

---

Jolliffe, I. T. (2002), *Principal Component Analysis*, 2nd edn, Springer, New York.

[Google Scholar](#) 

---

Jonathan, D. and T. Camilo (2008), 'Mobile Banking and Economic Development: Linking Adoption, Impact and Use', *Asian Journal of Communication*, Vol. 18, No. 4, pp. 318–22.

[Web of Science®](#)  [Google Scholar](#) 

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[Google Scholar](#) 

Makinda, S. M. (2007), 'How Africa Can Benefit from Knowledge', *Futures*, Vol. 39, pp. 973–85.

[Web of Science®](#) 

[Google Scholar](#) 

Mbiti, I. and D. N. Weil (2011), 'Mobile Banking: The Impact of M-Pesa in Kenya', NBER Working Paper No.17129, June.

[Google Scholar](#) 

Mweda, A. and N. Mutoti (2012), 'Financial Sector Reforms, Bank Performance and Economic Growth: Evidence from Zambia', *African Development Review*, Vol. 23, No. 1, pp. 60–74.

[Web of Science®](#) 

[Google Scholar](#) 

Mwega, F. (2012), 'The Competitiveness and Efficiency of the Financial Services Sector in Africa: A Case Study of Kenya', *Africa Development Review*, Vol. 23, No. 1, pp. 44–59.

[Web of Science®](#) 

[Google Scholar](#) 

Ndikumana, L. (2000), 'Financial Determinants of Domestic Investment in Sub-Saharan Africa: Evidence from Panel Data', *World Development*, Vol. 28, No. 2, pp. 381–400.

[Web of Science®](#) 

[Google Scholar](#) 

Nguena, C. L. and N. R. Tsafack (2014), 'On the Sensitivity of Banking Activity Shocks: Evidence from the CEMAC Sub-region', *Economics Bulletin*, Vol. 34, No. 1, pp. 354–72.

[Google Scholar](#) 

O'Toole, C. M. (2012), 'Does Financial Liberalization Improve Access to Investment Finance in Developing Countries?', UNU-WIDER Working Paper No. 2012/67.

[Google Scholar](#) 

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Poshakwake, S. S. and B. Qian (2012), 'Competitiveness and Efficiency in the Banking Sector and Economic Growth in Egypt', *African Development Review*, Vol. 23, No. 1, pp. 99–120.

[Web of Science®](#) | [Google Scholar](#)

Simpasa, A. M. (2012), 'Competitive Conditions in the Tanzanian Commercial Banking Industry', *African Development Review*, Vol. 23, No. 1, pp. 88–98.

[Web of Science®](#) | [Google Scholar](#)

Weber, A. S. (2011), 'The Role of Education in Knowledge Economies in Developing Countries', *Procedia Social and Behavioral Sciences*, Vol. 15, pp. 2589–94.

[Web of Science®](#) | [Google Scholar](#)

World Bank (2005), ' Indicators of Financial Structure, Development and Soundness', in *Financial Sector Assessment: A Handbook*, Available at: <https://www.imf.org/external/pubs/ft/fsa/eng/pdf/ch02.pdf> (accessed 9 February 2014).

[Google Scholar](#)

World Bank (2007), *Building Knowledge Economies. Advanced Strategies for Development*, World Bank Institute Development Studies, Washington DC.

[Google Scholar](#)

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