FINANCIAL SUSTAINABILITY OF MICROFINANCE PROVIDERS

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ABSTRACT

Microfinance sector showed a tremendous growth for the last decade and got a considerable attention throughout the entire world specifically in the developing countries, but on the other side the number of poor people has not been decreased. The focus of this study is to investigate the financial sustainability of microfinance providers and to examine the different factors or problems that affecting it. Financial sustainability is the capability of microfinance providers to main its efficiency/productivity and profitability for long term. Financial self-sufficiency, operational self-sufficiency has been proposed for the measurement. Regression analysis is proposed to find out the impact of different factors on the financial sustainability of microfinance providers. Factors affecting the financial sustainability of microfinance providers includes the presence of aggressive marketing, focus on liquidity, focus on profit oriented programs, Net interest margin, commercialization, high level of competition, entrepreneurial behaviors of the people, high interest rates, political instability, growth addiction, focus on stability or short term profitability, focus on loan repayment, lack of follow-up programs, lack of awareness, miss use of loan, fear of defaults, lack of technical support etc. which have to be considered in future studies.

Key words: MFIs, MFPs, Financial Sustainability, Efficiency, Poverty, Empowerment

1- INTRODUCTION

The unavailability of credit for the rural communities around the globe is the main problem specifically in the developing countries. In formal banking system, due to high cost and high default rates, a large portion of the society is living without access to credit. This represents a very critical situation for the economies of the developing countries that one of the main sectors needs funds to finance their growth. Microcredit has been recognized as on the most important tools for poverty reduction by the developing countries. Microcredit increase economic growth through starting small business, promote education, skill development, healthy living and develop a decent human settlements. Thus begins the innovation in the financial world for those who have limited access or facing difficulties in availing the facilities of the formal banks which is microfinance.

Microfinance can be defined as a set of innovative and alternative financial services to the poor who lack access to formal financial institutions (UNDP, 2003).

The services provided by microfinance sector includes microcredit, micro insurance, and saving facility (Muhammad, 2010). The basic aims of microfinance is to get access to a maximum number of poor people and provide them small loans (Saad, Taib, & Bhuiyan, 2018). Accounting of the lending strategy in microfinance institutions can raise the productive efficiency and borrower's welfare of the MFIs (Karaivanov, Xing, & Xue, 2020). The important of microfinance sector has been reflecting from the preference given the United Nations and different governments. According to Microfinance Barometer 2019, 139.90 million borrowers have benefitted from microfinance sector till 2018, where 80% were women and 65% of the borrowers from rural areas. More than 10,000 microfinance institutions operating in the world and serving more than 70 million borrowers with a total loan portfolio of USD 40 billion (World Bank). World Bank created a credit support fund of USD 300 million to support microcredit (World Bank). 80% of the loans are provided to women (The Mix 2017). 92% of the income earned by women is reallocated in household income while men reallocated only 42% of the total earned income case in India (Women World Banking). The repayment rate of microcredit is 95-100% (World Bank). Microfinance reaches up to 20% of the world's 3 billion poor people (International Finance Corporation). The growth rate of the microfinance increased from 20-30% per annum from 2008-2017 (Microfinance Barometer 2018).

These figures also show that how much importance has been given by microfinance sector to women empowerment and poverty alleviation in rural areas of the world. While on the other hand, various world's institutions show numbers that poverty is still the most critical issue specifically for developing countries. 80% of the world's population has no access to a loan (Planet Finance Japan 2017 60% of the global microfinance lenders are in South Asia (Medici 2017). In South Asia, 22.7% of children below five years old are experiencing intra-household inequality in deprivation and nutrition. This research study intends to analyze the financial sustainability and different factors that affect the sustainability of microfinance providers.

EVOLUTION OF MICROFINANCE INDUSTRY

Informally microfinance provision started in the 15th century in Nigeria and the 16th century in Europe. In 1720 in Ireland, while in 1823, microfinance institutions started accepting deposits and charging interests on the credit provided to poor people (Seibel, 2003). Raiffeisen and Schulze-Delitzsch established in Germany in 1847 and later were regularized under German Cooperative Act 1889 (Seibel, 2005). Until 1910, the number of people who became the customers of these cooperatives increased to 1.40 million (J Morduch, 2000).

In Asia, the history of some of the microfinance institutions was as old as 2200 years, such as Paluwagan, Artisan (Indonesia), Chit funds (India), and Hui (China) (Efendic & Hadziahmetovic, 2017). In the Asian sub-continent, various financial intermediaries were found informally from the 13th to 18th centuries. Later on, these financial intermediaries were replaced by the Raiffeisen model in 1892. In 1950, in different Asian countries, the government bodies, as well as international donors started subsidizing loans to farmers (Rogaly, 1996). In 1974, A Bangladeshi Economist Professor Muhammad Younas provided a small amount of money (dollars) to a basket maker, to able him to run their own small business, which would help him get out of the circle of poverty. Thus formal campaign of microfinance started. According to Robinson, the year 1980 was the most important year for MFIs as most of the MFIs came into existence including Grammen Bank, a successful example. In 2007, Professor Muhammad Younas was awarded the noble prize. Microfinance is not only fighting against poverty but also trying to improve the institutional capacity of the financial system through cost-effectively lends money to poor households (Jonathan Morduch & Graduate, 2002).

MICROFINANCE IN PAKISTAN

Informal microfinance funding in Pakistan was initiated by the government in 1953. In 1961, Agricultural Development Bank (now Zarai Taraqiati Bank) established the providing of small loans and subsidized funds for farmers (Dr. Muhammad Farooq, Zahoor Khan, 2014). While formally microfinance institutions in Pakistan started in the 1980s, with the establishment of its first microfinance institutions “Agha Khan Rural Support Program” (AKRSP) by Agha Khan Foundation. In the 1980s Orangi Pilot Project (OPP) established in the economic hub of Pakistan (Karachi (Javid & Abrar, 2015). In 1996, Kashf Foundation was established and in 1998 Pakistan Microfinance Network (PMN) was established as a controlling body for MFIs.

In 2000, the first microfinance bank, Khushali bank was established by the Pakistani government with the support of the Asian Development Bank. In 2001, the government initiated first microfinance authoritative order (ordinance) with a different prudential regulation for microfinance activities in three shape models, 1- Microfinance banks (MFB), 2- Microfinance institutions MFIs) and 3- Rural support program (SRSP). With the aid of the Asian Development Bank in 2006, PMN developed the first and largest microfinance network in terms of the gross loan portfolio, Pakistan Poverty Alleviation funds (PPAF) with the basic aim to provide funds to MFIs and NGOs. By taking public and private initiatives, Pakistan shows tremendous progress in the microfinance sector to make the access to the credit easy for the poor people to the credit and to eliminate and minimize poverty and vulnerability (Javid & Abrar, 2015).

There are various reasons behind the selection of Pakistan for the current study, which makes it a good case to be studied. Firstly, as the market is roughly divided equally between microfinance institutions (MFIs) and microfinance banks (MFBs), it is ideal for a comparative study that will serve as the basis for a reliable inquiring in the trade-off between the efficiency and sustainability of microfinance sector. Secondly, the growth of Pakistan has flattered and poverty has risen to an unprecedented level as the country faces serious political, economic, and security challenges. (Muhammad, 2010) identified challenges in MFIs in Pakistan i.e. improper regulation, growing competition, innovative and varied products, benefits, stability, narrow management capacity, etc. while the identified opportunities during the study are an increase in poverty, stimulating growth economy, women empowerment, increasing volume, accessibility and economies of scope, etc. Finally, women empowerment is also the basic issue in Pakistan society, by accessing microfinance loans it is hoped that women can have or increase their own earnings. The lack of active participation of women from rural areas of Pakistan is due to their immobility, income disparity, domestic pressure, and lack of decision making (Shabib ul Hasan 2012).

A huge amount is provided to the society for the purpose of eliminating poverty and empowering women but the outcome is still questionable (Ashfaq & Saeed 2017). This enforced the researchers and policymakers to measure the efficiency and sustainability of the microfinance providers and its determinants (Festic, Repina, & Kavkle, 2009) and (Berger & Humphrey, 1997). Therefore microfinance is the most reliable and possible source to access and get the financial support from to start their small business to make income. But it is still unclear whether microfinance has a positive effect on the poverty reduction process of the country and women empowerment in Pakistan.

2- LITERATURE REVIEW

According to (Davis et al., 2004) the biggest rational for the improvement of financial service is the idea of empowering the low income and poor people of the society by generating income from their small business. It will also minimize their unexpected events and vulnerability. Various studies i.e. (Ahlin and Jiang, 2008) suggested that if the poor and low-income people continue to be clients of MFIs, then these financial benefits will be successful. Which shows that MFIs will become powerful tools against the poverty only if MFIs focus on further enabling the average borrowers to enhance long-run development by graduating them the continual dependence (Hartarska, Caudill, & Gropper, 2011); (Kyereboah-Coleman and Osei, 2008); (Karlan and Goldberg, 2007); (Lafourcade et al., 2005); (Schreiner, 2000); (Ladgerwood, 1999); (Hulme and Mosely, 1996) defined microfinance as supplying microcredits, or providing small scale of financial service to the poor or low-income people with no access to the formal banking system.

FINANCIAL EFFICIENCY OF MICROFINANCE INSTITUTIONS

For the measurement of efficiency of microfinance institutions, various researchers, academicians, and scholars used different measurement tools. Five techniques are the most commonly used and applied by various researchers. They are the Stochastic Frontier Approach (SFA), Data Envelopment Analysis (DEA), DHA, etc. (Gong, Liu, & Zhu, 2019) identified the operational mechanism active in sustainable operations for the measuring efficiency. (Alawattage, Graham, & Wickramasinghe, 2019) studied bio-politics and micro-accountability in microfinance institutions in Sri Lanka. (Efendic & Hadziahmetovic, 2017) found that the financial efficiency of the selected firms is significantly higher than social efficiency. Small size MFIs perform better than the large size firms in financially. (Donou-Adonsou & Sylwester, 2017) found that MFI loans are not mainly invested as physical capital but managed total productive efficiency, where banks might be financing non-productive investments. There has been an increase in interest rates which were noted by different academicians and policymakers for the last three decades (Modrduch, 1999; (Brau & Woller, 2004) Nidls Hermes and R.Lensink, 2007).

FINANCIAL SUSTAINABILITY

Financial sustainability is the capability of MFIs to manage its operational cost from its own generated income whether subsidized or not. If an MFI is making loss or MFI is with low financial performance, then it cannot be considered as financially sustainable. Similarly, if an MFI is making a profit, but its profitability is captured by some of its operating costs or by the resources of funds of subsidies, it will also not consider as financially sustainable. (Semaw Henock, 2019) examined the relationship between financial sustainability and outreach performance. The results show that the performance of SACCs financially and outreach at a moderate level. ROA, operational efficiency, debt to equity ratio, donations, and deposit mobilization are the significant predictor variables in deciding the financial sustainability of SACCs. While financial self-sufficiency, size, D/E ratio, and donation are the significant predictor variables in determining the outreach performance of microfinance institutions. It was concluded from the overall data analysis that there is no trade-off between financial self-sufficiency and outreach rather compatibility.

(Zamore, 2018) stated in his studies of “should microfinance institution diversity of focus” that the diversification of the revenue is a significant strategy for the sustainability of the microfinance institutions. It is the ability of a microfinance institution to cover all of its costs through interest and other income paid by its clients (Consultative Group, 2011). Better probability of financial sustainability has a positive effect on the depth and breadth of the outreach of women (Quayes, n.d.2012). According to (Burki, Sadiq, & Burki, 2018), financing charges, outreach proportion of female lenders significantly described the financial sustainability of MFIs. While the size of the loan also has a positive impact on the financial sustainability of microfinance institutions in Pakistan.

(Caserta, Monteleone, & Reito, 2018) stated that with a for-profit MFI, mission drift does not take place, if borrowers are offered a mix of individual and joint liability contracts. While with a non-profit MFI, poor individuals are never crowded out by entrepreneurs with better wealth. The goals of sustainability and efficiency are not often mutually supportive (Saravanan, 2018). While (García-Pérez, Muñoz-Torres, & Fernández-Izquierdo, 2017) identified and clarified the main terms and concepts associated with microfinance to facilitate an inclusive understanding among practitioners and academics. (Donou-Adonsou & Sylwester, 2016) argued that banks decrease poverty when poverty is measured by the headcount ratio and the poverty gap. MFIs do not have any effect on poverty reduction regardless of the measure of poverty employed. It is implied that the trickle-down effect in the financial development literature may not work for MFIs as it does for banks. Another study of (Hossain & Khan, 2016) shows that capital-asset ratio, operating expense ratio, write-off ratio have a significant impact on the financial sustainability of the MFIs of Bangladesh, while the size of the firm, firm’s age, saving to total assets ratio, borrowers per staff member, debt to equity ratio, percentage of female borrowers and outstanding loans to total asset ratio has no significant impact on the financial suitability of the MFIs operating in Bangladesh.

The study of the (Javid & Abrar, 2015) provided evidence for the existence of the trade-off between financial sustainability and outreach of MFIs. Size of MFIs, capital structure, profit is the positive contributors while risk, regulation is the negative contributors of outreach. A big number of active borrowers and women can reduce poverty in households. The depth of outreach negatively related to outreach cost and positively with sustainability. (Hartarska, Shen, & Mersland, 2013) also noted the existence of a trade-off between outreach and sustainability.

(Rai & Rai, 2012) proposed a comprehensive representative model for financial sustainability and established an index to examine the financial performance of microfinance institutions. They found that capital/assets ratio, operating expense/loan portfolio ratio and portfolio at risk > 30 days are the main factors affecting the financial sustainability of MFIs. Regulatory regime overseeing the institution, liquidity level, interest rate, lending model for individual, and leverage of the MFIs are the different determinants affecting the financial sustainability of the MFIs Kimondo (2012). There is a contradiction between the two studies of Paxton (2012). In one study he argued that all the MFIs are sustainable, operating in developing regions expect Africa. While in another study he reported that the MFIs operating in South East Asia are fairly sustainable and the MFIs operating in South Asian region are not sustainable.

According to Kinde (2012), cost per borrower dependency ratio, depth of outreach, and breadth of outreach are the factors affecting the financial sustainability of the MFIs in Ethiopia. While (Bayeh Asnakew Kinde, 2012) also noted that depth of outreach, breadth of outreach, cost per borrower, and dependency ratio effect on financial sustainability, while the capital structure and staff productivity have an insignificant impact on the financial sustainability of the MFIs of Ethiopia. Katsushi (2011) identified the factors specifically influence the performance of MFIs, particularly profitability, portfolio quality, and operating expense. (Ahlin et al., 2011) argued that the success of MFIs is dependent on the country level context specifically macro institutional and macroeconomic feathers, also suggestive of rivalry or sustainability.

MEASUREMENT OF FINANCIAL SUSTAINABILITY

Normally it is very difficult to measure the sustainability of the MFIs because most of the MFIs are subsidized. Various researchers used different measurement tools to measure the financial sustainability of the firms, as ROA, ROE, while some of the researchers used the mixed market definition of financial sustainability. To keep being consistent with the earlier studies and examine the result in different context and find a meaningful comparison of the finding with the previous empirical studies, financial sustainability can be measured by two methods, operation sustainability (OSS) and financial self-sufficiency (FSS).

FINANCIAL SELF-SUFFICIENCY (FSS)

A financial self-sufficiency ratio is a measurement tool used to measure the ability of an institution to generate enough revenue to cover its cost. Financial sustainability can be calculated as, **Financial self-sufficiency (FSS) = Adjusted Revenue / Adjusted Expense**

The value of FSS will be around 1 as if FSS $\geq$ 1 means the MFI is financially self-sufficient. If the outreach and financial performance are good, then the microfinance institutions will be able to sustain the positive impact on the socio-economic welfare of the poor people. It was also used by various researchers in their studies, such as (Zamore, 2018); (Ayayi & Sene, 2010); (Battilana & Dorado, 2010); (Bogan et al., 2007); (Meyer, 2002).

OPERATIONAL SELF-SUFFICIENCY

It determines the level of adjusted operating income that will be sufficient to cover the aggregate cost, i.e. monetary cost, credit misfortune, working cost, besides taking stipends, gifts, and endowments. According to (Bogan et al., 2007), operational self-sufficiency ratio achieves 100% level then it will be considered as feasible operationally. When it achieves a 110% level then it will be considered as optimal monetarily. It can be calculated by adjusted operating income divided by the adjusted operating expense.

3- DISCUSSION

In developing countries like Pakistan, financial sustainability is another problem for all the sectors. In Pakistan, poor economic conditions, fluctuated interest and exchange rates, disturbed business environment, government and political person intervention in country's business sectors, etc. These factors create hurdles in the attainment of the maximum earning for any business. Financial sustainability is the MFPs' ability to manage their own operational cost from their self-generated income whether subsidized or not. Sustainability is not only restricted to profitability but it is related to the MFPs' ability to run the operation in the long term.

An inappropriate and costly growth strategy of over-expansion affects the firm's productivity and efficiency, which leads to the week financial position of the sector. The usual interest rates on microfinance loans are stretching around 35% or more. The sector needs to follow an intensive growth strategy and focus more on utilizing the existing financial and human resources, reduce the interest rate, and pay less attention to expansion. The expansion demands immediate investment in the form of Readily Available Optimum Mix of Financial Resources in equity, tithe from Donors & deposits from the public. Increase deposits result in an increased capacity of MFI &MFB to provide loans and a decrease in financing cost. With improved stability and better efficiencies, the MFP would be able to move over time to the twin Goals of Social Attainment and Financial Sustainability.

Financial sustainability also remains a challenge for microfinance institutions. It refers to the long term profitability of financial institutions. According to (Monnoo, 2017), financial sustainability of the Pakistan's microfinance sector is also very weak and needs to be recognized. The ratios of productivity are low and the inclusive cost per borrower increasing. Non-appropriate and costly growth strategy of over-expansion affects the productivity and efficiency of the firm, which leads to week financial position of the sector. The typical interest rates on microfinance loans are stretching around 35% or more. The comparative analysis suggests that MFBs are less efficient and MFIs are better than MFBs because of the trade-off between microfinance's social and commercial objectives.

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From the above previous studies, it is noted that financial sustainability of the microfinance providers should be studied to examine the sustainable performance of the MFIs. For the last decades, the growth of MFIs increased considerably. But on the other side of the coin, the number of poverty and the poor people are not decreasing. Meanwhile, microfinance providers are facing different challenges. According to various researchers, number of factors that affecting the sustainability of MFPs includes; the aggressive marketing presence, focus on short term profitability, the profit-oriented programs, growth addiction, commercialization of the programs, high competition, difference in cultural dimensions, high-interest rates, net interest margin, unstable political situation, growth addiction, stability or short term profitability focus, loan repayment focus, no follow-up programs, lack of awareness, loan misuse, fear of defaults, lack of technical support etc are the main challenges facing by the microfinance sector.

REFERENCES

[1] Alawattage, C., Graham, C., & Wickramasinghe, D. (2019). Microaccountability and biopolitics: Microfinance in a Sri Lankan village. *Accounting, Organizations and Society*, *72*, 38–60. https://doi.org/10.1016/j.aos.2018.05.008

[2] Berger, A. N., & Humphrey, D. B. (1997). ciencv of Financial Institutions: International Survev a nd Dire ctions for Futu re Resea rch * Board of Governors of the Federal Reserve System Fmc iencv of Financial lnstit~ons: International Survev a nd Direction s for Future Researc h I 1. introductio. *Journal of Operational Research*. Retrieved from https://www.federalreserve.gov/pubs/feds/1997/199711/199711pap.pdf

[3] Brau, J. C., & Woller, G. M. (2004). Pension Fund: A Comprehensive Review of the Existing Literature. *Journal of Entrepreneurial Finance and Business Ventures*, *9*(1), 1–26.

[4] Burki, A. K., Sadiq, A., & Burki, H. U. (2018). Financial sustainability and microfinance institutions from an emerging market. *Risk Governance and Control: Financial Markets & Institutions*, *8*(4), 30–37. https://doi.org/10.22495/rgcv8i4p4

[5] Caserta, M., Monteleone, S., & Reito, F. (2018). The trade-off between profitability and outreach in microfinance. *Economic Modelling*, *72*(January), 31–41. https://doi.org/10.1016/j.econmod.2018.01.003

[6] Donou-Adonsou, F., & Sylwester, K. (2016). Financial development and poverty reduction in developing countries: New evidence from banks and microfinance institutions. *Review of Development Finance*, *6*(1), 82–90. https://doi.org/10.1016/j.rdf.2016.06.002

[7] Donou-Adonsou, F., & Sylwester, K. (2017). Growth effect of banks and microfinance: Evidence from developing countries. *Quarterly Review of Economics and Finance*, *64*, 44–56. https://doi.org/10.1016/j.qref.2016.11.001

[8] Dr. Muhammad Farooq, Zahoor Khan. (2014). The Social and Financial Performance of Conventional and Islamic Microfinance Institutions in Pakistan. *The Social and Financial Performance of Conventional…*, (June).

[9] Efendic, V., & Hadziahmetovic, N. (2017). The social and financial efficiency of microfinance institutions: The case of Bosnia and Herzegovina. *South East European Journal of Economics and Business*, *12*(2), 85–101. https://doi.org/10.1515/jeb-2017-0018

[10] García-Pérez, I., Muñoz-Torres, M. J., & Fernández-Izquierdo, M. Á. (2017). Microfinance literature: A sustainability level perspective survey. *Journal of Cleaner Production*, *142*, 3382–3395. https://doi.org/10.1016/j.jclepro.2016.10.128

[11] Gong, Y., Liu, J., & Zhu, J. (2019). When to increase firms' sustainable operations for efficiency? A data envelopment analysis in the retailing industry. *European Journal of Operational Research*, *277*(3), 1010–1026. https://doi.org/10.1016/j.ejor.2019.03.019

[12] Hartarska, V., Caudill, S. B., & Gropper, D. M. (2011). The Cost Structure of Microfinance Institutions in

Eastern Europe and Central Asia. *SSRN Electronic Journal*, (809). https://doi.org/10.2139/ssrn.905911
[13] Hartarska, V., Shen, X., & Mersland, R. (2013). Scale economies and input price elasticities in microfinance institutions. *Journal of Banking and Finance*, *37*(1), 118–131. https://doi.org/10.1016/j.jbankfin.2012.08.004
[14] Hossain, M. S., & Khan, M. A. (2016). Financial Sustainability of Microfinance Institutions (MFIs) of Bangladesh. *Developing Country Studies*, *6*(6), 60–78. https://doi.org/10.17010//2015/v9i5/71443
[15] Javid, A. Y., & Abrar, A. (2015). Microfinance institutions and poverty reduction: A cross regional analysis. *Pakistan Development Review*, *54*(4), 371–387. https://doi.org/10.30541/v54i4i-iipp.371-387
[16] Karaivanov, A., Xing, X., & Xue, Y. (2020). Bogus joint liability groups in microfinance. *European Economic Review*, *122*(71971063). https://doi.org/10.1016/j.euroecorev.2019.103353
[17] Morduch, J. (2000). The Microfinance Schism.Princeton University ,New Jersy,USA. *World Development*, *28*(4), 617–629.
[18] Morduch, Jonathan, & Graduate, R. F. W. (2002). *Analysis of the Effects of Microfinance on Poverty Reduction Analysis of the Effects of Microfinance on Poverty Reduction*.
[19] Muhammad, S. D. (2010). Microfinance challenges and opportunities in Pakistan. *European Journal of Social Sciences*, *14*(1), 88–97.
[20] Quayes, S. (n.d.). *Probability of Sustainability and Social Outreach of Microfinance Institutions*. *39*(2), 1047–1056.
[21] Rai, A., & Rai, S. (2012). Factors Affecting Financial Sustainability of Microfinance Institutions. *Journal of Economics and Sustainable Development*, *3*(6), 1–10. Retrieved from http://iiste.org/Journals/index.php/JEDS/article/view/1673
[22] Saad, M., Taib, H. M., & Bhuiyan, A. B. (2018). Determinants of Outreach Performance of Microfinance Institutions in Pakistan. *Research Journal of Finance and Accounting*, *9*(15), 21–27.
[23] Saravanan, S. (2018). Sustainability and efficiency of microfinance institutions in South Asia. *Theoretical and Applied Economics*, *XXV*(4), 97–120.
[24] Semaw Henock, M. (2019). Financial sustainability and outreach performance of saving and credit cooperatives: The case of Eastern Ethiopia. *Asia Pacific Management Review*, *24*(1), 1–9. https://doi.org/10.1016/j.apmrv.2018.08.001
[25] Zamore, S. (2018). Should microfinance institutions diversify or focus? A global analysis. *Research in International Business and Finance*, *46*(December 2017), 105–119. https://doi.org/10.1016/j.ribaf.2017.12.001