

DIAGNOSTIC OF INNOVATIONS AND VOLATILITY PERSISTENCE IN EMERGING MARKETS: EVIDENCE FROM SUKUK AND STOCK INDICES

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Abstract

This paper analysis the persistence of shock and volatility of both Islamic and conventional financial markets, as well as the natural correlation between those markets. This study used the Bivariate BEKK-GARCH (1,1) model to examine the persistence of shock and volatility based on the daily prices in Dubai Islamic Capital Market (Sukuk index) and conventional Stock Market (DFM index). The results showed that both Sukuk and stock market indices were affected by their own news, while the volatility was persistent during the period of this research. The study also found a negative correlation between prices in both Sukuk and Stock markets during the Dubai debt crisis indicating that Islamic bonds were considered as a good portfolio diversifier. This study defines the natural correlation between the daily prices of both Sukuk and stock market, unlike the other studies which used returns. In addition, the empirical results might be valuable for investors and market makers to ensure a good portfolio diversification strategy.

Keywords:

volatility; Sukuk; Stock Market; Financial crisis; bekk-garch

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JEL: G1, G11, G15



1. Introduction

The last decades witnessed a wide expansion of Islamic finance, which is part of a consistent and integrated framework which considers finance as a supporting factor in the smooth functioning of real economic activity. It has offered a wide series of financial products developed to meet the requirements of a specific group of people, in a way which does not compromise their religious and ethical beliefs. The mechanism of Islamic capital market is rather different from the familiar capital market. Financial actors are guided by legal norms laid down in the legislation of the country, like for conventional market, but not only, they are also committed to respect meticulously the rules prescribed in the Holy Quran. Under this law, all Islamic financial transactions must be free of the following (Nikonova, T et al, 2015; Elfakhani and Hassan, 2005): (a) The interest is prohibited (riba); (b) The risk should be shared; (c) The speculative behavior is prohibited (maysir); (d) Use of asymmetric information is banned (gharar); (e) The contracts should be respected; (f) Trade transactions allowed by the Islamic norms should be financed only by Halal industries.

Due to the excellent investment opportunities, and the large choice of both conventional and Islamic investment tools offered in emerging markets such as Malaysia and the Middle East countries, investors are attracted to those markets more than ever. And it is known that volatility is one of the most attractive characters of emerging market, and investors know that they are likely to make huge profits if they understand the mechanism of such markets, and how the Islamic investment products interact with their conventional counterparts. This is why it is essential to understand the nature of the relationship between Shariah compliant tools and stocks and how investors can profit from the specificity of the link between them.

Indeed, forecasting financial markets correlations and volatility persistence have gained an enormous importance from investors, policy makers and different practitioners in finance worldwide, that is given to the huge impact of a good modelling process and a meticulously drawn provisions from academic researchers as well as from market makers to shed the light on the investments opportunities offered in the markets. Thus, both conventional and Islamic markets are becoming more and more decorticated for a better understanding of every little part of their mechanisms, and that attention to the volatility investigations is vital for a more efficient portfolio's management strategy. In addition, the fact that the volatility is varying over time and that its persistence is depending on the development of the market its self and the time series as well, may be the biggest challenge for the researchers and econometrician when investigating volatility of a given equity or market.

One area of Islamic finance that attracted and continues to attract lot of interest on the part of the business community worldwide is the global Sukuk market. So, what are these unconventional bonds? What characteristics do they have to their conventional counterparts? How has this sector prospered? And what are the challenges facing it?

To clarify the picture, it is necessary to define these financial instruments, underlining the main characteristics that distinguish them from traditional bonds. In addition, to understand all aspects of the subject, it is crucial to reveal the development of the global Islamic sukuk market since its first appearance.

Sukuk **صكوك** plural of Sakk **صك** is an Arabic term meaning certificate. In financial sense, sukuk refer to Shari'ah-compliant bond, according to the *Islamic Financial Services Board*, these financial tools can be defined as a certificate representing a proportional undivided ownership right in tangible assets, or a pool of predominantly tangible assets, or a

business venture (ISFB, 2009). Sukuk can be of many types (fourteen eligible sukuk types have been identified by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). There are requirements for Sukuk to be considered in compliance with the Shariah law, the most fundamental characters are as follow (Godlewski et al.,2013) :

First, the certificates must represent ownership in tangible assets, usufructs or services from revenue-generating firms. Second, payments to the investor come from after tax profits and finally, the value repaid at maturity date should follow the current market price of the underlying asset.

The Sukuk Market in the mid-1990s. The first attempt to resolve the liquidity problem faced by Islamic banks has been done by the Central Bank of Malaysia in 1983. So, the bank started its work without using the interest from Government securities, and instead launched government investment certificate, representing privacy bonds. In 1992, the Malaysian government has issued \$ 600 million Sukuk bonds in international markets (Rezaei, 2013)

The graph below shows the Sukuk issuance from 2001 to 2016. We notice that the sukuk market grew sharply from 2001 until 2007 when the global prices have far exceeded US\$ 25 billion. However, in 2008, the market showed a decline of about 30%, due to uncertainty in the global capital market as a result of Great recession in 2008. Nevertheless, Islamic bond prices recovered in 2009, because, the global economy has just tried to convalesce from the crisis.

Furthermore, it is noticed from the graph below, the overall sukuk prices are increasing during the post crisis period. In 2012 sukuk market registered the biggest expansion. Nevertheless, the prices fall again from 2013 to 2016 due to the overall economic distress worldwide.

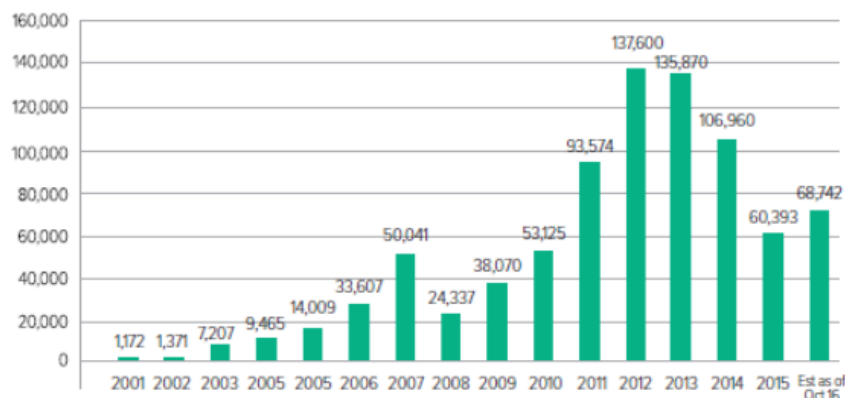


Figure1: Total sukuk issuance 2001-2016

Source: IIFM Newsletter, March, 2017

In order to face the sukuk market challenges, the standardized contracts need to be endorsed by the Shari-ah Board of Islamic infrastructure institutions such as AAOIFI¹, IIFM² and IFSB³ in order to give it an international dimension and acceptability in court litigation (Muhammad, 2008). Despite the efforts of Islamic finance standard setters, in many countries the industry is governed by a regulatory and supervisory framework developed for conventional finance. Therefore, it does not fully take into account the special nature of Islamic finance (Al-Maraj, 2014). Moreover, apart from the regulatory and tax aspects, the main challenge of Islamic finance is based on innovation to offer products that meet both

¹ AAOIFI: Accounting and Auditing Organization for Islamic Financial Institutions

² IIFM International Islamic Financial Market

³ IFSB Islamic Financial Services Board

the criteria of compliance with regulations, compliance with Islamic precepts but also financial and economic profitability.

From a regional point of view, the GCC countries are experiencing a significant evolution in the Islamic finance industry, and we find that Dubai is looking after the highly privileged position of being the centre of Islamic sukuk in the Middle East, and one of the major players in Islamic finance worldwide along with Malaysia and the United Kingdom. The ambitious initiative toward transforming Dubai into a Global Centre for Islamic Sukuk aims in the first place at making Dubai a hub for the Islamic finance industry and therefore contributing to the attraction to a huge liquidity to the Dubai Financial market, hence potentially also transforming Dubai into the world capital of Islamic finance.

2. literature Review

Islamic financial tools have notably grown, feeding the debate on these alternatives financing instruments. El Khalichi et al (2014) investigate the efficiency of Islamic benchmarks and their conventional counterparts, by testing the random walk hypothesis using variance ratio tests. Their results show that Islamic indices have the same level of (in) efficiency as conventional ones. While Connolly et al (2005) investigate the linkage between Islamic and conventional market, the author claim that stock–bond market correlation decreases with the increase of stock market uncertainty, suggesting that bonds could be a better hedge against stock market downturns. Also, Chiang et al (2016) shows that stock and bond prices tend to move in the same direction. El Alaoui et al (2015) use wavelet analysis, attempting to analyze the co-movement dynamics at different time scales of Islamic Dubai Financial Market (DFM-UAE) index returns with their counterpart regional Islamic indices returns. Their study's results divulge that closer market tend to have contagion effect, showing higher correlation and higher interdependence with a certain time delay.

In addition to that, others (Naifar ,2015 ; Scip et al., 2016) , look at the topic from a volatility perspective. Naifar, N.(2015) explore the dependence structure between Islamic bonds yields and stock market returns and volatility in the case of Saudi Arabia. The author use three Archimedean copula models namely Gumbel, Clayton, and Frank. The research's result show that the dependence structure between sukuk yields and stock market volatility are symmetric and linked with the same intensity. From the same perspective, Scip et al.(2016) show that volatility linkages between sukuk and regional market indexes are higher during financial crisis. The researchers argue that given the lower volatility of Sukuk compared to equity, sukuk could be a good diversifier for investor's portfolio.

Further, The use of the Multidimensional GARCH (MGARCH) models in financial market studies has been numerous. We can mention earliest work of Bollerslev (1990) about the changing variance structure of the exchange rate regime in the European Monetary System, assuming the correlations to be time invariant. Lien and Luo (1994) evaluated the multi-period hedge ratios of currency futures in a MGARCH framework. Karolyi (1995) examined the international transmission of stock returns and volatility using different versions of MGARCH models.

Finally, this research paper attempts to identify whether there is any impact of Islamic bonds on international stock market volatility, using a pile of time series econometric methods in order to add a scientific value proven by tests statistics.

3. Research Method

The researchers use the daily data of Dubai Islamic Capital Market (Sukuk Index) and conventional Stock market (DFM index) prices, extracted from the Thomson Reuters I deal Rating database and investing database respectively, from the period of 01/04/2009 to 29/12/2017.

Extending our Univariate-GARCH(1.1) allow to estimate variance-covariance matrix, we specify the mean equation of the SUKUK and stock market prices series as follow:

$$P_{su} = \gamma_{su} + \theta_{su} P_{su,t-1} + \varepsilon_{su}$$

$$P_{st} = \gamma_{st} + \theta_{st} P_{st,t-1} + \varepsilon_{st}$$

Where:

P_{su} , P_{st} : are vector of definite prices of sukuk and stock market series, respectively.

$\theta P_{su,t-1}$, $\theta P_{st,t-1}$: are the autoregressive coefficient in the conditional mean equation for sukuk and stock market prices.

γ_{su} , γ_{st} : are the long drift coefficient.

ε_{su} , ε_{st} : are the residuals.

(Baba-Engle-Kraft-Kroner)BEKK-model, acronym refers to specific parameterization of the multivariate GARCH model developed by Engle and Kroner(1995). The simplest Bekk representation for the N*N conditional covariance matrix Ω_t takes the form:

$$\Omega_t = c'c + \sum_{K=1}^K B' \Omega_{t-1} B + \sum_{k=1}^k A' \varepsilon_{t-1} \varepsilon'_{t-1} A$$

Whether:

Can upper triangular N*N matrix , A and B are unrestricted N*N matrix, and quadratic representation automatically guarantees that Ω_t is positive definite.

We can show our diagonal BEKK-GARCH(1.1), N=2 as follow :

$$\begin{bmatrix} \Omega_{su,t} & \Omega_{su, st,t} \\ \Omega_{st, su,t} & \Omega_{st,t} \end{bmatrix} = \begin{bmatrix} \alpha_{su,t} & 0 \\ \alpha_{st, su,t} & \alpha_{st,t} \end{bmatrix} \begin{bmatrix} \alpha_{su,t} & \alpha_{su, st,t} \\ \alpha_{st, su,t} & 0 \end{bmatrix} + \begin{bmatrix} \sigma_{su,t} & 0 \\ 0 & \sigma_{st,t} \end{bmatrix} \begin{bmatrix} \Omega_{su,t-1} & \Omega_{su, st,t-1} \\ \Omega_{st, su,t-1} & \Omega_{st,t-1} \end{bmatrix} \begin{bmatrix} \sigma_{su,t} & 0 \\ 0 & \sigma_{st,t} \end{bmatrix} + \begin{bmatrix} \beta_{su,t} & 0 \\ 0 & \beta_{st,t} \end{bmatrix} \begin{bmatrix} \varepsilon_{su,t-1}^2 & \varepsilon_{su,t-1} \varepsilon_{st,t-1} \\ \varepsilon_{st,t-1} \varepsilon_{su,t-1} & \varepsilon_{st,t-1}^2 \end{bmatrix} \begin{bmatrix} \beta_{su,t} & 0 \\ 0 & \beta_{st,t} \end{bmatrix}$$

Hence, the diagonal BEKK-GARCH(1.1) is :

$$\Omega_{su,t} = \alpha_{su}^2 + \sigma_{su}^2 \Omega_{su,t-1} + \beta_{su}^2 \varepsilon_{su,t-1}^2$$

$$\Omega_{st, su,t} = \alpha_{su} \alpha_{st} + \sigma_{su} \sigma_{st} \Omega_{st, su,t-1} + \beta_{su} \beta_{st} \varepsilon_{su,t-1} \varepsilon_{st,t-1}$$

$$\Omega_{st,t} = (\alpha_{st, su}^2 + \alpha_{st}^2) + \sigma_{st}^2 \Omega_{st,t-1} + \beta_{st}^2 \varepsilon_{st,t-1}^2$$

4. Results and Discussions

4.1. Unit root test:

Table 1: Unit root test statistics:

variables	Philips Peron test with constant and trend (1%)			Augmented Dickey Fuller test with constant and trend (1%)		
	level	1 st dif	result	level	1 st dif	result
su	0.6403	0.0001	I(1)	0.63	0.0001	I(1)
				8		
				6		
st	0.6521	0.0000	I(1)	0.66	0.0000	I(1)
				4		
				4		

In general, time series have a unit root which refer to random walk with drift, to check the stationarity of our variables we use two of the most popular unit root test, as shown in table 1.

From the result of both PP and ADF tests, we notice that our variables are not stationary at level and have unit root because their probability is higher than the critical value, but at the first difference, they became stationary.

4.2 Co-integration test:

Table 2: Johansen test:

hypothesized	Eigenvalue	Trace statistics	Probabilities
none	0.018072	41.04083	0.0000
At most one	0.000443	0.972411	0.3241

Co-integration (trace test) results shown in table2, imply that there is co-integrating equation at the 0.05 level. Hence, there is long run equilibrium relationship between the Sukuk and stock market in Dubai financial market.

4.3 Bekk Garch estimation:

Table3: Bekk-Garch(1.1) estimation:

variables	coefficients	Std.error	z-stat	p-value
Fascia3.1				
γ_{su}	0.808737	0.133926	6.038673	0.0000
θ_{su}	0.212178	0.049591	4.278550	0.0000
γ_{st}	0.842592	0.117039	7.199243	0.0000
θ_{st}	0.169932	0.030866	5.505501	0.0000
Fascia3.2				
α_{su}	0.700032	0.058009	12.06758	0.0000
$\alpha_{su\ st}$	7.568329	1.538994	4.917712	0.0000
α_{st}	436.619	54.00415	8.560460	0.0000
β_{su}	0.858162	0.027072	31.69942	0.0000
β_{st}	0.857923	0.026996	31.78015	0.0000
σ_{su}	0.646494	0.007617	84.87559	0.0000
σ_{st}	0.646402	0.007554	85.56707	0.0000

table3 represents Fascia 3.1 and 3.2 that display the conditional mean estimates and the conditional variance-covariance estimates, respectively.

First, fascia3.1 shows that one period lagged sukuk price θ_{su} explain the changes in current sukuk price γ_{su} , same for the stock market index. This means means that historical prices are represented by actual prices which is coherent with efficient market hypothesis (Timmermann, A., & Granger, C. W.2004).

Second, the fascia3.2 part of the table show that we see that ARCH (β) and GARCH (σ derives positive estimates which are statistically significant at 1% level. We can say that conditional variance of both sukuk and stock market are sensitive to their own past shocks, and their volatility are persistent and vary progressively over time.

Further, the volatility of sukuk is found to be driven mainly by the forecast variance (GARCH term) than the past shocks or news (ARCH term), which is consistent with Rahman et al (2013). This result suggests that any innovation will have a significant effect on the prices fluctuation of both sukuk and stock markets of the Dubai financial market and will

take some time before the prices gradually return to equilibrium.

The volatility of the Dubai stock market can be attributed to the Dubai debt crisis. In fact, the government borrowed 80 billion dollars in short delay (four year) to transform the landscape of the city aiming to be the new real estate and tourism hub. But this incredible challenge was not without consequences, the Dubai real estate sector suffered from a high property depression in the global scale and without any surprise this event had repercussion on the stock market, represented by the volatility of the Dubai stock market general index (DFM) prices.

Moreover, we examine conditional correlation between Sukuk and DFM in order to observe how their prices behave in relation to each other.

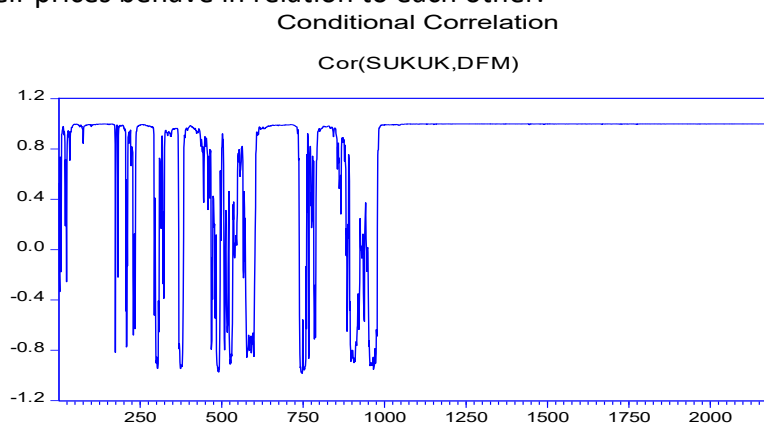


Figure2: Conditional correlation of the Sukuk and Stock Market Indices:

From the figure we notice that for the first three years (1000days) the correlation is varying between positive and negative coefficient, the relationship between our two assets is extremely volatile and tends to vary between 0.92 and -0.92. Further, this volatility is due to the nature of the sukuk that are hybrids between action and bond, and that result is coherent with Scip, A et al (2016). Also, the negative dependence between our two equities can benefit the investors, and can provide good portfolio diversification, this is consistent with (Naifar, 2016) study's results.

The volatility persistence of the trading assets is due to the dubai financial market crisis as demonstrated by the graph. However, The graph also show that at the beginning of the 4th year and until the end of the study's period, the correlation becomes equal to zero, which means that our two assets are no longer correlated, otherwise there is no measurable co-movement among the two investments.

5. Conclusion

It is known that market participants take into consideration the expected returns as well as expected risk. Hence, high volatility points out high uncertainty and this is why market's volatility is considered as the cornerstone of both long and short-run traders' strategy. Indeed, when the prices fluctuate its provide opportunities for investors to buy stocks, bonds or indexes (conventional or Islamic) when prices are low then the investors wait for cumulative growth down the road.

The paper concludes that both sukuk and stock market indices are affected by their own news and shows volatility persistence over the study period. The general environment of the Dubai financial market suggest that the fluctuation and sensitivity of investigated

equities are related to the nature of the market as a fast-growing emerging market on the one hand and to the economic and political event changes likewise the Dubai financial debt as the main trigger for the market tremble. Moreover, the negative degree of correlation between Sukuk and Stock Market Prices plays a meaning role in the performance of the Islamic bonds as good portfolio diversifier.

References

- Acar, M., Köse, N., Yıldırım, J., Boyacı, A., & Sezgin, F. (2012). *Qualitative and Quantitative Analysis of Impact of Conditional Cash Transfer Program in Turkey Project Report*. Ankara: Ministry of Family and Social Policies.
- Adato, M., de la Brière, B., Mindek, D., & Quisumbing, A. (2000). *The Impact of Progresa on Women's Status and Intrahousehold Relations*. Washington DC: International Food Policy Research Institute (IFPRI).
- Adato, M., Roopnaraine, T., Smith, N., Altinok, E., Celebioglu, N., & Cemal, S. (2007). *An evaluation of the conditional cash transfer program in Turkey: Second qualitative and anthropological study*. Washington, DC: International Food Policy Research Institute.
- Ahmed, A., Gilligan, D., Kudat, A., Colasan, R., Tatlidil, H., & Ozbilgin, B. (2006). *Impact evaluation of the conditional cash transfers program in Turkey: A quantitative assessment*. Washington, DC: International Food Policy Research Institute.
- Aktan, A., Pala, K., İlhan, B., & Civaner, M. (2014). Health-care reform in Turkey: far from perfect. *Lancet*, 383, 25-26.
- Antonopolous, R., & Kim, K. (2011). Social protection: opportunities for promoting a gender equality agenda. *Fe Dergi*, 3(2), 68-84.
- Arif, S., Syukri, M., Isdijoso, W., Rosfadhila, M., & Soelaksono, B. (2011). *Are conditions pro-women? A case study of a conditional cash transfer in Indonesia*. CSP Research Report 03.
- Atun, R., Aydın, S., Chakraborty, S., Sümer, S., Aran, M., Gürol, İ., . . . Akdağ, R. (2013). Universal health coverage in Turkey: Enhancement of equity. *Lancet*, 382, 65-99.
- Ayduz, D. S. (2006). *Artillery Trade in the Ottoman Empire*. Foundation for Technology, Science and Civilization. Récupéré sur <http://www.muslimheritage.com/uploads/Artillery%20Trade%20of%20the%20Ottoman%20Empire.doc2.pdf>
- Baird, S., McIntosh, C., & Ozler, B. (2009). *Designing cost-effective cash transfer programs to boost schooling in Sub-Saharan Africa*. Washington DC.: World Bank Policy Research Working Paper No. 5090.
- Baird, S., McIntosh, C., & Ozler, B. (2010). The short-term impacts of a schooling conditional cash transfer program on the sexual behavior of young women. *Health Economics*, 19(1).
- Barber, S., & Gertler, P. (2010). Empowering women: how Mexico's conditional cash transfer programme raised prenatal care quality and birth weight. *Journal of Development Effectiveness*, 2(1).
- Barber, S., & Gertler, P. (2009). Empowering women to obtain high quality care: evidence from an evaluation of Mexico's conditional cash transfer programme. *Health Policy and Planning*, 24, 18-25.
- Barrientos, A. (2005). *Non-contributory pensions and poverty reduction in Brazil and South Africa*. Manchester: Institute for Development Policy and Management.
- Barrientos, A., & Lloyd-Sherlock, P. (2002). *Non-Contributory Pensions and Social Protection, Issues in Social Protection Series, Social Protection Sector*. Geneva: International Labour Organisation.

- Barrientos, A., & Santibáñez, C. (2009). 'New Forms of Social Assistance and the Evolution of Social Protection in Latin America. *Journal of Latin American Studies*, 41(1), 1-26.
- Barrientos, A., & Scott, J. (2008). *Social transfers and growth: a review*. Manchester : The University of Manchester Brooks World Poverty Institute Working Paper 52.
- Bradshaw, S. (2008). From Structural Adjustment to Social Adjustment: A Gendered Analysis of Conditional Cash Transfer Programmes in Mexico and Nicaragua. *Global Social Policy*, 8(2), 188- 207.
- Bradshaw, S., & Quiros, A. (2008). Women Beneficiaries or Women Bearing the Cost? A Gendered Analysis of the Red de Protección Social in Nicaragua. *Development and Change*, 29(5), 823-844.
- Budlender, D., & Woolard, I. (2006). *The Impact of the South African Child Support and Old Age Grants on Children's Schooling and Work*. Paper presented at the ILO International Programme on the Elimination of Child Labour. Geneva: ILO.
- Chant, S. (2010). *The international handbook of gender and policy: concepts, research and policy*. Cheltenham: Edward Elgar.
- Chaudhury, N., & Parajuli, D. (2010). Conditional cash transfers and female schooling: the impact of the female school stipend programme on public school enrolments in Punjab, Pakistan. 42, 3565–3583.
- Çoban, A., Attepe, S., Uluocak, G., & Çelik, G. (2011). 'Are we doing fine?' The views on poverty reduction strategies among front-line workers in the field of social assistance in Turkey. *Journal of Social Service Research*, 37, 469-480.
- Darney, B., Weaver, M., Sandra, G., Walker, D., Servan-Mori, E., Prager, S., & Gakidou, E. (2013). The Oportunidades Conditional Cash Transfer Program: Effects on Pregnancy and Contraceptive Use Among Young Rural Women in Mexico. *Int Perspect Sex Reprod Health*, 39(4), 205-214.
- DFID. (2011). *Cash Transfers Evidence Paper*. Department for International Development Policy Division, London.
- Duflo, E. (2000). *Grandmothers and granddaughters: old age pensions and intra-household allocation in South Africa*. Cambridge, MA: National Bureau of Economic Research.
- Escobar Latapí, A., & González de la Rocha, M. (2009). Girls, Mothers and Poverty Reduction in Mexico: Evaluating Progresa-Oportunidades. Dans S. Razavi, *The Gendered Impacts of Liberalisation*. New York and Abingdon: Routledge/UNRISD.
- Esping-Andersen, G. (1999). *Social Foundations of Post Industrial Economies*. Oxford: Oxford University Press.
- Familia, B. (2014).
- Feldman, B., Zaslavsky, A., Ezzati, M., Peterson, K., & Mitchell, M. (2009). Contraceptive Use, Birth Spacing, and Autonomy: An Analysis of the Oportunidades Program in Rural Mexico. 40(1).
- Fiszbein, A., & Schady, N. (2009). *Conditional Cash Transfers: Reducing Present and Future Poverty*. Washington, DC: World Bank.
- Fultz, E., & Francis, J. (2013). *Cash transfer programmes, poverty reduction and empowerment of women: Experiences from Brazil, Chile, India, Mexico and South Africa*. Geneva: ILO GED Working Paper 4/2013.
- Garza, A. d. (2010). Garza, Andrew de la. "Mughals at War: Babur, Akbar and the Indian Military Revolution, 1500 - 1605. *A Dissertation for PhD Programme*, 12. The Ohio State University.
- Hasan, A. (2010). Gender-targeted Conditional Cash Transfers. *The World Bank Policy*

Research Working Paper 5257.

- ILO. (2010). *Extending social security to all – a guide through challenges and options*. Geneva: International Labour Organization.
- Jones, N., Vargas, R., & Villar, E. (2008). Cash transfers to tackle childhood poverty and vulnerability: an analysis of Peru's Juntos Program. *Environment and Urbanization*, 20, 255.
- Kabeer, N. (2008). *Mainstreaming gender in social protection for the informal economy*. The Commonwealth Secretariat.
- Kimsey, M. (2010). Gender in Designing and Implementing Social Transfer Programmes. Dans M. Samson, I. van Niekerk, & K. Mac Quene, *Designing and Implementing Social Transfer Programmes*. South Africa: Economic Policy Research Institute.
- Lomeli, A. (2008). Conditional Cash Transfers as Social Policy in Latina America. *Annual Review of Sociology*, 34, 475–99.
- Lund, F. (2011). A step in the wrong direction: Linking the South Africa Child Support Grant to school attendance. *Journal of Poverty and Social Justice*, 19(1), 5–14.
- Luttrell, C., & Moser, C. (2004). *Gender and Social Protection*. Récupéré sur <http://www.odi.org.uk/resources/docs/1686.pdf>
- MDS. (2014). *Bolsa Familia Information*. Récupéré sur <http://www.mds.gov.br/bolsafamilia/informes>
- MFSP. (2012). *Social Support Statistics Bulletin (June 2012)*. Ankara: Ministry of Family and Social Policies.
- MFSP. (2014). *2013 Calendar Year Activity Report*. Ankara: Ministry of Family and Social Policies.
- Molyneux, M. (2007). *Change and continuity in social protection in Latin America. Mothers at the service of the state?*. Geneva: United Nations Research Institute for Social Development (UNRISD) Working Paper No. 1.
- Molyneux, M. (2009). *Conditional Cash Transfers: A 'Pathway to Women's Empowerment'?*, *Pathways to Women's Empowerment*. Brighton: Institute of Development Studies.
- Molyneux, M., & Thompson, M. (2011). Cash transfers, gender equity and women's empowerment in Peru, Ecuador and Bolivia. *Gender & Development*, 19(2), 195-210.
- Naifar, N. (2016). Do global risk factors and macroeconomic conditions affect global Islamic index dynamics? A quantile regression approach. *The Quarterly Review of Economics and Finance*, 61, 29-39.
- OECD, O. f.-o. (2009). *Promoting pro-poor growth: social protection*. Paris: OECD.
- Ranganathan, M., & Lagarde, M. (2012). Promoting healthy behaviours and improving health outcomes in low and middle income countries: A review of the impact of conditional cash transfer programmes. *Preventive Medicine*.
- Razavi, S. (2003). *Women's changing roles in the context of economic reform and globalization*. background paper. Récupéré sur <http://unesdoc.unesco.org/images/0014/001469/146913e.pdf>
- Razavi, S. (2011). Rethinking care in a development context: An introduction. *Development and Change*, 42(4), 873-903.
- Razavi, S., Arza, C., Braunstein, E., Cook, S., & Goulding, K. (2012). *Gendered Impacts of Globalization: Employment and Social Protection*. Geneva: UNRISD Gender and Development Programme Paper Number 16.
- Samson, M., Lee, U., Ndlebe, A., MacQuene, K., van Niekerk, I., Ghandhi, V., & Harigaya, T. (2004). *The Social and Economic Impact of South Africa's Social Security System*. Cape

- Town: EPRI Research paper 37.
- Samson, M., van Niekerk, I., & Mac Quene, K. (2009). *Designing and Implementing Social Transfer Programmes* (éd. 2). South Africa: Economic Policy Research Institute.
- Samson, M., van Niekerk, I., & Mac Quene, K. (2010). *Designing and Implementing Social Transfer Programmes* (éd. 2). South Africa: Economic Policy Research Institute.
- SEDESOL. (2012). *Oportunidades, 15 years of results*. Mexico City: Secretaría de Desarrollo Social.
- SEDESOL. (2014). Récupéré sur Prospera Program Information: <https://www.prospera.gob.mx/Portal/>
- Soares, F. V., & Silva, E. (2010). *Conditional Cash Transfer Programmes and Gender Vulnerabilities: Case Studies of Brazil, Chile and Columbia*. International Policy Centre for Inclusive Growth (IPC-IG) Working Paper 69.
- Tabbush. (2010). Latin American Women's Protection after Adjustment: A Feminist Critique of Conditional Cash Transfers in Chile and Argentina. *Oxford Development Studies*, 38(4), 437-56.
- UNICEF. (2014). *Policy Paper on Improving Conditional Cash Transfers Programme in Turkey*. Ankara: UNICEF Turkey Office.
- UNRISD. (2010). *Combating Poverty and Inequality*. Geneva: United Nations Research Institute for Social Development.
- Ventura-Dias, V. (2009). *Market Forces, State Action and Social Institutions in the Dynamics of Gender (In)Equality in Latin America*. New York: RBLAC-UNDP.
- Yıldırım, J., Özdemir, S., & Sezgin, F. (2014). A Qualitative Evaluation of a Conditional Cash Transfer Program in Turkey: The Beneficiaries' and Key Informants' Perspectives. *Journal of Social Service Research*, 40(1), 62-79.