

## **CHAPTER V**

### **CONCLUSION**

#### **5.1 Introduction**

This chapter discusses and concludes the findings of the overall research which are used to answer the research problems. This chapter also contains the limitations of the research as well as the suggestions for further research, in which all of them are added to inspire and enhance the future exploration of this research topic.

#### **5.2 Conclusion**

In the application of the GMM method, the researcher tries to identify the factors and behavior of capital ratios in Indonesian commercial banks. This research was conducted by partially replicating a previous research by Francis and Osborne (2010) with some adjustments in the sampling and analysis method. The research was conducted on the samples of commercial banking statistics which are classified according to their industries in monthly period from 2009 to 2013. The conclusions of the research are as follows:

1. A positive relationship is available in the relationship between capital requirement and capital ratio which indicates that banks in Indonesia do respond in the same pace to changes in the amount of capital requirement set by Bank Indonesia. It supports the previous findings done by Francis

and Osborne (2010) on the effect of regulatory capital requirements in UK banks. It is assumed that the relationship between capital requirements and capital ratios in Indonesia compared to that in UK is relatively similar. In addition to this, Francis and Osborne (2010) stated in their research that this relationship was a bit stronger during a favorable economic condition, which was not surprising given the fact that it is easier to raise capital during such conditions. In a research by Alfon et al. (2004), they discovered evidence that the dependency between capital ratios and capital requirements was greater for the banks operating in capital level which was close to the regulatory requirements or in this case are generally larger banks. It can be assumed that the impact of the changing in capital requirement will affect larger banks more than smaller banks.

2. Banks responses to capital requirements in a form of capital ratios are influenced by banks' characteristics (size, composition of capital structure, risk, and exposure to market discipline) and are proved significant in a regression test using GMM method. The relationship between capital ratio and each banks' characteristics will be as follows:
  - a. The size of a bank (SIZE) is negative to the capital ratio suggesting that large banks such as state-owned banks which experience economies of scale are better to diversify risks, thus holding a lower capital ratio than smaller banks. The reason why large banks hold lower capital ratios is that in the event of difficulties, they expect to be bailed out (Francis and Osborne, 2010).

- b. Banks' opportunity cost to hold equity capital (ROE) shows a significant positive result to the capital ratio. Jokipii and Milne (2008) pointed out in their research that variable ROE may reflect revenues, thus those stronger banks with higher ROE have better ability to increase capital ratios through higher retained earnings.
  - c. Level of risk allowance (LRISK) is negatively correlated to capital ratios. The finding is consistent with the idea that changes in bank capital levels may not move in the same direction with the change in the level of risk, as proxied by risk-weighted assets in particular. According to Alfon et al. (2004), this negative result implies that banks with higher risk appetite would generally hold lower capital ratios (as cited in Francis and Osborne, 2010).
  - d. The extent to which a bank is exposed to market discipline (MARKET) has a significant impact on banks' capital management practices. This fact indicates that market forces, through their ability to affect banks' funding costs, for example a more demanding market discipline will provide banks with incentives to hold higher capital ratios. Francis and Osborne (2010) in their research showed that capital ratios of banks that rely heavily on subordinated debt tend to maintain higher capital ratios to mitigate the expected market reactions.
3. In terms of quality of capital, the positive result indicates that banks in Indonesia that rely to a greater extent on higher-quality and higher cost

Tier 1 capital tend to maintain higher total risk-based capital ratios which also supported by fewer constraints to raise a lower quality capital.

### 5.3 Limitations of the Research

Several limitations are set in this research due to the researcher's time constraint and other external factors. Below is the list of several limitations initiated in this study:

1. Limitation in the sample size of the study. The sample used in this research was classified according to the four industries of commercial banks in Indonesia which in fact created an impression of small number of the sample.
2. Limitation in the period of Basel II accord implementation. This research was done in the period range when Basel II accord was forced which gave an out of date impression relative to the present time. In addition to this, it was somewhat irrelevant to project how banks would behave during more prolonged economic cycle under the implementation of Basel III accord.
3. Book-value orientation on variable SIZE. In this research, variable SIZE was assessed in a book-value orientation which was based on total asset of each bank industry.

#### 5.4 Suggestions for Further Research

There are several suggestions which are proposed to enhance the future exploration of this topic. Below is the list of suggestions which are proposed in this study:

1. This research aimed to provide a whole picture of factors and behavior of capital ratio in commercial banks, thus the researcher decided to determine the sample size of commercial banks based on their industry. Further research could use sample of commercial banks individually or even classifying them according to their capital level in order to expand the small impression of sample size used in this research.
2. This research was mainly done in 2014-2015 which was the transition from the implementation of Basel II to Basel III accord. The implementation of the new Basel Accord will change the relationship between regulatory capital requirement and capital ratio of a firm (Alfon et al., 2004). Therefore, researcher decided to choose the year range where Basel II accord was implemented (2009-2013). To extend the research about this topic, future researchers could try to give an up to date impressions to their research by focusing on discussions about this topic under Basel III accord, or even comparing the topic under the implementation of both regulations.
3. Future researchers could expand the point of view of this research by assessing variable SIZE in market-value orientation which is based on market capitalization of each bank industry.

4. How banks calculate the size of capital margin that they aim to hold above the regulatory minimum could also be discussed in further research. The interview results done by Alfon et al. (2004) showed that 9 out of 13 interviewed firms said that they form their desired capital by adding a margin to the regulatory minimum. This could be an interesting fact that the future researchers should explore more deeply in order to enhance the development this topic.



## BIBLIOGRAPHY

- Divisi Informasi Hukum, Direktorat Hukum. (2013, December 12). *Perbankan: Peraturan Bank Indonesia No.15/12/PBI/2013 tanggal 12 Desember 2013 tentang Kewajiban Penyediaan Modal Minimum Bank Umum*. Retrieved February 27, 2015, from Bank Indonesia: [http://www.bi.go.id/id/peraturan/perbankan/Pages/pbi\\_151213.aspx](http://www.bi.go.id/id/peraturan/perbankan/Pages/pbi_151213.aspx)
- Glossary of Statistical Terms*. (2001, November 21). Retrieved March 3, 2015, from OECD: <http://stats.oecd.org/glossary/detail.asp?ID=1020>
- Deregulasi Perbankan Indonesia*. (2012, May 27). Retrieved February 28, 2015, from Warta Warga Student Journalism: <http://wartawarga.gunadarma.ac.id/2012/05/deregulasi-perbankan-indonesia-8/>
- Kamus*. (2013). Retrieved March 3, 2015, from Bank Indonesia: <http://www.bi.go.id/id/kamus.aspx>
- OJK-Pedia*. (2013). Retrieved March 5, 2015, from Otoritas Jasa Keuangan: <http://www.ojk.go.id/pedia>
- Regulasi Perbankan*. (2013). Retrieved February 28, 2015, from Otoritas Jasa Keuangan: <http://www.ojk.go.id/peraturan-bank-indonesia-nomor-15-12-pbi-2013>
- Moneter: OJK Kaji Perluasan Definisi Bank Asing*. (2014, September 30). Retrieved March 5, 2015, from Antaranews.com: <http://www.antaranews.com/berita/456263/ojk-kaji-perluasan-definsi-bank-asing>
- Dictionary: State Bank*. (2015). Retrieved February 27, 2015, from Investopedia: <http://www.investopedia.com/terms/s/state-bank.asp>
- Aggarwal, R., & Jacques, K. T. (1998). Assessing the Impact of Prompt Corrective Action on Bank Capital and Risk. *FRBNY ECONOMIC POLICY REVIEW*, 23-32.
- Alfon, I., Argimon, I., & Ambros, P. B. (2004, July). What Determines How Much Capital Is Held By UK Banks and Building Societies. *FSA Occasional Papers in Financial Regulation*, 22.

- Aman, N. I. (2009, February 16). *Hoping a lower lending rate*. Retrieved April 4, 2015, from The Jakarta Post: <http://www.thejakartapost.com/news/2009/02/16/hoping-a-lower-lending-rate.html>
- André, P. (n.d.). *Definition of return on equity ROE*. Retrieved March 30, 2015, from ft.com/lexicon: <http://lexicon.ft.com/Term?term=return-on-equity--roe>
- Arikunto, S. (2005). *Manajemen Penelitian*. Jakarta: Rineka Cipta.
- Ariyanti, F. (2013, December 20). *Kasus Bank Mutiara Sentilan Bagi Industri Perbankan*. Retrieved September 2014, from Liputan 6: <http://bisnis.liputan6.com/read/780832/kasus-bank-mutiara-sentilan-bagi-industri-perbankan>
- Ayuso, J., Perez, D., & Saurina, J. (2002). *Are capital buffers pro-cyclical? Evidence from Spanish panel data*. Banco de Espana.
- Baltali, C., & Tanega, J. (2011). BASEL III: DEHYBRIDIZATION OF CAPITAL. *New York University Journal of Law & Business*, 8(1).
- Bank for International Settlements. (2006). *International Convergence of Capital Measurement and Capital Standards*. Basel: Bank for International Settlements.
- Baumann, U., & Nier, E. (2003, June). Market discipline and financial stability. *Bank of England Financial Stability Review*.
- Bialas, M., & Solek, A. (2010). Evolution of Capital Adequacy Ratio. *Economics & Sociology*, 48-57.
- Cambridge University Press. (2013). Retrieved March 14, 2015, from Cambridge University Press: [http://peo.cambridge.org/index.php?option=com\\_content&view=article&catid=10%3Ajargon-buster&id=362%3Anew-risk-weighted-assets&Itemid=51](http://peo.cambridge.org/index.php?option=com_content&view=article&catid=10%3Ajargon-buster&id=362%3Anew-risk-weighted-assets&Itemid=51)
- Cambridge University Press. (n.d.). *Cambridge Business English Dictionary*. Retrieved March 1, 2015, from Cambridge Dictionaries: [dictionary.cambridge.org/dictionary/english/capital-requirement?q=Capital+requirement](http://dictionary.cambridge.org/dictionary/english/capital-requirement?q=Capital+requirement)



- Cornett, M. M., Guo, L., Khaksari, S., & Tehranian, H. (2009). The impact of state ownership on performance differences in privately-owned versus state-owned banks: An international comparison. *Journal of Financial Intermediation*.
- Crystal, J. S., Dages, B. G., & Goldberg, L. S. (2002). Has Foreign Bank Entry Led to Sounder Banks in Latin America? *Current Issues in Economics and Finance*, 8.
- Direktorat Riset Ekonomi dan Kebijakan Moneter. (2010, April 7). *Laporan Tahunan: Laporan Perekonomian Indonesia Tahun 2009*. Retrieved April 6, 2015, from Bank Indonesia: [http://www.bi.go.id/id/publikasi/laporan-tahunan/perekonomian/Pages/lpi\\_09.aspx](http://www.bi.go.id/id/publikasi/laporan-tahunan/perekonomian/Pages/lpi_09.aspx)
- Estrella, A. (2001). *The Cyclical Behavior of Optimal Bank Capital*. 2001: Federal Reserve Bank of New York.
- Everitt, B. S. (2002). *The Cambridge Dictionary of Statistics*. New York: Cambridge University Press.
- Financial Times. (n.d.). *Definition of subordinated debt*. Retrieved March 6, 2015, from [ft.com/lexicon](http://ft.com/lexicon): <http://lexicon.ft.com/Term?term=subordinated-debt>
- Flannery, M. J., & Nikolova, S. (2004). *Market Discipline of U.S. Financial Firms: Recent Evidence and Research Issues*. Gainesville, Florida.
- Francis, W. B., & Osborne, M. (2010). On the Behavior and Determinants of Risk-Based Capital Ratios: Revisiting the Evidence from UK Banking Institutions. *International Review of Finance*, 485-518.
- Greene, W. H. (2008). *Econometric Analysis* (6th ed.). Upper Saddle River, New Jersey: Pearson.
- Hall, S. (n.d.). *The Advantages of Regression Analysis & Forecasting*. Retrieved August 21, 2015, from Chron: <http://smallbusiness.chron.com/advantages-regression-analysis-forecasting-61800.html>
- Hartanto, E. (n.d.). Retrieved February 27, 2015, from [eko\\_hartanto.staff.gunadarma.ac.id](http://eko_hartanto.staff.gunadarma.ac.id).
- Hawken, K., & Bake, M. (2009). Amendments to the Capital Requirements Directive adopted by European Parliament. *Journal of Investment Compliance*, 49-53.

- Hingel, G. (n.d.). *Definition of risk-weighted assets*. Retrieved March 17, 2015, from ft.com/lexicon: [http://lexicon.ft.com/Term?term=risk\\_weighted-assets](http://lexicon.ft.com/Term?term=risk_weighted-assets)
- Hosono, K., Iwaki, H., & Tsuru, K. (2005). *Bank Regulation and Market Discipline around the World*. Tokyo.
- Jagannathan, R., Skoulakis, G., & Wang, Z. (2002). Generalized Method of Moments: Applications in Finance. *Journal of Business & Economic Statistics*, 20(4), 470-481.
- Jokipii, T., & Milne, A. (2007). *The Cyclical Behaviour of European Bank Capital Buffers*. Stockholm: Swedish Institute for Financial Research.
- Kuncoro, M. (2003). *Metode Riset Untuk Bisnis dan Ekonomi*. Jakarta: Erlangga.
- Lindquist, K. G. (2004). Banks' Buffer Capital: How Important is Risk. *Journal of International Money and Finance*, 493-513.
- Masters, B., & Jenkins, P. (n.d.). *Definition of tier one capital*. Retrieved March 28, 2015, from ft.com/lexicon: <http://lexicon.ft.com/Term?term=tier-one-capital>
- Matten, C. (1998). *Managing bank capital: capital allocation and performance measurement* (2nd ed.). WILEY.
- Mudrajad, K. (2003). *Metode Riset Untuk Bisnis & Ekonomi*. Jakarta: Erlangga.
- Muljono, T. P. (1999). *Analisa Laporan Keuangan Untuk Perbankan*. Jakarta: Djambatan.
- Myers, S. C., & Majluf, N. S. (1984). *Corporate Financing and Investment Decisions When Firms Have Information The Investors Do Not Have*. Cambridge, Massachusetts: National Bureau of Economic Research.
- OJK. (2013). *Statistik Perbankan Indonesia*. Retrieved February 26, 2015, from OJK: <http://www.ojk.go.id/data-statistik-perbankan-indonesia?pg=1>
- Oliver, P. (2006). Purposive Sampling. In V. Jupp, *The SAGE Dictionary of SOCIAL RESEARCH METHODS* (pp. 244-245). SAGE Publications Ltd.
- Ozyasar, H. (2014). *Market Capitalization vs. Total Assets*. Retrieved March 28, 2015, from [the nest]: <http://budgeting.thenest.com/market-capitalization-vs-total-assets-21419.html>

- Quantitative Micro Software, LLC. (2010, April 2). *Eviews 7 User's Guide II*. Irvine, California, United States of America: Quantitative Micro Software, LLC.
- Reserve Bank of New Zealand. (2007). *Regulation*. Retrieved February 25, 2015, from Reserve Bank of New Zealand: <http://www.rbnz.govt.nz/finstab/banking/regulation/0091769.html>
- Ross, S. A., Westerfield, W. R., & Jordan, B. D. (2003). *Corporate Finance*. New York: McGraw-Hill/Irwin.
- Standard & Poor's Financial Services LLC. (2012). *About Credit Ratings*. Retrieved March 23, 2015, from Standard & Poor's: [http://www.standardandpoors.com/aboutcreditratings/RatingsManual\\_PrintGuide.html](http://www.standardandpoors.com/aboutcreditratings/RatingsManual_PrintGuide.html)
- Stolz, S., & Wedow, M. (2005). *Banks' regulatory capital buffer and the business cycle: evidence for German savings and cooperative banks*. Frankfurt: Deutsche Bundesbank.
- Studenmund, A. (2006). *Using Econometrics A Practical Guide*. Upper Saddle River, New Jersey: Pearson Education, Inc.
- Telegraph Media Group Limited. (2011, August 8). *Gilts: What do credit ratings mean?* Retrieved March 23, 2015, from The Telegraph: <http://www.telegraph.co.uk/finance/economics/gilts/8689162/What-do-credit-ratings-mean.html>
- The Federal Reserve Board. (2006, September 5). *Basel II Capital Accord: V. Calculation of Risk-Weighted Assets*. Retrieved March 29, 2015, from The Federal Reserve Board: [http://www.federalreserve.gov/generalinfo/basel2/npr\\_20060905/npr/section\\_5.htm](http://www.federalreserve.gov/generalinfo/basel2/npr_20060905/npr/section_5.htm)
- Tim Informasi Hukum, Direktorat Hukum. (2008, September 24). *Perbankan: Peraturan Bank Indonesia Nomor 10/15/PBI/2008 - Kewajiban Penyediaan Modal Minimum Bank Umum*. Retrieved February 27, 2015, from Bank Indonesia: [http://www.bi.go.id/id/peraturan/perbankan/Pages/pbi\\_101508.aspx](http://www.bi.go.id/id/peraturan/perbankan/Pages/pbi_101508.aspx)
- Undang-Undang Nomor 10 Tahun 1998*. (n.d.). Retrieved March 10, 2015, from <http://www.sjdih.depkeu.go.id/fullText/1998/10Tahun~1998UU.htm>

Unit Khusus Museum Bank Indonesia. (n.d.). *Sejarah BI*. Retrieved February 10, 2015, from Bank Indonesia: <http://www.bi.go.id/id/tentang-bi/museum/sejarah-bi/bi/Documents/25d8c7b0fbbe4d27bf24497e5a0f3dfaSejarahPerbankanPeriode19831997.pdf>

Unit Khusus Museum Bank Indonesia. (n.d.). *Sejarah BI*. Retrieved February 10, 2015, from Bank Indonesia: <http://www.bi.go.id/id/tentang-bi/museum/sejarah-bi/prabi/Documents/e5623c7159474dd0a0b23d1befc1c491SejarahPerkembanganBankSentraldiNusantara.pdf>

Widarjono, A. (2013). *Ekonometrika Pengantar dan Aplikasinya Disertai Panduan EViews* (4th ed.). Yogyakarta: UPP STIM YKPN.



# **APPENDIX 1**

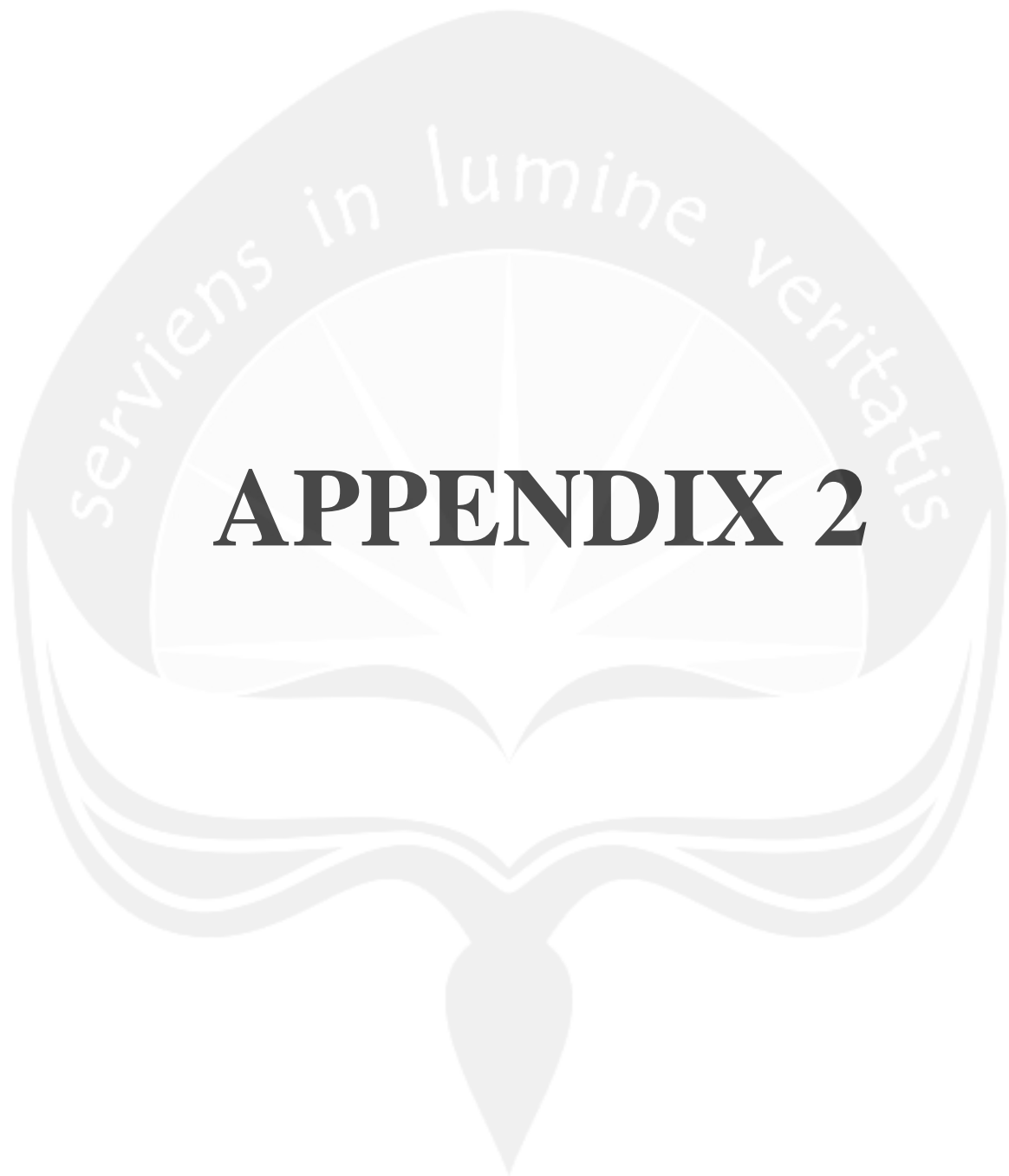
## APPENDIX 1

### Capital Adequacy Ratio (CAP) Monthly Statistics from 2009 to 2013

Period	Capital Adequacy Ratio (%)			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Dec-08	14.31	14.82	24.44	29.06
Jan-09	15.7	15.5	24.05	26.24
Feb-09	15.62	15.8	24.24	27.52
Mar-09	15.53	15.61	26.34	28.29
Apr-09	14.85	16.28	24.92	30.1
May-09	14.57	16.2	24.3	30.16
Jun-09	14.21	16.6	22.88	30.98
Jul-09	13.81	16.13	21.65	31.61
Aug-09	13.51	15.62	21.35	33.46
Sep-09	13.27	16.89	19.97	36.72
Oct-09	13.11	17.17	19.9	32.78
Nov-09	12.77	16.79	18.89	32.23
Dec-09	13.81	16.61	19.01	32.11
Jan-10	15.67	16.58	18.84	33.89
Feb-10	15.62	18.44	18.76	32.72
Mar-10	16.15	17.82	17.81	35.39
Apr-10	15.37	19.2	21.92	31.66
May-10	15.13	18.65	16.8	33.15
Jun-10	14.31	17.88	15.74	33.35
Jul-10	15.16	17.05	22.44	33.69
Aug-10	13.45	15.65	15.95	28.16
Sep-10	14.04	15.95	15.57	25.62
Oct-10	14.27	16.24	19.66	28.32
Nov-10	14.89	15.82	19.15	26.25
Dec-10	15.36	15.76	18.91	27.08
Jan-11	16.33	16.11	21.79	23.76
Feb-11	17.93	16.07	21.85	24.31
Mar-11	17.47	15.59	17.6	24.76
Apr-11	17.56	15.8	21.34	25.43
May-11	16.96	15.82	20.8	24.85
Jun-11	16.43	15.6	16.63	25.29
Jul-11	17.16	15.55	19.59	24.31

Aug-11	16.87	15.58	19.74	25.77
Sep-11	15.6	15.12	19.69	25.41
Oct-11	16.54	15.71	20.17	26.42
Nov-11	15.33	15.34	19.69	26.38
Dec-11	15.04	14.37	19.33	26
Jan-12	17.82	16.44	21.25	26.14
Feb-12	18.05	16.42	20.87	25.91
Mar-12	17.86	16.06	19.88	27.08
Apr-12	17.11	16.16	20.82	27.27
May-12	17.17	15.93	20.85	27.52
Jun-12	16.58	15.6	20.51	28.36
Jul-12	16.11	15.57	20.34	27.66
Aug-12	16.38	15.42	20.33	27.5
Sep-12	16.61	15.58	20.55	27.42
Oct-12	16.13	15.44	20.39	29.03
Nov-12	16.39	15.5	20.39	28.68
Dec-12	16.17	15.33	20.8	30.89
Jan-13	18.61	16.9	21.15	32.32
Feb-13	18.47	16.88	21.11	32.74
Mar-13	18.25	16.87	21.36	31.69
Apr-13	17.24	16.93	21.41	32.48
May-13	17.51	16.43	22.49	33.6
Jun-13	16.61	16.21	21.8	33.17
Jul-13	16.41	16.22	21.22	32.69
Aug-13	16.35	16.19	21.36	32.06
Sep-13	16.17	16	22.29	34.67
Oct-13	16.4	15.97	22.3	37.31
Nov-13	16.7	16.23	22.21	37.75
Dec-13	15.91	16.01	23.16	34.46

Source: Otoritas Jasa Keuangan (OJK) and Bank Indonesia



# **APPENDIX 2**



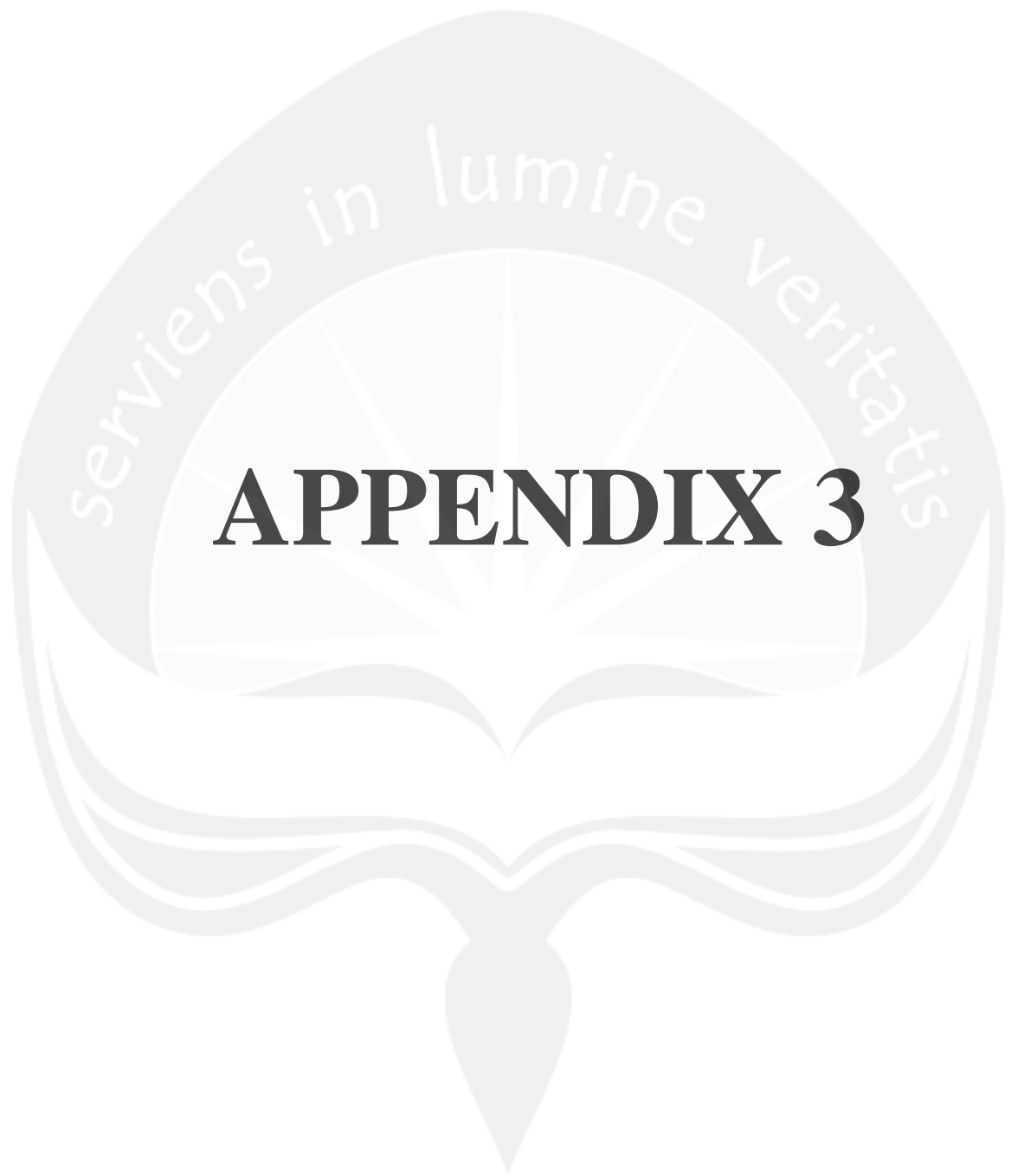
## APPENDIX 2

### Capital Requirement (CR) Monthly Return Statistics from 2009 to 2013

Period	Capital Requirement (return)			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	0.032846	-0.00731	0.037514	0.070592
Feb-09	0.019945	-0.01678	0.04145	0.017556
Mar-09	-0.02396	0.001016	-0.09733	-0.03547
Apr-09	0.039961	-0.07416	0.031457	-0.21292
May-09	0.012488	0.0423	0.046871	0.08272
Jun-09	0.038013	0.011244	0.050225	0.056225
Jul-09	0.006615	0.000692	0.071583	0.002142
Aug-09	0.016891	0.017396	0.051489	-0.01075
Sep-09	-0.01294	0.017338	0.035683	-0.02858
Oct-09	0.009996	0.003595	0.059685	0.015566
Nov-09	0.039554	0.023807	0.03187	0.01215
Dec-09	-0.01535	0.032489	0.052802	-0.02367
Jan-10	0.002355	-0.06989	0.09413	0.025056
Feb-10	0.013681	0.032296	0.004151	0.031594
Mar-10	-0.03939	0.005947	0.017561	-0.08453
Apr-10	0.042689	-0.04171	-0.30793	0.004418
May-10	-0.03073	0.028042	0.308032	0.055968
Jun-10	0.049954	0.02381	0.034394	-0.04163
Jul-10	-0.02911	0.080462	-0.2001	0.007708
Aug-10	0.105564	0.143099	0.44041	0.227439
Sep-10	-0.00782	0.005865	0.007086	0.080219
Oct-10	0.018404	0.000704	-0.1978	-0.06285
Nov-10	0.015242	0.030116	0.031669	0.078399
Dec-10	0.02726	0.00808	0.243273	-0.02501
Jan-11	0.080251	0.079576	-0.07132	0.154997
Feb-11	0.00448	0.02371	0.002066	-0.0256
Mar-11	0.023669	0.01783	0.263229	0.046519
Apr-11	0.020821	0.015682	-0.13546	-0.01169
May-11	0.022705	0.017328	-0.01763	0.013055

Jun-11	0.018399	0.014737	0.267937	0.000725
Jul-11	-0.00534	0.017858	-0.1737	0.025897
Aug-11	0.030117	0.020751	0.021123	0.032664
Sep-11	0.04264	0.033422	0.005071	0.034496
Oct-11	-0.00881	0.010266	0.026531	-0.02191
Nov-11	0.05396	0.016509	0.041881	0.014207
Dec-11	0.014297	0.037853	0.029347	0.02804
Jan-12	-0.01948	-0.03169	-0.00798	0.012728
Feb-12	-0.00142	0.015942	0.033206	0.024031
Mar-12	0.020406	0.009426	0.036703	-0.04696
Apr-12	-0.025477	0.012625	0.009219	0.036744
May-12	0.012421	0.027586	0.020247	0.027193
Jun-12	0.033724	0.021405	0.03695	0.025215
Jul-12	0.012132	0.011246	0.020484	0
Aug-12	0.004174	0.013122	0.009797	0.034979
Sep-12	0.020356	0.004542	0.014586	0.015761
Oct-12	0.013002	0.011778	0.015149	-0.0398
Nov-12	0.015917	0.010317	0.009864	0.015781
Dec-12	0.017527	0.020278	0.021656	-0.03041
Jan-13	0.007976	0.01208	0.058088	0.01541
Feb-13	0.017734	0.009322	0.015007	-0.01664
Mar-13	0.003027	0.015737	0.021411	0.046372
Apr-13	-0.008742	0.011114	0.006572	-0.00233
May-13	0.016408	0.017268	0.011053	0.00517
Jun-13	0.032362	0.014663	0.012254	0.03959
Jul-13	0.020466	0.020641	0.015588	0.04478
Aug-13	0.012875	0.007082	0.002263	0.048116
Sep-13	0.0302	0.024945	0.001163	0.027126
Oct-13	-0.00621	0.005687	0.006821	0.041103
Nov-13	0.019076	0.014366	0.009797	0.002711
Dec-13	0.032073	0.019343	0.01947	0.018573

Source : Otoritas Jasa Keuangan (OJK), Bank Indonesia, and Researcher's Own Analysis



# **APPENDIX 3**

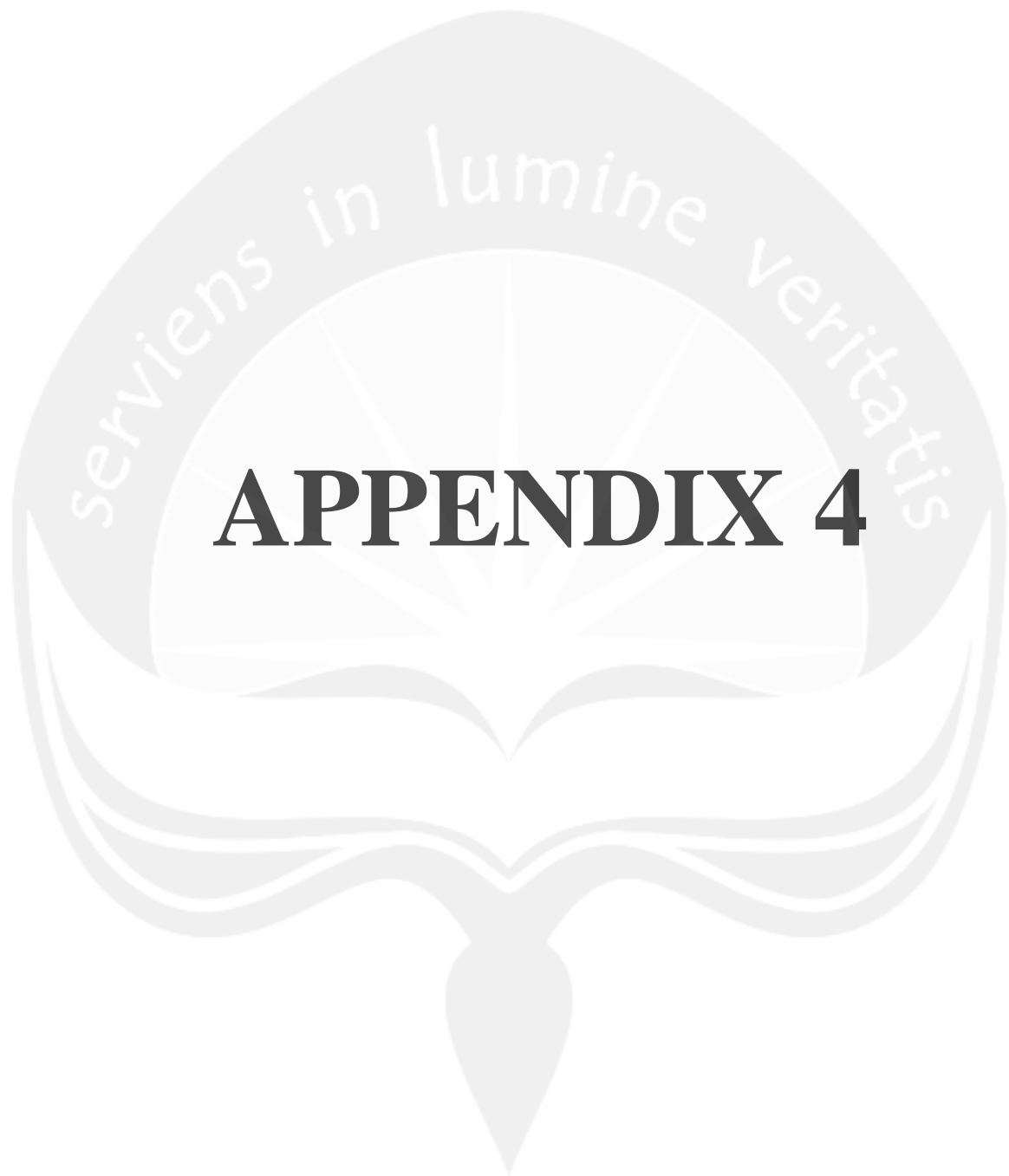
### APPENDIX 3

#### Return on Equity (ROE) Monthly Statistics from 2009 to 2013

Period	ROE			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	0.026407	0.014264	0.002929	0.008921
Feb-09	0.025797	0.019275	0.008399	0.013176
Mar-09	0.037487	0.032864	0.018421	0.02747
Apr-09	0.049356	0.04459	0.028769	0.030304
May-09	0.060945	0.071679	0.030604	0.036547
Jun-09	0.085233	0.102127	0.035862	0.041631
Jul-09	0.104356	0.093003	0.068484	0.04821
Aug-09	0.124034	0.107665	0.08147	0.050901
Sep-09	0.159179	0.13752	0.11691	0.056074
Oct-09	0.186239	0.156131	0.163552	0.056893
Nov-09	0.204139	0.174472	0.165247	0.05921
Dec-09	0.489631	0.217024	0.338983	0.046933
Jan-10	0.015277	0.013648	0.007592	0.006154
Feb-10	0.019305	0.021287	0.009811	0.01056
Mar-10	0.041143	0.041744	0.026129	0.017637
Apr-10	0.053403	0.08585	0.244916	0.022048
May-10	0.065724	0.1714	-0.14144	0.026401
Jun-10	0.089642	0.183127	-0.08204	0.027386
Jul-10	0.111375	0.268849	-0.07959	0.032026
Aug-10	0.117894	0.346745	-0.08554	0.043261
Sep-10	0.134239	0.494098	-0.05553	0.044749
Oct-10	0.165572	0.784736	-0.06148	0.051418
Nov-10	0.199211	2.028179	-0.08056	0.053784
Dec-10	0.372009	-1.33426	-0.06394	0.059391
Jan-11	0.015221	0.020586	0.179386	0.005582
Feb-11	0.023261	0.002036	0.044568	0.008902
Mar-11	0.048362	0.060359	-3.80995	0.018723
Apr-11	0.061788	0.084876	0	0.021169
May-11	0.073178	0.118933	-1.09377	0.024198
Jun-11	0.104985	0.167224	-0.64205	0.02777
Jul-11	0.119163	0.233049	-0.3259	0.029585
Aug-11	0.133331	0.316466	-0.18011	0.036499

Sep-11	0.175042	0.040076	-0.16016	0.05025
Oct-11	0.223276	0.506964	-0.15574	0.059921
Nov-11	0.247085	0.431305	-0.15673	0.062779
Dec-11	0.407481	1.248905	-0.12882	0.071114
Jan-12	0.027397	0.06234	-0.02087	0.011035
Feb-12	0.033219	0.040012	-0.16494	0.016424
Mar-12	0.042658	0.05791	-0.26927	0.020285
Apr-12	0.056158	0.074036	-0.33159	0.021283
May-12	0.071138	0.100492	-0.41353	0.02298
Jun-12	0.090388	0.129171	-0.44173	0.029589
Jul-12	0.105125	0.144456	-0.47909	0.029405
Aug-12	0.11679	0.159024	-1.79866	0.032068
Sep-12	0.131958	0.181525	-1.52784	0.036442
Oct-12	0.14454	0.201069	-0.5555	0.03919
Nov-12	0.158415	0.217632	-0.54442	0.041585
Dec-12	0.161169	0.238035	-0.04819	0.044455
Jan-13	0.013409	0.019572	-0.04322	0.005218
Feb-13	0.027088	0.035815	-0.09142	0.008293
Mar-13	0.043931	0.055257	-0.11827	0.012148
Apr-13	0.057926	0.073772	-0.1403	0.012101
May-13	0.074308	0.108569	-0.18385	0.015637
Jun-13	0.093325	0.125242	-0.1959	0.017621
Jul-13	0.106465	0.139767	-0.19328	0.020031
Aug-13	0.012026	0.171249	-0.23631	0.026345
Sep-13	0.127607	0.174026	-0.30569	0.028542
Oct-13	0.14037	0.19129	-0.33715	0.031325
Nov-13	0.161729	0.210128	-0.36554	0.037098
Dec-13	0.178404	0.221612	-0.37591	0.035237

Source: Otoritas Jasa Keuangan (OJK) and Bank Indonesia



# **APPENDIX 4**

## APPENDIX 4

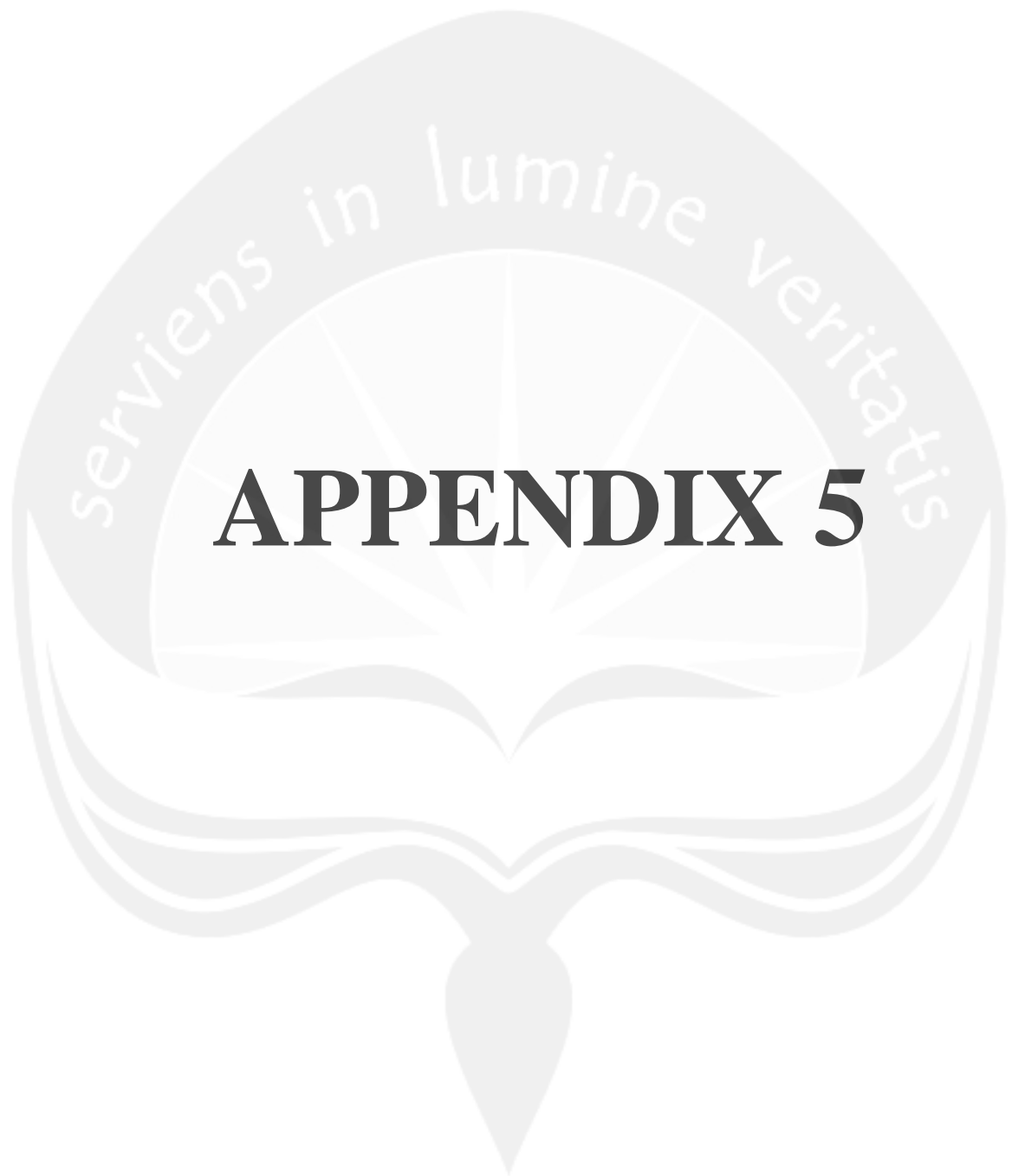
TIER 1 Capital Monthly Statistics from 2009 to 2013 (in Billion Rp)

Period	Tier1			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	77421	80962	5828	15650
Feb-09	67779	81210	5915	16436
Mar-09	79467	82507	5718	16771
Apr-09	81203	87311	5756	16154
May-09	80658	87871	5836	15628
Jun-09	70260	87661	6077	15935
Jul-09	81878	90784	6279	16565
Aug-09	83146	92088	6293	16601
Sep-09	80057	100783	6220	17038
Oct-09	81557	101550	6590	17162
Nov-09	83399	102775	6588	17219
Dec-09	88329	104042	6501	16771
Jan-10	89853	106074	6779	18507
Feb-10	90576	108024	6816	18563
Mar-10	92449	109886	6924	18582
Apr-10	94132	112152	7073	18611
May-10	92316	113562	7608	18959
Jun-10	92538	114529	7468	18579
Jul-10	94704	119209	8054	18937
Aug-10	96541	121496	8397	18794
Sep-10	98492	123772	8938	18377
Oct-10	100923	125748	9148	18854
Nov-10	104540	127940	9393	18790
Dec-10	115835	131147	10768	18515
Jan-11	120627	134409	10788	18679
Feb-11	135003	138543	10961	19075
Mar-11	141234	139721	11128	19303
Apr-11	139924	141747	11251	19332
May-11	138359	143852	11575	19150
Jun-11	138217	144296	11691	19463
Jul-11	140236	146792	11633	19009
Aug-11	142669	148680	11815	19546

Sep-11	145921	155877	12003	20397
Oct-11	148406	158641	12584	20645
Nov-11	151447	160273	12810	20883
Dec-11	155094	159360	13126	21795
Jan-12	140343	141768	10587	56191
Feb-12	142329	142809	10739	57034
Mar-12	141814	140916	11565	56855
Apr-12	139018	142889	11182	59377
May-12	142927	143963	11432	61537
Jun-12	140284	144385	11635	65119
Jul-12	139293	145487	11755	64884
Aug-12	141074	145898	11857	65289
Sep-12	145822	148327	12178	66055
Oct-12	143797	148858	12251	67399
Nov-12	147726	150983	12375	67644
Dec-12	150049	151331	12610	70771
Jan-13	179223	169885	13941	75315
Feb-13	180980	118474	14137	75050
Mar-13	176990	174212	14315	75959
Apr-13	169988	176401	14437	77752
May-13	174983	174342	15379	80876
Jun-13	169901	174135	15083	83161
Jul-13	171449	178423	15185	85586
Aug-13	175169	179620	15326	87873
Sep-13	178425	181938	15435	97756
Oct-13	176510	181816	15563	109783
Nov-13	185826	188701	15643	111426
Dec-13	181769	228357	16675	103220

Source : Otoritas Jasa Keuangan (OJK), Bank Indonesia, and Researcher's Own Analysis





# **APPENDIX 5**

## APPENDIX 5

### Risk Monthly Statistics from 2009 to 2013

Period	Risk (proportion)			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	0.599219	0.642512	0.571148	0.620885
Feb-09	0.614515	0.61695	0.572625	0.61337
Mar-09	0.593295	0.635718	0.59951	0.60895
Apr-09	0.618348	0.58467	0.567142	0.499371
May-09	0.622689	0.660807	0.585534	0.552782
Jun-09	0.638914	0.633211	0.602337	0.586182
Jul-09	0.643112	0.633305	0.636591	0.594395
Aug-09	0.648682	0.639889	0.658415	0.590382
Sep-09	0.656531	0.645354	0.695351	0.576067
Oct-09	0.650885	0.650393	0.712153	0.588846
Nov-09	0.671925	0.6556	0.725164	0.597325
Dec-09	0.648594	0.67309	0.747391	0.588487
Jan-10	0.546763	0.549192	0.642122	0.674217
Feb-10	0.607022	0.598438	0.719081	0.647751
Mar-10	0.583314	0.596581	0.709735	0.57412
Apr-10	0.603547	0.624347	0.646301	0.587811
May-10	0.587839	0.605632	0.710667	0.609659
Jun-10	0.610853	0.614223	0.725325	0.592116
Jul-10	0.594414	0.657502	0.570161	0.59314
Aug-10	0.657534	0.744894	0.811277	0.726035
Sep-10	0.649309	0.742167	0.80271	0.782941
Oct-10	0.658639	0.735651	0.635532	0.731289
Nov-10	0.664957	0.748825	0.648029	0.784326
Dec-10	0.668426	0.744664	0.788304	0.765137
Jan-11	0.600577	0.637841	0.553882	0.828996
Feb-11	0.676558	0.724777	0.641575	0.824745
Mar-11	0.675339	0.732838	0.783467	0.852489
Apr-11	0.69187	0.740914	0.662411	0.841165
May-11	0.700765	0.749314	0.658343	0.839117
Jun-11	0.708296	0.755612	0.816998	0.831845
Jul-11	0.703682	0.763808	0.668976	0.851532
Aug-11	0.720837	0.773928	0.6716	0.870633

Sep-11	0.74463	0.792574	0.664492	0.882689
Oct-11	0.731388	0.795717	0.672668	0.860399
Nov-11	0.75392	0.802297	0.692427	0.861961
Dec-11	0.75517	0.822345	0.698301	0.882156
Jan-12	0.684556	0.726477	0.591438	0.812721
Feb-12	0.688793	0.729984	0.601376	0.819388
Mar-12	0.688995	0.727487	0.613407	0.790127
Apr-12	0.693047	0.736264	0.60484	0.812635
May-12	0.680335	0.743464	0.622544	0.797096
Jun-12	0.69129	0.744089	0.620066	0.831312
Jul-12	0.707173	0.74607	0.632484	0.799187
Aug-12	0.70106	0.751978	0.61841	0.838295
Sep-12	0.707158	0.74303	0.604226	0.860798
Oct-12	0.712514	0.747888	0.614264	0.810203
Nov-12	0.702766	0.742582	0.609248	0.816062
Dec-12	0.669744	0.730975	0.598181	0.783505
Jan-13	0.694627	0.738388	0.636592	0.781696
Feb-13	0.709722	0.743005	0.649195	0.761806
Mar-13	0.70383	0.745996	0.630411	0.783694
Apr-13	0.692674	0.756399	0.634582	0.794486
May-13	0.701376	0.762742	0.628139	0.771714
Jun-13	0.709432	0.771042	0.632887	0.795967
Jul-13	0.719966	0.77335	0.651132	0.787196
Aug-13	0.71635	0.769546	0.64621	0.785997
Sep-13	0.71969	0.765963	0.629733	0.770605
Oct-13	0.711344	0.774953	0.64026	0.775189
Nov-13	0.716349	0.768258	0.638946	0.781335
Dec-13	0.708675	0.756704	0.604313	0.789439

Source : Otoritas Jasa Keuangan (OJK), Bank Indonesia, and Researcher's Own Analysis



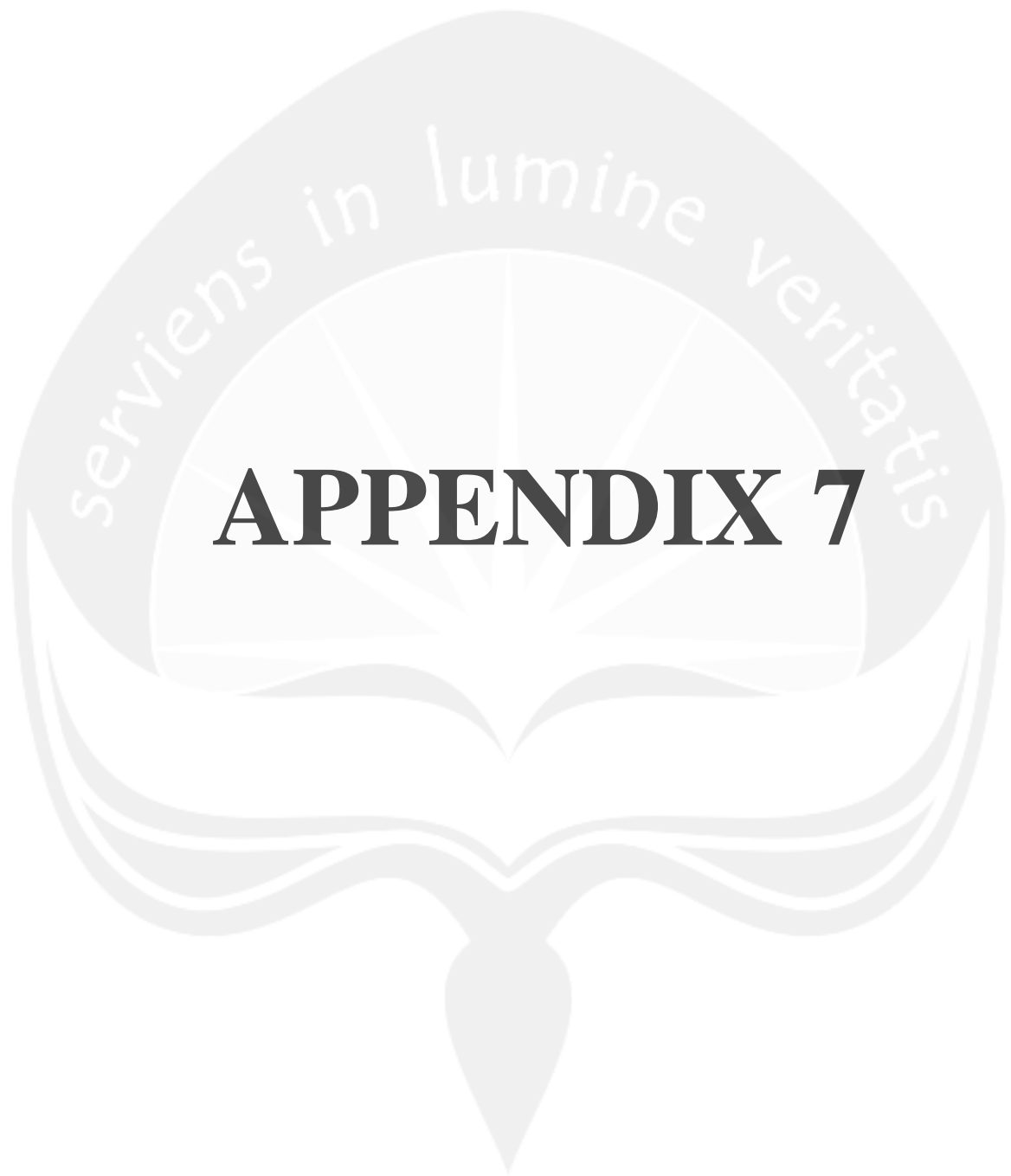
## APPENDIX 6

### Size Monthly Statistics from 2009 to 2013

Period	Size (in log measurement)			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	5.91799	5.949128	4.636879	5.386463
Feb-09	5.91562	5.959409	4.653396	5.39931
Mar-09	5.920349	5.946836	4.589	5.386765
Apr-09	5.919404	5.949723	4.626556	5.368941
May-09	5.921756	5.914553	4.632589	5.359327
Jun-09	5.926787	5.937934	4.641583	5.357605
Jul-09	5.926807	5.93817	4.647588	5.352491
Aug-09	5.930336	5.941169	4.654754	5.350738
Sep-09	5.919454	5.944941	4.646276	5.348805
Oct-09	5.927525	5.943121	4.661084	5.345985
Nov-09	5.930555	5.949876	4.666845	5.345021
Dec-09	5.939184	5.952327	4.676081	5.341092
Jan-10	6.014379	6.009212	4.78108	5.292776
Feb-10	5.974875	5.985722	4.733719	5.323677
Mar-10	5.974725	5.989646	4.746961	5.337727
Apr-10	5.97807	5.951386	4.627775	5.329406
May-10	5.975969	5.976614	4.703162	5.337208
Jun-10	5.980462	5.980716	4.708981	5.331421
Jul-10	5.979481	5.984754	4.716554	5.334005
Aug-10	5.979236	5.988641	4.721868	5.335205
Sep-10	5.981292	5.992773	4.729545	5.335945
Oct-10	5.983016	5.996909	4.735247	5.337395
Nov-10	5.985439	6.002086	4.740331	5.339767
Dec-10	5.994859	6.008002	4.749798	5.339523
Jan-11	6.074869	6.108503	4.870942	5.367291
Feb-11	6.025074	6.063187	4.808008	5.358259
Mar-11	6.036017	6.066059	4.822717	5.363636
Apr-11	6.034464	6.068057	4.832394	5.364335
May-11	6.038666	6.070622	4.827343	5.371027
Jun-11	6.041942	6.073341	4.836672	5.375122
Jul-11	6.042455	6.076343	4.84062	5.376068
Aug-11	6.04488	6.079546	4.847998	5.380392

Sep-11	6.048911	6.083485	4.854816	5.389148
Oct-11	6.05286	6.086201	4.860877	5.390635
Nov-11	6.062508	6.089737	4.866122	5.395974
Dec-11	6.067953	6.095154	4.875015	5.397926
Jan-12	6.102045	6.135001	4.943668	5.439023
Feb-12	6.098749	6.139778	4.950618	5.445788
Mar-12	6.107395	6.14534	4.95767	5.440692
Apr-12	6.115774	6.145581	4.967763	5.444165
May-12	6.129175	6.153172	4.963939	5.464202
Jun-12	6.136642	6.162005	4.981429	5.456764
Jul-12	6.132014	6.165708	4.981624	5.473879
Aug-12	6.137593	6.167944	4.995631	5.468062
Sep-12	6.142584	6.175111	5.011997	5.463349
Oct-12	6.144917	6.177366	5.011372	5.472019
Nov-12	6.157758	6.184916	5.019195	5.47569
Dec-12	6.186205	6.200476	5.036461	5.479958
Jan-13	6.173813	6.201309	5.033954	5.487604
Feb-13	6.172111	6.202632	5.031909	5.491509
Mar-13	6.177044	6.207668	5.053862	5.498893
Apr-13	6.187763	6.206453	5.053843	5.491939
May-13	6.189409	6.210262	5.063048	5.506808
Jun-13	6.198281	6.211883	5.065068	5.510231
Jul-13	6.200678	6.219458	5.059442	5.534068
Aug-13	6.208421	6.224664	5.06372	5.555139
Sep-13	6.219323	6.237392	5.075441	5.575352
Oct-13	6.221685	6.234787	5.071193	5.59027
Nov-13	6.226846	6.24475	5.07632	5.588016
Dec-13	6.245234	6.259651	5.108896	5.591526

Source : Otoritas Jasa Keuangan (OJK), Bank Indonesia, and Researcher's Own Analysis



# **APPENDIX 7**

## APPENDIX 7

### Market Monthly Statistics from 2009 to 2013

Period	Market (proportion)			
	State-Owned Bank	Foreign Exchange Commercial Bank	Non-Foreign Exchange Commercial Bank	Foreign-Owned Bank
Jan-09	0.005329	0.010003	0.00235	0.007524
Feb-09	0.00538	0.010075	0.002473	0.007827
Mar-09	0.005177	0.005748	0.002572	0.008071
Apr-09	0.006647	0.005703	0.002498	0.008949
May-09	0.006079	0.005672	0.002399	0.009384
Jun-09	0.008299	0.005949	0.002223	0.009181
Jul-09	0.005369	0.005852	0.007791	0.009413
Aug-09	0.007233	0.005748	0.00752	0.009422
Sep-09	0.013957	0.005563	0.007346	0.009741
Oct-09	0.011821	0.0056	0.007094	0.009958
Nov-09	0.008533	0.005424	0.001816	0.009896
Dec-09	0.018104	0.004721	0.002672	0.012667
Jan-10	0.018877	0.006546	0.002795	0.012667
Feb-10	0.022344	0.006241	0.002721	0.012667
Mar-10	0.02395	0.00713	0.00255	0.012667
Apr-10	0.016959	0.007207	0.002563	0.012667
May-10	0.02006	0.007076	0.00241	0.012667
Jun-10	0.018137	0.007215	0.002687	0.012667
Jul-10	0.018027	0.007077	0.005061	0.012667
Aug-10	0.017262	0.008438	0.004907	0.012667
Sep-10	0.02192	0.008381	0.004656	0.012667
Oct-10	0.023103	0.008234	0.004525	0.012667
Nov-10	0.017805	0.008132	0.004673	0.012667
Dec-10	0.018389	0.008836	0.00466	0.012667
Jan-11	0.020063	0.008823	0.004737	0.012667
Feb-11	0.01752	0.008943	0.004721	0.012667
Mar-11	0.018767	0.008811	0.013061	0.012667
Apr-11	0.019044	0.008801	0.012956	0.012667
May-11	0.019153	0.00874	0.012618	0.012667
Jun-11	0.020266	0.008953	0.012605	0.012667
Jul-11	0.014633	0.010364	0.011715	0.012667
Aug-11	0.020187	0.012452	0.011592	0.053488



Sep-11	0.017473	0.012746	0.011467	0.061336
Oct-11	0.019291	0.012931	0.011942	0.074886
Nov-11	0.014847	0.013246	0.011641	0.070858
Dec-11	0.010866	0.012176	0.010786	0.071231
Jan-12	0.028258	0.009304	0.010881	0.071231
Feb-12	0.029532	0.008845	0.010762	0.071231
Mar-12	0.030158	0.008205	0.009084	0.071231
Apr-12	0.033091	0.008936	0.008938	0.071231
May-12	0.030996	0.009151	0.008967	0.071231
Jun-12	0.028079	0.009226	0.009045	0.071231
Jul-12	0.029831	0.008832	0.008961	0.071231
Aug-12	0.031112	0.008046	0.009057	0.071231
Sep-12	0.02881	0.007794	0.009109	0.071231
Oct-12	0.023293	0.006874	0.009053	0.071231
Nov-12	0.021025	0.007337	0.008641	0.071231
Dec-12	0.026073	0.007821	0.009016	0.071231
Jan-13	0.023886	0.007669	0.009089	0.071231
Feb-13	0.024765	0.007037	0.009557	0.071231
Mar-13	0.025536	0.006782	0.017187	0.071231
Apr-13	0.023708	0.006542	0.01716	0.071231
May-13	0.022004	0.006539	0.016898	0.071231
Jun-13	0.018077	0.007761	0.016926	0.071231
Jul-13	0.021518	0.009118	0.0153	0.071231
Aug-13	0.022494	0.009478	0.015377	0.071231
Sep-13	0.026379	0.011409	0.014982	0.071231
Oct-13	0.023685	0.010104	0.015071	0.071231
Nov-13	0.028829	0.010908	0.014832	0.071231
Dec-13	0.029631	0.011284	0.013522	0.071231

Source : Otoritas Jasa Keuangan (OJK), Bank Indonesia, and Researcher's Own Analysis



# APPENDIX 8

## APPENDIX 8

### EViews 7 Regression Result Based on GMM Method with Cross-section Weight

Dependent Variable: CAP  
 Method: Panel Generalized Method of Moments  
 Date: 09/06/15 Time: 16:59  
 Sample: 2009M01 2013M12  
 Periods included: 60  
 Cross-sections included: 4  
 Total panel (balanced) observations: 240  
 Cross-section weights instrument weighting matrix  
 Instrument specification: CAP C ROE RISK SIZE TIER1 CR  
 MARKET

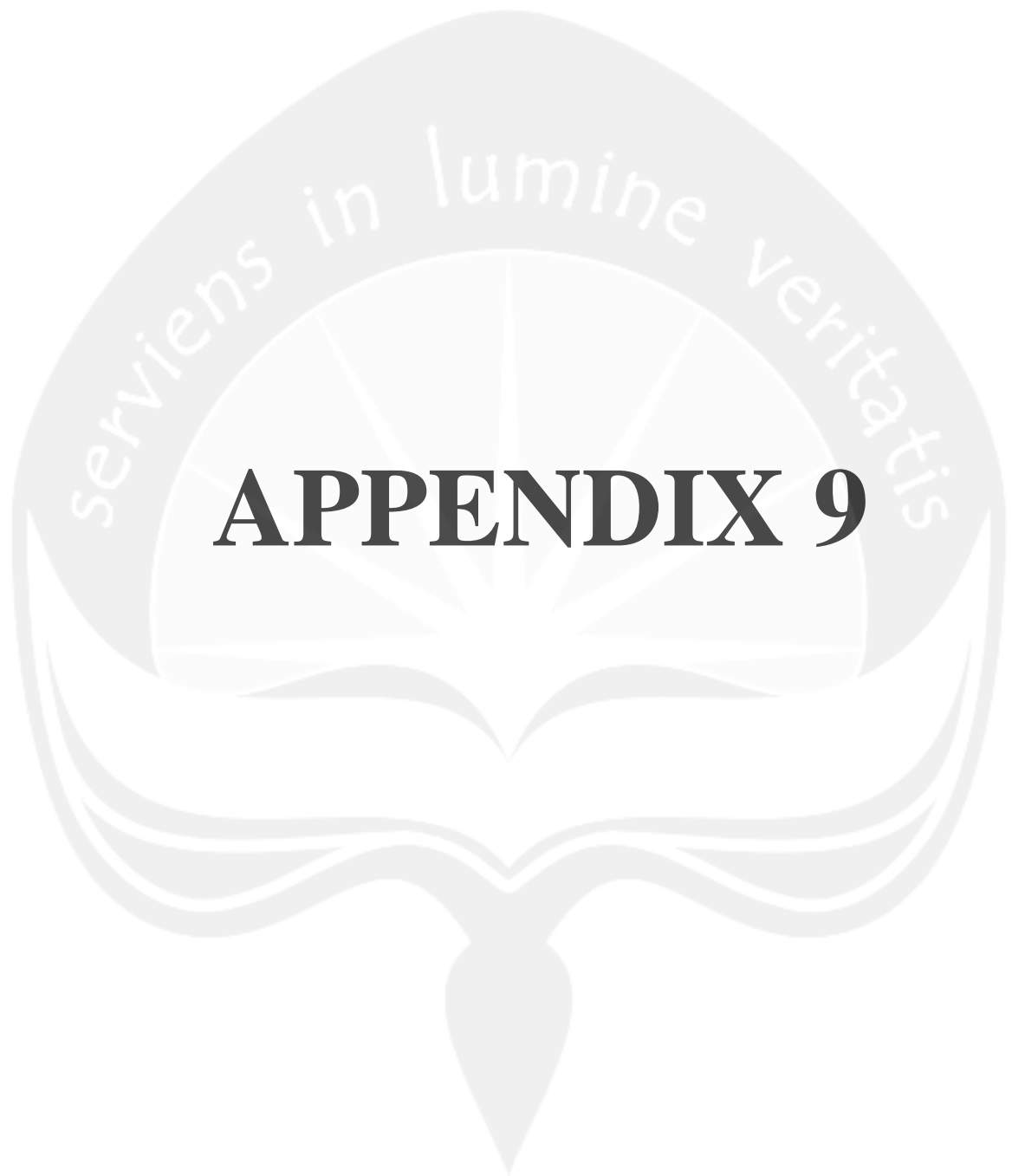
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	222.7166	24.23677	9.189203	0.0000
ROE	0.536941	0.230147	2.333036	0.0208
RISK	-41.25389	2.567977	-16.06475	0.0000
SIZE	-31.36816	4.067871	-7.711197	0.0000
TIER1	1.77E-05	5.45E-06	3.245927	0.0014
CR	5.697682	1.610010	3.538911	0.0005
MARKET	38.05304	11.38606	3.342073	0.0010

#### Effects Specification

Cross-section fixed (dummy variables)  
 Period fixed (dummy variables)

R-squared	0.959765	Mean dependent var	20.61783
Adjusted R-squared	0.943766	S.D. dependent var	6.023924
S.E. of regression	1.428501	Sum squared resid	348.9451
Durbin-Watson stat	0.585988	J-statistic	184.1668
Instrument rank	70	Prob(J-statistic)	0.000000

Source: Researcher's Data Calculation Using EViews 7



# **APPENDIX 9**

## APPENDIX 9

### EViews 7 Regression Result Based on GMM method with Period Weight

Dependent Variable: CAP  
 Method: Panel Generalized Method of Moments  
 Date: 09/06/15 Time: 17:00  
 Sample: 2009M01 2013M12  
 Periods included: 60  
 Cross-sections included: 4  
 Total panel (balanced) observations: 240  
 Period weights instrument weighting matrix  
 Instrument specification: CAP C ROE RISK SIZE TIER1 CR  
 MARKET

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	252.2768	19.72315	12.79090	0.0000
ROE	0.401811	0.234890	1.710637	0.0890
RISK	-46.63307	2.467024	-18.90256	0.0000
SIZE	-36.08221	3.262076	-11.06112	0.0000
TIER1	2.58E-05	5.50E-06	4.690365	0.0000
CR	6.418927	1.585754	4.047871	0.0001
MARKET	33.98748	9.355932	3.632720	0.0004

#### Effects Specification

Cross-section fixed (dummy variables)  
 Period fixed (dummy variables)

R-squared	0.959215	Mean dependent var	20.61783
Adjusted R-squared	0.942997	S.D. dependent var	6.023924
S.E. of regression	1.438234	Sum squared resid	353.7163
Durbin-Watson stat	0.637635	J-statistic	91.65036
Instrument rank	70	Prob(J-statistic)	0.000000

Source: Researcher's Data Calculation Using EViews 7



## APPENDIX 10

### EViews 7 Regression Result Based on GMM Method with 2SLS Weight

Dependent Variable: CAP  
 Method: Panel Generalized Method of Moments  
 Date: 09/06/15 Time: 17:02  
 Sample: 2009M01 2013M12  
 Periods included: 60  
 Cross-sections included: 4  
 Total panel (balanced) observations: 240  
 2SLS instrument weighting matrix  
 Instrument specification: CAP C ROE RISK SIZE TIER1 CR  
 MARKET

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	255.0360	26.46776	9.635723	0.0000
ROE	0.566873	0.321199	1.764868	0.0794
RISK	-47.57116	3.068903	-15.50103	0.0000
SIZE	-36.31188	4.419822	-8.215689	0.0000
TIER1	1.45E-05	6.04E-06	2.402851	0.0173
CR	7.656568	2.096149	3.652683	0.0003
MARKET	36.75586	11.26918	3.261627	0.0013

#### Effects Specification

Cross-section fixed (dummy variables)  
 Period fixed (dummy variables)

R-squared	0.960872	Mean dependent var	20.61783
Adjusted R-squared	0.945312	S.D. dependent var	6.023924
S.E. of regression	1.408723	Sum squared resid	339.3496
Durbin-Watson stat	0.672013	J-statistic	171.0000
Instrument rank	70	Prob(J-statistic)	0.000000

Source: Researcher's Data Calculation Using EViews 7