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Audit Market Concentration and Audit Quality in Nigeria

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***Abstract*:** *The broad objective of this study is to examine audit market concentration and audit quality in Nigeria. The longitudinal research design was adopted for this study. The data used in the study were obtained from 540 firm-year observations, comprising of sixty (60) Nigeria listed companies from the period of 2007-2015. Model on the input-based measure of audit quality was adopted in the study. Regression analysis was carried out with the aid of E-views 8.0. The results revealed that audit market concentration increases audit quality of the sampled firms in Nigeria. Implying that the Big 4 audit firm tends to have more far reaching client base and cannot help but render quality audit to ensure clients retention and public confidence. We recommended that the non-Big 4 audit firms should invest in human capital development so as to improve and expand the knowledge and technical skills of their staff.*

***Keywords*:** *Audit Market Concentration, Audit Quality, Big 4 audit firm, Non-Big 4 Audit Firms*

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I. Introduction

Audit quality concern has taken the front burner in recent times, in Nigeria and across the globe, because of a myriad of corporate financial scandals and firms collapses. Such as Enron, WorldCom in the United States, and Cadbury in Nigeria, which have witnessed financial scandals in which auditors were indicted not only of compromise but of outright unethical conducts. In Nigeria, attention has been focused on the role of accountants and auditors who have been involved in fraudulent practices. The Cadbury Nigeria experience is the most cited case in this respect. Given these scenarios, the issue of audit quality has grown in importance.

Audit quality is defined as the extent to which the audit conducted adheres to applicable auditing standards and regulations (Dang, 2004; Ding & Jia, 2012). Audit quality is commonly referred to as being related to the competence (ability to detect material misstatements) and independence (ability to report material misstatements) (DeAngelo, 1981a). When it comes to company's accounts, the relevance of quality audit becomes more critical in given the sensitive nature and operations of these companies in any economy.

However, literature divides this definition into two distinct components-actual audit quality and perceived audit quality. Actual audit quality refers to the auditor as both discovering and communicating any material misstatements inherent in the financial statements, while perceived audit quality refers to the viewpoints and perceptions of various stakeholders about the auditors' ability to identify and communicate such misstatements (Dang, 2004). A widely cited definition of perceived audit quality is that of DeAngelo (1981b) who defined perceived audit quality as the market-assessed joint likelihood that the auditor will detect a breach in the client's accounting system and report the breach. While the likelihood of detecting a breach depends on the auditor's capabilities and the audit procedure. The likelihood of reporting the breach is dependent on the independence of the auditor.

Prior studies on audit market concentration and audit quality have provided a mixed result (Pearson & Trompeter, 1994; McMeeking, Numan & Willekens, 2012; Ding & Jia, 2012). It is therefore important and imperative to examine studies in audit quality. More specifically an examination of the Nexus between audit market concentration and audit quality should be revealing. From the research problems stated above, the objective of this paper is to ascertain the relationship between audit market concentration and audit quality.

To achieve this objective the paper is divided into five sections. The next section presents the review of literature on the dependent and explanatory variables and theory underpinning the study. Section three examines the materials and methods used in the study. Section four presents the results and discussion, while the final section concludes the study.

II. Literature Review And Hypotheses Development

This section presents the theory underpinning the study and reviews the literature on both the dependent and independent variables. This section also presents the development of the hypotheses to be tested in the study.

2.1 Theoretical Framework

Henry Fayol developed the theory of industrial organisation in 1916. The theory examines the number of competitors who operate in the relevant market and the distribution of market shares at the level of market structure. The concept behind industrial organisation theory is the market structure, rather than the firm itself. The theory sates the influence of competitive forces on the industry, as well as, how the profitability is ascertained by them. The theoretical framework for this study is centred on the new Industrial Organisation Theory. It influences the formulation of the study hypotheses, informs the research methodology and statistical techniques used in this study. New industrial economists are convinced that there is no single one-direction relationship between market concentration and audit quality, but a feedback between those two parameters. There is an existing indirect linkage between market concentration and audit quality because, they are determined by the underlying cost and demand parameters (Beattie, Goodacre, & Fearnley, 2003). On the demand side, Beattie (2012) opines that high concentration by the willing realignments of clients who choose top auditors because of their commendable reputation or because of the dissatisfaction about their previous auditor. The cost parameter and economies of scale motivate audit firms to be merged, which increases audit market concentration.

2.2. Audit Quality

Financial reporting and auditing were designed to provide protection to investors. Investor's protection is achieved by imposing a duty of accountability upon the managers of the company (Crowther & Jatana, 2005). The quality of audit will affect the reliability, credibility and acceptability of financial reports. The competence and integrity of auditors will determine the quality of work and of the audit report they present. Audit firms tend to play a major role in this aspect. The extent of audit quality is notably affected by the audit work carried out by the audit firm engaged.

There is no single agreed definition of audit quality that can be used as a 'standard' against which actual performance can be assessed (Financial Reporting Council, 2006). Francis (2004) describes audit quality as meeting or not meeting minimum legal and professional requirements. Audit quality ranges from low audit quality at the one end to very high audit quality at the other end. Low audit quality will produce financial statements that might mislead its users. Low audit quality can happen in two ways: when the audit firm did not enforce the Generally Accepted Accounting Principles and when the audit firm did not issue a qualified audit report when needed. High-audit quality can be achieved by meeting all the audit objectives and following rules and standards. Audit objectives can be transaction-related, statement of financial position-related or presentation and disclosure-related (Arens, Elder & Beasley, 2010). Rules and standards can be set by a country's government and are often based on the International Standards on Auditing (ISA) of the International Federation of Accountants (IFAC).

DeAngelo (1981) defines audit quality as the market-assessed joint probability that the auditor discovers an anomaly in the financial statements, and reveals it. In other words, audit quality is the joint probability that the auditor will both discover an error in the clients accounting system and report the error. DeAngelo's (1981) concept of audit quality, however, does not consider institutional factors, like the legal environment or government intervention, which can modify the role of auditing. Titman and Trueman (1986) opine that audit quality is the accuracy of the information reported by auditors. The values of auditing services are broadened beyond professional competence and independence.

The definitions identified above have been widely criticised because these definitions are difficult to operationalize (Francis, 2004). Users of financial statements are not capable of determining whether the audit report reflects the existence of material misstatements or that the accounts provide an accurate reflection of the company's true state of affairs (Institute of Chartered Accountants of England and Wales, 2010). This is attributable to the fact that neither party is facilitated with an opportunity to access the evidence gathered or to the information audited throughout the audit process and thus cannot directly assess the degree of actual audit quality provided (Dang, 2004). Therefore, in the absence of a direct measure of actual audit quality, a variety of different proxies have been developed in an attempt to quantify audit quality.

The Financial Reporting Council (FRC, 2008) states that audit quality is dynamic, the indicators and drivers of audit quality change over time. Therefore, the definition of DeAngelo (1981) might not be all-embracing anymore. Though, the Financial Reporting Council does not give a precise definition, yet, it gives five main drivers of audit quality: the audit firm's culture and the personal qualities of auditor, skills of staff and audit partners; the audit process' effectiveness; the usefulness and reliability of audit reporting; and factors that affect audit quality outside the audit firm's control.

DeFond and Zhang (2014) define audit quality as the assurance that the relevant information about the firm's underlying economic conditions, the firm's innate features and financial reporting practices are faithfully represented in the financial statement. It is important to note that the perception of audit quality can depend very much on the eyes through which we see the concept. Users, auditors, regulators and society-all

stakeholders in the financial reporting process-may have varying opinions as regards the make-up of audit quality, which will influence the type of indicators one uses to evaluate audit quality.

Therefore, in this study, we define audit quality operationally as a continuous construct that maps closely into financial reporting quality. The users of the financial report believe that high-quality audit means the absence of material misstatements. The auditor conducting the audit may define high-quality audit as satisfactorily completing all tasks required by the firm's audit methodology. Regulators may view a high-quality audit as one that is in compliance with professional standards. Finally, society may consider a high-quality audit as one that prevents economic problems for an organisation. In the end, different suggestions were raised based on various proxies (Knechel, Krishnan, Pevzner, Shefechik & Velury, 2012).

One of the most prevalent proxies of audit quality is the propensity to issue a going concern opinion (Geiger & Raghhunadan, 2002 & Carey & Simnett, 2006). Audit quality is usually cumbersome to measure because, the confidence auditors provide cannot be observed (Defond & Zhang, 2014). The commonly used proxies for measuring audit quality are the output-based and the input-based measure (Kallapur, Sankaraguruswany & Zang, 2010; Defond & Zhang, 2014). The output-based measure of audit quality is mostly used in literature as stated above. They are constrained by the firm's financial reporting system and innate features. One way to infer audit quality is to consider the output of the audit process. Output based measures tend to determine the rate of audit quality actually delivered. The input-based measures evaluate audit quality using observable inputs to the audit process. However because inputs may not directly translate to outputs, they are relatively noisy audit quality measures. Input-based proxies do not recognise auditor misconduct; it is based on actually observed features. Irrespective of the dimension of directness, actual-versus-perceived quality does not vary (DeAnglo, 1981).

2.3 Audit Market Concentration and Audit Quality

Audit market concentration is simply the market share for audit firms. The structure of the audit market is an essential factor of competitiveness for audit firms. According to Porter (2008), the market concentration can be viewed as a strategic competitive advantage of an organisation, provided that client is offered a higher additional benefit. The choice for any of the audit firms is based on their reputation and the quality of audit services rendered over the years (Rama & Read, 2006). Globally, small and medium sized audit firms are increasingly driven out from the audit of capital market oriented companies by the Big 4 audit firms. This leads to significant disadvantages of competition along with rising oligopolistic rents for the Big 4 audit firms (Velte & Stiglbauer, 2012). Generally speaking, the market is comprised of some firms operating and staying in the market for long periods of time, while other firms continue to enter and exit the market. Other causes for consolidation at the audit market are the involuntary retirement of audit firms, in-and external growth (mergers), dominant in Big 4 audit firms are product differentiation and reputation building, along with the investors' desire for a swift publication of certified accounting.

From a US – American point of view, audit fee is used as a measure for concentration. Research on the German audit market traditionally calculate the market share with the help of the mandate numbers, statement of financial position total and/or turnover revenues of clients, since the publication of fees has only been obligatory since 2003. Measures that are generally used in audit market concentration studies and also in the general field of industrial organisation are the concentration ratio (Cn) and the Hirschman-Herfindahl Index (HH-index). In the audit market literature, supply-side concentration is considered to be an important indicator of competitive behaviour (Moizer & Turley, 1989). Economists have developed a variety of approaches to quantify concentration in the market. Most of them are based on the number of companies operating in the market and their respective market shares.

Changes in market concentration occur for three main reasons: voluntary realignments, changes in the set of consumers, and changes in the set of suppliers. Realignments take place for a variety of reasons. The six most common reasons suggested by Beattie, Goodacre and Fearnley (2003) are: high audit fees, dissatisfaction with audit quality (in terms of the auditor's ability to detect problems), changes in company's top management, need for group auditor rationalisation; need for a big-audit firm, and merger with or takeover of another company. If, however, there is an underlying preference for the leading suppliers, then these realignments will gradually result in a rising concentration. Major increases in concentration can occur when leading suppliers disappear from the market, either through merger or collapse (Farag, 2007). Concentration depends on the number of audit firm's choice in the market and their relative size (Dubaere, 2008).

There are mixed results on the relation between audit market concentration and audit quality. Kallapur, Sankaraguruswamy and Zang (2010) examine the relation between audit concentration and audit quality within city-specific United States. Their study shows that there is a positive relationship between audit market concentration and audit quality. In Canada, Velte and Stiglbauer (2012) investigated audit market concentration and its influence on audit quality. The paper discussed the conventional measurement methods of audit market concentration and a review of previous empirical results of audit market concentration for the European Union

and non-European Union member states. Their findings show that European Commission reforms cannot clearly be related to increased audit quality but increasing transaction cost.

In China, Huang, Chang and Chiou (2016) investigate the effects of audit market concentration on audit fees and quality. They analysed 12,334 firm-years for the period of 2001-2011. They found a significant positive relationship between audit market concentration and audit fees. It was found that, audit market concentration improves audit quality indirectly through increased audit fees and this positive indirect effect write-off the negative indirect effects of audit market concentration on audit quality.

In the UK, Kittsteiner and Selvaggi (2008), investigate whether high concentration among big auditors leads to higher audit fees being paid by large corporate clients. The method used by the authors is based on multivariate economic analyses. This is a well-established technique that enables us to examine the relationship (correlation) between some main factors all of which are unique. Their findings suggest that there is a strong relationship between the degree of concentration in audit markets and higher audit fees paid by the UK listed companies. In the US, Eshleman (2013) investigates the effect of audit market concentration on audit pricing. The study shows that, the size of the audit market is a major determinant of audit market concentration on audit fees depending on the size of the audit market. In particular, it has been argued (Oxera, 2006), that many very large listed companies (such as those listed in the FTSE350 index) only consider one of the Big 4 auditors (Deloitte, Ernst & Young, KPMG, and PwC), which results in a highly concentrated market for auditing services.

Feldman (2006) studied the relationship between changes in market concentration and changes in audit fees by using a regression model on a dataset of 1071 listed the US companies in the year 2000-2002. Feldman concluded that Andersen's collapse caused further market concentration in favour of the Big 4 and thus contributed to market-power-induced upward adjustment of audit fees. On average, the Big 4 audit firms have a market share of approximately 94% in terms of total turnover from clients audited within the Europe Union (Le Vourc'h & Morand, 2011).

In the US, Boone, Khurana and Ramac (2012), examine auditor's tolerance for earnings management in different audit markets during 2003-2009. The researchers used the Herfindahl index to measure concentration and find that clients of auditors located in more concentrated audit markets are likely to use income-increasing discretionary accruals to achieve earnings benchmarks. This reflects that higher-audit market concentration results to a reduction in earnings quality; and hence, a reduced audit quality.

Francis, Michas and Seavey (2013), find that in countries where the markets share is concentrated by just one or two of the Big 4 audit firms, Big 4 clients have less conservative earnings, are less likely to report losses and generally record higher accruals. Similar to the evidence in Boone *et al.* (2012), the evidence in Francis *et al.* (2013) suggest that audit market concentration leads to a reduction in audit quality.

III. Materials And Methods

The population of this study comprised of all the 186 companies quoted on the floor of the Nigerian Stock Exchange as at 31st December 2015. The sample size was derived from Burley's formula propounded and popularised by Yamane (1973) for the determination of sample size in a finite population. Further analysis was carried out using data filtering, based on the availability of the required information and at the end; a convenience sample of 60 quoted firms was employed in the study. The secondary source of data was relied upon in this study.

The research design adopted for this study was the longitudinal design. Panel regression technique was used as data analyses method for the study. Extant literature has advanced two approaches to the measure of the dependent variable of audit quality (Defond & Zhang, 2014). This is the output-based and the input-based approach. The input-based measures have serious bearings to the audit process. The two basic dimensions to the input based measure of audit quality are the audit specific characteristics and the auditor-client contracting characteristics. In this study we adopted the auditor-client contracting characteristics with emphasis on audit-fees as a measure of audit quality.

3.1. Model Specification

Against the above backdrop, it is expected that a functional relationship exists between audit market concentrations and audit quality. The functional relationship is presented thus:

$AQ = F\ (AUDCON)$…… (1)

Equation (1) is transformed into econometric form as;

$AQ_{it} = \beta_0 + \beta_1 AUDCON_{it} + U_{it}$……*(2)*

Apriori expectation: Presumptively, based on theory and extant literature, it is expected that the explanatory variable will increase the quality of the audit. Therefore,

$\beta_1 \geq 0$.

Where:

AQ = Audit Quality (The dependent variable)
AUDCON = Audit Market Concentration
β_0 = Regression constant
β_1 = Regression Coefficients
i = Entity of each quoted companies at the time (t)
t = Time (i.e 2007- 2015)
For purposes of this study, we adopted the input-based measure of audit quality. This is because audit fee as a measure of quality has to bear with the audit process compared to financial reporting quality as a proxy for audit quality. The choice of financial reporting quality as a measure of audit quality was jettisoned because the auditor has no input in the financial reporting process. Therefore, it cannot serve as a good measure of audit quality.

3.2 Operationalization of Variables

This section dwells on how the variables will be measured;

1. **Audit Quality:** The dependent variable for this study is audit quality. The input- based approach to measuring audit quality was adopted using one of the auditor-client contracting characteristics with emphasis on audit fees charged. The choice of the auditor-client contracting characteristics is based on the fact that it has direct bearing the audit process compared to financial reporting quality, which captures the quality of accounting information and not audit quality.
2. **Audit Market Concentration:** The Hirschman-Herfindahl index was used to measure the market concentration. It was computed as the sum of the squares of the ratios of each audit firm's size to the total size of the audit market.

$$HI = \frac{\sum_{i=1}^{n} x_i^2}{\left(\sum_{i=1}^{n} x_i\right)^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. (1)$$

where,
n = the total number of audit firms in the market
x_i = the size of the audit firm (audit fees)
The upper and lower bounds of the Hirschman-Herfindahl index are 100 and 0. Whenever there is only one firm active in the market, the index equals 100. The index approaches 0 when there are numerous firms of equal size that are active in the market (Kallapur, et al., 2010; Defond & Zhang, 2014).

IV. Results And Discussion

The result forms the basis of discussion, the hypothesis, recommendation and conclusion.

Table 4.1. Regression Results

	FIXED EFFECT	*RANDOM EFFECT*	*POOLED*
CONSTANT	*19379.96* *(2.417050)*	*14523.01* *(1.836641)*	*7406.436* *(0.904991)*
AUDCON	*31479.62* *(2.471738)*	*27647.43* *(3.064064)*	*20702.31* *(3.477399)*
R-SQUARED	*0.676955*	*0.019716*	*0.091153*
ADJUSTED R-SQUARED	*0.634199*	*0.012387*	*0.084358*
F-STATISTIC	*15.83302*	*2.690053*	*13.41446*
PROBABILITY	*0.000000*	*0.030492*	*0.000000*
DURBIN WATSON STATISTIC	*0.937657*	*0.904463*	*0.598450*
HAUSMAN TEST STATISTIC	*0.0052*		
TOTAL BALANCED OBSERVATION	*540*	*540*	*540*

Note All regressions include a constant. The t-values are in parentheses. The basis of analyses is the 5% level of significance applicable to most management sciences research*

The regression result of the relationship between audit market concentration and audit quality is presented in Table 4.1. The result of the Hausman test rejects the equality of coefficients in the random effect model and the fixed effect model. Consistent with Brooks (2008), the test reveal preference for the fixed

effect model with a probability value of 0.0052. The adjusted R-squared of the fixed effect model is 0.634199 which means that about 63% of the cross-sectional systematic variation in the dependent variable of audit quality is accounted for by the explanatory variable audit market concentration (AUDCON). The F-statistic of 15.83302 and the associated probability value of (0.000000) is robust and statistically significant. It indicates that a significant linear relationship exist between the dependent variable and the explanatory variable.

4.2 Test of Hypothesis

4.2.1 Audit market concentration is not significantly related to audit quality

The robust coefficient 31479.62 of the variable of interest (audit market concentration) and the t-value of 2.471738 are beyond the likelihood of chance. The result shows that a statistically significant positive relationship exists between audit firm concentration and audit quality of the sampled firm. The implication of the result is that audit market concentration increases the audit quality. Extant empirical literature has justified the positive association based on the reputation of the Big 4 audit firms and the availability of resources, specialised knowledge, improved technology and access to professionals with the requisite expertise. The regression result could not sustain the null hypothesis of no significant relationship between audit market concentration and audit quality. Hence the alternate hypothesis was accepted and the null hypothesis rejected. This states that, audit market concentration is significantly related to audit quality.

4.3 Discussion of Findings

The relationship between the variable of interest (audit market concentration) and audit quality is positive and statistically significant at the 5% level. The import of the finding is that audit market concentration increases audit quality of the sampled firms. The result of our study shows that audit market concentration increases the quality of the audit. The result of the study is in tandem with the findings of GAO (2003) which conclude that existing level of audit market concentration has no problem with audit quality.

In the same vein, Kallapur, et al (2010) find a positive relationship between audit market concentration and audit quality. Huang, et al (2016) find a positive relationship between audit market concentration and audit quality. The predominant positive relationship between audit market concentration and audit quality is not unexpected. This is because the Big 4 audit firms that concentrate the Nigerian audit market have access to professional expertise have the requisite technology to deliver good quality audit, and also, they have a high reputation which they may not afford to compromise by delivering lesser quality services.

The result of the positive relationship between audit market concentration and audit quality is, however, contrary to the negative relationship established by Francis et al (2013) who believed that audit market concentration prompts lower quality. The proponents of lower audit quality resulting from audit market concentration believe that the auditees are constrained to engaging the services of the Big 4 audit firms which dominates the audit market thereby eliminating the possibility of competition. The absence of competition contravenes the long standing believe that competition breeds efficiency, hence a lack of it, may result in a poor quality audit. The result of the study shows that in Nigeria, the audit market is concentrated by the Big 4 audit firms. The result of the descriptive statistics shows that on the average, the Big 4 audit firms account for about 64% of the total audit market share with a mean audit market concentration of 0.641500 (see Appendix).

V. Conclusion And Recommendations

In this study, we examined audit market concentration and audit quality in Nigeria. We measured audit quality by adopting the input-based measure of audit quality. The Audit Fees was used as a proxy for audit quality. The model adopted was tested using quoted companies in the Nigeria Stock Exchange. The explanatory variable was found to be highly significant to the dependent variable (audit quality). It was found that audit market concentration increases audit quality of the sampled firms in Nigeria.

The positive relationship between audit market concentration and audit quality is predicated on the fact that the Big 4 audit firms have the requisite expertise and technology to deliver good quality audit. Therefore, it is recommended that the non-Big 4 should pursue rigorous investment in human capital to expand their expertise and knowledge base to be able to compete favourably. It was also recommended that higher market concentration decreases market competition. Finally the study recommended that public policy should be justifiably concerned about audit market concentration effects on the choice of auditors available to clients to ensure quality audit.

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APPENDIX I
Descriptive Statistics

	AQ	AUDCON
Mean	21633.47	0.641500
Median	10000.00	1.000000
Maximum	537946.0	1.000000
Minimum	600.0000	0.000000
Std. Dev.	45730.00	0.457061
Skewness	6.689040	-0.611234
Kurtosis	63.76251	1.452855
Jarque-Bera	87098.76	87.48197
Probability	0.000000	0.000000

Sum	11682076	346.4100
Sum Sq. Dev.	1.13E+12	112.5995
Observations	540	540

Source: Researchers computation 2016

AQ is the dependent variable audit quality, AUDCON is audit market concentration

APPENDIX II

INPUT-BASED AUDIT QUALITY MEASURE (LUFEE)

Dependent Variable: LUFEE
Method: Panel EGLS (Cross-section random effects)
Date: 08/27/16 Time: 13:33
Sample: 2007 2015
Periods included: 9
Cross-sections included: 60
Total panel (balanced) observations: 540
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14523.01	7907.374	1.836641	0.0668
AUDCON	27647.43	9023.124	3.064064	0.0023

Effects Specification	S.D.	Rho
Cross-section random	33374.68	0.5928
Idiosyncratic random	27658.17	0.4072

Weighted Statistics

R-squared	0.019716	Mean dependent var	5760.272
Adjusted R-squared	0.012387	S.D. dependent var	28110.01
S.E. of regression	27935.37	Sum squared resid	4.18E+11
F-statistic	2.690053	Durbin-Watson stat	0.904463
Prob(F-statistic)	0.030492		

Unweighted Statistics

R-squared	0.025993	Mean dependent var	21633.47
Sum squared resid	1.10E+12	Durbin-Watson stat	0.535552

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	14.777688	4	0.0052

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
AUDCON	21479.622460	27647.429821	80784298.780640	0.4926

Cross-section random effects test equation:
Dependent Variable: LUFEE
Method: Panel Least Squares
Date: 08/27/16 Time: 13:34
Sample: 2007 2015
Periods included: 9
Cross-sections included: 60
Total panel (balanced) observations: 540

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19379.96	8018.022	2.417050	0.0160
AUDCON	21479.62	12735.82	1.686552	0.0923

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.676955	Mean dependent var	21633.47
Adjusted R-squared	0.634199	S.D. dependent var	45730.00
S.E. of regression	27658.17	Akaike info criterion	23.40412
Sum squared resid	3.64E+11	Schwarz criterion	23.91275
Log likelihood	-6255.111	Hannan-Quinn criter.	23.60304
F-statistic	15.83302	Durbin-Watson stat	0.937657
Prob(F-statistic)	0.000000		

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