行政院國家科學委員會專題研究計畫 成果報告

競爭機關獨立性之研究：貪污風險的觀點
研究成果報告(精簡版)

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行政院國家科學委員會補助專題研究計畫成果報告

競爭機關獨立性之研究：貪污風險的觀點

A Study on the Independence of the Competition Authority from the Viewpoint of Corruption Risk

計畫類別：個別型計畫
計畫編號：NSC 99-2410-H-034 -006 -
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中　華　民　國　99 年　9 月 19 日

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本研究計畫利用政經制度門檻做為標準，將國家分為兩類：第一類國家多為開發中國家，由於其不良的制度環境易使執法機關人員暴露於賄賂與暴力威脅之下，因此，競爭體制必須朝向低度獨立的設計，藉由中央政府監督，以避免弊端。反之，第二類國家多為已開發國家，其政經環境已跨越制度性門檻，使競爭機關獨立性與執法績效能夠呈現正向關係，因此，可以利用高度獨立的競爭機關體制，以提高反托拉斯績效。總之，各國政經環境似乎存在著一個制度性門檻，決定獨立性與執法績效二者間之關係。雖然在均衡時，二者的獨立性高低不等，但是，就制度設計而言，卻都是反映現實政經環境的最佳妥協，從而各自形成了一個可執行的寇斯契約。作者希望此一結論可幫助政府在設計競爭法執法機關組織架構時，瞭解應該依據不同之政經環境與現實需求，設計獨立性高低不等之競爭法執法機關。

中文摘要

經濟與法律文獻均強調競爭機關的獨立性可加強執法績效。然而本研究嘗試以廣義的寇斯理論觀點，證明二者並不必然呈現絕對的正向關係。易言之，高獨立性不一定代表高執法績效。原因在於：個別國家的政經環境存在著一個制度性門檻，決定二者間關係的正負。就開發中國家而言，不良的制度環境易使執法機關暴露於賄賂與暴力威脅之下，因此，競爭體制必須朝向低度獨立的設計，以避免弊端。反之，已開發國家的政經環境則已跨越制度性門檻，使競爭機關獨立性與執法績效能夠呈現正向關係，因此，可以利用高度獨立的競爭機關體制，以提高反托拉斯績效。雖然在均衡時，二者的獨立性高低不等，但是，就制度設計而言，卻都是反映現實政經環境的最佳妥協，從而各自形成了一個可執行的寇斯契約。

J 關鍵詞：競爭機關獨立性、貪污、競爭法、制度

JEL 分類： K210; L13

Abstract

The IO literature emphasizes that the independence of the competition authority can enhance antitrust effectiveness. Nevertheless, from a broader viewpoint of the Coase theorem, this article indicates that the relationship is not necessarily either linear or positive. In other words, a high level of authority independence does not necessarily lead to a better enforcement of competition law. There exists an institutional threshold which determines whether or not authority independence can promote antitrust effectiveness. For the LDCs that fail to exceed the threshold, the relatively weak institutions make the agencies more susceptible to corruption or coercion. Hence, their competition regimes have moved in the direction of adjudication by less independent (government-controlled) agencies so as to prevent corruption. In the DCs, the institutional frameworks have passed the threshold level that has allowed antitrust effectiveness to increase with authority independence. Thus, they have moved toward adjudication through their relatively independent agencies. Both outcomes have been found to be efficient at the time in light of their respective environments. As a result, these arrangements can literally be regarded to be the result of an enforceable Coasian contract.

Key words: authority independence, corruption, competition law, institutions.

I. Introduction

The importance of authority independence in formulating and implementing antitrust policy has recently received considerable attention in both the academic and practitioner literatures. For instance, in a recent study, UNCTAD has been shown to vigorously campaign for laws and safeguards which guarantee the independence of the competition agencies from any administrative manipulation or intervention.[1] A growing literature also supports this assertion and shows that a positive relationship exists between the competition authority's independence and antitrust effectiveness.[2] This sweeping argument emphasizes that the importance of authority independence for securing antitrust effectiveness is definitely without doubt or mistake. However, in contrast to the previous literature, this article emphasizes that the relationship between independence and effectiveness is not necessarily a linear or positive one. In other words, a high degree of authority independence does not necessarily lead to a better enforcement of competition law. This is because the earlier literature fails to capture a central requirement in the design of a legal system, which is to protect law enforcers from corruption or coercion by litigants through either bribes or violence. The higher the risk of corruption (or coercion), the greater is the need for the control (or protection) of law enforcers by the executive government.[3] Such control, however, also makes law enforcers beholden to the government, and politicizes justice.

By taking this argument into consideration, this paper specifies an empirical model in which the institutional infrastructure is used to divide countries into either the type characterized by much corruption in its government or else the type not corrupted after all. The result indicates a significant structural break corresponding roughly to the distinction between the LDCs and the DCs. Countries struggling with endemic corruption mainly belong to the LDC group. They often face institutional difficulties in enforcing competition laws which involve, inter alia, inadequate judicial systems, corruption, and lack of transparency. Thus, the agencies in these countries are more susceptible to bribery or corruption. "*Where there is no law and order, where corruption is rampant and where the informal sector is large, competition law enforcement might be extremely difficult*." [Gal 2004, p. 12]. In the corrupt institutional environment, a decentralized adjudication of disputes (i.e., independent agency) would not have been able to deliver justice, since the corruption associated with interest group rent seeking would seriously impair antitrust effectiveness and jurisdiction justice. More independence thus only diminishes the antitrust effectiveness. It is more efficient to surrender adjudicatory powers to a government-controlled agency even when its preferences may not reflect those of the society. Conversely, in the DCs, the institutional infrastructure is strong enough to support the rule of law. As a consequence, the pressure of corruption on the agency is

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[1] See UNCTAD (2008, p. 3).
UNCTAD also indicates that "*the independence of competition authorities has recently been the cornerstone of institutional reforms insulating competition law implementation from political influences.*" http://www.unctad.org/sections/wcmu/docs/c2clp_ige9p2Turkey_en.pdf.

[2] See Dutz and Vagliasindi (1999), Borrell and Jimenez (2007) and Ma (2010) for the empirical evidence on the positive relationship between authority independence and antitrust performance. Gal (2004) and Marcos (2006) also indicate that the independence of the competition authority is a prerequisite to sound antitrust.

[3] See Glaeser and Shleifer (2002).

weaker, and the decisions it could reach are probably closer to the standards of justice. It is more efficient, then, to delegate the adjudicatory powers to an independent agency. Therefore, the positive relationship between independence and effectiveness could exist only in a society with less corruption.

Based on this line of argument, this paper argues that the choice of the level of authority independence by a country is an outcome of the balance between the enhancement of antitrust efficiency and the prevention of bullying or corruption. Thus, antitrust effectiveness does not have to monotonically increase with authority independence. Besides, the institutional factors (especially the degree of corruption and the rule of law) that influence a country's decisions regarding authority independence may also influence the relationship between independence and antitrust effectiveness. A country with better institutional quality is more likely to choose an independent competition regime, and this country-specific advantage may also improve antitrust performance. Therefore, in investigating the antitrust implications of decisions concerning authority independence, this paper uses Tobit two-stage least squares to address the possibility of self-selection so as to avoid potential biases in interpreting the empirical results.

II. Data

A. Antitrust Effectiveness. This article uses the effectiveness of antitrust enforcement provided by the survey data of the WEF (2005) as a proxy for antitrust effectiveness (*EFFECTIVENESS*, hereafter). This survey collects data from business executives in 132 countries.

B. Authority Independence. The indicator used to measure the degree of the independence of the competition authority (*INDEPENDENCE*) is obtained from the index of *de facto* independence from Voigt (2006) who has undertaken a survey on the independence of the competition authorities for 83 countries.

C. Institutional Quality. The indicator of the quality of institutions (*INSTITUTIONS*) is obtained from Kaufmann *et al*. (2009) who provide the relevant data for 188 countries derived from several surveys. This dataset contains six indicators (*Political stability*, *Rule of law*, *Voice and accountability*, *Government effectiveness*, *Regulatory quality*, and *Control of Corruption*) measuring the institutional framework. Since Voigt's survey is mainly based on year 2000 data and *INSTITUTIONS* will be used as the instrumental variable to extract the exogenous component of *de facto* independence, the following study thus uses the average of these six measures over the period 1996-2000 as the yardstick to evaluate the *INSTITUTIONS* of individual countries.

III. Institutions, Independence, and Effectiveness

This section argues that two key differences exist between this article and the earlier literature in exploring the relationship between antitrust effectiveness (*EFFECTIVENESS*) and authority independence (*INDEPENDENCE*). The first difference is that this article emphasizes that the relationship between these two variables is not necessarily either linear or positive. The second one is that, instead of using the OLS or traditional instrumental variables estimation method, this paper uses the Tobit two-stage method with selectivity to address the potential self-selection problem as well as simultaneity.

IV. Empirical Specification

A. Empirical Specification. A system of equations used to estimate *EFFECTIVENESS* can be specified as follows:

First Stage :

$$INDEPENDENCE = INDEPENDENCE^{*}$$
$$= C_1 + \alpha_1 \cdot INSTITUTIONS + \alpha_2 \cdot INSTITUTIONS^2 + \varepsilon_1 \quad (1)$$

Second Stage :

$$EFFECTIVENESS = C_2 + \beta_1 \cdot \hat{INDEPENDENCE} + \beta_2 \cdot \hat{INDEPENDENCE}^2 + \mathbf{X}'\boldsymbol{\Lambda} + \beta_3 \cdot \delta + \varepsilon_2 \quad (2)$$

} if $INDEPENDENCE^{*} > 0$

$$INDEPENDENCE = 0$$
$$EFFECTIVENESS = C_2 + \mathbf{X}'\boldsymbol{\Lambda} + \varepsilon_2 \quad (3)$$

} otherwise

Here, C_i is a constant term; $\hat{INDEPENDENCE}$ is the fitted value of *INDEPENDENCE* in the first stage; $\mathbf{X}$ is a set of included exogenous variables which will be discussed later; and ε_i is the error term assumed to be normally distributed. In the above system of equations, the criterion function determining the sample separation or the switching is equation (1):

$$INDEPENDENCE^{*} = C_1 + \alpha_1 \cdot INSTITUTIONS + \alpha_2 \cdot INSTITUTIONS^2 + \varepsilon_1 .$$

Here, I have observations on $INDEPENDENCE^{*}$, which is defined by

$INDEPENDENCE = INDEPENDENCE^{*}$ if $INDEPENDENCE^{*} > 0$

$INDEPENDENCE = 0$ othewise

At this point, the criterion function is of the Tobit type, and one can estimate it by the Tobit model in which the relationship between *INDEPENDENCE* and *INSTITUTIONS* is modeled as a first approximation by a polynomial of second degree. This specification is inspired by a similar functional form suggested by Kelejian (1971). He shows that if the functional form of the criterion function (i.e., equation 1) is not known and, therefore, approximated by a polynomial, then the polynomial must be of the same degree as that of equation (2) if the 2SLS estimates are to be consistent.

To deal with both the simultaneity associated with *INDEPENDENCE* and the bias due to self-selection, the estimated criterion equation on *INDEPENDENCE* can be used to obtain the fitted values for *INDEPENDENCE* ($\hat{INDEPENDENCE}$) as well as to calculate the selectivity variable (δ). That is

$$\delta = \frac{\phi[\frac{-(C_1 + \alpha_1 \cdot INSTITUTIONS + \alpha_2 \cdot INSTITUTIONS^2)}{\sigma}]}{1 - \mathbf{\Phi}[\frac{-(C_1 + \alpha_1 \cdot INSTITUTIONS + \alpha_2 \cdot INSTITUTIONS^2)}{\sigma}]}$$

Here, σ is the estimated standard error in the Tobit regression on *INDEPENDENCE*; ϕ is the standard normal density function; and $\mathbf{\Phi}$ is the standard normal cumulative distribution function. In the first stage, equation (1) is estimated as a Tobit model, and the fitted value for *INDEPENDENCE* is used to control for simultaneity in the second stage regression. Next, in the second stage, equation (2) is estimated by using OLS in which the variable *INDEPENDENCE* and its squared term take the fitted values of *INDEPENDENCE* obtained from the estimated Tobit model in the first stage regression. Finally, δ is incorporated as an additional regressor to correct for the selectivity bias. Other than solving the self-selection problem, this specification can also avoid potential endogeneity problems and can thus ensure that the direction of causality is from *INDEPENDENCE* to *EFFECTIVENESS*, but not vice versa.

Basically, this specification emphasizes an institutional threshold that determines the effect of *INDEPENDENCE* on *EFFECTIVENESS*. The extent to which the *EFFECTIVENESS* can benefit from *INDEPENDENCE* depends on whether or not the economy can pass a threshold level of infrastructural development. The reasoning is that institutional factors (especially the degree of corruption and the rule of law) affect *EFFECTIVENESS* through various production regimes in a way that is similar to Azariadis and Drazen (1990) and Durlauf and Johnson (1995). Under this kind of specification, the channel through which institutions have an effect on *EFFECTIVENESS* is constrained by the socio-economic infrastructure. Once this constraint is no longer binding, the *EFFECTIVENESS* will increase with *INDEPENDENCE*. The empirical results to be presented later will show that this specification implicitly divides countries into a "rich group" and a "poor group", corresponding closely to the level of economic development. For the poor (rich) group, the benefits of independence are (are not) constrained by the lack of infrastructural support and hence *EFFECTIVENESS* will decrease (increase) with *INDEPENDENCE*.

B. Other Competition-Enhancing Policies. This study also uses a vector of exogenous variables ($\mathbf{X}$) to control for the effect of other competition-enhancing factors. This vector includes four exogenous variables commonly used in the literature to estimate the antitrust effectiveness regression,[4] and is essentially the same as that of Ma (2010).

1. Scope of competition law (*SCOPE*): Based on the same survey as previously mentioned, Voigt (2006) builds up a "scope index" to measure the breadth of the overall competition law. This index maps the presence of "laws on the book" into a numerical measure of competition regimes by assigning binomial scores for the presence of particular laws in a jurisdiction.
2. Economic freedom (*FREEDOM*): In order to control for the influence of other competition-enhancing policies, I use the Index of Economic Freedom (*FREEDOM*) developed by Gwartney and Lawson (2008) as a control variable to ensure that institutions influence *EFFECTIVENESS* mainly through their impacts on

[4] See Krakowski (2005), Dalkir (2007), Nicholson (2008), and Borrell and Tolosa (2008).

INDEPENDENCE, rather than through deregulation, liberalization or a high degree of economic freedom. *FREEDOM* is an index produced by the Fraser Institute, a libertarian think tank which attempts to measure the degree of economic freedom in 128 countries.

3. Learning effect (*LOGYEAR*): A series of the years of application of competition law in the respective countries, $LOGYEAR = \log(YEAR)$, is used to control for the influence of the learning effect on *EFFECTIVENESS*. The data are obtained from Antitrust World Reports by Professor Hylton.[5]
4. Economic development (*INCOME*): I use the average GDP per capita between 1990 and 2004 to approximate a country's development level. The data are obtained from Version 6.2 of the Penn World Table, adjusted for purchasing power parity.

The expected signs of these control variables in the regression are all positive. While each of these sources provides data on relevant variables for sizeable sub-samples of the countries, the overlapping gives me a final sample of usable data of about 63-67 observations.

V. Empirical Results

A. Results of the First Stage Regression. The regression result of equation (1) is listed as shown below:

$$INDEPENDENCE = 0.43 + 0.47 \cdot INSTITUTIONS - 0.14 \cdot INSTITUTIONS^2$$
$$(0.14)^{*} \qquad (0.10)$$

(The figures in parentheses are standard errors. * indicates that the estimates are significant at the 1% level. $R^2 = 0.60$. Degrees of Freedom = 83).

The result shows that the coefficient of *INSTITUTIONS* is positive and significant at the 1% level. Although the coefficient of the square term is not significant, the p-value of the t-test still reaches 0.15, which is only slightly larger than the usual standard for statistical significance (p=0.10). Besides, the p–value for joint significance of the two terms also reaches 0.001. Thus, if I stick with this estimated coefficient, then the partial derivative of *INDEPENDENCE* with respect to *INSTITUTIONS* is positive when the value of *INSTITUTIONS* is less than 1.68. Since the value of *INSTITUTIONS* ranges from -1.18 to 1.78 in my sample, and there are only three countries whose *INSTITUTIONS* is slightly more than 1.70,[6] it might be safe enough to claim that *INDEPENDENCE* roughly increases with *INSTITUTIONS.*

B. Results of the Second Stage Regression. This subsection reports the regression results of equation (2). In all cases the standard error matrix is corrected for conditional heteroskedasticity.[7] I first present the results with no exogenous controls, and then those with additional controls for the possible determinants of antitrust effectiveness. With no controls, the regression focuses only on *INDEPENDENCE* and its quadratic term. As indicated in Column (A) of Table 1, the coefficients for *INDEPENDENCE* and its quadratic term are positive and statistically significant. The results show that *EFFECTIVENESS* first decreases and then increases as antitrust authorities become more

[5] See http://antitrustworldwiki.com/antitrustwiki/index.php/Main_Page.
[6] The value of *INSTITUTIONS* is 1.78 for the Netherlands, 1.75 for Finland, and 1.74 for New Zealand.
[7] See White (1980).

independent, indicating that the relationship between these two variables is not necessarily linear. Thus, the results support the view that the DCs and LDCs opt for different levels of control that the government exercises over the competition agency. Adding the controls to the regression does not change the main results. Not only is the quadratic term for *INDEPENDENCE* still the most significant factor for explaining variations in *EFFECTIVENESS*, but *INDEPENDENCE* also turns out to be negative and significant at the 1% level. As for the exogenous controls, the results show that all of them except *SCOPE* are significant and have the expected sign, implying that the *de jure* statute is insufficient in sustaining the *de facto* effectiveness.

Since the number of estimated regressors in the unrestricted regression is large compared to my sample size of slightly more than 60 countries, it is not surprising that the coefficients of some exogenous controls in the unrestricted regression are unstable and largely conditional on the choice of various combinations of exogenous variables. For instance, once I drop *SCOPE*, which is the only one with an insignificant slope coefficient in Column (B), Column (C) shows that the effect of *LOGYEAR* becomes weak and insignificant. To resolve this problem, by following the work of Hendry (2000), I use a standard reduction technique whereby insignificant coefficients are sequentially eliminated one at a time until all remaining predictors are significant at the 10% level or below. The empirical result of the restricted regressions is listed in Column (D) of Table 1 which still exhibits a robust curvilinear relationship between *INDEPENDENCE* and *EFFECTIVENESS*. Finally, the coefficient for the self-selection correction (*SELECTIVITY*) is positive and significant in all regressions. Thus, a random error that makes a country have high *EFFECTIVENESS* will be generally associated with a level of *INDEPENDENCE* that is higher than "usual".

In order to further investigate the link between *INDEPENDENCE* and *EFFECTIVENESS*, I hereby use the figures in Column (D) as the baseline specification to locate the structural break point for the level of independence. For the convenience of readers, I rewrite the results in Column (D) as

$$EFFECTIVENESS = 2.39 - 1.19 \cdot \hat{INDEPENDENCE} + 2.55 \cdot \hat{INDEPENDENCE}^2 + \text{OTHERS}$$

Interpretation of the partial derivative of *EFFECTIVENESS* with respect to *INDEPENDENCE* shows that the structural break is at the level of $\hat{INDEPENDENCE} = 0.23$. Table 2 shows that this break divides the 83 Voigt countries into a rich group with 49 observations and a poor group with 34 observations, corresponding closely to the World Bank's distinction between the lower middle income countries (the poor group) and the upper middle income countries plus the high income countries (the rich group). It also shows that the relationship between *EFFECTIVENESS* and *INDEPENDENCE* is curvilinear, with *EFFECTIVENESS* decreasing with *INDEPENDENCE* in the poor group and then increasing in the rich group. Besides, the fitted values of *INDEPENDENCE* obtained in the first stage Tobit model are also listed in Table 2 and are found to be negative for 16 countries. As previously mentioned, Voigt's sample is subject to a censoring from below at zero. Table 2 shows that 14 out of these 16 countries have observation values for *INDEPENDENCE* that are equal to zero, and hence provides clear

evidence of censoring in the sample.

C. Institutional Threshold. The previous results provide direct quantitative evidence for the existence of an institutional threshold. Based on different institutional environments, the rich group and poor group opt for different levels of control that the government exercises over the competition agency. For the countries in the poor group that fail to exceed the threshold level, the relatively weak institutions make the agencies more susceptible to corruption such that more independence can only diminish the antitrust effectiveness. This institutional disadvantage thus influences the competition regime to move toward adjudication by the government-controlled agency. As to the countries in the rich group, their socio-economic infrastructure has passed the threshold level and created an institutional advantage that allows their effectiveness to increase with the independence. Hence, they can seek adjudication through their relatively independent authority. Both outcomes have been found to be efficient at the time in light of their environments. This paper simply argues that this kind of asymmetrical pattern is the result of an enforceable Coasian contract that supports the efficient outcome.

D. Specification Errors. One thing worth mentioning is that, once I drop the quadratic term, *INDEPENDENCE* instantaneously turns out to be insignificant in the Tobit 2SLS in Column (E) of Table 1. This evidence implies that the only correct way to include *INDEPENDENCE* in the model is to specify a curvilinear relationship between authority independence and antitrust effectiveness. Moreover, once I ignore the effects of self-selection and simultaneity, which means that I delete the quadratic term and use *INDEPENDENCE* that is not instrumented by *INSTITUTIONS* to estimate the regression, the OLS result in Column (F) shows that *INDEPENDENCE* becomes highly significant in explaining *EFFECTIVENESS*. This scenario might lead researchers to arrive at an incorrect conclusion regarding the relationship between both variables. That is, they might incorrectly conclude that *INDEPENDENCE* can promote *EFFECTIVENESS* without any predisposing conditions. In this way, they capture only one dimension of the "institutional" differences, which I believe are much broader and include various other aspects of the organization of society, such as corruption and the rule of law.

VI. Conclusion

Although the legal protection of the independence of competition agencies is common and there is some evidence of policy transfer and convergence, there are still many types of agency with different structures and levels of independence across countries. These divergences point to the fact that authority independence is actually a *de facto* embedding of *de jure* law into the socio-economic institutions that have been developed in a manner to support an appropriate level of actual independence. What can be said with some certainty, based on this analysis, is that the institutional framework plays a significant role in shaping a competition culture that determines the relationship between authority independence and antitrust effectiveness.

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Table 1: Results of the Second Stage Regression (Dependent variable: *EFFECTIVENESS*)

	(A)	(B)	(C)	(D)	(E)	(F)
Method	TOBIT 2SLS	TOBIT 2SLS	TOBIT 2SLS	TOBIT 2SLS	TOBIT 2SLS	OLS
Constant Term	3.16^{***} (0.13)	2.34^{***} (0.38)	2.39^{***} (0.41)	2.39^{***} (0.39)	1.97^{***} (0.48)	1.81^{***} (0.39)
INDEPENDENCE	0.70^{*} (0.41)	-1.45^{***} (0.55)	-1.45^{***} (0.56)	-1.19^{**} (0.55)	-0.02 (0.55)	0.55^{***} (0.22)
$(INDEPENDENCE)^2$	2.32^{***} (0.49)	2.56^{***} (0.77)	2.69^{**} (0.80)	2.55^{***} (0.78)		
SCOPE		-0.65 (0.40)				
FREEDOM		0.18^{**} (0.07)	0.17^{**} (0.08)	0.17^{**} (0.08)	0.22^{**} (0.09)	0.22^{***} (0.06)
INCOME		0.06^{**} (0.02)	0.05^{**} (0.03)	0.06^{***} (0.02)	0.10^{***} (0.02)	0.08^{***} (0.02)
LOGYEAR		0.14^{**} (0.08)	0.07 (0.06)			
SELECTIVITY (δ)	0.004^{**} (0.002)	0.008^{***} (0.001)	0.008^{***} (0.002)	0.008^{***} (0.001)	0.004^{**} (0.002)	
$\overline{R}^2$	0.64	0.72	0.71	0.70	0.68	0.71
Observations	67	62	63	63	63	63

Notes: The figures in parentheses are standard errors. *** indicates that the estimates are significant at the 1% level, ** at the 5% level, and * at the 10% level.

Table 2: Classification of countries by *INDEPENDENCE*

Country	$\widehat{INDEPENDENCE}$		Country	$\widehat{INDEPENDENCE}$		Country	$\widehat{INDEPENDENCE}$	
Tajikistan*	−0.78	P	Venezuela	0.15	P	Malaysia*	0.59	R
Angola*	−0.70	P	Mozambique*	0.20	P	Lithuania	0.61	R
Rwanda*	−0.46	P	Nicaragua*	0.20	P	Poland	0.68	R
Congo*	−0.39	P	Nepal*	0.21	P	Israel	0.69	R
Nigeria*	−0.34	P	Gabon*	0.21	P	Greece	0.69	R
Uzbekistan	−0.34	P	Swaziland	0.22	P	Czech R.	0.70	R
Haiti*	−0.25	P	Egypt*	0.24	R	Costa Rica	0.70	R
Central African*	−0.16	P	Mauritania*	0.27	R	Estonia	0.70	R
Guinea*	−0.13	P	Peru	0.27	R	Italy	0.72	R
Chad*	−0.12	P	Madagascar*	0.28	R	Hungary	0.72	R
Yemen*	−0.07	P	Turkey	0.30	R	Taiwan	0.72	R
Iran*	−0.06	P	Mali*	0.31	R	Slovenia	0.75	R
Syria*	−0.06	P	Ghana*	0.32	R	Cyprus	0.75	R
Niger*	−0.04	P	Mexico	0.37	R	Japan	0.77	R
Zimbabwe	−0.03	P	Bolivia*	0.38	R	Spain	0.78	R
Cuba*	−0.02	P	Guyana*	0.39	R	France	0.79	R
Togo*	0.01	P	Morocco	0.40	R	Belgium	0.80	R
Indonesia	0.03	P	Croatia	0.41	R	Netherlands	0.81	R
Uganda*	0.04	P	Fiji*	0.41	R	Finland	0.81	R
Kazakhstan	0.04	P	Brazil	0.41	R	New Zealand	0.81	R
Armenia	0.09	P	Bulgaria	0.41	R	Singapore*	0.81	R
Bangladesh*	0.10	P	Benin*	0.44	R	Ireland	0.81	R
Colombia	0.11	P	Tunisia	0.44	R	Denmark	0.81	R
Vietnam*	0.13	P	Jamaica	0.46	R	Australia	0.81	R
Zambia	0.14	P	Argentina	0.50	R	Germany	0.81	R
Tanzania	0.14	P	South Africa	0.54	R	UK	0.81	R
Ecuador*	0.14	P	Belize*	0.55	R	Canada	0.81	R
Honduras*	0.15	P	Latvia	0.58	R			

Notes:

(a) * denotes that the observation value of *INDEPENDENCE* for a country is zero.

(b) There are 36 countries in which the observation value of *INDEPENDENCE* is zero.

(c) $\widehat{INDEPENDENCE}$ is the fitted value of *INDEPENDENCE*.

(d) Countries are ranked by their values for $\widehat{INDEPENDENCE}$.

(e) *R* (*P*) denotes the Rich (Poor) group.

國科會補助計畫衍生研發成果推廣資料表

日期:2011/09/18

國科會補助計畫	計畫名稱: 競爭機關獨立性之研究：貪污風險的觀點
	計畫主持人: 馬泰成
	計畫編號: 99-2410-H-034-006- 學門領域: 產業組織與政策

無研發成果推廣資料

99 年度專題研究計畫研究成果彙整表

計畫主持人：馬泰成	計畫編號：99-2410-H-034-006-
計畫名稱：競爭機關獨立性之研究：貪污風險的觀點	

成果項目			量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）
			實際已達成數（被接受或已發表）	預期總達成數(含實際已達成數)	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	2	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	2	0	100%		聘僱二位助教級兼任助理。
國外	論文著作	期刊論文	0	1	100%	篇	本報告已撰寫成論文，目前正投稿中。
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%	章/本	
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)	本研究計畫利用政經制度門檻做為標準，將國家分為兩類：第一類國家多為開發中國家，由於其不良的制度環境易使執法機關人員暴露於賄賂與暴力威脅之下，因此，競爭體制必須朝向低度獨立的設計，藉由中央政府監督，以避免弊端。反之，第二類國家多為已開發國家，其政經環境已跨越制度性門檻，使競爭機關獨立性與執法績效能夠呈現正向關係，因此，可以利用高度獨立的競爭機關體制，以提高反托拉斯績效。總之，各國政經環境似乎存在著一個制度性門檻，決定獨立性與執法績效二者間之關係。雖然在均衡時，二者的獨立性高低不等，但是，就制度設計而言，卻都是反映現實政經環境的最佳妥協，從而各自形成了一個可執行的寇斯契約。作者希望此一結論可幫助政府在設計競爭法執法機關組織架構時，瞭解應該依據不同之政經環境與現實需求，設計獨立性高低不等之競爭法執法機關。

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

■達成目標

□未達成目標（請說明，以 100 字為限）

□實驗失敗

□因故實驗中斷

□其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形：

論文：□已發表 ■未發表之文稿 □撰寫中 □無

專利：□已獲得 □申請中 ■無

技轉：□已技轉 □洽談中 ■無

其他：（以 100 字為限）

本報告已撰寫成論文，目前正投稿中。

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

本研究計畫利用政經制度門檻做為標準，將國家分為兩類：第一類國家多為開發中國家，由於其不良的制度環境易使執法機關人員暴露於賄賂與暴力威脅之下，因此，競爭體制必須朝向低度獨立的設計，藉由中央政府監督，以避免弊端。反之，第二類國家多為已開發國家，其政經環境已跨越制度性門檻，使競爭機關獨立性與執法績效能夠呈現正向關係，因此，可以利用高度獨立的競爭機關體制，以提高反托拉斯績效。總之，各國政經環境似乎存在著一個制度性門檻，決定獨立性與執法績效二者間之關係。雖然在均衡時，二者的獨立性高低不等，但是，就制度設計而言，卻都是反映現實政經環境的最佳妥協，從而各自形成了一個可執行的寇斯契約。作者希望此一結論可幫助政府在設計競爭法執法機關組織架構時，瞭解應該依據不同之政經環境與現實需求，設計獨立性高低不等之競爭法執法機關。