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Could perverse incentives encourage financial services compliance and internal audit staff to ignore or engage in illegal behaviour?: The Malaysian case

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The Malaysian case

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Abstract

Purpose – The purpose of this paper is to understand why managers, internal auditors and compliance staff (in financial firms specifically and using Malaysia as a concrete example) can want to ignore compliance-related legislation (a law on anticompetitive behaviour in this case).

Design/methodology/approach – The authors review, discuss and critique the literature on compliance and institutions in the light of existing data from Malaysia's financial industry (literally confronting theory with data).

Findings – Legislative design can actually encourage managers and their auditors disobey/ignore the law for reasons which previous theories cannot explain.

Research limitations/implications – This research does not use the regression techniques in vogue now. The findings, nevertheless, imply that attempts to explain phenomenon in management auditing should start with the laws governing managerial activity.

Practical implications – Auditors may use the methods used in this study to assess the extent to which financial services firms' managers have incentives to comply with laws. Similarly, this research can quantify the extent to which internal auditors in these firms have incentives to find untoward conduct.

Social implications – Poorly designed laws affecting managerial auditing derive from pre-existing social relationships, as well as help shape them (as shown using data). Identifying areas of non-compliance may actually signal deeper problems in the way businessmen and lawmakers make and enforce laws requiring compliance and self-assessment.

Originality/value – The authors know of no study looking at the economic incentives driving internal auditors' behaviour – particularly in the area of antitrust. They show how law shapes management and auditors' incentives, quantify these incentives and show how/why previous research fails to explain these incentives.

Keywords Malaysia, Antitrust compliance, Incentive-based managerial compliance, Internal audit incentives

Paper type Research paper

JEL classification – D41, L41, L44

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Introduction

What can financial services compliance staff and internal auditors do when political, structural and economic incentives all militate against compliance with national antitrust law? Recent cases in the EU and USA of inter-bank rate fixing, blocking derivatives exchanges from entering the credit default swap business and other scandals have shown that incentives to engage in anticompetitive behaviour certainly exist in the financial services sector. In theory, lawmakers would have little incentive to encourage such behaviour. Regulations (and in certain cases judicial authorities) can impose large enough sanctions to dissuade equilibrium anticompetitive behaviour among financial services providers. Why don't they?

Despite the usual theories, law sometimes gives banks incentives to engage in anticompetitive behaviour (and hide such behaviour from competition authorities). In such a case – and again as poorly theorised – compliance staff and internal auditors could actually encourage anticompetitive behaviour. We show such a theoretical possibility using Malaysia as an example. In this case, optimal spending on antitrust compliance and equal equals zero. When banks still must spend money on such compliance and audit, they will need to engage in illegal behaviour to earn the money needed to pay for compliance and audit activities themselves. Such an effect varies over bank size, revenues and profits. *Basically, law encourages auditors and compliance to misbehave for reasons which stem not from the usual political desire to immaculate the law, organisational failure or other reason posited by most theories.*

Our paper does not follow the usual format. The first section of this paper discusses some of the structural features of the Malaysian banking sector – namely, entrenchment in government and family networks – which may lead to anticompetitive mark-ups observed in practice. We show why structure may supersede law. The second section looks at some of the ways internal auditors can spot anticompetitive behaviour in Malaysia's banks – and shows why optimal antitrust compliance and internal audit spending for come to zero. The third section describes the likely cost of antitrust compliance programmes in such a context. The final section concludes by arguing for institutional/regulatory design that takes incentives into account. Following new thinking in organisational theory writing, we present the theory and contrast arguments from the literature, directly with the data to engage more fully with the theory[1].

We should provide a couple of caveats before we begin. First, we do not follow the typical approach of building a model and testing it econometrically with data. Instead, we use case studies with illustrative data and economic/legal arguments. Our audience consists mainly of policymakers and educated by non-quantitative social scientists – which will drop our article when wading through an economically "rigorous" piece. We hope convincing arguments will replace a model many readers yearn for. Second, we do not want to suggest that Malaysian law causes widespread illegal behaviour. Instead, we argue that Malaysian law and institutions *provide the conditions* under which compliance and audit staff may actually ignore or encourage illegal behaviour. Our slightly taunting tone only serves to prove a point, rather than accuse anyone of wrong doing.

Anticompetitive behaviour probably stems from collusion within government and/or family social networks

What drives anticompetitive behaviour? Several studies look at the inter-play between agency and structure – incentives and systems. For example, organisations like banks may take on their own logic, which constrains the behaviour of individuals working with them, including auditors or bank management (Greenwood *et al.*, 2010). Michael *et al.* (2014) point

to several potentially strong anticompetitive incentives in the Malaysian banking industry. Numerous data support this – like elevated Lerner indices. Elevated Lerner indices (a measure of market power which uses mark-ups above marginal cost) represent one of these measures. These indices show Malaysia banking hovering around 0.14-0.19 (Clerides *et al.*, 2013). Malaysia ranks as the 40th "worst" country –with an adjusted Lerner score of 0.26. Such a rank means that 39 countries have higher levels of banking sector market power and that prices in the Malaysian banking sector exceed their marginal cost (or the best possible price) by 26 per cent[2]. Naturally, Fainshmidt *et al.* (2016) might explain such concentration as part of Malaysia's "variety of institutional systems", as an institutional framework that allows Malaysian banks to interact most efficiently with other national organisations. In responding to peers like Fainshmidt and others, *rather than rehash the literature first, we draw on the literature during our presentation – placing the literature in the context of the Malaysian data and experience.*

The ownership and control structure of Malaysia's banks very likely lead to anticompetitive behaviour. The structure of the financial sector is the cause of anticompetitive behaviour – promoting certain types of potential anticompetitive conduct. Financial conglomeration and the cross-institutional control of Malaysia's financial institutions by the government and families likely reduce *actual* competition in Malaysia's financial service markets. Financial conglomerates (particularly those with a financial institution at their centre) have strong incentives to distort the allocation of capital. The IMF (2013) has pointed to CIMB Group, RHB Group, Affin Group, Alliance Group, Hong Leong Group and AmBank Group, as financial conglomerates headed by a financial holding company (footnote 8). The IMF also mentioned Maybank Group and Public Bank Group, which represent financial conglomerates headed by a banking institution. Financial groups will always balance finance promotion with financial diversion[3].

The data strongly suggest that government and family "insider" ownership and control provide strong incentives for banks to engage in anticompetitive capital allocation (and/or favourable pricing behaviour). Figure 1 shows the share of government ownership and family share of such ownership of Malaysian banks in 2003. While the figure uses very old data, the conclusion still remains correct. Extensive government (and family) control of Malaysian banks provides strong incentives for such banks to act anticompetitively[4]. Figure 2 shows the historical proportions of government ownership in Malaysia's largest companies (as judged by market capitalisation). In many of these cases, government held a

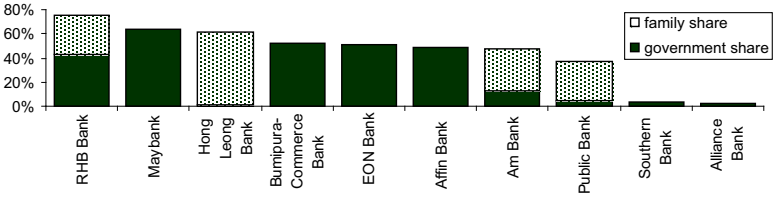


Figure 1. "Insider" shareholding increases risk of anticompetitive capital allocation in Malaysia

Notes: The figure shows the very outdated ownership shares of government and families in several of Malaysia's largest financial institutions (as of 2003). Government's need to own such large stakes in multiple banks poses a serious risk of allocating capital based on administrative wants rather than through competitive processes

Source: Soon and Koh (2006)

50 per cent or greater share. When the same entity controls both the borrower (or several borrowers) and lender (or several lenders), strong incentives appear to provide anticompetitive advantages[5]. Yet, how do we know that such government and family controls actually *cause* anticompetitive behaviour? (Figure 2).

We cannot know for certain that government ties between banks and companies (and between companies themselves) lead to anticompetitive behaviour[6]. Yet, we do know that extensive government (and other group) holdings in financial, as well as non-financial companies (particularly clients), creates strong incentives to abuse market power. Numerous authors, both generally and in the Malaysian context, have written about the way cross-holding affects incentives. Claessens *et al.* (2006) have noted that group affiliation (basically belonging to a group by ownership and/or control) in Asia leads to higher firm value, except for younger and more dynamic companies. Such groups clearly use "mechanisms" (of which some can be anticompetitive) to benefit their members. In all cases, common ownership/control dulls the learning and efficiencies that come about as a result of competition. For older firms, such dulling provides benefits (in the form of rents). For younger firms, such a dulling of competitive pressure deters innovation and encourages the funding of projects that may not have the highest market value[7].

Indeed, related party transactions affect some sectors more than others – and state ownership seems to appear in most of these related party transactions. Figure 3 shows the

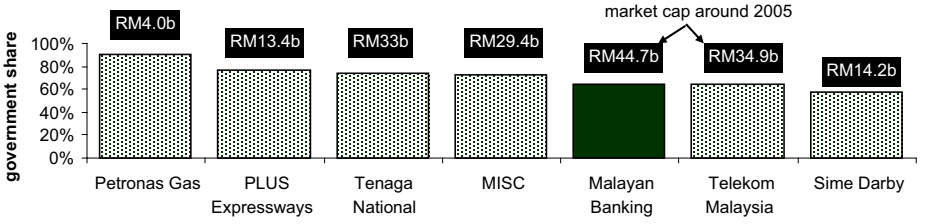


Figure 2.
When government owns a large stake in bank and company, the likelihood of anticompetitive capital allocation increases

Notes: The data show the share of government ownership in various large Malaysian companies. We show the market capitalisation at the time Razak *et al*. came out with their study
Source: Razak *et al*. (2008)

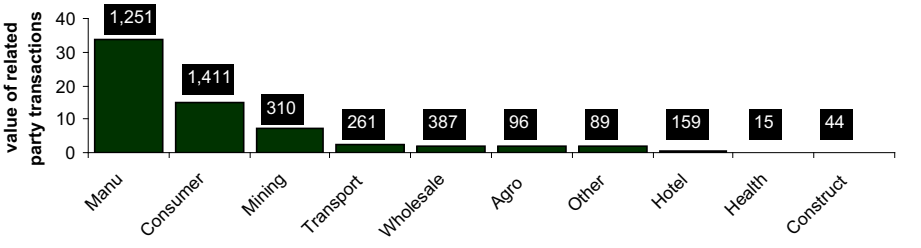


Figure 3.
Related party transaction in Malaysia point to banking relationships with manufacturing, consumer goods and mining as risk areas for anticompetitive behaviour

Notes: The figure shows the value of related party transactions from 2005 to 2007 in billions of Malaysian Ringgit. We show the number of transactions in the black boxes above each bar
Source: Wahab *et al*. (2011)

value and number of related party transactions among Malaysian companies in recent years. Manufacturing, consumer goods and mining companies had the highest value of related party transactions. Companies with extensive government ownership/control have higher proportions of related party transactions. Table I shows correlations between various aspects of company structure and ownership. Government-owned companies had statistically significant higher levels of related party transactions. They also had higher levels of debt – raising concerns about the anticompetitive grant of debt that may be given (and forgiven) more easily to government than non-government companies.

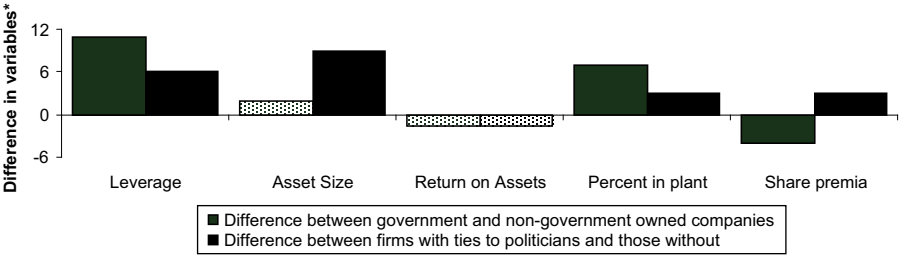
We know that government ownership – and the related party transactions such ownership and control brings – sometimes leads to unethical and/or illegal behaviours. For example, Ali *et al.* (2008) find that when managers own Malaysian companies, these companies tend to experience more earnings management. Such findings probably also apply to state owners who also manage Malaysian companies. For their part, Munir and Gul (2010) show that related party transactions negatively associate with firm performance. Clearly, untoward behaviour explains such a relationship – as family firms exhibit stronger losses related to such transactions than non-family firms. When these studies are taken together, they point to state and family-related party transactions that probably decrease firm value through distortionary, preferential trading and finance decisions. Other authors like Johnson and Mitton (2003) have gone further to argue that common ownership and control has led to state-supported "cronyism".

Such "cronyism" clearly has affected Malaysia firms' finance in the past. Authors like Faccio (2006) have found evidence, with reference to Malaysia, that banks tend to allocate capital to politically connected firms – the very definition of anticompetitive behaviour. Previous forced bank mergers have favoured the politically connected – also favouring anticompetitive behaviour (Chong *et al.*, 2006). Figure 4 illustrates the likely distortionary (if not anticompetitive) nature of state participation in Malaysia's economy and its effects on bank lending. Malaysian firms owned by the government had higher leverage (meaning more bank credit), larger asset sizes (assets bought with more equity, debt or revenue) but lower share premia than non-government-owned companies. Higher borrowing, combined with lower valuations, suggests that shareholders do not think these firms got more credit than they deserve/need. Firms with political connections also had higher leverage. However, their share premia exceeded those of firms without such connections. Investors clearly value politically connected Malaysian firms for the likely advantages (funding, sales and other) such connections afford.

Factor	Family	Government
Number of related party transactions	*	Positive
Assets in related party transactions	Negative	*
Proportion of independent board directors	*	*
Number of directors on board	Positive	*
Audited by Big 4	*	*
Assets	Negative	*
Debt	Negative	Positive
Number of interlocking directors	Positive	*

Notes: The figure shows the extent to which family and government ownership correlates with the factors shown in regression analysis. "Positive" indicates a positive correlation and "negative" indicates a negative one.
Source: Wahab *et al.* (2011)

Table I. Government involvement in Malaysian companies clearly has an effect on related party transactions and other company factors



Notes: The figure shows the way that government ownership and ties to politicians affect the leverage (borrowing), asset sizes return on assets, per cent investment in plant and share premia of Malaysian companies. Leverage is defined as total debt divided by total assets. Asset size equals the log of asset book value. Return on assets equals pretax profits divided by total assets. Per cent in plant equals property, plant and machinery assets expressed as a per cent of total assets and share premia equals market price of shares divided by shareholders equity per share. The solid bars represent relationships statistically significant at the 1 per cent level

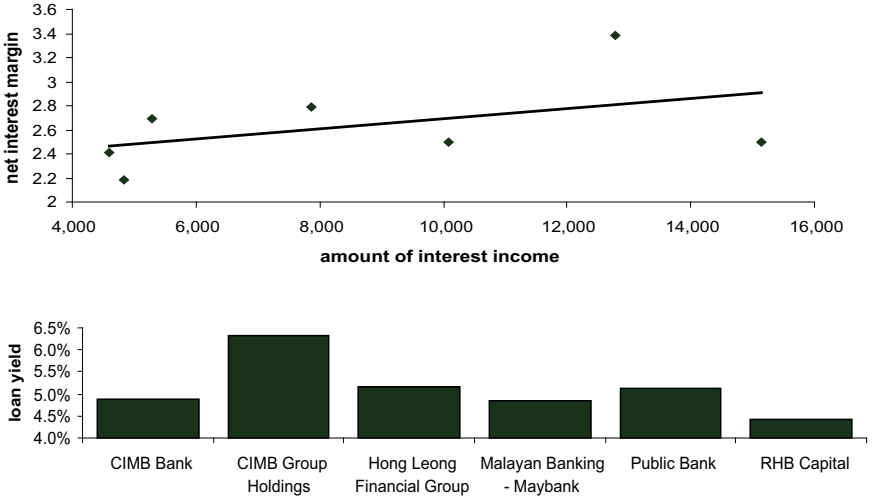
Source: Fraser *et al*. (2006)

Figure 4.
Government ownership and ties to politicians clearly affect lending and asset sizes

Detecting anticompetitive behaviour and creating antitrust compliance campaigns in Malaysia's financial services

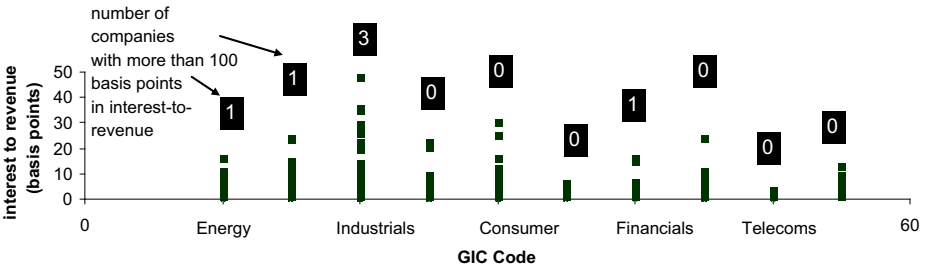
Suspicious patterns in data can provide insight about both legal and illegal methods of competing in Malaysia's banking sector. Figure 5 shows one example of an interesting trend in the data that may need further investigation to establish the existence of anticompetitive activities. The figure shows the relationship between the amount of interest banks earn and the profit margin on that interest. Interestingly, the more the largest Malaysian banks earn, the higher their profit margins. *Size in lending represents an important predictor of lending profitability in Malaysia.* Of these banks, CIMB Group Holding represents the one to watch – with loan yields at least 100 basis points above the others. Such data do not imply definite anticompetitive behaviour. They just tell auditors and others that this is an anomaly that is worthy of further investigation[8].

Looking at company data can reveal as many insightful patterns as looking at banks' data. Figure 6 shows interest-to-revenue ratios (expressed in basis points) for Malaysian companies in 2012[9]. Malaysian company borrowing in any particular sector will depend on that company's growth prospects, previous revenues, interest rates and a host of other factors. However, companies' interest payments which fall significantly outside those of its peers can suggest who might be a victim or beneficiary of anticompetitive bank behaviour. Excessively high interest payments may mean that the company has too easy access to bank loans (if the company wants to gorge itself on cheap capital). Or such high interest payments may mean the company has too restricted access to capital (as its borrowing terms are more onerous than its peers). The same considerations apply when interest payments – as a percentage of the company's revenues – are too low. The actual level of these interest payments tells us far less than how they compare to peers. In the figure, we see that the industrial company grouping tends to have some companies with exceedingly high interest payments.



Notes: The data in the figure show the relationship between interest income amounts and net interest margins. The relatively strong positive relationship suggests size matters in lending in Malaysia. The bottom panel shows interest income as a per cent of the total value of loans for the banks indicated
Source: WRDS (2014)

Figure 5.
Suspiciously, larger lending portfolios mean more profits



Notes: The figure shows the interest to revenue ratios for roughly 820 Malaysian companies. As borrowers, interest payments too high or too low relative to the company's revenues could signal too free or too stringent access to lending
Source: WRDS (2014)

Figure 6.
Spread in companies' interest to revenue ratios tells something about profitability which is too high or too low

Whistle-blowing programmes within Malaysian banks represent one of the most potentially important initiatives banks' management can take to detect and stop anticompetitive behaviour[10]. Under whistle-blower programmes, Malaysian bank employees and managers could complain internally about anticompetitive behaviour by the bank. Both the economics and legal literature supports antitrust whistle-blower programmes. In the

economics literature, whistle-blower programmes have been shown to reduce the probability of collusion, decrease rents and even decrease the expected fines for firms found guilty of collusion (Spagnolo, 2007). Whistle-blowing programmes which reward whistle-blowers with cash, prestige, job advancement and other perks provide "negative fines" – strongly increasing the probability of detection of and punishment for, anticompetitive behaviour (Bigoni *et al.*, 2009). In the law literature, the recent passage of the US Criminal Antitrust Anti-Retaliation Act of 2013 shows that the US legal and political community favours the protection of persons who blow the whistle on anticompetitive behaviour within their firms (Kruse *et al.*, 2013).

Malaysian law provides the legislative framework for the operation of antitrust whistle-blower programmes in Malaysian banks. The Competition Act provides protection for whistle-blowers – only in the specific case of making a complaint to the Competition Commission or helping with the making of such a complaint (Section 34). Specifically, the Act prohibits coercing (or attempting to coerce) persons from reporting to the Competition Commission or assisting with Competition Commission investigations[11]. Such protections only apply in case the whistle-blower goes to the Competition Commission. Moreover, the Whistleblower Protection Act of 2010 at Section 7(1) provides for the whistle-blower's identity to remain confidential to the public, his or her immunity from civil and criminal action and protection against retaliation *by law enforcement agencies*. As discussed in the following section, other legislation allows whistle-blowers to approach government agencies.

How poor whistle-blower protection law in Malaysia discourages internal auditors from informing managers about anticompetitive behaviour during audit engagements

Suppose an audit team has discovered a weakness in the Malaysian bank client which tolerates or promotes anticompetitive behaviour. The audit team makes recommendations to address the issues discovered and thereby decrease the risk of investigation by the Competition Commission. Subsequently, the team is made aware that higher management wishes the matter to be dropped and that no mention of the discovered behaviour should be included in the internal audit report. What are the legal consequences?

Unfortunately, Malaysian law gives little effective protection to whistle-blowers using internal channels. The Whistleblower Protection Act provides protection for auditors who inform the police (Tan and Ong, 2011). The Companies Act and Capital Services Act allow potential whistle-blowers to inform the Companies Registrar. If the company (bank) has acceded to the Bursa Malaysia's Corporate Governance Guide, the company may have included whistle-blowing policies into company code of conduct or employment handbook. Dismissing an internal auditor (or other employee) for whistle-blowing may then amount to breach of contract. Moreover, under the Industrial Relations Act, termination of employment as a retaliatory measure for whistle-blowing may represent a breach of employment (due to the provisions of the Act itself).

In any case, few remedies exist for whistle-blowers intending to approach employers with concerns about anticompetitive behaviour. Internal auditors and other employees looking to protect themselves will need to convince a Malaysian court that some breach of contract has occurred – a difficult and uncertain task at best.

(Source: based on Tan and Ong, 2011).

However, Malaysian law provides few incentives for whistle-blowers – like internal auditors – to approach management directly with their concerns.

What effect would antitrust whistle-blower programmes have in Malaysia's banks if local laws provided adequate incentives? We cannot know for sure – as the research only

provides subjective evidence about the likely effect on such managers and internal auditors. Figure 7 shows the results of several studies of Malaysian managers and internal auditors about their "whistle-blowing intention". This variable combines answers to several survey questions about how strongly respondents feel about the desirability and applicability of whistle-blowing to their own work experience. The seriousness of the infraction and the length of the respondents' work experience in the company affect inclinations to complain about improper or illegal behaviour. Work experience and particularly ethics training predicted positive propensities to blow the whistle on illegal conduct as well.

What specifically are Malaysian managers' propensities and expected results of whistle-blowing, should their banks establish internal whistle-blowing policies? Table II provides data on attitudes toward whistle-blowing specifically in Malaysian banks[12]. A low integer on the authors' scale indicates an unfavourable attitude or outcome, whereas a higher score represents a favourable or positive outcome. Thus, attitudes measuring a 3.12 (on average) to report wrongdoing (be it anticompetitive behaviour or other malfeasance) to the appropriate bank staff signals rather neutral feelings about whistle-blowing. On average, Malaysian bank employees evince unequivocal propensities to report to wrong doing to upper level management. The respondents felt most strongly that "reporting wrongdoing helps prevent serious harm to the bank" (with a score of 4.01 out of 5). However, these staff would be unlikely to "tell a supervisor" scoring only 3.1 on this five-point scale.

The likely success of whistle-blowing measures will depend on economic and other incentives. Specifically, they will depend on the extent to which Malaysian banking sector antitrust compliance programmes are incentive compatible. The economic literature provides some analysis looking at the incentives to adopt and comply with internal antitrust rules (Abrantes-Metz and Sokol, 2013). Well-defined and clear antitrust regulations and controls signal strong interest in complying with legislation like the Competition Act. Unavailable or poorly defined rules and controls signal that management does not actively seek to follow the law. Petronas provides a positive example – defining clear antitrust rules because of the large losses the company could face in a range of jurisdictions for violating them. Petronas' antitrust guidelines are contained in the company's Code of Conduct and specific guidance is provided in the Petronas Competition Guidelines[13]. As described in the following section, the quality of antitrust rules may, in themselves, provide a red flag for internal auditors and regulators examining the probability of company engagement in anticompetitive behaviour.

Notes: Black shaded boxes indicate a statistically significant correlation at the 5 per cent level. A "no" shading indicates the lack of such a statistically significant finding
Sources: Ab-Ghani *et al*. (2011), Ahmad *et al*. (2011)

Figure 7.
Ethics training seems to affect the receptivity of Malaysian managers and internal auditors to whistle-blowing

	"Bad"				"Good"
Internal reporting	1	2	3	4	5
I would report wrongdoing to appropriate person in bank			3.12		
I would use reporting channels inside bank			3.15		
I would let upper level management know about it			3		
I would tell supervisor			3.1		
External reporting					
I would report it to appropriate authorities outside organisation		2.6			
I would use reporting channels outside bank		2.47			
I would provide info. to outside agencies		2.11			
I would inform public		2.1			
Reasons for whistle-blowing					
Reporting wrongdoing helps prevent serious harm to bank				4.01	
Whistle-blowing enhances the public interest			3.31		
Reporting way to do duty			3.81		
Whistle-blowing is moral			3.1		
Results of whistle-blowing					
Bank would hinder/ignore my reporting		2.74			
Difficulties too great to endure			3.17		
Reporting will not make a difference		2.73			
They will retaliate against me			3.01		

Table II. Ambivalent attitudes toward whistle-blowing in Malaysia's banking sector

Notes: We have labelled low scores as "bad" – as they generally reflect attitudes not conducive toward whistle-blowing, like disagreeing with the statement in the figure. The "good" scores (towards 5 points) tend to reflect attitudes conducive to whistle-blowing – like agreeing with the statements in the figure.
Source: Paraphrased from Ponnu et al. (2008)

Poorly designed antitrust controls can suggest anticompetitive behaviour (or at least indifference)

Why would a bank establish a whistle-blower protection scheme than make it unusable? Why would complaints fail to be investigated internally? Why not ask employees about their perceptions and experiences with collusion and market abuse? Instead of finding anticompetitive behaviour and then working backwards to see which controls failed, internal auditors can work the other way around. They can look for absent or badly designed policies and use those to point to areas of potential anticompetitive behaviour. The following shows, in "topic cloud" format, the main red flags which suggest anticompetitive behaviour – or managerial apathy/negligence towards antitrust issues:

- *Antitrust audit*. No assessment of antitrust risk during annual audit planning exercise with chief audit officer. No conduct of risk self-assessment to identify risks. No analysis of market data.
- *Hotline*. No hotline exists to collect complaints about anticompetitive behaviour. Person taking the calls does not have script about what to do in case of complaint.
- *Internal counsel*. No procedures for dealing with inquiries by Competition Commission. No training about what to do in case of accusation of anticompetitive behaviour.
- *Whistle-blower protection programme*. No whistle-blower protection programme in place. No procedures to collect complaints within the organisation.

- *Media monitoring*. No monitoring of traditional social media for accusations or hints about anticompetitive behaviour by staff or rivals. Managers never met to discuss how to deal with complaints (no matter how unreliable).
- *Internal investigation*. Compliance staff, legal counsel and managers have never questioned anyone on staff about suspected anticompetitive behaviour (or even possible risk/weak points for such behaviour).
- *Feedback on policy*. Never gave feedback on policies directly to Commission or through Malaysian Bankers Association.

When companies (like Petronas) have large revenues, likely low rents from collusion and large potential losses from a competition authority's investigation, the company will have strong incentives to define good antitrust controls. However, companies operating in protected, domestic markets which generate rents and which (for political or other reasons) will likely face little competition agency oversight, internal antitrust controls will remain poor, as the incentives to comply simply do not exist.

As we will see in the next section, poor incentives do not just affect whistle-blowing; they affect all parts of antitrust compliance.

The cost of antitrust internal audit in the Malaysian financial service sector

The amount of money banks and other firms will spend on antitrust compliance depends on the cost of non-compliance. In other words, banks rationally should spend no more money on antitrust controls than they could lose from antitrust investigations and prosecutions[14]. If the benefits from collusion and market abuse exceed the costs from prosecution, companies should rationally engage in anticompetitive behaviour[15]. Leaving aside the issue of jail time, if the benefits of anticompetitive behaviour exceed the costs (in terms of compliance and criminal, civil and administrative fines and private action awards), banks will engage in anticompetitive behaviour.

At first glance, Malaysian banks seem to have little to lose from setting up antitrust internal audit programmes and procedures. The cost of antitrust compliance programmes will likely exceed US$100,000 or RM330,000 in the first years. Figure 36 shows a breakdown of these costs. *For roughly 70 banks, these costs – if banks actually paid them – would amount to RM21.1m for the banking sector.* At first glance, an expenditure of RM330,000 per bank to save millions in fines and penalties seems like a bargain (Table III).

For most banks, such spending does represent a bargain. Yet, for a group of banks (or any bank in the wrong year) even these relatively minor compliance costs would lead to significant declines in profits and increases in operating costs. Figure 8 shows the extent to which the antitrust compliance costs described above would impact on Malaysian banks' profits and administrative spending in years in which these profits and expenses are particularly vulnerable. For example, in 2011, the antitrust compliance programme we described above would result in almost 100 per cent of Asian Finance Bank's net income (profits). Such a compliance programme would represent about 8 per cent of Hong Leong's non-interest spending for 2010. *On the one hand, Malaysian bank's profits can generally withstand Competition Commission fines*[16]. *On the other hand, depending on the year, their profits may not even be enough to pay for an adequate antitrust compliance programme.*

Yet, the evidence suggests that banks should spend far less than the amount needed to prevent, detect and stop anticompetitive behaviour. Stephan (2009), using historical case studies from the USA, argues that the compliance programmes that many companies (like banks) use today would not have prevented prosecution in the past. Given the limited range of employees tempted by the incentives to engage in anticompetitive behaviour, a targeted

Element	No. man days	Cost per day (in ringgit)	Total cost
Employee training (including material development)	10	660	660
Participative "risk register"	2	2,475	4,950
Whistle-blowing	15	1,155	17,325
Consultations with counsel	5	1,650	8,250
Internal investigations	25	1,980	49,500
Risk-based project audits	15	1,980	29,700
Data monitoring	20	2,475	49,500
Competitive antitrust intelligence	30	2,475	74,250
Industry group monitoring	3	1,650	4,950
Due diligence on borrowers	40	2,640	105,600
Total	*165*	*2,125*	*RM 250,625*

Table III.
Compliance programmes likely to top $100,000 in first years

Notes: *Represents the weighted average by number of man-days; originally worked out in USD and converted to ringgit at RM3.3 to $1
Source: Based on ICC (2013)

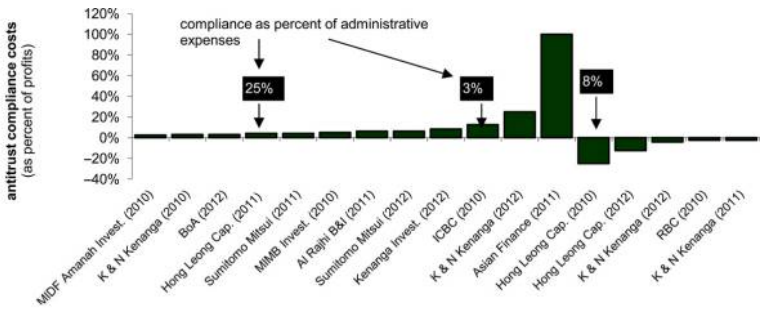


Figure 8.
For some banks in some years, even a small increase in compliance costs could mean significantly reduced profits

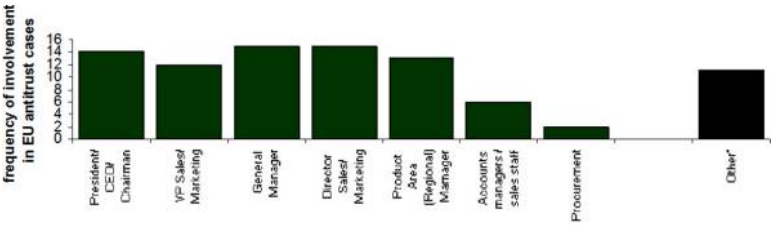
Notes: The figure shows the extent to which the "standard" antitrust compliance programme we defined in the paper (costing about RM250,000 in the first year) would impact on profits and administrative expenses in selected years. We chose the years in which this expense is less than 10 per cent or -10 per cent to keep the chart readable. We use net income for profits and total non-interest expenses
Source: WRDS (2014) and author

compliance programme may help manage compliance-related costs better than a general company-wide programme. Figure 9 shows the frequency by which various types of employees have been prosecuted for anticompetitive behaviour in the EU. The CEO, President and/or Chairman of the Board very frequently serve as defendants in EU antitrust cases. *As the head of the company often directly and personally engages in the company's anticompetitive behaviour, antitrust internal audit work will probably not receive much support.*

Most authors agree that companies like banks will likely adopt very different antitrust compliance programmes (and thus engage in differing levels of antitrust audits) depending on market and firm-specific factors. Feizi (2011) summarises much of this literature in a

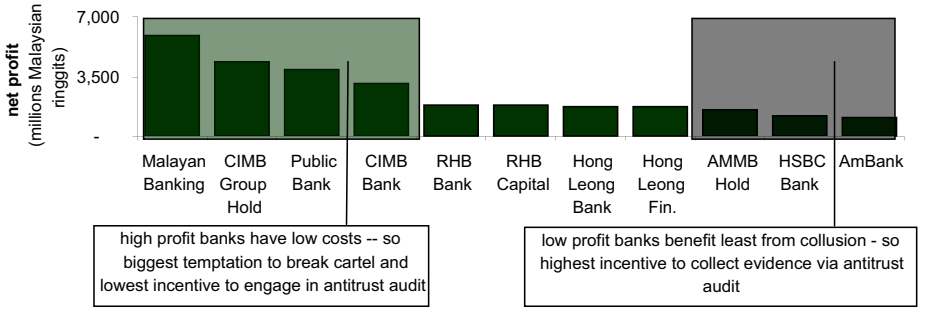
The Malaysian case

model of antitrust auditing which we use to illustrate some of the issues from the literature in the Malaysian context[17]. Different groups of banks have different costs – and thus different incentives to mark-up prices through anticompetitive practices. High profit banks, according to Feizi's logic and the logic in much of this literature, have either low costs or high rents from anticompetitive behaviour. Using Figure 10 to illustrate this logic, banks like Malayan Bank, CIMB Group and Public Bank have either low costs or generate profits as a result of collusive rents[18]. The implication for antitrust internal audit is clear in either case. Highly profitable companies have no incentive to engage in antitrust internal audits. If such profits come from lower costs, bank managers have nothing to fear from a Malaysian Competition Commission investigation. If such profits come from anticompetitive rents, antitrust internal audits would remove these profits, create evidence discoverable by the Competition Commission and tell managers something they almost certainly know. The



Notes: The figure shows the frequency by which various levels of company staff had been prosecuted for EU antitrust violations. We try to list cases by seniority (from left to right) rather than by frequency. *Other staff usually involve a range of senior executives not directly in marketing and/or sales
Source: Stephan (2009)

Figure 9.
Head of company and mid-level sales staff most often involved in antitrust cases



Notes: The figure illustrates the economic logic contained in Feizi (2011), showing how firms can "self-sort", having different incentives to collude, detect such collusion internally and among industry peers as well as report such collusion to the competition authority. Highly profitable banks will have strong incentives to conceal profits, so as to appear they belong to low-profit (and thus low risk of collusion) group. *We do not wish in any way to suggest that banks in this graph engage in anticompetitive behaviour. We use the data only to illustrate Feizi's logic*

Figure 10.
Majority of the banks benefitting from status quo have optimal antitrust audit spending of zero

Competition Commission will probably not reduce the fine imposed on these companies because they have antitrust audit programmes[19]. *The optimal expenditure on antitrust internal audits for these banks equals zero*[20].

Antitrust audit has a place for low-profit firms. If low profits stem from high costs, then internal audit can help identify these high costs and maybe inefficiencies coming from maladroit attempts to engage in anticompetitive behaviour[21]. If low profits come from relatively unsuccessful anticompetitive behaviour, these companies have the least to lose from whistle-blowing to the Malaysian Competition Commission[22]. *The optimal spending on antitrust internal audits for these firms exceeds zero ringgit.*

Yet, the data suggest that any time anticompetitive behaviour allows Malaysia's largest banks to mark-up operating revenues by more than 10 per cent, they should do it[23]. A simple numerical example illustrates the point. Imagine RHB Bank, through illegal mark-ups, could earn RM1.2bn instead of RM1bn (or a 20 per cent mark-up) – with an unchangeable quantity of lending. A 10 per cent penalty payment would come to RM120m, with a RM10m fine increasing that payment to RM130m. After paying the fine, RHB Bank still earns RM1,070m – or 70m more in revenue[24]. If we make the unrealistic assumption that their current market power comes as the result of illegal activity, then no amount of compliance spending would help Malaysian banks increase profits[25]. Figure 11 shows the intuition behind this statement. Malaysia's largest banks earn revenues from interest and fees. Competition Commission penalties of 10 per cent would reduce these revenues – and reduce profits even faster. Yet, banks may – at the margin – decide on the extent which they should "set" the level of increased revenue from their anticompetitive behaviour. More anticompetitive behaviour will increase revenues. With a maximum 10 per cent limit on penalties, *Malaysian banks should always set their anticompetitive behaviour (and thus their mark-ups) higher than the Malaysian Competition Commission revenue-tied penalty rate.*

Naturally, the amount banks spend on antitrust compliance programmes will depend on other banks' compliance spending. If all banks, except for CIMB Bank (for example) increase their spending on antitrust compliance, such spending puts CIMB Bank at a disadvantage for three reasons. First, anticompetitive behaviour involving CIMB (again only using the name as an example) detected by another bank (like Malayan) may put CIMB at a

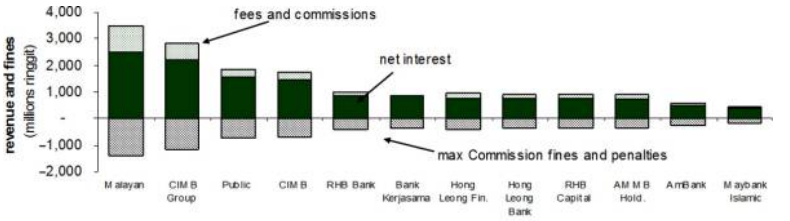


Figure 11.
With mark-ups of 25 per cent* and fines of about 15 per cent of revenues, Malaysian banks will always have incentive to ace anticompetitively and just pay the penalties

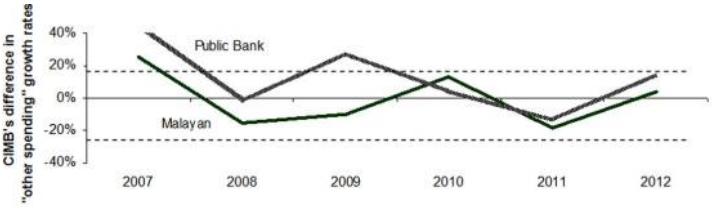
Notes: The figure shows the net interest income and income from fees and commissions for a range of Malaysian banks in 2012 (above the horizontal axis). In comparison, we show the maximum fine of 10 per cent of revenue and a RM10m fine applied to each bank. The most money the commission could hope to get in 2012 from any one comes to about RM1bn or about RM2 from the entire industry. *We naively assume (for the purposes of this example) that costs do not go up with markups*. *We refer to 25 per cent mark-ups using the same figure we have used throughout the paper – as an illustration only
Source: WRDS (2014) with analysis by authors

disadvantage. Malayan (as part of the cartel) could turn itself in for leniency, channelling the Competition Commission's investigatory and prosecutorial efforts towards CIMB. Second, significant differences in compliance spending (after adjusting for the size of loan books and other factors) may serve as a red flag to the Competition Commission. When all banks, except CIMB, announce antitrust compliance programmes and show significant spending, CIMB becomes an obvious antitrust audit target. Third, banks spending significant resources on compliance (besides decreasing the potential incidence of anticompetitive behaviour) can also hide their illegal activity better. Simply put, banks with antitrust compliance programmes will better know what evidence needs hiding, tampering or destroying[26]. Antitrust compliance programmes and audit can also help encourage changes in illegal behaviour toward less detectable methods of engaging in anticompetitive behaviour[27]. Banks may play a strategic game in which they do not need to completely hide anticompetitive behaviour. They only need to hide such behaviour better than their peers and rival banks[28].

The data suggest that Malaysian banks' expenses do not correlate with each other – suggesting that banks will unlikely look at each other when deciding on antitrust compliance programmes. Figure 12 shows an example of such spending, namely, looking at the extent to which CIMB's other operating expenses change as Public Bank's or Malayan Bank's expenses change. If CIMB changed its spending in response to other banks (like Public or Malayan), the figure would show the difference in such changes around zero. In other words, if CIMB copied changes in other banks' spending, we would see the lines in the figure hover above and close to 0 per cent. Instead, we observe significant positive and negative variation in spending *vis-à-vis* these other banks. If other operating expenses could serve as a proxy for compliance and other related spending, we could conclude that CIMB does not simply copy other banks. As shown in the matrix below the figure, we see correlations in spending between groups of banks. CIMB Bank's and CIMB Group's other operating expenses correlate strongly with each other – likely reflecting common markets served and corporate spending policies. Similarly, RHB Bank's and RHB Capital's spending correlate highly with each other. Interestingly, Malayan and Public Bank's other operating expense spending follow each other closely (highly correlates) from 2006 to 2012. If we wanted to look at two banks whose spending might follow each other, we would look at these two banks (Table IV).

So how much money should Malaysian banks spend on antitrust compliance programmes and audit work? We have shown that such spending depends on the amount of money banks would give up by reducing anticompetitive behaviour, the level of such spending by other banks, the extent of Competition Commission oversight (probability of detection) and penalties if/when these banks are investigated by the Competition Commission. *Compliance managers should set the level and change of compliance spending to maximise the rents from anticompetitive behaviour while simultaneously minimising the risk of Competition Commission detection.* We describe this process in Figure 13 (which non-technical readers should feel free to ignore). Deciding antitrust compliance spending each year – including spending on antitrust internal audit – depends on five factors. First, the *change* in compliance spending depends on the level of compliance spending[29]. Second, compliance spending depends on size of lending. Third, compliance spending by one bank depends *strategically* on compliance spending by other banks. Fourth, spending naturally depends on the probability of detection and size of potential fines[30].

What effect would leniency have on incentives to spend on antitrust compliance? The Malaysian Competition Act's leniency provisions (combined with the low maximum fine) would likely further encourage banks to conceal, rather than discover through internal



Notes: The figure shows the way that CIMB Bank's growth in spending on "other operating expenses" differs from growth in spending by Malayan Bank and public bank. For example, in 2007, CIMB's operating expenses grew more quickly than Public Bank's or Malayan's. By 2011, both Public and Malayan had faster growing operating expenses. The volatility in these lines suggests that CIMB is not pegging its operating its common market features which may require banks to change spending together for reasons other than just copying each other

Source: WRDS (2014)

Figure 12.
Little evidence of strategic spending between CIMB with Malayan and public bank

	CIMB Bank	CIMB Group	Malayan	Public Bank	RHB	RHB Capital
CIMB Bank	1.0	*0.8*	0.0	0.3	0.1	0.0
CIMB Group	*0.8*	1.0	−0.2	0.2	0.1	−0.1
Malayan	0.0	−0.2	1.0	−0.9	0.3	0.3
Public Bank	0.3	0.2	*−0.9*	1.0	−0.2	−0.2
RHB	0.1	0.1	0.3	−0.2	1.0	*0.8*
RHB Capital	0.0	−0.1	0.3	−0.2	*0.8*	1.0

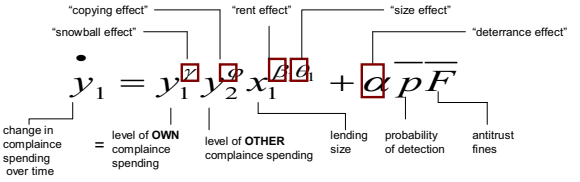
Notes: The matrix above shows the correlation in "other operating expenses" from 2006 to 2012 for the banks shown. We italicize correlations greater than 0.75 and do not make any special indications of statistical significance

Table IV.

audit, anticompetitive behaviour. Banks providing information to the Competition Commission about their own anticompetitive behaviour may receive "a reduction of up to a maximum of one hundred percent of any penalties which would otherwise have been imposed"[31]. Interestingly, when a leniency programme combines with a fixed fine, the result may solidify rather than destabilise cartels[32]. In other jurisdictions like the USA and EU, leniency programmes help destabilise cartels and provide incentives to report anticompetitive behaviour to local antitrust authorities. Such leniency programmes make sense when the severity of fines and punishments increase as the value of anticompetitive behaviour (and/or harms from such activity) rises.

In Malaysia's case, leniency programmes – combined with low maximum penalties – encourage companies to collude and hide their collusion. Leniency reduces the expected penalties and fines banks would likely pay – as the possibility always exists to turn themselves or others in to reduce these penalties[33]. Figure 14 shows the effect of leniency programmes on the expected value of fines paid by cartel members engaging in anticompetitive behaviour. In the figure, we aggregate the value of financial penalties (paid as "infringements" of the Competition Act) and "offences" (such as trying to obstruct the

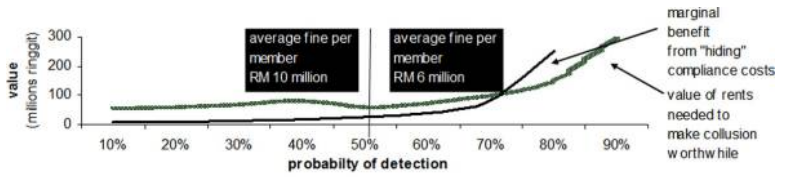
How much should Malaysian banks spend on antitrust compliance and audit work? We previously provided a back-of-the-envelope budget for spending, based on the cost of several popular compliance programme activities (like training, operating whistleblowing programmes, and so forth). But such an estimate ignores the gains from banks engaging in anticompetitive behaviour – and using compliance spending to help hide their gains from the Competition Commission. So how much should Malaysian banks spend each year on compliance (and antitrust audit)? What will total spending look like? The change in antitrust compliance and audit spending ($\dot{y}$) will depend on a number of factors, as explained below.



parameter and **expected sign**		description
snowball effect **positive**	γ	expect positive, as compliance costs increase, banks must spend increasingly more to detect harder to identify risks and maintain current compliance levels.
copying effect **positive**	φ	expect positive, as other banks increase compliance spending, need to increase own spending rises.
size effect **positive**	θ	as lending sizes increase, need to conduct compliance activities over larger numbers of customers and book sizes.
rent effect **negative**	β	as rents come from mark-ups on quantity, higher value of quantities of lending contribute to anticompetitive rents.
deterrence effect **positive**	α	positive, as Competition Commission gets better at detecting, investigating and prosecuting anticompetitive behaviour in Malaysia's banking sector, banks want to spend more.

The best profile of compliance spending depends (unsurprisingly) on the rents banks can earn from anticompetitive behaviour and the way that compliance spending helps safeguard those rents. Readers familiar with math will see immediately that figuring out the change in compliance spending y works out to maximizing the rents from lending $\beta\theta x$. The maximum penalties of 10% of revenue and RM10 million drive much compliance spending behaviour in the model.

Figure 13.
The maths of deciding on the best level of annual antitrust compliance spending



Notes: The figure shows the size of rents required to make the RM10m fine per cartel member worthwhile. We divide the 10m (the size of the fine) by the probability that cartel members can keep the value of their rents. We assume that at 50 per cent probability of detection, cartel decide to seek leniency (with two members confessing and three paying the maximum fine). The marginal benefit from compliance programmes which reduce the probability of detection are shown in black. For example, a compliance programme which reduce the probability of detection by 40 per cent earns RM16m extra in rents

Figure 14.
Leniency actually encourages larger rents and investment in avoiding detection as well as decreases fine per cartel member

Competition Commission from doing its work)[34]. For a probability of detection at 50 per cent or less, the value of rents needed to make collusion worthwhile starts at about RM50m and maxes out at about RM83m. As the threat of Competition Commission enforcement increases, cartel members need higher levels of compensation to offset potential fines. *Even if the value of illegal market power came in at only 1* per cent *of the RM16bn we previously estimated, the RM160m in rents would make such collusion economically viable given the likely probability of Competition Commission detection in the near future.* Anything banks do to form and hide collusion can only increase their profits – up until they experience an 80 per cent probability of detection. At that point, the expected gain in rents could not offset the likely loss from Commission fines.

Compliance costs which hide, rather than reduce, anticompetitive behaviour become more profitable as they succeed in reducing the probability of a Competition Commission investigation. For low probabilities of detection, the value of compliance and internal audit work aimed at making collusion harder to spot has little return (as shown by the black line in the figure)[35]. At relatively high probabilities of detection, for programmes which decrease the changes of a Competition Commission investigation by 50 per cent or more, these programmes will pay off from RM41m to RM250m.

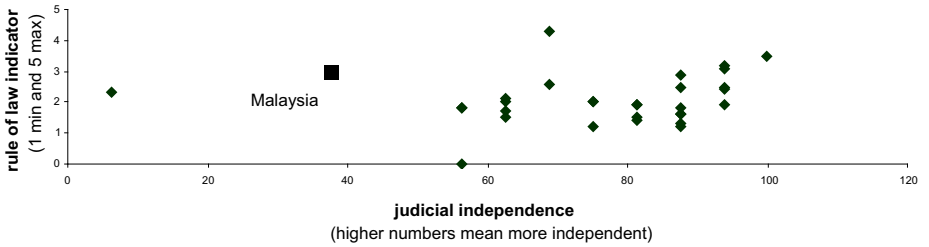
Leniency also has the effect of lowering the fine paid per cartel (or collusion group) member. In the figure, we illustrate this point by assuming that, after a 50 per cent probability of detection, two of the five group members agree to blow the whistle on the cartel. These two members receive leniency and the other three members pay the maximum fine of RM10m. The RM30m in fines paid to the Competition Commission comes to RM6 per cartel member. *Leniency has decreased the expected maximum fine payment by 40* per cent[36]. Leniency can also increase collusion, both by reducing the number of disadvantaged parties outside the cartel and by encouraging the creation of multiple cartel "ringleaders" who have the clout needed to benefit from these leniency programmes[37].

Wouldn't private rights of action affect our analysis? In theory, private rights of action – where victims and competitors can sue the members of an illegal agreement or abuser of market power– can increase the penalties for anticompetitive behaviour[38]. Private action could also increase the probability of detection, as private parties may have stronger profit-based motives to expose anticompetitive behaviour than government actors[39]. If a competition authority does not have the capacity to vigorously investigate and prosecute anticompetitive behaviour (like seemingly in Malaysia's case), private action can fill this gap[40].

Private rights of action probably will not change the economics of antitrust compliance in Malaysia – at least in the short-term. In order for private action to work in Malaysia, potential litigants need court systems which provide "profits" (in the form of awards) for detecting and complaining about anticompetitive behaviour.

Yet, such profits seem extremely uncertain. Persons or companies who sue banks engaging in anticompetitive behaviour risk paying long and drawn-out litigation costs if they lose the case. Court awards would only compensate plaintiffs for their time and expenses and the burden of proof lies squarely on the plaintiff's shoulders. Even if the bank directly admitted guilt to the Competition Commission, persons bringing competition-related lawsuits would need to show that the financial firm's activity *directly* led to his or her loss and justify the sum he or she asked the court for[41]. Thus, litigants looking to profit from suing banks for their anticompetitive behaviour face enormous uncertainty and even the possibility of bankruptcy (if lawyer and other fees exhausts plaintiffs' financial reserves while the case unfolds).

Moreover, the data suggest that antitrust cases appearing in Malaysia's courts would not be completely adjudicated based on the merits of the case. Figure 15 compares – in scatterplot format – two popular indices of legal and judicial integrity. We show scores for



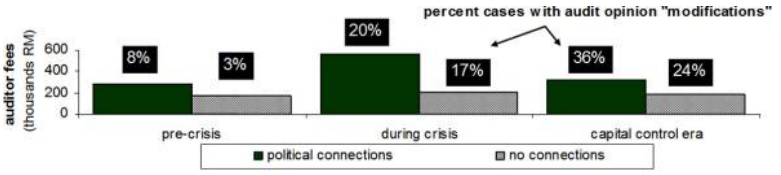
Notes: The figure shows a comparison of two measures of likely judicial independence and reliability. The X-axis show Global integrity scores related to the question "is the judiciary able to act independently". These numbers broadly follow scores related the extent of corruption in the judiciary. The Y-axis show general "rule of law" scores from the World Bank's Governance indicators. We show data for 2010, the latest year available from both sources for Malaysia
Sources: Global integrity (2010) and World Bank (2010)

Figure 15.
Malaysia has second least reliable judiciary (after Morocco) among countries analysed by global integrity and world bank

all countries ranked by both the *World Bank* and *Global Integrity*. Only one other country (Morocco) scores lower than Malaysia for rule of law and judicial independence[42].

If any group of banks would benefit from antitrust compliance programmes, politically connected banks look like a sub-segment which would benefit from antitrust audits. We previously showed evidence that political connections between banks and/or companies can help facilitate anticompetitive behaviour. We cannot know if these connections *cause* anticompetitive behaviour. However, some evidence suggests that companies with Board staff having high-level political connections tend to have statistically significantly *higher* audit fees. Gul (2006) argues that politically connected companies had significantly higher audit fees because of higher levels of perceived or actual improprieties committed by politically connected firms. When capital controls closed down foreign investor of Malaysian companies, the need to correct for and show fewer misdeeds decreased. As we discussed earlier, politically connected firms in Malaysia have statistically significant differences from other firms in terms of cost of capital, audit costs and compliance with codes of corporate governance (Figure 16).

The audit premium in audits of Malaysian politically connected companies points to a role for antitrust audits in these companies. First, screening companies by the extent of their political connections provides an easy way for the Competition Commission and third parties



Notes: The figure shows Mean audit costs (in the thousands of ringgit) for Malaysian companies with political connections and those without. We show in the black boxes above each bar the proportion of audits "with modification"
Source: Gul (2006)

Figure 16.
Political connections increases need for audits and lack of external oversight increases audit "modifications"

(engaging in private action) to detect anticompetitive behaviour. Given this perceived increased probability of anticompetitive behaviour, antitrust audit may help reduce the likelihood of an antitrust prosecution[43]. Second, if collusion occurs because company staff continue to view such collusion as justified industrial policy, internal audit can help change this mindset[44]. Particularly for government-linked companies, anticompetitive behaviour may represent a throw-back to the old way of doing things[45]. Third, more intense antitrust audits may help reassure investors and other partners about the probity of managers of politically controlled banks and companies.

Conclusion

None of the theories we looked at during our explicative could help us understand why auditors and/or compliance officials would want to voluntarily break a competition law. Based on the economics of compliance, Malaysian financial institutions (particularly banks) should mostly ignore the Competition Act[46]. The data show that Malaysian banks probably benefit from anticompetitive behaviour – earning about RM15bn in rents even after paying the penalties and fines envisioned in the Act. Political and family connections likely facilitate anticompetitive behaviour in corporate Malaysia – if not in the banking sector specifically (though we have no evidence of specific illegal behaviour). Because the Malaysian Competition Commission will likely lack the resources to investigate and prosecute anticompetitive behaviour in Malaysia's banking industry – banks' best response to the Act probably consists of ignoring it. Maximum fines of 10m ringgit and revenue-based penalties capped at 10 per cent of world-wide revenues mean that banks have strong incentives to engage in anticompetitive behaviour and just pay the low fines. Because of such perverse incentives, the best compliance programme for banks in Malaysia likely consists of actions which avoid detection rather than stopping anticompetitive behaviour.

Economic and political incentives which encourage engaging anticompetitive behaviour (and then hiding such behaviour) implies three things about compliance programmes. First, likely optimal compliance and internal audit spending likely comes to zero. In a perfect world where the Competition Commission does not come close to finding anticompetitive behaviour, banks can simply ignore the Competition Act. Second, when the Competition Commission might find anticompetitive behaviour among banks, the compliance and internal audit spending should increase to engage in actions which avoid Commission detection. Third, when compliance costs real money, Malaysian banks (and other banks in similar situations) have incentives to engage in anticompetitive behaviour. In such a case, banks need to earn the money needed to cover the cost of these programmes. In these cases, compliance programmes and internal audit actually *encourage* anticompetitive behaviour.

Disclaimer. The views expressed in this paper belong to the authors alone. The paper aims to raise important economic issues in an engaging way, encourage debate and contribute to the marketplace of ideas. Naturally, nothing in this paper should be taken as encouraging legal disobedience.

Notes

1. Many in organisation theory – and in the social sciences more generally – have criticised the standard organisation of journal articles with a standard introduction, literature review, methods, analysis, discussion and conclusion. Such an approach pretends to scientific objectivity, but has produced few new, useful results – in organisational theory at least (Suddaby *et al.*, 2011).

2. In Table III of Clerides *et al.* (2013), the authors use bank income as a proxy for the price of banking services and use the price of labour, capital and other banks' inputs in determining marginal costs.
3. Financial conglomerates, especially those with close linkages to industrial firms, tend to both promote and divert finance to allied firms. From an antitrust perspective, such diversion may both break the law as well as achieve sub-optimal economic outcomes. More worryingly, such conglomerates may have bargaining power *vis-à-vis* regulators which make the enforcement of antitrust or macro-prudential policies less likely. Bongini *et al.* (2001) provide a rather dated (but still relevant) discussion involving Malaysia.
4. We do not have space to review decades of literature showing how state ownership and/or control often leads to the anticompetitive allocation of capital. Sappington and Sidak (2004) provide readers interested in a deeper background with the information they need to satiate their curiosity.
5. Most of the studies we cite find that Malaysian government ownership of a financial organisation correlates with statistically significantly positive earnings and/or return on equity. Either we must believe that government has superior managers or that its banking managers engage in anticompetitive behaviour which leads to higher returns. Abbas *et al.* (2009) provide an example of a study finding higher return on equity in the Malaysian Islamic banking context.
6. A rigorous study would correlate anticompetitive behaviour (probably as discovered through Competition Commission cases) with ownership and control data. As the Malaysian Competition Commission has just started working (in 2010), we have quite a long time to wait before scholars can write such studies.
7. Soon and Koh (2006) provide an older study, also showing extensive government and family ownership ties. Yet, their data fail to show a relationship between government bank ownership and harm (like decreased returns on assets).
8. Of such lending, commercial lending (commercial loans) represents both the highest risk of anticompetitive capital allocation and the largest part of Malaysian banks' lending portfolios. On average, they made up 36 per cent of all loan types – compared with 24 per cent for residential mortgages and 28 per cent for consumer loans.
9. We express these ratios in basis point terms so we do not have data that look like 0.002, 0.102 and so forth. One hundred basis points equals 1 per cent – meaning that the "10" on the vertical axis represents an income-payment-to-company-revenue ratio of 0.1 per cent.
10. Potentially because not everyone thinks whistle-blowing will work – particularly in Malaysia (Lehmann, 2010).
11. Potentially because not everyone thinks whistle-blowing will work – particularly in Malaysia (Lehmann, 2010) at 34(1) for the substantive provisions of the protection and 34(3) for the definition of types of whistle-blowing and collaboration with the Commission. Article 34(2) – for its part – provides a non-exhaustive list of the types of coercion prohibited under the Act.
12. The 144 respondents in the survey came from Affin Bank (28 per cent), Alliance Bank (6 per cent), Public Bank (10 per cent), Hong Leong Bank (4 per cent), Southern Bank (11 per cent), Maybank (4 per cent), Am Bank (35 per cent) and EON Bank (2 per cent).
13. See PETRONAS Code of Conduct and Business Ethics (CoBE), available online. *See also* PETRONAS Competition Guidelines, available online.
14. Despite over 50 academics writing about individuals' incentives to follow criminal and civil laws, we are still surprised by many policymakers' refusal to consider the economic aspects of antitrust compliance and enforcement. Beckenstein and Gabel (1986) provide an early example of such an academic study, whereas Wils (2002) provides a more recent one.

15. For example, Huschelrath (2008) finds that US and Dutch antitrust policy works because the benefits of antitrust enforcement exceed the costs. Companies in these two jurisdictions face penalties from national antitrust enforcement agencies larger than the gains from anticompetitive behaviour.

16. We remind the reader these fines come about as the result of efforts aimed at concealing anticompetitive behaviour or otherwise trying to frustrate the Commission's activities. With compounding fines, banks and financial firms will find hiding anticompetitive behaviour far less profitable.

17. Feizi's (2011) paper refers to antitrust auditing as investigations conducted by the competition authority. Naturally, from an economic perspective, there is little difference between auditing done by companies themselves and the government (except for incentives to discover wrong doing and how to act on that information). As his paper contains an abstract algebraic model, we formulate some of his discussion in the context of Malaysian banking using profit data. Readers should not assume that Feizi or we suggest any type of impropriety in Malaysian banking. *We use these data for illustrative purposes only.*

18. We do not adjust these profits for loan sizes or report profit rates to avoid giving the impression that the reader can somehow use the figure to detect collusion in the Malaysian banking sector.

19. Murphy and Kolasky (2012) provide an edifying discussion in the US context.

20. This assumes the Commission does not engage in discretionary enforcement aimed at increasing the final financial impact of penalties and fines (like applying penalties over longer time periods and compounding offences).

21. Collusion and abuse of market power, like any business activity, entail costs and have varying chances of success. Economists might refer to these non-negligible costs as transactions costs (Faure-Grimaud *et al.*, 2001).

22. Authors like Aubert *et al.* provide evidence that internal audit may produce evidence which can help shield colluding bank and other managers in case of competition commission investigation. In this version, such evidence can be brought to the competition authority to receive leniency (Aubert *et al.*, 2006).

23. Operating revenues refer to income after subtracting costs of services provided. If these costs rise as mark-ups increase, then operating revenue may fall. A situation where falling operating profits combined with a 10 per cent revenue-based fine would clearly have very large and adverse effects on bank profits.

24. This example depends on a number of factors, like how much increasing prices reduce demand for RHB's loans, if prosecution by the Competition Commission would affect overall demand for borrowing and the bank's fixed and variable costs (remember that fines come out of bottom line profits and not top line revenues). We avoid these complications in our example, to avoid drawing attention away from our main point. *A simple plot of interest income on loans compared with net interest on loans to lending size ratios shows no increase in costs as lending sizes increase. As such, costs should not significantly affect the nature of the argument we make in this section.*

25. We cite several times in this paper studies showing mark-ups in the Malaysian banking sector of about 25 per cent over marginal costs. We use this figure as a simple heuristic – to think through the effects of the Competition Act's remedies to anticompetitive behaviour in the banking sector. We do not suggest these mark-ups come about exclusively as the result of illegal behaviour.

26. We have so little data about evidence tampering (and the destroying of incriminating evidence found during corporate self-assessments and audits) because companies need such data to remain secret. For a recent case of such behaviour, *see* Lipman (2012).

27. The literature has dealt very little with "crime displacement" in antitrust – and even less with the role that compliance audit plays in displacing criminal activity into harder to detect channels. For a discussion of some of these issues, *see* Parker and Nielsen (2011).

28. For a more formal description of the "game" of providing signals and information to markets and regulators about a firm's anticompetitive behaviour, see Jellal and Souam (2012).

29. Such change likely looks like an inverted-U, with banks having no or little compliance speeding up their spending, while big spenders continuing to spend a lot to keep their compliance levels in place.

30. We spend a great deal of time criticising the penalty structure in the Competition Act – without proposals for its replacement. As we look at the best audit regime given the current rules, we do not focus on improving the current system. For some recent discussions of such optimal fines, see Motchenkov (2008). *See also* Connor and Miller (2009).

31. Competition Act at 41(1).

32. Feizi (2011), for example, finds that leniency programmes can destabilise cartels, as individual members have incentives to receive amnesties. However, in the face of Malaysia's relative low fines, leniency actually works against the incentives found in other jurisdictions.

33. As an example, imagine Alliance Bank would pay a RM10m fine for abuse of market power. With a 50 per cent probability of receiving leniency for turning itself in right before an investigation, the expected value of the fine comes to RM5m – even if the Commission decided on the full fine of RM10m.

34. From an economic point of view, our analysis does not depend on whether banks make payments because of "infringements" or "offences". We assume throughout the paper that financial penalties imposed on anticompetitive behaviour and fines for obstructing the Competition Commission occur together. We could assume banks (financial firms) do not engage in obstruction of justice-style offences without changing the results of our analysis. Indeed, removing these fines from our calculations would make anticompetitive behaviour even more profitable!

35. The black line shows the marginal change in the green line (or the value of rents needed to make collusion worthwhile). This marginal change in the black line shows the effect of lowering the probability of detection by 10 per cent at each probability level of detection. At high probabilities of detection, firms clearly have strong interests in lowering that probability – making the value of rents needed to make collusion worthwhile so much the lower.

36. Harrington and Chang (2012) provide even more dire evidence suggesting that leniency programmes can undermine antitrust enforcement efforts. In their study, they find that when "leniency cases are just as intensive to prosecute and penalties are sufficiently low [certainly the case in Malaysia], then a leniency program is not only ineffective but actually raises the cartel rate because of its deleterious effect on non-leniency enforcement".

37. The literature has not settled the question on whether leniency programmes help or hinder a competition authority's work. From an internal audit perspective, leniency programmes create the evidence needed to help qualify for such leniency (Clemens and Rau, 2014). On the other hand, leniency reduces the deterrence effect that stiff penalties use to encourage internal audit in the first place (Bigoni *et al.*, 2009).

38. In evidence from the USA, Lande and Davis (2010) find that private action resulted in $30bn in recoveries and other damages paid for anticompetitive behaviour, in contrast with the roughly $4.5bn in government penalties imposed.

39. Renda *et al.* (2006) amass a large amount of evidence showing that private actions can help competition authorities, both find anticompetitive behaviour and provide strong incentives to contribute evidence for government action (Table III).

40. McAfee *et al.* (2008) find a range of cases where private action may effectively replace ineffective government action in enforcing a country's antitrust rules.

41. See Goldstein *et al.* (2010) for a fuller discussion of issues.

42. We have no interest in casting aspersions on Malaysia's judicial sector. Whether true or not, many Malaysian businesses would see the courts as an unreliable means of fighting anticompetitive behaviour in their industry. Such inefficiency may not stem from corruption, as Malaysians themselves consider the courts to have low levels of corruption. *See Global Corruption Report 2007*, 2007, available online.

43. We have argued that antitrust compliance and audit spending should relate to probability of detection by the Competition Commission and fines/penalties. Because political connections (rightly or wrongly) increase this probability, the value of antitrust audit increases significantly.

44. We do not argue that industrial policy (state policies helping particular sectors) has no place in Malaysia. However, following other countries, such aid should be monitored – and in the words of the OECD (2009) "competitively neutral".

45. See Lee (2005) for the tensions between new competition norms and Malaysia's legacy of industrial policy.

46. We make this observation as a way of attracting readers' attention to the incentive structure given by the Competition Act – not as an incitation to commit crime. Strictly following the incentives laid out in the Act may cause Malaysian bank managers to engage in criminally negligent behaviour – a point which takes us outside the bounds of the current paper.

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