

# ANTI-MONEY LAUNDERING AND ITS EFFECTIVENESS

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## ABSTRACT

*Anti-money laundering (AML) broadly encompasses procedures, processes, laws, or regulations designed to curtail the practice of generating funds through illicit or criminal activities. Since 2001, Malaysian law enforcement agencies have stepped up their capacities and efforts to curb money laundering. However, implementation costs incurred on AML activities could be burdensome to the regulating, enforcement, and reporting agencies. Although these efforts are generally beneficial, assessing their effectiveness before increasing the level of AML regulation is necessary. This paper reviews literature on various approaches used to estimate money laundering and assess the effectiveness of AML. Although different measures and models are used to estimate money laundering, no model to quantify money laundering is globally acceptable. The absence of an accurate measurement of costs incurred and the difficulty in linking benefits to AML efforts pose challenges in assessing the effectiveness of AML policy. Nevertheless, the use of both crime data and perceived data on cost and effectiveness serves as a step forward in the determination of the effectiveness of AML in Malaysia.*

## Introduction

Money laundering converts dirty money into clean funds by using various methods. Dirty money is derived through illegal or illicit means, such as high ranking executives in large corporations diverting money to personal accounts, tax evasion, prostitution, or drug trafficking. Money is commonly laundered via financial institutions (e.g., insurance companies, banks, etc.) or by setting up businesses and companies serving as fronts for receiving the illicit funds. In many cases, these businesses are transacted in cash only, allowing the owners to avoid any paper trail.

Anti-money laundering (AML) broadly encompasses procedures, processes, laws, or regulations designed to curtail the practice of generating funds through illicit or criminal activities. Since 2001, the government of Malaysia has undertaken numerous measures to combat money laundering, one of which was the enactment of the Anti-Money Laundering Act (AMLA), which came into effect on January 15, 2002. In addition, the Minister of Finance appointed the central bank of Malaysia, Bank Negara Malaysian (BNM), as a competent authority under the AMLA. BNM established a new department, the Financial Intelligence Unit (FIU), in 2001 to carry out its mandated role and functions set out in the AMLA. According to Harun (2004), AMLA provides a framework on how FIU works with regulatory and supervisory bodies, reporting institutions, and law enforcement agencies to ensure that the AMLA is implemented well throughout an organization. The relationships between these agencies are shown in Figure 1 (Harun, 2004). All these departments or agencies set up their own taskforces to combat money laundering.

As a member of the Association of Southeast Asian Nations (ASEAN), Malaysia has taken measures to enhance the skills and knowledge of personnel involved in combating money laundering and terrorism financing at both national and regional levels. The government has also rolled out a three-year National Anti-Money Laundering/Counter Terrorism Financing Strategic Plan from 2010 to 2012 (The Star, 20 July 2010). Various training workshops are organised or co-organised by BNM and the Southeast Asia Regional Centre for Counter-Terrorism. In addition, dialogues and awareness programs on AML are also being carried out by reporting institutions. These workshops and programs provide platforms for interactions to increase

commitment, compliance, and cooperation among reporting institutions that play critical roles in the implementation of AML, and for countermeasures on terrorism financing (Bank Negara Malaysia, 2005). AMLA also requires all reporting institutions to create ongoing employee training programs to guard against and recognise any suspicious transactions.

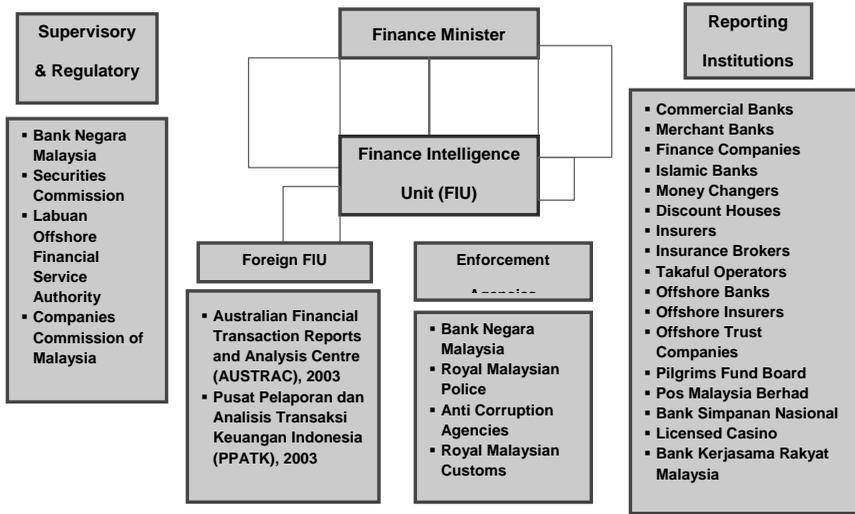


Figure 1: AMLA Framework (source: Harun, 2004)

Enforcement agencies, such as Royal Malaysian Customs (RMC), Anti-Corruption Agencies, Royal Malaysian Police, and BNM, are involved in enforcing the AMLA. Specifically, the RMC has set up the Trade Crimes and Money Laundering Unit to counter money laundering in the country. The Malaysian Anti-Corruption Commission and the RMC have also established dedicated AML/CFT units to focus on money laundering and terrorism financing investigations (The Malaysian Insider, 2010). Besides the enforcement agencies, the Securities Commission has also issued guidelines to reporting institutions, such as dealers, fund managers, and futures brokers, for the prevention of money laundering and terrorism financing since 2004. These reporting institutions are required to implement the key elements of the AMLA framework to guard against money laundering and to ensure compliance with the relevant requirements of the AMLA (Accountants Today, 2004).

Since 2001, the Malaysian government and its enforcement agencies have stepped up their capacities and efforts to curb money laundering. These efforts help prevent terrorism and smuggling activities, as well as help improve parity and competitiveness in the market, providing the nation with stable and consistent economic growth. Although these efforts are generally beneficial, assessing their effectiveness before increasing the level of AML regulation is necessary. However, assessing the effectiveness of AML is rather challenging, as obtaining a reliable measure for the implementation costs of AML is difficult. Moreover, the benefits of these efforts are often not apparent and direct. The lack of information on criminal data is also deterrent to measuring money laundering effectively.

This paper reviews previous studies on the different approaches used to estimate money laundering/money laundered and assess the effectiveness of AML.

## **Money Laundering**

At its core, money laundering is simply the effort to conceal the origins of illegally derived funds that have been converted for legitimate aims. The U.S. General Accounting Office defines money laundering as the act of converting money gained from illegal activity, such as drug smuggling, into money that appears legitimate whilst the source cannot be traced to the illegal activity. The tragic bombing of the World Trade Center in New York on September 11, 2001 triggered a global push to associate money laundering with the financing of terrorism. Henceforth, AML/CFT represents a concerted global initiative to rein money laundering and terrorism financing. However, contrary to the definition of money laundering, terrorism financing reverses the definition, as it typically involves money derived from legal pursuits that is converted into forms that enable acts of violence for political purposes.

Currently, estimating how much money is actually laundered in any other country or globally is virtually impossible. A sustained effort by the United States Financial Action Task Force (FATF) between 1996 and 2000 failed to produce any such estimates. In fact, no direct estimates of how much money goes through the financial system for the purpose of converting illegally

sourced funds into non-traceable forms exists. Conversely, financial firms are not affirmatively motivated nor do they possess tools to estimate the extent of laundering in their accounts. Thus, the production of any such figure will ever be unlikely. However, advances in technology might help financial institutions in this aspect; but even this is debatable.

In its crusade against money laundering, the FATF became the main international body, through peer pressure and the threat of blacklisting, to get 180 jurisdictions to sign up to its standards, instead of establishing formal legal or treaty powers. Overall, FATF has achieved significant gains in getting countries to pass AML and customer due diligence (CDD) laws. FATF acknowledges that unless a concurrent effort to ensure effective implementation of these laws by governments, supervisors, law enforcement, and financial institutions exists, then the progress will be lethargic. A concern is the disconnect culminating from ineffective implementation of AML laws perpetrated by financial institutions that demonstrate poor AML responsibilities by choosing to override the laws driven by profit motives. To compound matters, the FATF noted that most countries get trapped in mountains of paperwork and bureaucracy in dealing with the subject and yet fell short of providing financial institutions with clear assessment guidelines on risks and effective AML follow-up action plans (Global Witness, 2012).

According to Shanmugam et al. (2003), little data is readily available on the volume and value of money laundering activities. Reuter and Truman (2005) observed that systematic estimates for the scale of money laundering do not exist. The illegal nature of money laundering makes accurately measuring the amount of money laundered every year difficult (Alkaabi et al., 2010).

Past studies have attempted to measure the magnitude of money laundering (Akaabi et al., 2010; Masciandora & Barone, 2008; Schneider, 2010b). Attempts to estimate global money laundering has thus far showed large variations in the magnitude of laundered funds. According to Walker (1999), quantitative measures of money laundering provide a baseline and a scale for measurement, enabling AML programs to be reviewed. The International Monetary Fund (IMF) (1998) estimated the aggregate size of global money laundering to be somewhere between 2% and 5% of the world's gross domestic product (GDP), which is between USD 640 billion and USD 1.6

trillion. In more recent years, Masciandro and Barone (2008) estimated that the value of money laundering is equal to USD 1.2 trillion (2.7% of world GDP). A United Nations Office on Drugs and Crime (UNODC) report estimated that in 2009, criminal proceeds amounted to 3.6% of global GDP, with 2.7% (or USD 1.6 trillion) being laundered.

Money laundering is sometimes examined from the effects of organized crime. As suggested by Reuter and Truman (2005), the success of the AML system could be judged not just by how much it reduces money laundering, but by how much it reduces the criminal activities that generate laundering, namely drug trafficking, corruption, and terrorism. An investigation conducted in Germany revealed that the total amount of damages caused by organized crime in 2004 reached EUR 759 million, with estimated profits amounting to EUR 1,337 million (Schneider, 2010a). However, provisionally seized assets only added up to a total value of EUR 68 million. Schneider (2010b) estimated the turnover of organised crime and money laundering for Organization for Economic Co-operation and Development (OECD) countries from 1995 to 2006, and found that the volume of turnover from organised crime in these countries was USD 270 billion in 1995 and USD 614 billion in 2006.

Geiger and Wuensch (2007) identified two types of indirect costs or damages due to AML requirements, namely, societal and economic damages. The damages on society comprise loss of civil liberties, especially privacy. The AML provisions are a threat to the privacy of the individual. In terms of the economic perspective, AML requirements increase the direct cost of legitimate and illegitimate market transactions. As a result, the market loses its competitive power. A question then arises as to who should pay for these prevention measures and how effective these measures are.

The international community considers the fight against money laundering and terrorist financing a top priority. Particularly, the IMF is alarmed about the possible impacts of money laundering, terrorist financing, and related governance issues on financial and economic integrity and stability. These activities undermine the integrity and stability of financial institutions and systems, discourage foreign investment, and distort international capital flows. They may negatively affect a country's financial stability and macroeconomic performance, resulting in welfare losses, draining resources

from more productive economic activities, and even have destabilizing spillover effects on the economies of countries. In an increasingly interconnected world, the negative effects of these activities are global, and their impact on the financial integrity and stability of countries is widely recognized. To this effect, the Deputy Managing Director of IMF, Min Zhu, reiterated effective AML and combating the financing of terrorism regimes as essential to protect the integrity of markets and of the global financial framework, as they help mitigate the factors that facilitate financial abuse, and characterizing actions to prevent and combat money laundering and the financing of terrorism as not only akin to a moral imperative, but also to an economic need (International Monetary Fund, 2013).

## Money Laundering Models

Various models have been developed to quantify the size of money laundering. John Walker's (1999; 2004; 2007) model, or the Walker model, estimates money laundering based on a simple economic crime model with the use of international databases. The model estimates the size and development of money laundering using an international input-output model based on standard economic theory. The amount of money laundered is based on the probability of those proceeds being laundered. He estimated the extent of various different types of crimes and the proceeds resulting from these crimes. Walker (2007) concluded that global money laundering accounted for as much as USD 3 trillion per annum. In his model, Walker first scrutinized money generated for laundering per country, and then examined the flows of generated money from one country to another. He stated that money could be laundered in the country in which it was generated or sent to another country for laundering. As soon as money has traveled (flowed) at least once, it is "white washed", or laundered. Only this first transaction involving the placement of funds is counted in the model. Although "hot money" can be moved on multiple occasions in efforts to disguise its criminal origins, this model does not count each of these transactions or the movement of funds. Hence, the actual gross flows of money laundering could be much higher.

Schneider and Windischbauer (2006) and Masciandaro and Barone (2008) found the results produced by Walker to be scientifically doubtful because

they are not reproducible and proven. Peter Reuter (2007) was also skeptical about estimating money laundering and organized crimes using the Walker model. He found neither the national nor the global estimates for money laundered to be rather vague. Reuter (2007) stated that the vagueness of such estimates is a result of both disagreements over how to conceptualise money laundering, as well as the weaknesses in the techniques employed to quantify it. Consequently, estimates in the volume of money laundering are subject to variation, and hence, may not be an appropriate measure to judge the effectiveness of AML. He also found that the estimates of money laundering in the 'underground economy' were weak because little was known about what share of proceeds, either legitimate or illegitimate, was processed in ways that were designed to conceal the origins (Reuter, 2007:11). Moreover, it assumed that all countries attract criminal money for the same reasons and different economic structures are ignored (Unger et al., 2006).

Although Reuter was very skeptical of the estimates of money laundering developed by Walker, Unger et al. (2006) defended the Walker model. Unger et al. (2006) stated that the Walker model establishes a framework to measure money laundering nationally and globally. Furthermore, she argued that the Walker model is a positive model for interdisciplinary work of criminology and economics. Unger et al. (2006) applied the gravity approach to the Walker model and estimated money laundering and its effects in the Netherlands. More recently, Ferwerda et al. (2013) tested the models of Walker and Unger to predict illicit money laundering flows with the focus on trade-based money laundering. Trade-based money laundering is referred to as 'criminal proceeds that are transferred around the world using fake invoices that under- or overvalue imports and exports' (Ferweda et al., 2013: 3170). Ferwerda et al. (2013) replaced the functional form of the Walker model, which is a mix of linear and multiplicative variables, by a multiplicative traditional gravity equation as frequently used for trade flows, and extended this model with explanatory variables from the Walker and Unger models. They found that the equation was able to explain satisfactorily the distribution of trade-based money laundering between 199 countries and the U.S. Their results suggest that countries with strict AML regulation experience more trade related money laundering.

Even though various models have been developed to estimate and measure money laundering, a globally accepted model to quantify money laundering in a given financial system does not exist (Norwen, 2008). According to Reuter (2007), the lack of a systematic approach in capturing the scale of each crime results in the failure in capturing the estimates of total earnings from each major class of illegal crime activity. In addition, Duyne (2003) claimed that no proper knowledge of the nature and extent of the size and development of money laundering or organized crime exists globally. He further added that although money laundering and organized crime have been portrayed as a global movement, none has thought of it, in a manner of speaking, as a multi-country integrated strategic information management system. The inherent lack of knowledge about money laundering is matched by a lack of unity and transparency. Hence, this awareness has not been translated into any further actions to counter money laundering.

### **Effectiveness of Anti-money Laundering**

Implementing AML requirements comes with significant costs. At times, the process of implementation can be extensive and rather costly. Besides, financial criminals are continuously looking for new ways to launder their money. Offenders will take advantage of every situation to launder even with the implementation of AML requirements. The assessment of the effectiveness of AML requirements is thus difficult, because regulating, enforcement, and reporting agencies need to constantly update, review, and improve its implementation to effectively curb money laundering nationally or globally.

According to Tang et al. (2010), assessing the effectiveness of AML policies is a controversial issue. Finding a reliable figure regarding costs and benefits of implementing AML requirements is practically impossible. Generally, an AML system can be considered effective if its benefits outweigh the costs incurred in fighting money laundering and terrorism financing. Carrington and Shams (2006) stated that no clear formula to assess whether an AML/CFT system has been effective in achieving its objectives exists. The question of effectiveness is elusive when a reliable method to measure the amount of money being laundered or the amount of terrorist funds being circulated does not exist. Hence, assessing the effectiveness of an AML system, particularly in assessing the impact of AML, is a challenging task.

Nevertheless, attempts have been made by researchers examining the effectiveness of an AML system from various aspects. Biagoli (2008) highlighted a few approaches to measure the cost-effectiveness of AML. An approach is to employ the 'opportunity cost theory.' According to Biagoli (2008), one should invest in a given action as long as the benefits derived from such an investment remain higher than the benefits that could be harvested from investing in an alternative field or activity. The benefits deriving from devoting resources to AML should be greater than those coming from other alternative activities. Another approach suggested by Biagoli (2008) is to achieve a 'break-even point' (costs equal benefits) in a situation where crimes are reduced below a so-called 'serious social alarm threshold' (Biagoli, 2008). Accordingly, Masciandaro and Barone (2008) estimated the benefits and costs from designing an effective AML regime, providing a conservative estimation of the economic value of money laundering globally from the point of view of criminal organizations.

Unger and Rawlings (2005) carried out work on the effects of money laundering to distinguish between direct and indirect effects of crime and between short-term and long-term effects of money laundering. Their study examined the effects of money laundering on 25 different qualitative classifications such as business activities, relative prices and consumptions, amongst others. Using various proxies, Chong and Lopez-de-Silanes (2006) developed systematic efforts to assess global money laundering volume by considering the impact of regulation and enforcement of money laundering. Their proxies for money laundering were indirectly measured and complemented with subjective indicators from opinion surveys.

Unger et al. (2006) conducted a qualitative and quantitative assessment on the effect of money laundering in the Netherlands. They found that money laundering had a negative effect on the economic growth and financial stability of the Netherlands. Similarly, Ferwerda (2008; 2009) developed a theoretical model and found AML policy to be negatively correlated with crime rate. Based on the assumption of the rational behaviour of criminals, Ferwerda's model of criminalization of money laundering examined three factors, namely, the probability of being caught for money laundering, the sentence for money laundering, and the probability of being convicted for the predicate crime and transaction costs of money laundering. According to Ferwerda (2008; 2009), if these factors are positively influenced by stricter

policy, AML policy such as the role of laws, the institutional framework, the duties of the private sector in law enforcement, and international cooperation can help deter potential criminals from illegal behaviour, and hence, reduce the crime rate. Employing a data set from the mutual evaluation reports on money laundering of the FATF, IMF, and World Bank, Ferwerda (2008; 2009) found that AML policy, particularly international cooperation, is the most important policy area for reducing crime, suggesting that international organizations should work together to fight against money laundering.

In addition, past research examined the perceived effectiveness of AML requirements. A questionnaire study was conducted in the U.K. by Yeandle et al. (2005), and they found that only 24% of U.K. respondents and 54% of international respondents perceived AML as being 'good' or 'very good' at deterring money laundering. In another study, Tang et al. (2010) examined the effectiveness of China's AML policies on several aspects, namely effectiveness of AML legislation, effectiveness of AML regulation, monitoring and analysis, investigation, and judicial litigation. The questionnaire was prepared according to the FATF 40 recommendations and FATF 9 special recommendations. Tang et al. (2010) found that 59% of the respondents think that China's overall AML requirements is 'totally effective' and that 36% of the respondents think that it is 'basically effective,' with only 5% calling it 'ineffective.' Their findings are inconsistent with prior research conducted by Cuellar (2003), who found that the American AML system failed to reach the targets stipulated by the law and expected by regulatory authorities. Similarly, Geiger and Wuensch (2007) stated that most professionals and researchers believe that AML measures are not very effective in preventing upstream crimes, such as drug trafficking, terrorism, and corruption.

PricewaterhouseCoopers (2007) conducted a survey on the cost benefits of the AML risk-based approach. The majority of the respondents (91%) said they were 'very satisfied' or 'satisfied' their organization had successfully implemented the risk-based approach to AML requirements. However, their responses on its cost benefits are not clear. A total of 82% of the respondents indicated that they had not noticed any benefits of implementing a risk-based approach, with 6% stating that negative effects on costs were observed. A total of 64% the respondents who had not identified any cost benefits to date never expected to see any benefits from the AML system.

## Conclusion

Implementation costs incurred on AML activities could be burdensome to the regulating, enforcement, and reporting agencies. Clearly, however, the focus should be directed on achieving positive outcomes instead of cost rationalization. Tackling the risk of human error is a concern. According to Reddington (2011), merely complying with the FATF's recommendations may not be sufficient to create an effective AML regime. Yeandle et al. (2005) advised that, in increasing the level of regulation further, assessing the effectiveness of current AML requirements is important. Reuter and Truman (2005) stated that in an era where performance assessment is a routine demand imposed on government agencies around the world, a careful assessment of the achievements of the existing AML regime is required. Accordingly, Shanmugam et al. (2003) recommended that conducting an internal audit to evaluate the effectiveness of money laundering awareness programs and compliance among the staff of financial institutions may be necessary. On a negative note, in the current environment of cost control, centring on preserving capital and prioritizing investment of precious resources on frontline business development, calls for a greater focus on AML may not present an enticing proposition.

This paper examined the effectiveness of AML from three perspectives, namely, cost effectiveness, perceived effectiveness, and effectiveness on meeting AML objectives. Various measures have been used to estimate money laundering/laundered. However, the absence of an accurate measurement of AML costs makes demonstrating whether AML requirements are effective challenging (PricewaterhouseCoopers, 2007). This argument is supported by Ferwerda et al. (2013), who stated that an evaluation of the effects of AML policies is hampered by an enormous lack of data. Before venturing into measuring the benefits of AML, more reliable measures to assess the implementation costs of AML activities should be established. As information on criminal data is currently lacking, estimates, such as the use of perceived costs, may be considered and used to assess the effectiveness of AML. This approach, using both crime data and perceived data, will then allow an analysis on the effectiveness or cost-effectiveness of AML. The approach can serve as a step forward in determining the effectiveness of AML in Malaysia.

## References

- Alkaabi, A., Mobay, G., McCullagh, A. and Chantler, N. (2010). A Comparative Analysis of the Extent of Money Laundering in Australia, UAE, UK and the USA, *Finance and Corporate Governance Conference 2010 Paper*. Available at SSRN: <http://ssrn.com/abstract=1539843> or <http://dx.doi.org/10.2139/ssrn.1539843>.
- Anti-Money Laundering Developments (2004). *Accountants Today*, Jan/ Feb, 67-73.
- Bank Negara Malaysia (2005). The Banking System, Malaysia's Anti-Money Laundering and Counter Financing of Terrorism (AML/CFT) Programme Accessed at [http://www.bnm.gov.my/files/publication/ar/en/2005/cp05\\_005\\_whitebox.pdf](http://www.bnm.gov.my/files/publication/ar/en/2005/cp05_005_whitebox.pdf)=17
- Biagoli, A. (2008). Financial Crime as a Threat to the Wealth of Nations, *Journal of Money Laundering Control*, 11,1,88-95.
- Carrington, I. and Shams, H. (2006). Elements of an Effective AML/ CFT Framework: Legal, regulatory and best institutional practices to prevent threats to financial stability and integrity, Seminar on Current Developments in Monetary and Financial Law, Washington, D.C.
- Cuellar, M. (2003). The Tenuous Relationship between the Fight Against Money Laundering and the Disruption of Criminal Finance, *Journal of Criminal Law and Criminology*, Vol. 93, No. 2&3.
- Chong, A. and Lopez-de-Silanes, F. (2006). Money Laundering and Its Regulation, Working Paper, no. 590, Research Department, Washington D.C.: Inter-American Development Bank.
- Duyne, P. C. van (2003). Money laundering, Fears and facts, in: Duyne, P.C. van, Lampe, K. Von & Newell, J.L. (eds), *Criminal Finances and Organizing Crime in Europe*, Nijmegen: Wolf Legal Publishers, 67-104.

- Ferwerda, J. (2008). The Economics of Crime and Money Laundering: Does Anti-Money Laundering Policy Reduce Crime?, *Discussion Paper Series 08-35*, Utrecht School of Economics, The Netherlands.
- Ferwerda, J. (2009). The Economics of Crime and Money Laundering: Does Anti-Money Laundering Policy Reduce Crime?, *Review of Law and Economics*, Special issue: Tackling Money Laundering, 5,2, Article 5.
- Ferwerda, J., Kattenberg, M., Chang, H., Unger, B., Groot, L. And Bikker, J.A. (2013). Gravity Models of Trade-based Money Laundering, *Applied Economics*, 45, 3170-3182.
- Geiger, H. and Wuensch, O. (2007). The Fight against Money Laundering: An Economic Analysis of a Cost-Benefit Paradoxon, *Journal of Money Laundering Control*, 10,1,91-105.
- Global Witness (2012). How FATF can Measure and Promote an Effective Anti-MoneyLaundering System, accessed online on 12 August 2013 at <http://www.globalwitness.org/sites/default/files/library/How%20FATF%20can%20measure%20and%20promote%20an%20effective%20anti-money%20laundering%20system.pdf>
- Harun, A. R. (2004). Measures against Money Laundering and Financing of Terrorist Activities in Malaysia, Paper presented at Anti-money Laundering and Combating the Financing of Terrorism seminar in Tokyo.
- International Monetary Fund (2013). The IMF and the Fight Against Money Laundering and the Financing of Terrorism, accessed online on 12 August 2013 at <http://www.imf.org/external/np/exr/facts/aml.htm>
- International Monetary Fund (1998). Money Laundering: the Importance of International Countermeasures, Address by Michel Camdessus, Managing Director of the International Monetary Fund, FATF Plenary Meeting, Paris.

- Masciandroa, D. and Barone, R. (2008). Worldwide Anti-Money Laundering: Estimating costs and benefits, Paolo Baffi Centre on Central Banking and Financial Regulation, 1-23.
- Norwen Shahreedha Mohd Ghazali (2008). Money Laundering in Malaysia, April, accessed on 31 March 2013 at <http://www.pbpress.com>.
- PricewaterhouseCooper (2007). Anti-Money Laundering Survey, Summer, Forensic Services, UK Financial Services Industry.
- Reddington, B.J. (2011). Assessing the True Effectiveness of AML/CFT Controls in Developing Countries, Master's Thesis, Graduate School of Art and Sciences of Georgetown University, Washington.
- Reuter, P. (2007). Are Estimates of the Volume of Money Laundering Either Useful or Feasible, Paper presented at the Conference on Tackling Money Laundering, University of Utrecht, Utrecht, Netherlands.
- Reuter, P. and Truman, E.M. (2005). Anti-Money Laundering Overkill? It's time to ask how well the system is working, *The International Economy*, Winter, 56-60.
- Schneider, F. (2010a). Money Laundering and Financial Means of Organised Crime: Some preliminary empirical findings, *Economics of Security Working Paper 26*, Berlin: Economics of Security.
- Schneider, F. (2010b). Turnover of Organised Crime and Money Laundering: Some Preliminary Empirical Findings, *Public Choices*, 473-486.
- Schneider, F. and Windischbauer, V. (2006). Money Laundering: Some Preliminary Empirical Findings, Mimeo.
- Shanmugam, B., Nair, M. and Suganthi, R. (2003). Money Laundering in Malaysia, *Journal of Money Laundering Control*, 8,4,373-378.
- Tang, X., Shi, Y. Y. and Cao, Z. Y. (2010). The Effectiveness of China's Anti-Money Laundering Policies, February 9, Accessed on 25 March

2013 at <http://ssrn.com/abstract=1550532> or <http://dx.doi.org/10.2139/ssrn.1550532>.

The Malaysian Insider (2010). Almost 100 money laundering cases being prosecuted, 19 July, available at [www.themalaysianinsider.com/malaysia/article/almost-100-money-laundering-cases-being-prosecuted](http://www.themalaysianinsider.com/malaysia/article/almost-100-money-laundering-cases-being-prosecuted).

The Star (2010). “3-year Government plan to combat terrorism financing” 20 July, available at <http://biz.theasta.com.my/news/story.asp?file=/2010/7/20/business/6695778&sec=business>

Unger, B. (2006). The Gravity Model for Measuring Money Laundering and Tax Evasion, A Paper prepared for the Workshop on Macroeconomic and Policy Implication of Underground Economy and Tax Evasion, February 5-6, 2009 at Bocconi University, Milan, Italy.

Unger, B. and Rawlings, G. (2005). The Amount and the Effects of Money Laundering, Mimeo.

Unger, B, Seigal, M, Ferwerd, J., Kruijg, W. Busuioic, M., Wokke, K. and Rawlings, G. (2006). The Amounts and Effects of Money Laundering, *Report for the Ministry of Finance*, February 16.

Yeandle, M., Mainelli, M, Berendt, A. and Healy, B. (2005). Anti-money Laundering Requirements: Costs, Benefits and Perceptions, City Research Series, no. 6, London: Corporation of London.

Walker, J. (1999). How Big is Global Money Laundering? *Journal of Money Laundering Control*, 3,1,25-37.

Walker, J. (2004). A very temptative exploration of the relationship between shadow economy and the production and transit of illicit drugs, New York: *UNODC document*.

Walker, J. (2007). Measuring Global Money Laundering, Paper presented at the conference ‘Tackling Money Laundering’, University of Utrecht, Utrecht, The Netherlands.