

Money Laundering Detection System (MLD)

(A Complementary System of Rastin Banking)

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Abstract

Purpose: This paper aims to define a new system for detecting money-laundering activities by comparing tax payments (especially Value Added Tax) data to banking transactions data.

Design: Money Laundering Detection System (MLD) provides the necessary bases for detecting deception and fraud. Though MLD is a complementary system of Rastin Banking system, it can also be installed and executed separately.

Findings: The underground economic activities can be detected and traced by comparing banking information and transaction information in MLD system. It needs to force the direct transactors or other related sides of transaction do their money operations through the banks. In the next step, tax information of transactors (in a chain of transactions) can be compared with them and the incompatibility of the two set of data will explore money-laundering operations.

Research limitations: This system is novel and requires to be more elaborated to remove further practical problems and particular cases.

Practical implications: MLD provides necessary protections for those who do legal economic activities by detecting financial criminals.

Social implications: Money laundering harms individual and public rights and economies. Financial crimes, tax evasion, smuggling, conspiracy, embezzlement and various other offences are included in general definition of money laundering, so detecting them will lead to important economic improvements in the society as well as international community.

Originality/value: MLD system provides structural and electronic bases for computerized tax data and banking data comparison.

Article Type: Technical paper

Keywords: Money Laundry, Banking Information, Value Added Tax, Rastin Banking, VAT, Transaction.

Introduction

By development of societies, law-evasion techniques also extend. Therefore, in order to oblige the public to obey the law, new updated technological procedures should be applied to extend the sovereignty of law. Rastin Banking system was designed based on Sharia commands to eliminate *Riba* and to institutionalize justice, fair and Islamic ethics in banking and financial activities. The virtues of Rastin Banking are so extended in the fields of banking, financial, economic, ethical, social and international activities that it can be used as a base for improving economic structure of the country.²

Value Added Tax (VAT) system can be used for money laundering detection effectively. If fully

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² - To access detailed full-text documents of Rastin Banking see: <http://www.bidabad.ir>

conducted, VAT can almost cover and supervise all significant financial transactions in the economy and prevent tax evasion. VAT is an auto-detective tax system and practically, “tax-payers” are “tax-information-collectors” as well; regarding the fact that tax-payers are bound to submit the received purchase-invoices (from the seller) to tax officials; and this provides the necessary condition to automatic recognition of other tax payers' transactions in turn. If VAT system were integrated, it creates a perfect information system for commercial transactions information that leads to the transparency of transaction and economic activities as well.

All commercial and financial activities done in the economy for profit or for non-profit purposes, are financially regarded as transaction, and are subject of VAT information system. In addition, every transaction of goods/services requires money payment (in cash or credit). These two information items (goods/services and money) for any transaction are compatible and comparable. If they were not matched together, there should be some money-laundering suspicion in the transaction.

MLD system³ provides the necessary structure and electronic background for comparison of tax information with banking information for all transactions. In the case of underground transactions, the transactor does not go through the banking network for payments, but the tax authority receives the information about sale and purchase of the item sold and purchased. Thence, underground activities can be detected by comparing transaction information and banking information about the transacted goods/services. To do the job, a special organization should be established at Ministry of Finance and Economic Affairs to receive banking and tax information and to process, compare and analyse them and report the result to judiciary authorities.

Money Laundering Detection (MLD) system can lead to financial efficiency and transparency in economy and practically provides the base for stabilization, economic, ethics and confidence promotions and thereof, increases the social capital of the society.

Economic-Financial Behaviours

Economic activities are classified into “official”, “unofficial and family”, “disclosed” and “hidden” classes from the performance point of view.⁴ Ordinary economic activities are those activities that are legitimate, and the society accepts them. On the border of ordinary activities, many activities are hidden from the eyes of data collectors and economic analysts. Generally, all economic activities, which are counted in System of National Accounts (SNA), are included in “disclosed sector”; and those activities that are not counted in national accounts are included in “hidden economic sector”. Activities of “family sector”, “unofficial sector”, “abnormal and illegal sectors” are considered as “hidden sector” of the economy.

“Official”, “family” and “unofficial” sectors are those sectors with legal activities. In “official sector”, natures of production and transaction are legal, and in “family sector”, there is no economic transaction or payment for the services done. In “unofficial sector”, production and transaction are legal, and goods and services are priced, but are not booked in national accounts. Therefore, these two sectors are called “hidden economy”. In the other two sectors, which we call them “abnormal” and “illegal” sectors; the nature of production of the goods/services is legal, but some illegal

³ Bidabad, Bijan (2013) Money Laundering Detection System (MLD), Bank Melli Iran, Tehran.

<http://www.bidabad.ir/doc/ml-d-paper-fa.pdf>

⁴ Bidabad, Bijan (2003), Typology of financial institutions and economic decision making kernels in Iran economic structure, Proceeding of the 13th conference of monetary and exchange rate policies, pp. 391-446. Monetary and Banking Research Academy, Central Bank of Iran, 2003. <http://www.bidabad.ir/doc/nahadhayeh-mali.pdf>

activities are involved in their transactions. In “illegal sector”, production of goods/services is essentially illegal, let alone its transaction or distribution. These two sectors are called “underground” sectors.

“Hidden economy” is not complained by societies from social justice point of view; and does not harm the economy. This is because that small-scale production of families and small-size production workhouses exist in the societies ordinarily, and their activities are supported by law or at least there is no complaining about them. In contrary to “hidden economy”, “underground economy” is accompanied with some kinds of social injustice, spoiling other’s people rights, and except for the activists of this sector, other people are disadvantaged or loss by their activities. “Hidden economy” does not harm the economy; but “underground economy” severely affects the efficiency of the other sectors of the economy; specifically when government employees are engaged in this sector, and gradually, this contamination prevents them in doing their official job without receiving/earning illegal revenues. This behaviour practically will obstruct the executorial apparatus of the country and extends illegalities. Economic reform and establishment of financial disciplines to prevent this kind of activities is one of the preconditions of economic and social development of a country.

Family sector

Families produce lots of goods and services, which are used in the family and scarcely are supplied to the market. For example, the activities of homemakers are without payments and if their value added were added to national accounts, it would increase GNP by near to half. Home activities of men such as repairs during their free time are also included in this class. These activities are more exposed in rural area, especially because of low-income level in developing countries and therefore, because of self-sufficiency in many kinds of goods and services, there is no market price for them and their value added cannot be added to GNP calculations practicably. In addition, many transactions in these societies are barter that increases calculation difficulties for collecting the data.

Unofficial sector

This sector includes small-size producers, small-size tradespeople and craftsmen/artisans with no or few employees; and labourers and workmen in commerce, transportation and other services. Most prevailing activities of this class in less developed countries are peddler badgers, criers, and small workhouses with no or few employees, which are often working in houses and are considerable in number. The main difference of this sector to family sector is that in contrary to family sector, their products are supplied as intermediate/final goods and services to other firms or supplied directly to the market, which means they have market transactions. The existence of market transaction creates market price and as a rule, consequently, their value-added should be included in GNP accounting, but because data collection is difficult and expensive, they are dropped from calculations. It should be noticed that production and consumption of goods and services of unofficial sector are not legally forbidden and are legitimate.

Unusual (Abnormal) Sector

This sector includes all economic activities whose production is legal; but to somehow they are involved in unlawful activities. In economic literature, these activities are called by various names such as “black”, “underground”, “hidden”, “covered”, “unofficial”, “invisible”, “illegal”, “parallel”, “second”, “shadow”, “unseen”, “unreported” and so on, which differs from each other according to the special focus of the writer⁵. The main characteristic of the activities of this sector is the legality

⁵ Nourbakhsh, Mohsen ; Kamran Sepehri, (1995) Unofficial Economy, Monetary and Banking Research Academy,

of its production; but their methods of production or distribution involve some illegalities. There are many examples for this type of activities; for example, we can mention: tax evasion in various ways, disobedience of regulations such as workshops safety regulations, not introducing employees for social insurance, manipulating legal books of accounts, not issuing sale/purchase invoices/factors, disobedience of minimum obligatory wages and salaries, not booking some transactions, working with no license, misusing insurance policies, collusion with tax auditors, recruitment of illegal-emigrant workers, illegal transfer of foreign exchange, smuggling and so on.

Involvement of governmental authorities' misuses in these activities is usually observed at all levels in this sector. For instance, embezzlement, collusion, conspiracy, tender-manipulating, unjust auctions, government transactions, false assessment, disobedience of rules and regulations, disregarding neutrality in distributing quotas, accepting bribe for speeding up applicants' affairs, pushing forward the turn, misusing of government capital, especially those capitals which are in hands of state authorities (civil or military), making rent, and so on are some of government agents' interferences. While there are regulations for those funds and resources that are left in hands of public administrator/managers in all countries, but they violate the regulations to takes the resources into the abnormal sector activities for their common benefits with illegal-doers.

This sector is almost very large in most of countries and it is explained that the national accounts statistics of different countries are qualitatively less comparable because of these type of disguised activities. The extension of this sector varies from country to country; but essentially, in countries with less-institutionalized laws and regulation and weak supervising organizations, this sector is larger.

Illegal Sector

Production of goods/services in this sector is essentially illegal. In other words, all activities included in this sector are illegal. As a rule, all illegal activities are dropped from national accounts. The spread and types of illegal activities vary from country to country. Comparison of this sector in different countries is not easy, because of different and sometimes opposite rules and regulations of concerning illegal activities in different countries. For example, cultivation of poppies is legal in one country and is illegal in another; and this is the same for prostitution, gambling, transaction of narcotics and alcoholic beverages etc. But there are some activities such as forgery, illegal printing of money and credit documents, extortion, pick pocketing, fraud, production and distribution of illegal goods and services, smuggling, theft at work, bribery, shop lifting and generally theft activities, seizing other's properties, organized crimes etc. are illegal in the most countries, though with different penalties.

Hidden and Underground Sectors

Regarding the above discussions, the three "ordinary", "family" and "unofficial" sectors are producing legally. Production and transaction in the first sector are carried out easily. In the second sector, the transaction is carried out but not in form of economic transaction and there is no payment for it. In the unofficial sector, transaction is carried out; goods/services transacted have market prices. We can call the two latter sectors as "hidden sectors". In the other sector, which are mentioned as "abnormal" and "illegal", activist does some illegal acts accompanying with his activity. In "abnormal sector", production of goods/services is essentially legal; but accompanying with illegal acts but, production of goods/services in "illegal sector" is essentially illegal, let alone its distribution (table 1). These two sectors are called "underground sectors". By classifying these

sectors into two classes of “hidden” and “underground”, it always reminds us their two characters of being “legal” or “illegal”.

Table1. Behavioural types: Production, Transaction Price, Registration

Sector	Production	Transaction	Price	National account
Ordinary	Legal	Has	Has	Booked
Family	Legal	Hasn't	Hasn't	Not Booked
Unofficial	Legal	Has	Has	Not Booked
Abnormal	Legal (Violation)	Has (Violation)	Fuzzy	Booked
Illegal	Illegal	Illegal	Fuzzy	Not Booked

Regarding the size of “hidden” economic activities, some estimates might be reached; but because of the illegal nature of “underground” activities, size of this sector cannot be estimated easily. The existence of “unofficial sector” in “hidden economy” might be caused of the low-income level of the society. Decrease of income level - because of poverty increase - is a reason for increase of “underground” activities. This phenomenon, when poverty increases in the society, or real income decreases, will exacerbate, and increase progressively. Cross-section studies in various countries show that “underground” activities in low-income countries prevail among low-income level people as well as people with high-income levels; but in high-income level countries, underground activities are mostly seen among high-income people and low-income people are less facing this phenomenon. The more government’s agents become engaged in “underground” activities; improvement of economic and financial disciplines to overcome these activities will become more difficult. Especially when these activities are prevailed vastly, and judiciary and supervisory organizations are unclean, then the improvement of the society will become very difficult. On the other words, the infection has been institutionalized.

Money Laundering

The “money laundering” term was first used after the “Watergate” scandal.⁶ Money laundering is an illegal activity through which obtained incomes from illegal activities, become legitimate. On the other words, money laundering is referred to a set of activities carried out by people to legitimate the acquired illegal incomes.

The UN defines money laundering as the method by which criminals disguise the illegal origins of their wealth and protect their asset bases, to avoid the suspicion of law enforcement agencies and prevent leaving a trail of incriminating evidence.⁷ European Union defines money laundering as:

- a. Conversion or transfer of property⁸, knowing that such property is proceeds⁹, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in the commission of the predicate offence¹⁰ to evade the legal consequences of his actions;

⁶ Watergate: The Scandal That Brought Down Richard Nixon. <http://www.watergate.info/>

⁷ United Nations Office on Drugs and Crime.

<https://www.unodc.org/unodc/en/money-laundering/introduction.html?ref=menuse>

⁸ "Property" includes property of any description, whether corporeal or incorporeal, movable or immovable, and legal documents or instruments evidencing title to, or interest in such property. Article 1 of the Convention.

⁹ "Proceeds" means any economic advantage from criminal offences. Article 1 of the Convention.

¹⁰ "Predicate offence" means any criminal offence as a result of which proceeds were generated that may become the subject of an offence. Article 1 of the Convention.

- b. The concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of, property, knowing that such property is proceeds; and, subject to its constitutional principles and the basic concepts of its legal system;
- c. The acquisition, possession or use of property, knowing, at the time of receipt, that such property was proceeds;
- d. Participation in, association or conspiracy to commit, attempts to commit and aiding, abetting, facilitating and counselling the commission of any of the offences established in accordance with this article.¹¹

Money-laundering is a dynamic three-stage process that requires first, moving the funds from direct association with the crime; second, disguising the trail to foil pursuit; and third, making the money available to the criminal once again with the occupational and geographic origins hidden from view.¹² These three stages are usually called placement, layering and integration. At placement stage, movement of cash from its source occurs and by placing into circulation through financial institutions, casinos, bureau de change, shops, and other businesses in forms of currency smuggling, currency exchanges, securities brokers, bank complicity, blending of funds and asset purchase. At layering stage, launderer makes laundering difficult to uncover and detect for law enforcement authorities through conversion of cash into money instruments, buying material assets with cash then sell. At the stage of integration, laundered money moves into the economy mainly through banking system such as front companies and fake loans, foreign bank complicity, property dealing, fake invoices and appears to be normal business earnings. This is not similar to layering, in detection and identification.¹³ This scheme is shown by figure 1.

Money laundering is not just limited to transaction and money transfer. It has wider meaning and uses many elaborated and technical methods. All money-laundering activities are started by creation of income through illegal activities of a firm or an individual. These people and firms create dirty money through illegal methods beyond the laws and regulations. Then, the dirty money enters into banking system through banks, financial institutes or funds. By money transactions through intermediate institutes or dealers, the source of money will be covered up and money laundering obtains its goal.¹⁴

In the process of money laundering, the illegally obtained incomes are so mixed with the obtained incomes from legal business activities in such a way that cannot be distinguished. When criminal and illegal activities channels are open and unofficial sector of the economy is active, or the official sector is not sufficiently efficient or anti-money laundering laws and regulations are not effective, and law-evasion penalties are not considerable, the occurrence of money laundering is quite probable.

¹¹ Article 6 of the 1990 European Communities (EC) Convention on Laundering, Search, Seizure and Confiscation of the Proceeds from Crime. Strasbourg, 8.XI.1990.

<http://www.coe.int/en/web/conventions/full-list/-/conventions/rms/090000168007bd23>

¹² UNODC Global Programme against Money Laundering.

<http://www.imolin.org>

¹³ United Nations Office on Drugs and Crime, UNDOC.

<http://www.unodc.org/unodc/en/money-laundering/laundrycycle.html>

¹⁴ See:

- Peter Lilley, *Dirty Dealing: The Untold Truth about Global Money Laundering*, (2000), Kogan Page Limited, London.
- N.C. DeAssis; S.M. Yikona, *Financial Sector Development and Money Laundering*, (1996), Mission Press, Zambia.
- Guy Stessens, *Money Laundering*, (2000) Cambridge University Press, Cambridge.
- Peter Temple, *Essential Elements of the Prevention of Money Laundering*, (2001), Securities Institute Washington DC.
- William C Gilmore, *International Efforts to Combat Money Laundering*, (1992) Grotius Publications, Cambridge.
- Sandeep Savla, *Money Laundering and Financial Intermediaries*, (2001), Kluwer Academic Publishers, Dordrecht.

Money Laundering Process

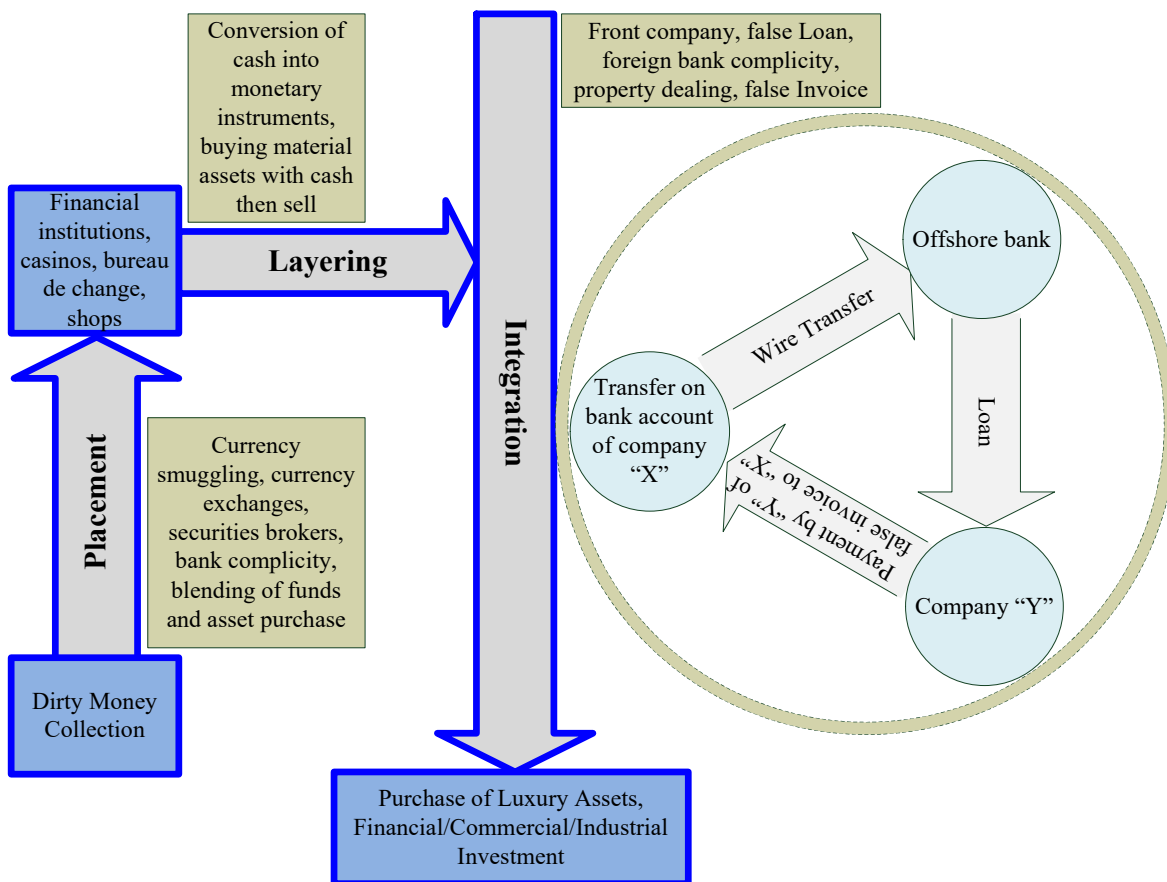


Figure 1

Illegal income in the underground economy is known as dirty money, and is classified into three groups of grey, black and bloody moneys. Grey money is obtained from underground channels that are far from law supervision. Incomes obtained from selling or producing products that are hidden from legal supervision and are evaded from tax payment are grey moneys. Black money is obtained from activities of commodity smuggling and other illegitimate wealth. Incomes obtained from commodity smuggling and participating in government transactions outside of official arrangements (i.e. tender) is included in black money. Bloody money is obtained from anti-human, treacherous activities, narcotics and so on.

Measuring the negative effects of money laundering is not easily possible. The guess estimate¹⁵ of global money laundering is between 2-5 percent of global gross products. This huge amount of money laundering has extensive negative effects on the countries' economies. Obviously, criminal activities are the causes of various financial corruptions and social crimes, and by destroying

¹⁵ International Monetary Fund. Enhancing Contributions to Combating Money Laundering: Policy Paper. Prepared by the staffs of the International Monetary Fund and the World Bank. Washington, D.C.: IMF, 2001.

<http://www.imf.org/external/np/ml/2001/eng/042601.htm>

World Bank website, deals primarily with macro-economic consequences of money laundering.

<http://www.worldbank.org/fandd/english/0397/articles/0110397.htm>

financial markets, initiate the bankruptcy of legal actors and decrease the economic efficiency and increase risk, instability, and unequal distribution of income and wealth in the economy, which all lead to decrease of economic growth, development and welfare. On the other side, spoil the validity and confidence of people in financial activities and prevail dishonesty and untruth in the society.

Value Added Tax

One of the important tax systems, which can be effective in money laundering detection, is Value Added Tax (VAT) system. If this system were fully implemented, will almost cover and supervise all financial transactions in the economy. This system is an auto-detective system and practically all taxpayers are tax-information collectors. In VAT, taxpayers are obliged to provide purchase invoices/factors and receipts to show their costs to tax office to reduce their tax burden, thus they will provide the necessary information for detecting transactions of other firms/individuals who have sold the goods/services to them. That is they are obliged to introduce the sellers of merchandise to the tax office to reduce their own tax levies. If VAT were fully implemented, it would create a complete information system of all commercial transactions and their inter-relationships in a country.

From economic point of view, value added is the difference between values of output and input for every transaction. In VAT system, each seller of goods/services adds the value added tax to the price and receives it from the client. In the chain of transactions, the first seller pays the tax to government and in each sequent phase, each seller pays the tax premium (after deduction of the tax that the previous seller had paid before) to government. VAT covers all activities and transactions of goods and services in the economy; therefore, it has an extended coverage over all transactions.¹⁶ On the other words, sum of value added of all economic transactions will be equal to gross national product. Because by deducting intermediate transactions (bought from other) from all transactions, the result will be equal to all wage payments, interest paid, rent and other payments to factors of production at national level (gross domestic income). In other words:

$$\begin{aligned} \text{Total value added} &= \text{Value of all transactions} - \text{Value of intermediate transactions} \\ &= \text{Total sale} \\ &= \text{Wages} + \text{Interest} + \text{Profit} + \text{Rent} + \text{Depreciation} \\ &= \text{GDP (Gross Domestic Product)} \end{aligned} \tag{1}$$

VAT is a kind of phasic sale tax, which purifies the purchase of intermediate goods and services from tax payments, equal to the amount of the tax paid by the previous seller in the previous stage. In other words, VAT is a kind of sale price tax that is burdened on final consumer through taxation over each phase of production as percentage of value added created in each phase. Therefore, detection and tracing of financial transaction is one of the characteristics of VAT. On the basis that total value added of all firms in production phases is defined as GDP, thus, VAT is taxation over domestic product or domestic income. In other words, VAT is levied on total sale of the firm and tax reduction for buying from other firms is given to latest firm. Therefore, applying VAT necessitates the listing of all sell/purchase invoices/factors and accounts at firm level; because, to obtain tax reduction, every firm should provide the tax office with the previous seller's paid-tax information. Therefore, encourages the buyer to force the seller to pay his tax. There are four methods of applying VAT, which are not explained here, but each of them has the above properties

¹⁶ Komijani, Akbar; Bijan Bidabad; Zahra Aabedi; Fariba F. Yahyai; Mohammed Eisazadeh; Fariba Shirkhani (1992). Analysis of value added tax, preliminary feasibility study for implementing in Iran. Ministry of Finance and Economic Affairs. Reprinted 1995.

that can be used for our money-laundering detection purposes.¹⁷

Transaction and Money

In conducting any transaction, two actions of delivery and money payment take place for all goods/services. This is a rule in every purchase-sale transaction. In addition, wage payment is also regarded as purchase of employee's services and money wage is paid in exchange of the rendered services of the employee. This enables us to put the flow of money payment against transaction of goods and services. The Fisher Quantity Theory of Money is the most important theory regarding the synchronized equilibrium of money and commodity transactions. He shows¹⁸ that there is always the following linear relationship between money and transaction:

$$\text{Velocity of money} \times \text{Amount of money} = \text{Amount of transacted commodity} \times \text{Commodity price} \quad (2)$$

In order to describe this theory, he uses a bascule (figure 2) and regarding the existence of mechanical relationship between the variables of the above equation, the above mathematical relationship is always established - *ceteris paribus* - and similar to the physical rule of balance, it is a scientific law in economics.¹⁹

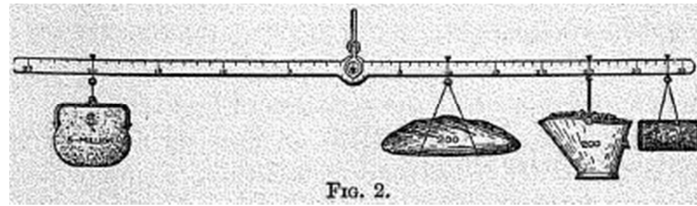


FIG. 2.
Reprinted: Irving Fisher, (1911), The Purchasing Power of Money.
Figure 2

In the above equilibrium, the barter transactions are not included; that is, it does not show the exchange of goods/services with other goods/services. Loan donation (termed-transaction of money with money) is also excluded from this equilibrium. In loan transaction, present financial payment is transacted with future financial receipts with a surplus.

Consider two square matrices of **T** and **P** with dimensions of $n \times n$ in which n is the number of transactors in the economy:

$$\mathbf{T} = \begin{bmatrix} t_{11} & \cdots & t_{1n} \\ \vdots & \ddots & \vdots \\ t_{n1} & \cdots & t_{nn} \end{bmatrix} = \mathbf{P} = \begin{bmatrix} p_{11} & \cdots & p_{1n} \\ \vdots & \ddots & \vdots \\ p_{n1} & \cdots & p_{nn} \end{bmatrix} \quad (3)$$

¹⁷ For more information see: A. A Tait, Value Added Tax, International Practice, and. Problems, IMF, Washington DC, 1988; P. 219.

Richard W. Lindholm, The Value Added Tax, A Short Review of the Literature, Journal of Economic Literature, December 1970.

¹⁸ Fisher, Irving, (1911). The Purchasing Power of Money: Its Determination and Relation to Credit, Interest, and Crises. Reprints of Economic Classics, New York.

¹⁹ Mahnaz Rabiei, (2006). "Relation between interest rate and exchange rate in the economy of Iran." PhD dissertation, guided by Bijan Bidabad, Islamic Azad University, Science and Research center, Tehran.

Bijan Bidabad, Mahnaz Rabiei, (2009). "Relation between interest rate and exchange rate in the economy of Iran" (revaluation and development of Quantity Theory of Money). Economic Research Magazine, No. 9, pp. 67-96.

<http://www.bidabad.ir/doc/nerkhe-arz-bahreh-1.pdf>

Each item of t_{ij} in matrix \mathbf{T} shows the amount of goods/services sold by person i to person j . Also, each item p_{ij} in the \mathbf{P} matrix shows the amount of money paid from the i^{th} person to the j^{th} . Theoretically, for each purchase, there should be equal amount of payment and transaction. That is:

$$p_{ij} = t_{ij} \quad (4)$$

If we sum up two sides of the equation (4) over all i and j , we will have:

$$t = \sum_{i=1}^n \sum_{j=1}^n t_{ij} = \sum_{i=1}^n \sum_{j=1}^n p_{ji} = p \quad (5)$$

The t and p scalars are total amount of transaction and total payments in the economy respectively, which must be equal theoretically.

Money Laundering Detection System (MLD)

Money-laundering detection is more possible by using Information and Communication Technology (ICT). By comparing tax information and banking information related to any transaction, we can identify the transactors of any transactions and the transferred money owners. It is obvious that at preliminary stages, application of a new technology faces with difficulties, but by development of the system, its ambiguities will decrease gradually. This is also the case for MLD.

Profit-based and non-profit-based (such as philanthropic/charity payments/gifts) financial and commercial activities are done by one of the following types:

1. Exchange of money with goods/services (transaction)
2. Exchange of goods/services with goods/services (barter exchange)
3. Exchange money with money (loan)
4. Money transfer payment
5. Transfer of goods/services (gift)
6. Money relocation
7. Goods relocation

Many of the above items are financially profitable and therefore, are taxable. On the other hand, the above transactions need the process of cash/termed money payment and receipt. Thus, according to every transaction of goods/services, there should be one receipt and one payment. If these transactions were done through the banking system and financial institutions, there would be the two money and commodity information items that could be compared. If they are not compatible, there will be suspicion of probable money laundering.

That is in this case, generally, one side of money laundering occurs in banking system. On the other side, tax authority monitors transactions and income of all (real/legal) persons. MLD provides the structural and electronic infrastructure and conditions for comparing tax information and banking information.

Obviously, occurrences of small financial and commercial transactions in the economy are inevitable. Therefore, we have to drop many small transactions from the survey for the sake of proper performance of MLD. In this regard, classification of transactions is very important. Classification method should be designed according to the behavioural customs of individuals in the economy. In this connection, appropriate tools and transaction instruments such as electronic cards, coins, banknotes and marked cheques should be defined commensurate to this classification.

Similar to domestic transactions, imports and exports have two sides of transaction and payment. These items are included in Current Account section of Balance of Payments Accounts. Transfer payments and capital inflow and outflow, which are reflected in Capital Account of Balance of Payments, can also be traced if they are carried out through banking system. Commercial rules and documents of every foreign trade activity such as purchase/sell invoices, letter of credit (LC), Certificate and Declaration of Origin, goods and freight declarations, cargo declaration, bill of landing, commodity inspection documents, custom supervision and releasing documents etc. can help in tracing foreign transactions as well as domestic transactions.

What could be a little more ambiguous is the transaction of foreign exchange between domiciles of a country with foreigners. Suppose that the first person pays domestic money to the second person in the domestic country, so that the third person in a foreign country pays foreign exchange to the fourth person who is the counterpart of the first person. Even though this action is a barter exchange, it can be traced if the first payment from the first person to the second is done through banking system.

Smuggling has a wide spectrum and the main flow of each kind of smuggling goes through its special channel. If the parties do not do their financial operations through the banking system; since, the tax authority has specific supervision over wholesale transactions and transportation, then MLD can trace smuggling.

Money Laundering Detection (MLD) system can lead to financial efficiency and transparency of the economy and practically provide the basis for stabilization, economic, ethical and confidence growth and thereof, enriches social capital of the country. Generally, MLD can detect the following cases:

1. Money-laundering in different forms
2. Commodity smuggling
3. Financial crimes
4. Other crimes
5. Tax evasion
6. Collusion of taxpayer and tax auditor
7. Corruption
8. Drug trafficking
9. Firearms trade
10. Fraudulent medicines
11. Human trafficking and migrant smuggling
12. Organized crime
13. Terrorism

Moreover, it

1. Broadens tax base
2. Reduces tax rate
3. Reduces money multiplier
4. Stabilizes the economy
5. Increases the confidence in the society
6. Promotes the economic development, production and employment growth
7. Increases the welfare of the society

Money Laundering Detection Organization

To implement MLD, a special organization should be established in Ministry of Finance and Economic Affairs to receive and process the banking and tax information. Every contract should have a unique serial number in order to be well traced. In this way, comparison of banking and tax information will be done more easily. Issuance of this serial number can be available for public through a web site designed and installed by Ministry of Finance.

The functions of MLD organization are:

1. Collecting tax information of taxpayers. By mechanizing tax information system, all taxpayers' information will be collected and integrated in the Ministry of Finance and Economic Affairs in a Relational Database.
2. Collecting transaction information. All persons will be obliged to register their contracts and transactions at a portal provided by the Ministry of Finance and Economic Affairs through internet and according to new laws and regulations.
3. Collecting people's banking information. All banks, financial and credit institutes and funds will be obliged to provide information about payments and receipts, and money transactions of the accounts of their clients and their parties to MLD organization through mechanized internet channels and according to new laws and regulations. Central bank will supervise on this issue.
4. Compiling regulation for MLD system. Ministry of Finance and Economic Affairs with Central Bank will compile the necessary regulations concerning MLD system. The necessary regulations for establishment of necessary coordination for implementing MLD system should be done at this stage.
5. Comparing individual's/companies' information with their transactions. MLD organization provides the necessary hardware and software for mechanized comparison of information.
6. Compiling necessary documents for legal prosecution of violators. Necessary methods for legal prosecution of violators should be compiled. Ministry of Justice will organize the necessary personnel for investigating the violation files.
7. Designing, developing and improving necessary IT-based information and communication systems for MLD system. Development and improvement of MLD software is one of the tasks of this organization.
8. Coordination with other supervising and executive institutions. MLD organization coordinates other executive and supervisory organizations to cooperate with MLD organization in direction of MLD goals and according to its legal duties.

Moreover, MLD System Necessitates:

1. Supervision of Central Bank over financial, credit institutes and funds.
2. Uniformization and decrease of all tax rates to 10% for all transactions.
3. Correct and full coverage of computerized implementation of VAT.
4. Promotion of electronic transactions.
5. Creation of necessary modules and reporting systems for MLD organization.
6. Decreasing the amount of banknotes and replacing it with electronic money.
7. Every activist in his transaction should use his own unique identity number (national number for real persons or national identity for legal entities).
8. Every person should have only a unique Customer Identification Number/File (CIF) in banking system.
9. Every person should use his unique CIF in his transactions.
10. All transaction documents, cheques, drafts, promissory notes and contracts should have a unique serial number.

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