



AN ANALYSIS OF REPUGNANT TRANSACTIONS AND BLACK MARKETS

RESEARCH REPORT

THE ECONOMICS SOCIETY, SRCC

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1. INTRODUCTION



Repugnant transactions are defined as the realm of market transactions that are considered immoral or callous, by a major chunk of society, while few other people want to engage in such transactions. Nobel laureate Alvin Roth broadly calls a transaction repugnant “if some people want to engage in it, and others don’t think they should be allowed to”. [1]

People’s views and laws about such transactions differ from country to country and, in some cases, even from state to state. Repugnance has been seen in many areas, including prostitution, escort services, and the purchase and sale of kidneys and other organs. Life insurance was initially considered repugnant as setting a price on one’s life, and then betting on one’s date of death was considered immoral. Some transactions have been defined as “taboo tradeoffs”, because people are unwilling or unable to compare the relative importance of secular values, such as money, time, and convenience, with values that have transcendent significance, such as honour, love, and justice[2].

This may lead people to oppose certain transactions between third parties, and also to refrain themselves from taking part in certain markets. And, adding money to transactions may not be a good way of designing markets for such transactions. For example, people who have donated for altruistic reasons may become unwilling to do so if money is added to the equation—that is, money can expunge existing intrinsic motivations. When these repugnant transactions are not allowed in the economy by the government, it leads to the emergence of the Black Market, which shall be discussed in the next section.

2. THE EMERGENCE OF BLACK MARKETS

The black market or the shadow economy is defined as a platform, either physical or virtual, where people come about to exchange goods and services that are prohibited by the governments. What makes these markets “black” can either be the illegal nature of the goods and services, the illegal nature of transactions or both.

The underground economy can genuinely impact entire nations around the globe. Not only do the black market activities come with a significant human cost but the economic forces involved can easily make the difference between a successful economy, and a struggling economy.

DID YOU KNOW?

India is quickly becoming one of the largest gold smuggling hubs in the entire world. It is estimated that over 200-250 tonnes of gold is smuggled into India every year and that is about one-fourth of the gold consumed in India, the largest jewellery manufacturing hub in the world. The channel of the illegal export of gold from the Great Lakes region of Africa through the United Arab Emirates (UAE), from where most of the gold is smuggled into India. The growth of the smuggled amount has been staggering: from some five tonnes per year in 2007 to more than 22 tonnes per year by 2012. This illicit trade represented over \$1 billion in value and at least \$20 million in lost tax revenue to governments[3].





Black markets, also called shadow markets, skew economic information, as transactions are unrecorded. Black markets additionally arise when individuals don't want to pay taxes on the transactions for legal or prohibited merchandise or services. Some black markets exist only because individuals do not understand there are laws that they are not following, like bartering and not covering the taxable value of the transactions, or hiring a daily house servant or babysitter, but failing to pay employment taxes.

- *Licensure-Driven Black Market Conditions*

The licensing hurdles that governments impose on various occupations cause some employees to enter the black market because they do not want or cannot afford to invest the time and money to get the specified licenses. For instance, in New York City, one should purchase a license known as a medallion so as to legally operate a taxi business. These medallions cost hundreds of thousands of dollars, making them prohibitively costly for many entrepreneurs. As a result, some individuals might prefer to operate black-market taxis without a license – at least till they're caught.[4]

- *Trade-Driven Black Market Conditions*

People seldom indulge in illegal activities because they do not have abilities to work legally and are in need of money. Such situations arise when illegal immigrants obtain jobs, students abroad obtain a job without a visa or when children work in violation of minimum age requirements.[5]

- *Regulations-Driven Black Market Conditions*

Black markets can also appear in times of price ceiling. This secondary market is a black market. Black markets can also occur through government overregulation. A perfect example can be Cuba, where rationing made it difficult to purchase the desired quantities of even basic products such as cooking oil.[6]

- *Economy-Driven Black Market Conditions*

Black markets can happen due to high unemployment. When people do not find jobs they turn to illegal ways of earning money. These jobs can be as low as cleaning neighbour's toilets or as serious as selling drugs.



3. IMPORTANCE OF BLACK MARKET ESTIMATION

A flourishing black economy can create a hole in the correct estimation of GDP, National Income, official labour force, Balance of Payment (BOP) and the unemployment rate of the country. Such type of underestimation severely impacts the efficiency in decision making with regards to public policy. Unreliable data of such type will make the policies superficial and not fulfil their objectives.[7]

Activities that are conducted in a black economy are concealed from the legal system due to the following plausible reasons:

1. To escape income tax and disclosure of income;
2. To avoid the payment of social security contributions;
3. To avoid the realisation of legal commitments like minimum wages, maximum hours, safety or health standards, etc;

Tax evasion leads to lower tax revenue for the government. This further instigates the government to raise tax rates which worsens the situation. People engaging in such transactions evade the official economy and taxation. The money earned through black markets is spent in the official markets, thereby bringing such proceeds in circulation in the economy.

The System of National Accounts 2008 (SNA 2008) is the latest version of the international statistical standard for national accounts. [8] It recommends that illegal activities and the shadow economy should be considered while estimating the output of the economy. According to it, illegal activities can be productive in an economic sense. They may include the manufacture and distribution of narcotics, illegal transportation in the form of smuggling of goods and of people, and services such as prostitution. [9]

In 2017, in the United States of America, the level of nominal GDP rose by more than 1 per cent when shadow activities were included in it. This was done by U.S. National Income and Product Accounts (NIPA).



Estimation of Shadow economy:

Estimating the shadow economy is a difficult task. Due to the underground nature of the activities performed under the black economy, measuring the size and volume of them is not easy. However, there are primarily two methods of estimating such an economy:

1) Direct Approach:

This approach includes various methodologies to estimate the black economy along with their critical evaluation. The discrepancy method involves firstly classifying the activities under the black economy into various subheads like hidden activities, illegal production, informal sector production, production by households for self-consumption, miscellaneous underground activities. A procedure was carried out using various data sources and surveys to come to conclusions. The report shows that not much work has been done on illegal activities and there has been an increasing trend in the number of shadow activities. The survey technique approach helps to get information about the size of the black markets. The method is based on people's perceptions, opinions about the shadow economy and actual participation in such activities. A survey of company managers was done by Putnins and Sauka (2015) and Reilly and Krstic (2017). They considered the ill communicated income and wages as a percentage of GDP. This survey is based upon the assumption that company people know the most about the misreported business, income and wages. They used special systems to extract maximum truthfulness.

2) Indirect Approach

The indirect approach, also known as the ‘indicator’ approach is based upon the following areas[10]:

- **Difference between national expenditures and income statistics**

People engaged in illegal activities might conceal their incomes to evade taxes, however, they cannot hide their expenditures. Thus, the difference between national income and national expenditure estimates could give us the size of the shadow economy.

- **The discrepancy between the official and actual labour force**

If the total labour force participation is assumed to be constant, a decline in official labour force participation can be interpreted as an increase in the significance of the shadow economy.

- **“Electricity consumption” approach of Kauffman and Kaliberda (1996)**

Kaufmann and Kaliberda (1996) propagate the idea that electricity consumption can be used to figure out all economic activities.

Using findings that indicate that electricity-overall GDP elasticity is near to one, these authors recommend using the distinction between the expansion of electricity consumption and growth of official GDP as a proxy for the expansion of the shadow economy.

- **“Currency demand” method of Cagan (1958) and Tanzi (1983)**

This method is based on the assumption that all the transactions in a black economy happen through cash. Therefore, an increase in the size of the shadow economy will increase the demand for currency.

To know this demand coming from the shadow economy, the authors suggest a time series approach. This establishes currency demand as a function of conventional factors like the evolution of income, payment practices and interest rates, and factors causing people to work in the shadow economy, like the direct and indirect tax burden, government regulation and the complexity of the tax system.

4. EXTERNALITIES IN REPUGNANT TRANSACTIONS

Externalities in macroeconomics refer to consequences of actions that may either be beneficial or harmful for certain stakeholders. The interplay between repugnance and externalities was explored in Nobel Prize winner Alvin Roth's 2007 paper[11] where he concluded that externalities don't necessarily have a bearing on repugnance. Roth takes the example of how repugnance for pornography and prostitution stems from repulsion to the idea of commercialising sex. The idea hinges on the belief that the public believes that certain activities which ordinarily exist in domestic spheres shouldn't enter the marketplace. From a policy standpoint, the incorporation of prostitution and pornography into formal markets entails two major negative externalities: the impact of the trade on the quality of life in the neighbourhoods where the marketplace for these activities is located and the fact that consent of both the parties may not be willing in all cases. This discourages the government from including trade into the formal economy and creates a parallel market.

Countering the same line of thought, Roth says that even with minimal externalities, repugnance can and does exist. The ban on usage of profane language is often a measure to curb down on an activity with minimal consequences but the rationale is beyond externalities and centred around limiting private consumption of goods in the public.



5. ECONOMIC SANCTIONS AND BLACK MARKETS

The nature of black markets is not restricted to domestic markets but takes the form of organized international networks as well. On global platforms, countries and organizations such as the United Nations have resorted to economic sanctions in order to crack down on these networks. Economic Sanctions are "deliberate, government withdrawal, or threat of withdrawal, of customary trade or financial relations" according to Hufbauer et al (2007). They can be majorly divided into three categories: import, export, and financial sanctions. Export sanctions constrict the trade of goods to the target (the country on which sanctions are imposed) whereas import sanctions constrict the flow of goods into the sender (the country which imposes the sanctions) from the target. Financial sanctions on the other side freeze or cut off financial aid or assets.

Black Markets function on two primary bases: currency-based black market based on Bhattacharyya (1990), Bhattacharyya and Ghose (1998), Feige (1979), Mirus et al (1994) and Tanzi (1983) (estimation of the size of the market is based on the idea that black markets use only currency; measures only monetary transactions such as the trade of stolen goods, smuggling, or wages from unreported work) and electricity approach based on Hanousek and Palda (2004), Kaufmann and Kaliberda (1996), Lacko (1999) and Lacko (2000) (estimation in this method is based on the idea that black markets are using electricity and hence the total volume, in both official and black markets, is depicted by the total electricity consumption).

The United States of America had imposed currency sanctions on Sudan for years which led to a dearth of US dollars in the Sudanese currency market. The sanctions restricted the usage of US currency and products in Sudan. This effectively stopped all trade relations between the two countries. Over time, a sophisticated black market of currency developed and has sustained even after the revocation of the sanctions. Effective from 12 October 2017, the US revoked the sanctions placed under Executive Order 13067 and 13412.[12] Post the same, the inflow of US currency was expected into the Sudanese foreign exchange markets. While the Central Bank maintained the exchange rate at 6.7 Sudanese Pound per USD, the rate in the parallel markets floated around 23.5 Sudanese Pound per USD.[13] The learnings from Sudan show that prolonged sanctions regime leads to the creation of sophisticated and organised black markets for the sanctioned items. These markets crystallise into the economies of these countries.

Petrescue (2011) in preliminary research found that there exists evidence to show that black markets expand in size with sanctioning regimes. Export sanctions showed an increasing trend on currency-based black markets and financial sanctions expanded currency-based black market activity and reduced electricity-based black market activity.

Black Market Exchange Rate :

It is an exchange rate for a currency that varies from the official exchange rate set by a government. The black market exchange rate occurs in a situation when the official rate bears little or no relationship to the currency's actual value. Using the black market exchange rate can be a punishable offence in the country issuing the affected currency.

Reasons for the same are as follows:

1. A government makes it tough or unlawful for its voters to possess much or any foreign currency.
2. The government taxes exchanging the local currency with different currencies, either in one direction or both (e.g. foreigners are taxed to buy local currency, or residents are taxed to purchase foreign currency).
3. The currency is counterfeit.
4. The currency has been acquired illicitly and needs to be laundered before the money may be used. [14]

A government could formally set the rate of exchange of its currency with that of different currencies, typically the U.S. dollar. Those in possession of the "harder" currency, as an example, expatriate employees, may be ready to use the black market local the native currency at higher exchange rates than they can get officially.[15]

More recently cryptocurrencies such as Bitcoin have been used as a medium of exchange in black market transactions.

6. SOCIETAL CONCERNS AND LEGAL FRAMEWORK

The Impact of bans on repugnant transactions in India:

A very common method to control undesired economic transactions is to ban them. However, a ban is not the most efficient legal constraint each time. An example of an ineffective ban is the ban on alcohol in Gujarat. Despite this legal imposition, liquor is still consumed in the state. This happens through a flourishing black market where consumers pay higher amounts to procure the said commodity. [16]

Thus, policymakers need to think of implementing a ban after considering its utility. A harsher punishment would not automatically reduce violations of law. Hence, if we take this concept and apply it to repugnant transactions, the conclusion arrives that certain transactions can be eliminated by a simple yet stringent law like a ban and some may not be eliminated at all by such a technique. This makes it important to have a different legal approach.

For example, when a new synthetic drug enters the market, it takes time for a law to ban it to come into existence. Making the number of users it attracts before it is banned is an important factor in stopping its market growth. Therefore, prompt regulation may be more effective than consequential legality after the market of the said product is well established.

DID YOU KNOW?

One of Afghanistan's largest exports is Opium. The nation's opium production is estimated at \$1.4 billion. This has taken the form of a serious crisis wherein men, women and children are addicted to the drug. Nearly 100,000 children are consumers of these substances, as per a BBC report. This illicit trade is the primary source of revenue for the Taliban who rely on the population of Afghanistan to be addicted to opium to earn their bread. The US Army has spent about \$1.5 million a day since 2001 to fight the opium war but to no avail.[17]



Thus, if the extent of repugnancy is intense, a harsh punishment would not work if it cannot be implemented within the community's social fabric. On the other hand, if the repugnancy is low and the punishment is low, the maximum opposition of people who wish to stop the transaction may fail. So while making a law, it is important to look at the real effect it may have rather than just having a harsh punishment.

Social Concerns:

Many repugnant transactions are illegal. If the repugnance only affected the well being of people then the obstacle to the market design would be the disagreements. As some people want to engage in repugnant transactions and some find it distasteful, the net cost of these transactions on society is the intensity of the disagreements.

The disagreement of people arises from their morals. If an economic transaction is beneficial to the parties involved, then why do third parties look down upon such transactions? The answer to the ``why” does not explain the illegality but justifies the legal stipulations which prohibit such markets. This is where these morals come into the picture. They outweigh the importance of economic efficiency, hence, preventing such economic exchanges. In the 1980s, a list was developed prohibiting certain transactions. such as slavery, purchase of civil rights, purchase of love, salvation or any other transaction which makes the other party too susceptible.[18]

A recent discussion around this topic is on conditions that make the market normatively offensive and should be stopped. As these conditions can have individually or socially harmful consequences on one hand; on the other, it discusses the properties of agents in the markets. An example of an individually harmful market is when the prices in the food market become so high that it leads to the malnutrition of one.

The socially harmful market undermines the market or capacities of individuals to claim their rights or participate in societies. Keeping all this in mind people find some transactions so socially unjustifiable that they become ‘repugnant’ transactions and sometimes become illegal.

The quality of goods like clothes, watches or shoes may not have severe side effects on consumers purchasing in the black market. However, in repugnant transactions of aircraft parts or drugs, the quality may have life-altering impacts on consumers.

The customers might suffer huge financial losses in the case of counterfeit art products. In the case of stolen goods, the buyer may face serious legal liabilities while the seller escapes.

The most commonly discussed repugnant transaction of a kidney transplant can have many adverse effects on the health of the buyer if the medical requirements are not fulfilled. The societal concerns of such transactions cannot be invalidated based on their economic efficiency and satisfaction power.

Legal Framework:

Moral justifications are not the only criteria to determine the legality or illegality of a market. Economic consideration is at the forefront of repugnant or illegal transactions. However, if something like the sale of counterfeit or stolen products is legalised then it will not only give an incentive to steal but also violates the right to property. Banning transactions of counterfeits not only protects the intellectual property or trademark rights of the original owner but also secures the working of the monetary system. The legal regulations in the production process protect certain values like a ban on child labour to protect child rights or environmental protection laws. It also ensures there is asymmetric market information and minimal loss due to external factors. From the perspective of the consumers, the legislation seeks to prevent the development of anonymous mass markets. Looking at the example of black markets of medicines, the aim is to protect the consumer from fake and consequently hazardous drugs.



7. CASE STUDY: KIDNEY TRAFFICKING ACROSS NEPAL-INDIA

Most goods and services that are demanded, can also be supplied. It is possible that the consumption of certain goods or services may be considered unethical or even harmful by some sections of the society, for the society as a whole. Regardless, even if some choose to demand them, suppliers eventually find a way to provide them, legally or illegally. Given their short supply, less competition and huge margin prospects, these are all the more incentives for at least someone to devise a clever supply chain. The issue deepens when there are no bounds to how much this whole supply chain could be infested with malicious activities through a complex network of syndicates. It gets further complicated that these syndicates could be running multinational operations which makes it very difficult to track or eliminate them. Furthermore, sometimes the decision-makers of the state tend to have a vested interest in the continuity of these operations which means they go on uninterrupted.

In a simpler analogy, every action has a reaction: banning the sale of certain products considered unethical results in parallel channels of supply for that commodity which could potentially be of substandard quality, harming the consumer and also resulting in an entire supply chain of wrongful activities that is shielded from law and enforcement. As readers of economics, we must ask: is the benefit of outlawing a product in the name of repugnance practically worth its real cost on society?

We may explore the pros and cons of the issue through a case study:

In India, the law that governs organ donation is The Transplantation of Human Organs Act (THOA), 1994. So according to the law, what could be the sources for obtaining organs in India? The answer is either the deceased or the living. Amongst the deceased sources, the primary is brain-stem dead people (for example, dead by road accidents) who can donate the functional organs. The living sources include near relative donors (mother, father, son, daughter, brother, sister, spouse etc) and those who choose to donate 'out of affection or attachment and approved by the authority. A later amendment in 2011 also mentions a clause for 'swap donation' which shall be discussed later in the case study.

According to Dr Sunil Shroff, trustee of an NGO working on organ donation, approximately 200,000 people require a kidney transplant in India every year because of medical conditions such as renal diseases especially kidney failures. In fact, on the demand side, only 15000 can afford quality treatment and just 7000 people can afford a transplant! Yet, finding a matching donor for those who can afford it is extremely difficult because of the constraints imposed by the law.

That the commercial market for buying and selling of kidneys should be banned is a normative decision that the society has taken; there is a certain repugnance about the whole issue: Proponents of the ban put forward the view that putting a price on the human body is against a man's dignity. Moreover, there could be a potential slippery slope that soon, kidneys might become a 'commodity' that could be traded for other benefits and used as collateral, guarantee etc. On the contrary, people rightly argue that a person who may be battling life and death, and therefore, would be in urgent need of a kidney, will not really worry about the implications of his choices on society. That they shall do whatever it takes to procure a kidney is, well within their rights to protect their own life.

If there are no formal means to source a kidney, then people are going to resort to questionable channels to obtain them. This has given rise to an entire organ trafficking industry. India is located in South Asia, one of the poorer and less educated regions of the world. And unlike India, some of its neighbours do not have the resources for proper law and enforcement. One of the infamous regions for such activities is Hokse aka the Kidney Valley in Nepal. Syndicates and anti-social elements are known to lure the uneducated there to sell their kidney in return for a fixed amount. Since these people do not really understand the implications of their decisions and also do not realise they have no access to postoperative medical care, most give in willingly. They are then put on a flight to India to hospitals that have the necessary infrastructure, the elements forge documents to show the donor is a relative of the patient and the transplant is carried out. Many-a-times, the syndicates do not keep their end of the promise and rather threaten the poor to not speak out. A lot of livelihoods and families have been destroyed in this sad scheme of things.

It is not as if a person can't live with one kidney, although it is imperative to have access to the necessary palliative care. But given once the kidney is extracted, the donor is nothing but a liability for syndicates and thus, is usually not taken care of. This entire supply chain is shielded from the law given its illegal nature. It is important to observe that the ban on the sale of kidneys has not really met its objective. An alternative parallel black market has emerged to cater to the demand and it's making things worse.

Some would argue that having a free-market mechanism to allocate kidneys would bring efficiency and transparency. This isn't a good solution, since it is regarded as repugnant.

A very interesting solution to this dilemma that market-design economist and Nobel laureate Dr Alvin Roth has pioneered, is the kidney exchange program. In his own words,

“The simplest form of kidney exchange, a patient with a willing donor who has an incompatible blood type (or who is incompatible for another reason) can exchange a kidney with another such incompatible patient-donor pair. (That is, the pairs are matched so that the donor from one pair is compatible with the patient from the other, and each patient receives a kidney from the other patient’s donor.) This sort of “in-kind” exchange has gained acceptance in the transplant community.” [11]

This mechanism adjusts for the repugnance constraint that people have, by eliminating the requirement for monetary transactions in kidney exchange and yet creates a delivery mechanism within the jurisdiction of law and society. It makes the alternative black market redundant and along with it, all nefarious activities that take place in the supply chain. It is this idea in the terminology of ‘swap donation’ that was amended into the THOA act back in 2011. This definitely is a major step in the right direction and welcome.

However, things are still not rosy as a major roadblock in its implementation is the vested interests that people in power might have in the continued operations of these anti-social activities. Also, there hasn't been significant leverage of smart technology so far in creating a digital, pervasive and quick-paced swap exchange platform-cum-database.

The fact of the matter is that to date, the trafficking activities have continued and unless innovative ideas to overcome repugnance and eliminate parallel markets are not taken up and implemented, those with inadequate access to information and resources shall continue to suffer.



8. CONCLUSION

Repugnance can be a real constraint on markets. The continuance of repugnance in many markets doesn't mean that economists should give up on the integral educational role of pointing to costs and benefits.

Repugnance in a transaction may stem from the fact or perception that the transaction is exploitative. If so, policy interventions could aim to protect those who are at risk of being exploited. For instance, selling kidneys on the free market is considered exploitative by most; it is also prohibited in most countries. One way to address this concern is to redesign the market such that kidney donations can be swapped between compatible donors (typically patients' friends or family members whose kidney is incompatible with their loved one). These paired donations are not perceived as exploitative and have been instrumental.[19]

Being aware of the sources of repugnance can only help make such discussions more productive because it can help separate the issues that are fundamentally empirical from areas of disagreement that are not primarily empirical. Although economists see only a few tradeoffs as fully taboo, non-economists usually decline to debate tradeoffs the least bit, preferring to specialize in the repugnance of transactions like organ sales.

Advocates of well-regulated markets for organ transplants may additionally address the priority that markets are exhausting to manage absolutely and some repulsive transactions would slip through regulative barriers. Opponents could better engage the question of why a carefully regulated market with some inevitable abuses might not possibly, nevertheless, be an improvement over current conditions.



The discussion itself may change some views on repugnance, in some cases by reducing visceral repugnance, and in others by refining it.

The questions, however, are- what kinds of solutions are feasible and desirable, how to get from here to there, on what time scale, with what costs, to whom, and what to do in the meantime?

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