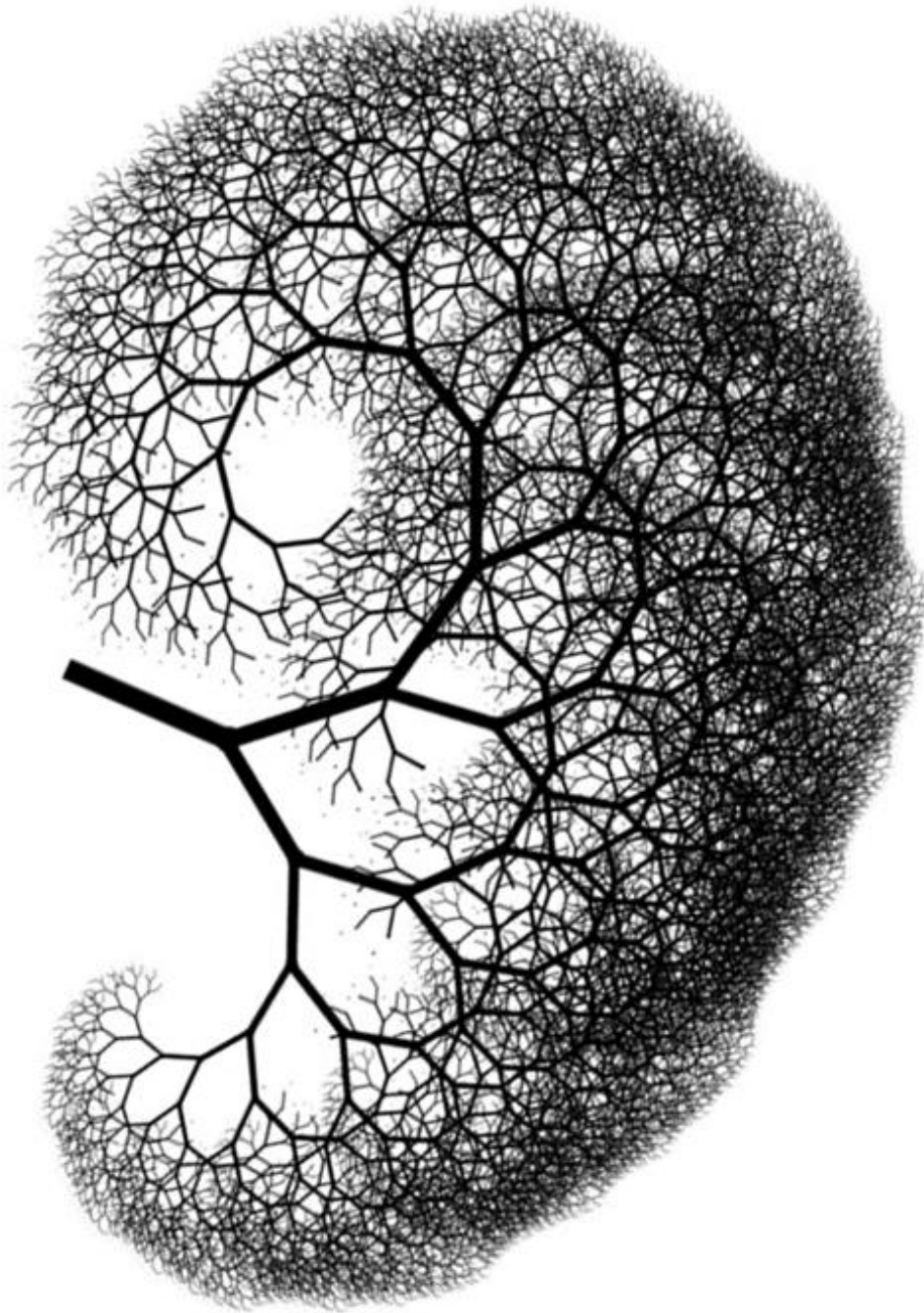


An ethical assessment of kidney markets

current harms and a monopsony market proposal



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- 1. Introduction -

In 2007, the Dutch public broadcasting association BNN announced that on June 1st, it would air a live show where candidates, all in need of a donor kidney, would compete for the favour of a living donor who would give away one of her kidneys. The announced show caused a lot of consternation and disapproving reactions, until it was revealed to be a hoax. The show drew attention to the severe shortage of donor kidneys (as was its purpose), which unfortunately persists up to this very moment.

In between a host of proposed solutions, establishing a formal market in kidneys has been a recurrent proposal. This thesis will offer an ethical assessment of such a market. To do so the current situation with kidney transplantation, cadaver donation, living donation and a substantive black market are presented followed by the introduction and discussion of a framework which Debra Satz (2010) developed to assess the so-called noxiousness of individual markets. After sketching a proposal for a regulated monopsony kidney market, the (ethical) implications of such a market and the harms of the current prohibition and black market are touched upon. Through the application of Satz's framework I will discuss the various ways in which a black, free or weakly regulated market might contain undesirable elements up to the point of noxiousness. But ultimately I hope to show the way in which policy and provisions can curb a market to such an extent that the regulated monopsony market seems to become desirable over the current situation of donor shortages and black market harms.

This thesis and the assessment of the arguments in favour and against a kidney market touches upon issues I believe are important for anyone interested in the ethics and policy surrounding kidney donation. Trying to balance current harms and potential objections is challenging but important. Moreover, the framework introduced can equally well be applied to other markets to assess the potentially damaging effects they can bring about. Such an assessment seems essential input to policy decisions. But rather than simply banning markets altogether, this thesis shows that first of all they have to be compared to the alternatives and secondly, that specific regulation and provisions might harness their capacity for efficient allocation while curbing potentially harmful effects.

- 2. Background Conditions of a Potential Kidney Market -

2.1 Dialysis and Transplantation Compared

Kidneys filter waste from the blood and regulate the bodily acid-base and salt and water balance. As such, they play a vital role in the functioning of the body. Currently there is no drug or treatment available that cures renal failure (i.e. kidney failure). Before the development of immunosuppressive drugs in the 1970s, dialysis was the only treatment available. With the introduction of these drugs which cause rejection rates to drop and survival rates after a kidney transplant to increase significantly (The Canadian Multicentre Transplant Study Group 1983), transplantation suddenly became a viable alternative.

A single transplanted kidney can, if transplanted successfully, provide all the functions that are required. Dialysis consists of the inconvenience of having a patient's blood run through an external filter for several hours, multiple days a week. The patients are often fatigued and impeded in daily life. Moreover, long-term mortality rates are about 68 per cent lower for transplant recipients compared to non-recipients on prolonged dialysis. This is after correcting for factors such as baseline health, race and age (Wolfe et al. 1999). As such, transplantation is often preferred to dialysis.

2.2 Cadaver Kidney Transplantation and Waiting Lists

Unfortunately the supply of cadaver kidneys¹ is not sufficient since not everyone is willing to part with their organs after death. Moreover, most cadaver organs are not suitable for transplantation due to, for example, illness of the donor or damage to the organ and so waiting lists ensue. For every transplant there are roughly two patients waiting for a donor kidney in Spain up to even five patients in the United States (Becker and Elias 2007, 7). Moreover, the donor shortage is not likely to decrease anytime soon.²

These waiting lists have a negative impact on the mortality rate of renal failure patients.³ Global rates of decease are unavailable to the best of my knowledge but in the United States alone 5,139 patients died in 2011 while waiting for a suitable kidney (Matas et al. 2013, fig. 1.8). Besides this

¹ A cadaver is a medical and legal term for a deceased body.

² One of the main sources of donors is accidents (Rosen, Vining and Weimer 2011, 720), but as car safety is increasing, this important part of the potential pool of donors will most likely continue to decrease. Additionally, the rate of obesity is increasing worldwide and even rising with an ever faster rate for children (James, Rigby and Leach 2004). This means that not only will the number of eligible donors decrease but also that the number of patients will keep on increasing as obesity is a major risk factor in developing renal failure (Ejerblad et al. 2006). This in turn implies growing waiting lists for patients waiting for a suitable donor kidney.

³ With time on dialysis the chance of dying will increase as dialysis is only a partial replacement of the kidney function. Moreover, the time on dialysis significantly negatively impacts post transplantation survival rates (Cosio et al. 1998, Mange, Joffe and Feldman 2001 and Meier-Kriesche et al. 2000). Even an ill matched kidney reduces the mortality risks compared to waiting (Edwards, Bennett and Cecka 1997).

impact on life expectancy, the quality of life improves significantly after a successful transplantation (Laupacis et al. 1996). These results give strong reasons for the reduction of the gap between the supply and demand of donor kidneys. Opting-out of organ donation and mandated choice⁴ are two proposals which might contribute to increased kidney supply, though these schemes are probably not sufficient in and of themselves to make a big dent in waiting lists for reasons expanded upon in appendix A. The other side of the equation is made up by increasing demand for donor kidneys. This rise in demand might be halted or even reverted by an effective set of policies targeted at increasing healthy lifestyles. Yet up until now these policies have not been properly implemented or are ineffective as renal failure rates are still increasing. The remainder of this thesis therefore takes this demand as a given and will focus on the supply side of the equation, on *living* kidney donation and especially on kidney vending.

2.3 Living Human Kidney Donation and Current Black Market Vending

A donor kidney can originate from either cadavers or from living (human) donors as one kidney suffices to provide the required functions. Living donations are performed mainly because of the shortage of suitable cadaver kidneys mentioned earlier. It has the additional benefit however, that patients with a living donor kidney have significantly better survival rates when compared to cadaver kidney recipients (Chkhotua et al. 2003 and Terasaki et al. 1995). In the case of living donations, there is a small risk to a nephrectomy (the surgical removal of a kidney) and revalidation can take a few weeks. As such, the main source of living kidney donors stems from relatives, spouses and friends of the recipient. The donor however, does need to match the physiological makeup of the recipient to prevent rejection of the kidney and not everyone has a match among their relatives and friends.

Given the shortage of matching kidneys, there is a thriving black market in kidneys. This has been documented in, for example, the New York Times Magazine article 'This Little Kidney Went to Market' (Finkel 2001). The exact volume is unknown but a WHO estimate from 2007 is that 10 per cent of the 63,000 kidneys transplanted annually worldwide, involve payment of non-related donors with different nationalities (Delmonico 2009). Currently only Iran has a legal organ market where organs can be bought and sold. As such, this is very much a *black* market. Countries facing medical tourism related to illegal organ trade are ranging from Peru, South Africa, India, the Philippines, Iraq, China, and Russia to Turkey (Scheper-Hughes 2003). Although it might seem abhorrent at first to engage in such a market as a buyer, not many people would be likely to disagree with Kass (1992,

⁴ Opting-out refers to policy where the default position is that citizens are donors and they might object thus opting-out. Mandated choice is requiring a choice to be made at a certain point in time. See appendix A for a more elaborate discussion.

68) when he writes: 'I suspect that regardless of all my arguments to the contrary, I would probably make every effort and spare no expense to obtain a suitable lifesaving kidney for my own child'.

Clearly the current ban is not effective as illustrated by the existence of these black markets. A global ban *de facto* means that markets are shifted from post-industrialized countries to less developed countries (Geesink and Steegers 2011). Moreover, it seems unlikely that this ban would be enforced more tightly given the weak rule of law in present black market countries. Even if such a ban were more tightly enforced globally, it is questionable whether it would be very effective given that renal failure patients will still have an enormous incentive to obtain a kidney when severely limited life quality or even death is a likely prospect due to unavailable donor kidneys. Rich post-industrialized countries might be able to effectively ban such trade within their borders, but it would be very challenging for them to prohibit their inhabitants to go abroad in order to engage in this trade.

Given the obnoxious effects of the current black market, the suffering caused by waiting lists and the potential increase in kidney supply, there has been a consistent debate on the desirability of a *legalized* kidney market. An editorial by members of the International Forum for Transplant Ethics in the *Lancet* proved to be a new impetus to the debate by rebutting many of the existing arguments against living kidney vending and by stating that: 'the presumption must be that the trade should be regulated rather than banned altogether' (Radcliffe-Richards et al. 1998, 4). In her chapter on kidney markets in her 2010 book: *Why Some Things Should Not Be For Sale: The Moral Limits of the Markets*, Debra Satz engages with this debate and the accompanying (moral) arguments, claims and dilemmas. The next section will clarify the framework developed by Satz in this book. After this I will touch upon its merits and limitations and explain why this is an attractive backbone to the analysis of a potentially legalized market in kidneys. The remainder of the thesis then introduces the contours of a proposal and will assess it by applying Satz's framework and discuss additional arguments in favour and against.

- 3. A Framework to Assess Drawbacks of Markets -

3.1 Satz's Framework Explained

In *Why Some Things Should Not Be For Sale* Satz develops a framework to assess the noxiousness of markets and consequently applies this framework to (amongst others) the proposal to have a legal market in human kidneys. Here I will first explain it before evaluating it in the next section.

The framework consists of four dimensions (interchangeably used here with the term 'parameters') and can be applied to distinguish markets that are most morally objectionable from those markets that encounter objections but are deemed acceptable under regulation. The first two parameters both concern the consequences that specific markets and market structures bring about. *Extreme harms for an individual* is the first of these two and applies here to either the participants or to third parties that are initially not involved in the market exchange. What this parameter captures is whether an individual is actively harmed by the existence and operating of a market. A market in pollutants for example might have adverse health effects for the people employed in it, or for the people confronted by its operations in their backyard. This immediately touches upon the importance of looking at the alternatives to the market in assessing its harmfulness (e.g. the emission might have been there without the market too). I will return to this issue below.

The second parameter captures whether the market might bring about *extreme harms for society*. This dimension captures the way in which a market might affect society at the macro level. A society as a whole has a certain idea about the way it would like to be structured and the operating of a market could steer it away from this ideal. A state that would leave schooling up to the free market for example, might create an educational system wherein part of its children lack the level of comprehension needed to participate in a deliberative democracy. This market shapes the capacity of its participants in such a way that the social framework of a society is affected by it. For Satz the guiding principle is the need for people to '*interact as equals*' (Satz 2010, 95). The crucial point here is that our values, preferences and capacities can be endogenous to specific markets. They can be shaped and altered by them and if they do so in a way that diverges from what society deems to be just, this can be (extremely) harmful for it.

The next two parameters assess whether participants to the market and those affected by it are equipped with the necessary conditions to make any market exchange a fair one. The first of these is *weak agency*. The notion of 'agency' is hard to describe precisely but boils down to the capacity of an individual to make conscious decisions and to act on them. Full information on, a good understanding of and a capacity to act in a market are central features here. When for example there is a high level of asymmetric information (i.e. one party has much less knowledge of the relevant infor-

mation in the market process), *weak agency* applies. Agency might also be lacking when people take decisions on full information but fail to process it in the correct way. It is questionable for instance whether full agency applies when giving way to the desire to eat sweets while on a diet.⁵ Finally, the capacity to act is important too. Women who are suppressed by their culture or partner, children or those mentally challenged can rightfully be said to lack sufficient agency for engaging in a market transaction.

The fourth and last parameter concerns the level of *vulnerability* of market participants. When destitute, one will engage in any type of contract that seems beneficial at the time. Richard III's cry for help with 'A horse! a horse! my kingdom for a horse!' (Shakespeare 1592) already hauntingly captures this vulnerability under which any price seems a good one. However, there is a real danger of being exploited under these conditions⁶. A cancer patient confronted with an unregulated monopoly will pay a price for chemotherapy that might be deemed to be socially unacceptable and as such this would contribute to the noxiousness of such a market. These four parameters together are the core elements of the framework, to which we will now turn.

3.2 Discussion of the Framework

The framework presented by Satz allows teasing out what exactly makes a market problematic by providing the four dimensions of analysis. Its strength is that it consciously takes the background against which a market operates into account. Rather than allowing or restricting markets, it looks at how a market can be regulated to make it acceptable therefore harnessing the market's capacity for efficient distribution, whilst recognizing that markets can be just too noxious and might have to be banned after all. Different markets most likely score in different ways on the four individual dimensions so it is important to note that this framework assesses individual markets and not 'the' market in general. Moreover, for a given market, shifting circumstances (e.g. policy changes, shifts in cultural attitude, technological innovation) probably change the way in which the parameters are assessed.

This approach is suitable for a policy analysis where black and white cases hardly ever exist, but where many factors and circumstances have to be weighed and taken into account. In addition, the framework is flexible enough to be applied to a wide range of markets thus preventing too much ad-hoc reasoning possibly leading to inconsistent policy, while allowing for arguments specific to the

⁵ The by now established field of Behavioral Economics is mostly concerned with exactly this question. How do people process information and in which way do they deviate from full rationality? One needs only to take a look at Wikipedia's list of cognitive biases (SN 2013) to recognize the many ways in which full rationality and actual decision making might part.

⁶ Surprisingly unknown though insightful and provocative, is Locke's discussion of a just price under conditions of scarcity in his essay *Venditio* (1661). In it he discusses the just price in situations such as famine or a ship that lost its anchor.

market under analysis. Another strength of the framework is that most, if not all, will agree with the fact that these parameters represent actual harm. They seem intuitively and intellectually appealing. This does not mean that the solution is agreed upon but it does provide valuable middle ground for debate where parties can at least meet to start arguing.

Of course there are limitations to this approach as well and the parameters presented by Satz are not exhaustive for moral concerns regarding the usage of markets. Underpinning the framework is mainly consequentialist reasoning. Whether or not a market is permissible depends on the outcomes it brings about and the alternatives at hand. Yet these outcomes are evaluated on the basis of how we intuitively judge them to be. As such, Kantian notions of bodily integrity or virtue ethical objections do not receive much attention although crowding theory (discussed in section 5.3) and the vulnerability parameter seems tangent to these two positions. Depending on the stance one holds the parameters might not be sufficient to analyse each and every market. When discussing the case of a kidney market some of these objections will be briefly touched upon as they do seem important to many and consequently receive quite some attention in the larger debate. To be fair, Satz steps outside her own framework too when she discusses the kidney market as she also discusses some related objections regarding a potential change in the integrity or the value of goods that are commoditized (Satz 2010, 199 – 202).

Another objection to Satz's framework might be that it is not clearly demarcated what the scope of the parameters is. Individual harms might be constituted by direct physical harms, or because of a breach of bodily integrity, which is very much a psychological harm. This lack of rigorous demarcation also makes that the parameters could overlap. When children or not educated this represents both a societal and an individual harm.

This ties into the final objection. It is not straightforward how to operationalize the framework. The parameters cannot (yet) be given a numeric value, nor is clear how they should be weighed against one another. No clear and automatic policy recommendation can be given through the application of the framework. A market might need different kinds of regulation or would need to be banned altogether based upon the weight the different dimensions are given.

However, I would argue that no single framework would allow for such straightforward recommendations as there will always be different preferences and valuations over principles and outcomes in any pluralistic society. The weighing of these different arguments and values should be part of any decision and should receive ample room to be expressed. It is exactly this which will be the purpose of the remainder of this thesis. Because the final judgement of such a market is very sensitive to the safeguards put in place and because the debate is full of arguments from different angles, the framework developed by Satz, as explained and reflected upon above, seems well

equipped to analyse this debate. In order to have a fruitful discussion however, a more detailed analysis of the market for kidneys is needed first. The devil really is in the details and a different background in which the market is set or specific provisions can significantly alter the weight certain arguments put on the scale.

- 4. A Monopsony Kidney Market Outline -

The goal of this thesis is the ethical assessment of the current black market or a free market and how a regulated market would be judged in comparison. To avoid jumping back and forth between Satz's parameters as they apply to the black or free market situation and how they apply to a well regulated market, I will first sketch a proposal here which I will dub the monopsony market. This proposal will be subsequently be compared to the current situation of black markets in developing countries and no market in post-industrialised countries. At times it will be compared to a free market but the current black market and a free market would have many elements in common as there is a lack of regulation and safeguards. I will distinguish them if necessary.

The outline of a regulated market introduced here and some preconditions and limitations to it are based on common elements that appear in the organ market literature. For a lengthy and coherent proposal in favour and in defence of a kidney market, Benjamin Hippen (2005) is a good start. This thesis touches upon many of the same issues but takes a different approach by analysing the proposal with regard to the four dimensions. By doing so, the interplay of the background of, and restrictions on, a market on the one hand and the way the four parameters are affected on the other can be illustrated. Whilst doing this I will touch upon the current situation and some frequent appearing questions and objections too in order to carefully assess the feasibility of a regulated kidney market. Finally it is essential to note that I use the word regulated market here, but that this is closely resembles a regulated trading scheme and should not be mistaken for a free market.

The suggested market would be implemented in a nation with an established rule of law, an equal status for men and women and respect for bodily integrity and property ownership. A good health insurance system should also be in place. These countries are in the remainder of this thesis indicated as post-industrialised countries. The proposal is thus mainly aimed at an analysis of the market as it would be implemented in these countries. How the proposal would work in a underdeveloped country is quite different as will be pointed out at times, but this does not receive much explicit attention.

The proposal would furthermore be a monopsony market where either a government body or a government controlled NGO would be the only buyer of kidneys from citizens that are willing to anonymously donate one of their kidneys. The restriction of donation from and to citizens means that no trade or exchange across the border is (initially) allowed. The regulated system would distribute the acquired kidneys according to the current criteria that are in place for kidney waiting lists (e.g. BMI, the absence of other diseases and age). These norms can be relaxed when the system is in place and the waiting lists start to shorten and ultimately hopefully to disappear.

I would suggest that potential donors have privileged access to kidneys and health care are

they to encounter problems with their remaining kidney. Screening should be in place in order to assure that vendors are capable of rational deliberation, are aware of the risks and are not pressurized into the sale by for example debts. In line with current criteria for voluntary donors to unrelated patients, there should be an 'attempt to rule out donations that they deem are not motivated by "pure" or "real" altruism, such as those prompted by depression, low self-esteem, or publicity seeking' (Truog 2005, 445).

The issue of the benefits awarded to live kidney donors is probably one of the most sensitive ones both in the level of aversion it often provokes as in the final assessment by the four dimensions. Proposals vary from a cash reward, a savings account to spent on health insurance, free health care in-kind, a life insurance, coverage of funeral costs after death, to income tax credits (e.g. Hippen 2008, Matas 2004, Delmonico et al. 2002, Rippon 2012 and Petersen and Lippert-Rasmussen 2011). For now I would propose a system with a delayed reward (preferably in-kind) or one that is spread out over time for reasons I will discuss below. Finally it is worthwhile to note that most incentives are probably cost effective as there are big savings from getting someone off dialysis by providing a transplant kidney. A More detailed analysis of this can be found in appendix B.

- 5. Current Harms and a Monopsony Market Assessed -

5.1 The Current Black Market in Human Kidneys

After having introduced the background of kidney donation, the framework to evaluate markets and the proposal for a kidney market, we can now look more closely at the present situation with its black kidney market.

Current policy shifts the geographical location of the problem and ‘implicitly ignores some exploitation in other countries’ (Rosen, Vining and Weimer 2011, 742). This exploitation is all the easier under the current ban because neither donors nor patients can claim their rights when issues arise before, during or after a transplant as there is no official agreement or contract possible when entering into an illegal deal. Also there is currently little or no after care for poor donors. When the monopsony market would indeed provide the required kidneys within countries there is no more reason to travel abroad and enter into a dubious transaction to obtain a kidney. The patients that find a kidney through this market are currently likely to be frowned upon and this creates an extra social burden on those already critically ill.

It seems obvious that the current black market situation is less than ideal. Furthermore, it seems unlikely that much about this current situation will change without big policy changes but before looking at the effects of a regulated market the current living donor situation is analyzed.

5.2 The Current Issue of Social Pressure

So far attention has mostly been given to the black market alternative, but if there is a suitable donor in one’s close circle of family or friends, this creates its own set of dilemmas. Both donors and recipients might encounter problematic situations that are presumably largely absent under a monopsony market. The issue of social pressure touches upon the agency dimension as the choice cannot be made entirely autonomously, but it deserves a special mention.

When one of those nearest to you is in need of a kidney transplant most people will be grateful when they find out that they are suitable donors and can thus help save and improve the life of those they care most about. Even so, relationships between people can go sour and in this case a donor might regret ever agreeing donating a kidney to a person that they no longer wish to associate with. However, these exchanges might be said to have come from a free and informed choice and this is just a risk that should be incorporated into the original decision.

Nevertheless, with the complex ties, rules and customs that are inherent in any social relationship, the choice to donate is never truly free in the way that it would be free in an anonymous market exchange. It would undoubtedly be deemed unacceptable if a father would refuse to donate a

kidney to his sick daughter. This moral duty may weaken when the relationship is with a more distant relative or friend but would still be in place. The case in point is nicely illustrated by a lawsuit that was commenced by a man (McFall) who would die without a bone marrow transplant. This transplant bears low risk but causes considerable pain. McFall requested his cousin (Shimp) to donate but he declined to do so. McFall lost the case and subsequently died. While Shimp might have had good reasons not to donate, it probably strikes us as selfish that he did not comply with the request. This is what Rosen, Vining and Weimer (2011, 727) dub social coercion. Even though you might have very convincing reasons not to donate, social norms can put tremendous pressure on a potential donor to go through with the transplant. This difficulty is currently recognized as a US transplant centre 'may state that the donor did not meet the program's criteria for donation to help avoid difficult social situations' (OPTN 2008, 2).

At the same time, the recipient too can have emotional difficulties in requesting a loved one to donate a kidney and then in living with the eternal gratitude for saving one's life. It is in this context that Fox and Swazey (1992) refer to Titmuss' famous study by talking about the *Tyranny of the Gift*. The gift is so big and extraordinary that there is no equivalent by which the recipient can ever hope to repay the debt. 'As a consequence, the giver, the receiver, and their families may find themselves locked in a creditor-debtor vice that binds them one to another in a mutually fettering way' (Ibid, 40).

Of course it can be that donating your kidney to a loved one creates a tight bond that expresses gratitude and mutual appreciation which outweighs these problems. However, this tie could actually suffer from the fact that one party went so far as to donate an organ. Unrelated and anonymous donations could then free the parties from the current complex and potentially burdensome social situation donors and recipients find themselves in. Whether these anonymous donations would increase through a monopsony market is not answered though, which I will now turn to.

5.3 Crowding Theory

The very first assumption of those in favour of a living kidney market is often that such a market would increase the availability of healthy donor kidneys thus saving lives. Remember that in 2011 in the United States alone 5,139 renal failure patients died in while waiting for a suitable donor kidney (OPTN/SRTR 2011 Annual Data Report 2011, fig. 1.8). The assumption of an increase in donors rests on a basic principle of economic theory and the argument would go something like this: currently the supply of kidneys is so low because the price at which the suppliers are legally able to sell a kidney is effectively set to zero by prohibiting a potential market. When this price would be allowed to increase (by legalising a market), the price increases because there is a significant demand. Many

patients would be willing to pay for a kidney. Suppliers would thus be confronted with a price higher than zero and when their threshold price is reached they would be willing to sell their kidney.

This central tenet of economic theory was briskly challenged by the seminal 1970 study *The Gift Relationship* by Richard Titmuss. In this book Titmuss shows that the American market-based system of blood donation is inferior to the British based system of blood donation which is grounded in purely altruistic motivations. Both the quality of the blood and the total amount donated were shown to be higher in Great Britain as opposed to the United States. This seems really quite puzzling at first: why would the amount of blood donated decline when you are offering to pay for it? After all, your choice set only increases since you can still donate without taking the money while you are also offered the option of donating and taking the money. Initially the study was received with courteous scepticism by economists (e.g. Solow 1971 and Arrow 1972). Titmuss, however, provides convincing explanations as to why this result would hold.

As the title of his book suggests, for Titmuss blood donation in the British system emphasises that to donate blood is to bestow the gift of life. Blood is needed for transfusions to keep your fellow citizens alive during surgical procedures or after grave accidents and as such it is an act of altruism. By offering money to pay for this 'service', the sense of duty in the US is eroded and this is not the case under the British system. The quantity of donated blood would be lower because of this.

Moreover, Titmuss showed that the quality of the blood under the US market system declined as well. Hepatitis B rates increased in donated blood by offering a monetary reward because of the monetary incentive in place (which could induce one to conceal this illness). However, Hippen (2005, 600) duly notes that reliable screening was not available until several years after Titmuss's research. In addition, Starr (1998) advances the plausible point that this presumed superiority of altruistically donated blood lulls one into a false sense of safety and hence, might backfire. The documentation of Starr's research shows that the safety of the blood relies more on minute screening and a good institutional design than on either paid or voluntary blood donation. Likewise the monopsony kidney market would need thorough screening to avoid potential donors that hide diseases in order to receive the benefit.

Another influential study on monetary rewards and their effect on civic duty comes from Frey and Oberholzen-Gee (1997) and their field study in Switzerland. Confronted with the question where to build a new nuclear waste repository, the Swiss were asked whether they would object to it being built in their backyard. A monetary reward did not increase the number of positive respondents but puzzlingly even decreased the willingness to accept the project. By using results from social psychology, Frey and Oberholzen-Gee contribute this to the crowding out of the original motivation to accept the nuclear power plant. The sense of civic duty is eroded when the exchange becomes a mon-

etary one. The different types of motivations that Titmuss and Frey and Oberholzen-Gee distinguish have been generalized in 'motivation crowding theory' and are dubbed intrinsic (civic duty) and extrinsic (monetary reward) motivation.

These theories would indicate that essential values would be undermined and that the result would possibly be that there would be fewer donors. The question is however whether this would be the case in a monopsony market. First, it must be noted that questionnaires do not find such crowding out in a potential kidney market (e.g. Halpern et al., 2010 and Jasper et al., 1999). Second, the proposed in-kind payment would most likely have a different impact on the way the compensation is perceived. When the reciprocal act stays within the same domain (i.e. health care or funeral expenses), the reimbursement would presumably be less likely to be understood as bribe, and would rather be seen as a just compensation. This of course changes when a freely spent resource such as a tax credit or even cash is offered as compensation.

With respect to crowding out Satz (2010, 194) already notes that whether the actual supply would increase might just be a question of how much you would need to pay. It seems to be common sense that at some point, most people are willing to overcome their objection if the reward would be big enough. Halpern et al. (2010) show on the basis of interviews in the United States, that the pay rate is indeed positively correlated with the willingness to donate. Moreover, the first \$10,000 offered would attract significantly more donors than the extra participants drawn by subsequently offering \$100,000 (Ibid, 363).

Some might not be swayed by whatever price is offered however, and feel attracted to the philosophical objections posed by Anderson (1990). Anderson asserts that: "To trade the good on the market, or otherwise to subject its conditions of valuation to market forces and market norms, is to remove it from these social relations or to undermine their integrity" (Ibid, 202). The inherent social meaning of a good, whether it is blood or accepting nuclear waste in your backyard, changes when it is made into a tradable commodity expressed in monetary terms instead of ones such as civic duty or altruism. These objections could equally well relate to a monopsony market where something that should be a gift of life suddenly becomes a commodity stripped of its social meaning..

However, for now it is useful to note that we do not stop valuing firemen, soldiers or nurses when we offer them a monetary reward for their services. We deem it nothing more than normal that we pay for such things even though we very much appraise them. Second, it is worthwhile to ask ourselves what kind of service or good we are talking about here. A life-donation of a kidney to an unrelated person is a supererogatory act, beyond and above that which would be required under most moral views. As such, a difference clearly exists between the donation case and the Swiss nu-

clear waste case. The former is beyond what a society would ask from its civilians, whereas nuclear waste must end up in someone's backyard and storing this waste in their backyards can be asked from citizens. So it can be questioned which integrity is actually corrupted, and whether it was there in the first place.

Finally I would like to argue that you might very well be approached with suspicion in the current situation when you were to donate your kidney by life to somebody totally unrelated to you. It seems to be just too much of a kind act.⁷ This stigma would decrease when some form of compensation would be offered under the monopsony market as you now have a reason to donate which is more widely understood. By lifting this suspicion donating by life to those unrelated to you could possibly be normalized which would presumably attract more donors.

In the end the question on whether supply would increase under a monopsony market is ultimately an empirical question which depends on the exact incentives in place. Limited evidence from questionnaires (Halpern et al. 2010) and the theoretical arguments examined above indicate that supply might very well increase no matter how objectionable some might find the market. These possible objections will now in turn be more closely examined.

5.4 Vulnerability

Vulnerability arises, as introduced, when market participants are destitute and are thus willing to engage in any contract that would seem to be beneficial to the situation they find themselves in. Put in the words of Nancy Scheper-Hughes, a notable organ trade critic: 'putting a market price on body parts - even a fair one - exploits the desperation of the poor, the mentally weak, and dependent classes' (2003). In their 2005 study in India, Goyal et al. found that an overwhelming 95 per cent of interviewees in the study reported that they sold their kidney to repay a debt. As 79 per cent of those people mentioned either a household/ food debt or a rent debt as the reason, these are clearly vulnerable people that easily run the risk of being exploited.

The argument here seems to be that nobody would agree to this transplant out of free will. Note though that the proposed monopsony market would, by assumingly virtually eliminating the current kidney tourism, no longer involve the destitute in countries where there is no social safety net and the choice to donate could truly be made because no other alternative is left to save oneself or loved ones. Whether this choice would still be good to offer (it does seem to be objectively better to be able to sell your kidney when faced with starvation) is highly contended and closing off this

⁷ The utilitarian Peter Singer (New York Times 2006) approvingly describes the case of self-made millionaire Zell Kravinsky. After he donated almost all of his wealth, upon learning that donating a kidney implies a 1 in 4000 chance to die, he decided to donate his kidney. Kravinsky acknowledges that some people think he is crazy.

market is sometimes condemned as paternalistic. However, note that if donors' legitimate rights to basic necessities were in place, this would prevent destitution in the first place.

I believe that by regulating the market and restricting it to post-industrialised countries that respect the rule of law, have institutional safeguards against exploitation and that can guarantee safe transplant conditions with the required aftercare, the vulnerability concerns are greatly ameliorated. Both donors and patients would be able to claim their rights were anything to go wrong whereas this is currently not possible in the black markets as the transplant in question is *de jure* illegal. Furthermore, depending on the exact incentive scheme, the monopsony market that provides the in-kind benefits would be less attractive to the destitute. Lifelong health insurance for instance, does not solve immediate debt obligations and cannot be traded away though of course this would be more attractive to the poor. Taken all this into account I would argue that the vulnerability argument as discussed, can be dealt with by good government and policy and that participants in such a market would make a free choice. It does not need to be a disqualifier to a monopsony market.

5.5 Weak Agency

For a market to be fair, the outcomes of a transaction must be known beforehand. If there is no information, or a high asymmetry between the participants, the market becomes more worrying as the transaction would not strike us as just. When a kidney donor is told that \$300 is the current market price, where in truth this is \$1000, the required information for a just and rational decision lacks and the donor's agency is weak.

As a kidney transplant will affect you for the rest of your life the time lag between the transaction and possible effects creates more opportunities for weak agency to appear. Without full information on the possible health effects, and for example on how other market participants would rate their transaction, a rational decision cannot be made. In the current black market in India, Goyal et al. (2005) found that 79 per cent of the kidney vendors would not recommend others doing the same. A 2001 study by Zargooshi of the Iranian (legal) kidney market found similar figures as 85 per cent responded that they would definitely not vend again and 76 per cent strongly recommended potential donors not to repeat their error. These figures would indicate that the real life effects seem to diverge from the expectations that the market participants had beforehand. This is not very surprising, it seems almost impossible to imagine what it would be like to have sold a kidney and live with only one the rest of your life.

That being said, there is no evidence of a deterioration of the long-term functioning of the remaining kidney (Ramcharan and Matas, 2002) or significant other negative health consequences (Gossmann et al. 2005) *in societies with a good level of health care*. Because the environment during

and after the transplant is safer and healthier (e.g. good quality drinking water, better diets) this difference with respect to the Goyal et al. (2005) study in India can be explained. Moreover, long-term survival rates (in the United States) are not affected by donating a kidney (Ibrahim et al., 2009). Opposing the image of disenfranchised vendors are figures from the United States where only 4% of living kidney donors indicate having regret (Johnson et al., 1999). Granted, the donors that donated to someone unrelated to them reported lower quality of life than the average donor in the study, but they still scored better than the average US citizen (Ibid, 719).

A second concern for weak agency is that 71 per cent of the kidney donors in the Goyal et al. study were women. Indian women in rural areas presumably enjoy limited autonomy and are often pressured into putting the interest of family members before their own. As the interviews were in general conducted in the presence of these family members, it is unlikely that many of them would have reported it were they to be pressured into donating. It can therefore be questioned whether the transactions represent a true free choice or that some family and social pressure was involved in which case the weak agency criterion would apply.

The proposed monopsony market would be instituted in post-industrialised societies where gender inequalities are of a very different order than in India. Moreover, the monopsony market would not pay cash for a kidney but rather provide an in-kind reward, which takes away the rationale coercing your spouse to sell her kidney. A husband who has an incentive to force his wife into selling a kidney if she receives cash presumably has little interest in her having a lifelong free health insurance.

Thirdly it could be that regret stems from the limited monetary reward that donors currently receive in (black) markets because there is no oversight of the market and middlemen and surgeons take the lion share of the reward. Goyal et al. (2005) for example report an average received reward of \$ 1070. Moreover, this payment differed markedly from what was promised (\$ 1410). Further deceit was reported with regard to the information on the nature of a kidney transplant (Ibid, 1590). It is important (and blatantly obvious) to forbid these misleading practices in the monopsony market.

A last worry of weak agency might be that the fact that there is a reward could blind the assessment of the risks that are involved. Halpern et al. (2010, 362) find no such effect however. This finding is supported by the fact that the poorest group in the study does not react differently towards increased payment compared to the richest segment.

Finally then, with better information and good screening I believe that in post-industrialised countries most concerns over weak agency in a monopsony market for kidneys can be prevented. The misleading middlemen are taken out of the equation and the level of schooling will be higher.

Following this logic means that weak agency *will* apply in less developed countries.

Even in post-industrialised countries the basic epistemological incapability of knowing what it feels like to have sold a kidney will remain however. The quality of communication and information supplied will need to be very high through for example intensive sessions with previous vendors or through simulations. Given that we do not restrict many other life and health altering choices it does not seem that weak agency should be a hurdle in a monopsony kidney market in post-industrialised countries. It does seem problematic in underdeveloped countries.

5.6 Harmful Social Inequality

As explained, a market might shape society in an undesirable way up to the point that it can be said to truly cause (extreme) harms to it. The current global black market system closely resembles this parameter of Satz. The system is one where rich renal failure patients often travel to countries such as India or the Philippines to have their kidney transplanted which they have most likely arranged to arrive 'encased in their human packages' (Scheper-Hughes 2003, 1). As this operation is not cheap and not often provided for through medical health insurance, as many donors give up indebtedness as a main reason to sell, and as many vendors report long-term health consequences (Goyal et al. 2005), the result is that scarce health resources are effectively redistributed from the poor to the rich, effectively fostering class distinction and inequality (Delmonico et al. 2002).

This could create the view that there is a natural class that is 'meant' to donate their organs to those who can afford it (and are therefore entitled to a spare organ). With unchecked trade this could indeed create a class of organ suppliers that are seen as 'spare parts' for richer people (Scheper-Hughes, 2000). Even though money is given in exchange for the kidney, because of the long-term deterioration of the health of donors, the class inequality is likely to be only exacerbated and not diminished when introducing a free market.

This argument rests on the analysis of the unchecked black market in underdeveloped countries though, and not on a well regulated monopsony market in post-industrialized countries. The question then becomes whether this class distinction is exacerbated by this proposed market and if so, whether this is to such an extent that it truly becomes toxic to the free and equal exchange of ideas and to the mutual respect between the citizens in a state. So then, would class distinction be exacerbated with the proposed market?

The 'spare parts' objection depends on the assumption that health would be transferred from the poorest to the richest. Note though that we allow a differentiated payment according to the professional risks that different types of jobs bring with them. And it does not seem that the fact that fire fighters or soldiers are paid for their services makes us see them as disposable commodi-

ties.

Added to that is the position of the different socioeconomic classes that donate and receive a kidney. It has been shown that a significant deterioration of health is not to be expected in a monopsony market in a post-industrialised country. Furthermore, because it would not be a free market, but rather a government monopsony that would distribute the kidneys according to need and not according to ability to pay, there is no reason to fear that the rich would secure their kidney and the poor would be left with dialysis. Finally, a low socioeconomic status seems to significantly increase the risk of renal failure (Fored et al. 2003). This finding from Sweden can presumably be extended to other post-industrialised countries. If the market would indeed increase the supply of kidneys, the resulting improvement of health would disproportionately benefit the lower social classes and class inequalities would therefore *decrease*. The current unchecked black market does carry significant social harms and seems to transfer health from the poor to the rich. A correct regulatory framework is needed to keep this in check and possibly even decrease the class inequalities after which this social inequality argument seems to have much less bite.

5.7 Harmful Consequences for the Individual

The final point against a kidney market comes from the *extreme harm for an individual* parameter by Satz and ties in with the economic concept of externalities and the notion of bodily integrity.

When market participants engage in transactions, they often do not bear its full (social) costs. Much of current global warming is caused by excess emissions of CO₂. When emitting this gas, agents do not compensate the costs that it brings to others (e.g. higher levees to protect coastal residents from rising sea levels). In the same manner Satz (2010) illustrates the effects of choices on those outside the market that the black kidney market has, by pointing towards anecdotal evidence which indicates that it can become harder to obtain a loan for those who are not willing to sell their kidney. The kidney can serve as collateral and a creditor will therefore have more confidence in the repayment of the loan. Assuming that the pool of credit is fixed, those who are willing to donate their kidney seem to be safer clients and get the credit before someone who is not willing to put up a kidney as collateral. Another line of reasoning might also be in place. Unwillingness to put up your kidney as collateral could also signal that you are less likely to repay a loan for if you are confident that you will, there is little to fear. This is the economic concept of adverse selection which might cause those who do not want to engage in the kidney market to be still actively afflicted by the existence of such a market.

Safeguards for upholding regulation, banning the possibility of putting your kidney up as collateral would be needed in the monopsony market then. An in-kind benefit or a delayed reward could

help ameliorate this problem too. The adverse selection effect is not likely to be very large as the market in kidney transfers itself would not be very large.

Rippon (2012) makes a similar observation as Satz through examining the possibility of legal and social pressures once a kidney market would be in place. Just as it might be a legal requirement to actively search for a job in order to be entitled to welfare benefits, selling your kidney could also become a prerequisite to government aid or obligatory when facing bankruptcy. Social pressure might also very well arise for those indebted in a society which facilitates a kidney market. Family, friends, neighbours might start questioning your decisions when you refuse to donate your kidney when in dire conditions. To Rippon these pressures are harmful because of two reasons. First, we have autonomy over our body and having the right to exclude others from physical intrusion is of great value to us. This right seems undermined by the existence of these pressures. Second, there is a small but real medical risk to nephrectomy which you would be coerced into.

Ultimately though I do not think these pressures, which might plausibly arise, warrant Rippon's conclusion that they are decisive in prohibiting a monopsony market. An analogy might explain why I think this to be so. Assume you are pregnant and in dismal circumstances. A legal requirement to undergo abortion (e.g. in order to receive government welfare) is abhorrent and a direct violation of our bodily integrity. This practice should never be allowed. However, which right do you have to be shielded from social pressure to undergo this abortion? It seems to me that no such thing exists. The remarks might be inappropriate, inconsiderate and shameful and you might actually be harmed by comments from family and friends. To me though, the existence of this harm should not lead to restricting the possibility of abortion. Space constraints do not allow me to further examine the distinction between those two types of pressure here, but it seems that the amount and type of force involved seems a good starting point to explicate why these pressures have a different principal at its core.

In both the nephrectomy and abortion cases, issues of physical intrusion and a small but real risk arise. Of course these cases only partially overlap but I believe that this analysis teases out the line we draw and should draw when it comes to which pressures we accept and which pressures we ban. Taken together then I cede the fact that not every individual is better off by offering them a choice to donate their kidney and some might be harmed indeed. This is the central justification for Rippon to ban a kidney market. To me though it seems that with adequate policy to restrict legal pressures to engage in (reimbursed) kidney donation these harms should not be prohibitive. I am willing to accept potential social pressures arising from the market as these do not seem to create something we are not already accustomed to and prepared to deal with. The individual harms are

important to take into account when designing a policy for the monopsony kidney market but it should be possible to curb them.

- 6. Conclusion -

This thesis started out with the finding that for renal failure patients, transplantation of a kidney is generally preferred to dialysis because of significant reductions in mortality rates and the quality of life. Cadaver kidneys and a donor kidney from a loved one are the two main options to obtain a healthy replacement kidney. The supply of cadaver kidneys cannot match the demand and not everyone has a suitable match in their circle of relatives and close friends. Waiting lists thus ensue whereby patients stay on dialysis or die. As dialysis is only a partial substitution for a healthy kidney the detrimental health effects cause some patients to obtain a kidney on a (foreign) black market in countries such as India or the Philippines. One way to alleviate the burden of dialysis and of the damaging effects of the current black market is to establish a legalized regulated monopsony kidney market.

By sketching such a market and the provisions and regulation I believe it should contain, I analyzed the harms of the current situation and of the potential market. Besides the illustrated harms of waiting lists, receiving a donor kidney from a loved one carries its own complications. Great social pressure can arise for both the donor and recipient before and after transplantation.

One of the first burdens for proponents of a kidney market is to prove that supply of kidneys actually increases when donors would be compensated. The literature on crowding theory might suggest that a compensation replaces the initial motivation to donate to such an extent that supply would go down. First off, this is probably a matter of setting the right (high enough) price. Secondly, providing in-kind compensation would most likely negate much of these effects.

Four types of harm of the current black market and the proposed market are analyzed by applying a framework developed by Debra Satz (2010). Vulnerability, weak agency, harmful social inequality and harmful consequences for the individual constitute this framework. No straightforward operationalization or policy recommendation flows from applying the framework but it does shed light on the harms of establishing a market in kidneys and by extension points towards possible regulation and provisions to mitigate these harms.

Current black market supply mostly comes from people that are prone to exploitation as they are often poor, indebted, and have no social safety net. As such the choice seems to be made out of destitution and not out of truly free will. These concerns would presumably apply less to the proposed monopsony market in post-industrialised.

We can deduce that the current situation is often characterized by weak agency since many kidney vendors regret their decision. This indicates that the assessment of the situation beforehand, and living with the consequences do not match up. Living donors (without payment) however overwhelmingly *would* donate again. The difference here seems to stem from the quality of information

and the quality of provided health care. Deceit on the promised monetary reward is another source of disenchantment. These concerns would not be very strong under a well regulated market. The epistemological fact that it is impossible to know what it is like to donate a kidney remains however.

Harmful social inequality can easily arise in an unchecked black kidney market. Much criticism against such a market is directed towards the created perception of the poor as providing spare organs for the rich. A government monopsony that distributes kidneys according to current criteria counters this criticism. Moreover lower socioeconomic classes disproportionately suffer from renal failure. A system that would reduce this suffering would therefore decrease social inequality.

Finally there might be harmful consequences for individuals when a market is opened up. Social and legal pressures to donate could arise when one is indebted or poor. Safeguards against legal pressures are paramount. I argue however, that arising social pressures are not very different from current social pressures and would therefore not fully counter the benefits of a monopsony kidney market.

The ultimate success of the proposal critically relies upon the institutional framework it is embedded in. In a true free market much harm could arise that would undermine the benefits of the reduced mortality rate and increased quality of life when more kidneys would be donated. Different values are held throughout a society and some might object on grounds that did not receive a great amount of attention due to the necessary demarcation of this thesis. Many of the most common objections on such a market's consequences however seem to have been recognized and engaged with. As the presented framework is sensitive to the background conditions in which a market is embedded and to the provisions and applied regulation instigating a market requires careful policy and rigorous monitoring. However, through good regulation and a well thought out design, I believe that the harms can be contained in a country with a good rule of law and good health care. The remaining objections should be recognized and not be swept under the rug, but the theoretical and empirical arguments laid out above do not stand in the way of a regulated monopsony kidney market, or so I would argue.

- Appendix A: Different Donation Systems for Cadaver Organs -

This appendix introduces two different donation schemes as they are interesting and are regularly proposed as solutions to current kidney donor shortages though no spare space was left in the thesis to examine them.

While most countries have an opt-in system, where you actively have to register to become a donor, some countries choose for an opt-out system. By assuming consent to ensure that those potential donors that would not object to donating after death, but never went through the trouble to register themselves as such, *are* registered as donors. However, empirical studies show that even though countries with an opt-out system have a far higher number of willing donors registered, the actual number of donations is not necessarily higher (Coppen et al. 2005) or might even be lower (Gay 2006). The following two examples clarify why this counterintuitive result can hold (Satz 2010, 191). First, the relatives of a deceased often hold the right to refuse the transplant. As the consent has never been made explicit, relatives will be much less certain of the will of the deceased than under an opt-in system. Besides unclarity on the original wishes, the relatives might have personal reasons to object to transplantation. Second, not all donors provide suitable organs due to for example illness, old age or organs might arrive too late as kidneys must be transplanted within 48 to 72 hours after death for them to be still healthy (Becker and Elias 2007). This implies that there is much to gain from a good organization of the entire harvesting-transplantation chain (Healy 2006). Finally, with the rising rate of obesity, the demand for kidneys actually increases (James, Rigby and Leach 2004) and supply of healthy donor kidneys can be safely assumed to decrease.

An alternative scheme, one of mandated choice, has been proposed by Thaler and Sunstein in their 2008 book *Nudge*. At a certain event citizens would be required to choose whether or not to donate. When picking up a passport for instance, you would need to indicate if you would like to opt in or opt-out. This would have an advantage over presumed consent in that it does express an explicit choice by the donor and so objections to donation by relatives might occur less frequent. The effect of this policy would need to be demonstrated empirically and might well be positive but with worldwide rising levels of obesity and the consequent effects on the supply and demand of kidneys kept in mind however, waiting lists would most likely not wholly evaporate under this regime either.

- Appendix B: Cost Effectiveness of the Proposed Kidney Market -

This appendix takes a look at the feasibility of the proposed market system and more specifically at the associated costs of reimbursing kidney donors. Even though this thesis concentrates on the ethical aspects of the potential kidney market, the conclusions would be undermined by excessive costs. As Satz stresses repeatedly, the actual judgement on a specific market is obtained by its background conditions and the alternatives that might be available. So if costs would be prohibitive, we might as well stop further discussion on the desirability of the proposed market as it could never be implemented.

As it is, transplantation without reimbursement of the donor is actually cheaper than prolonged dialysis. Even considering that the lifespan of a renal transplant patient greatly increases and the fact that immunosuppressive drugs will have to be taken for the rest of one's life, Yen et al. (2004) found that with a median life span of 10 years for dialysis patients these costs amount to \$530 746 for the US Medicare. With a median life span of 20 years, the costs for renal transplant patients amounted to \$311 473. Matas and Schnitzler (2004) find that the savings would amount to \$94 579, and that social savings (where the increase in the quality of life is also expressed in monetary terms) would even add up to \$269 319.

These findings give at least an approximate figure on the break-even point for the amount that could be awarded as compensation to a potential donor. Let me now give a rough 'back-of-the-envelope-calculation' on the costs of lifelong free basic health insurance in the Netherlands. For 2012, the basic health care insurance was projected to cost €1222 (\$1540) per year in the Netherlands (CPB, Macro Economic Outlook 2012). Granted, the expenses for health care are currently rising, but a framework could and should be put in place to protect against unchecked costs of donor reimbursement. Ignoring these costs for now and assuming inflation rates equals the price level increase of health care expenses, let us look at the sum of a lifelong basic health insurance. With an average age of 30 years, and a life expectancy of 90 years, total living donor reimbursement would be approximately €73 000 (\$92 023). Of course this figure crucially depends on the underlying assumptions of life expectancy, likely increases in health insurance costs and inflation rates. Comparing this (whilst ignoring price level differences between the US and the Netherlands) to the cost savings of transplantation in the Yen et al. (2004) study and Matas and Schnitzler (2004), this illustrates that it is very well possible that donor vendors could be rewarded with a lifelong basic health insurance whilst total health care expenditure would still go down. It can therefore be assumed that the costs of the proposed framework are not prohibitive and we can take a look at other benefits from a living donor market.

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