Efficiency and the Futures Market in Organs

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Abstract

There has been considerable debate over regulated organ markets. Especially current markets, where people sell one of their kidneys while still alive, have received increased attention. Futures markets remain an interesting and under-discussed alternative specification of a market-based solution to the organ shortage. Futures markets pertain to the sale of the right to procure people's organs after they die. There is a wide range of possible specifications of the futures market. There are, however, some major unaddressed efficiency concerns. This article presents this class of concerns and discusses the implication for organ futures markets.

Introduction

Receiving an organ transplantation holds the promise of prolonging and improving life (Long, Swain, and Mangi 2014; Meier-Kriesche et al. 2001, 1295; Wolfe et al. 2008). What was fifty years ago an experimental practice is now a standard procedure that offers both hope and a promise to those whose vital organs are failing. This promise, however, often goes unfulfilled. Across the world, the demand for organs outstrips the supply. Over 100.000 US citizens are waiting for an organ transplantation, and 17 times a day, a person on that waiting list dies (HRSA 2023). In Europe, 36 000 patients received a transplant in 2021, but 41 000 new patients were added to the waiting lists across Europe (Council of Europe 2022). 20 persons die daily in Europe while waiting for an organ transplantation. In response to this tragic situation, several proposals have been put forward to increase the supply of organs, one "family" of which pursues a market-based solution to the shortage.

Organ markets are deeply controversial. With Iranian legislation as the only exemption, there is a universal ban on organ sales and trafficking. The long-standing position of international bodies such as the WHO is that the ban should be maintained (WHO 1989; 2010). The Declaration of Istanbul substantiates the opposition to organ markets issued at a summit convened by The Transplantation Society and International Society of Nephrology in 2008 (Participants in the International Summit on Transplant Tourism and Organ Trafficking Convened by The Transplantation Society and International Society of Nephrology in Istanbul, Turkey, April 30 through May 2, 2008 2008). This declaration opposes payment for organs, and over 100 organisations have signed on (Participants in the International Summit on Transplant Tourism and Organ Trafficking Convened by The Transplantation Society and International Society of Nephrology in Istanbul, Turkey, April 30 through May 2, 2008 2008). In 2018 a new edition was presented, which reaffirmed this position (Martin et al. 2019). Despite the efforts of regulators and legislators, an international black market in organs persists, where vulnerable and poor people sell their kidneys in countries with little willingness or capacity to stop the organ trade (Shimazono 2007; Columb 2020; Lundin 2015; Sanal 2011; Frederike Ambagtsheer,

Zaitch, and Weimar 2013; F. Ambagtsheer et al. 2016; Goodwin 2006; Lundin 2012; Pfeffer 2017; Frederike Ambagtsheer and Weimar 2016).

Among philosophers and ethicists, there has been increased interest in possible market solutions to the organ shortage (Cherry 2005; Taylor 2005; 2009; 2015; Radcliffe-Richards et al. 1998; Richards 2012; S. Wilkinson 2003; Sterri 2021; Sterri, Regmi, and Harris 2022; Richards 1996; Reese and Pies 2023). The proposals in the academic literature bear little resemblance to the real-world practices on the black market in human organs. It would indeed take a very peculiar ethicist to defend a market where people are forced, duped, or manipulated into selling a kidney, where agreements about fees go unhonoured, fraud is ripe, and where neglect rather than care is the order of the day after the removal of organs. But even regulated markets remain contested (Albertsen 2020b; Rippon 2014; 2017; Greasley 2014; Björkman 2006; Alpinar-Şencan 2016; Alpınar-Şencan 2021; I. G. Cohen 2015).

The evidence from current practices does not show that any market solution is problematic; rather, it shows the need to discuss the merits of various market-based arrangements instead of the overall idea of an "organ market." Assessing organ markets in general terms fails to capture the wide range of possible ways market-based procurement systems can be arranged (Albertsen 2023a). Towards this end, this article assesses one particular branch of market-based proposals often called "futures markets." These market arrangements allow people to sell the right to procure their organs when they die. At one point, many participants in the debate judged this as a feasible and attractive route. The American Medical Association even called for trials to be carried out(Glasson J et al. 1995; Daar 1998), albeit there was still resistance to this idea (Sells 1992). This article presents the various ways a futures market could be structured and assesses the extent to which such markets would be efficient.

A futures market in organ procurement

"Futures" is short for future contracts, which are financial instruments with a long historical pedigree. When signing a futures contract, a person agrees to buy or sell a particular commodity for an agreed price at a specified time in the future. Those partaking in exchanges on a futures market are, in effect, sharing the risk of (or making a bet on) the fluctuation of the price of the contracted good. The financial instrument originates as a popular measure among farmers to shield themselves against fluctuation in the price of their future yield (Investopedia 2003). If someone has already agreed to buy your crops for a specified price, a sudden market price fall will not affect your profits.

In the following, the term organ futures market is used to describe procurement systems that *allow people to sign a futures contract exchanging the right to remove their*

organs after death for transplantation for some specified valuable consideration.[1] Utilizing this broad definition allows for several different specifications of a futures market in line with the various proposals in the literature. However, it differentiates the futures market from *current markets,* where organs from living sources are exchanged instantly for some valuable consideration (Radcliffe-Richards et al. 1998; Richards 2012; Taylor 2005; S. Wilkinson 2003, 101–33).

Futures markets can vary across a number of important parameters, the first of which is the *timing of payment*; that is, when does the organ seller receive the payment? This parameter is especially important for differentiation between futures markets because it makes a difference regarding who receives the money. The two dominant alternatives are a) that the organ seller is rewarded upon signing a contract (either in the form of a one-off payment or by providing the seller with some good continuously after the contract is agreed) (Barnett, Blair, and Kaserman 1992; Hansmann 1989; Schwindt and Vining 1986; Rinehart 1988) and b) that the family of the seller is rewarded after the organs have been removed for transplantation (Arnold et al. 2002; L. Cohen 1991; Goodwin 2006; Harris and Alcorn 2001; Novelli et al. 2007; S. E. Robinson 1999). Following Albertsen (Albertsen 2020b), the first will be referred to as payment for consent, whereas the latter will be termed family rewards systems.

The second important parameter refers to the *form of payment*. Here, the central distinction is between those versions of the futures market where the seller of organs receives money (Schwindt and Vining 1986, 489) versus those where other forms of valuable consideration are exchanged. In the latter category, we also find proposals that those who sign up as donors (and perhaps their families) receive a discount on their health insurance every year they are registered as donors (Arnold et al. 2002; Hansmann 1989). Others have proposed tax credits for registered donors (Barnett, Blair, and Kaserman 1992; Søbirk Petersen and Lippert-Rasmussen 2011; Lippert-Rasmussen and Petersen 2012; Barney and Reynolds 1989, 15) or that money is made available to cover funeral costs or to finance the college education of the seller's children (Nuffield Council on Bioethics 2011; S. E. Robinson 1999).

The third important parameter is the *degree of government intervention.*[2] This parameter describes the extent to which the government regulates the futures market. Such regulation can assume many different forms. The government can erect barriers to entry into the market for both the buyers and sellers of organs. Here, we can imagine a range of possibilities ranging from a monopolistic market, with only one buyer, to a market with

[1] We can imagine a futures market for living organs, where a person is paid to part with an organ at a (significantly) later point in time. The theoretical possibility of designing a futures market for the sale of a kidney or a liver lobe at some point in the future will not be debated further.

[2] Many of the references given here are to arguments made regarding current markets, but the proposals apply to futures markets as well.

much competition between different buyers (Erin and Harris 1994; Kaserman 2001; Ockenfels and Weimann 2001). We can also imagine a market constrained to a specific geographical area (Erin and Harris 1994). Even with more buyers on the market, the entry could be subject to a licencing system (Goodwin 2006, 164–66). Across these different degrees of competition and various price policies can be imagined. We can have both a fixed price, a minimum price (Lysaght and Mason 2000; Tonkens 2014), or a price reflecting supply and demand alone. Barriers for potential sellers could take the form of physical and psychological tests to clarify whether a potential seller is a suitable seller. Another measure could be cool-off periods, where the potential seller would have to confirm their decision to sell before being accepted, or a minimum age for sellers has been proposed (Harvey 1990; Hartman 1979; Matas, Hippen, and Satel 2008, 383; Taylor 2014). The fourth important parameter they introduce is *organ allocation*; that is, how the procured organs are allocated among those in need. Here, two distributive approaches are the main alternatives: market and non-market. Under a market distribution, organs are bought and sold, while under a non-market distribution, they are distributed in accordance with other parameters, usually involving some combination of expected benefit and need among eligible recipients.

A final parameter according to which futures markets differ relates to what might be called *the nature and limits of the contract*. This parameter includes limits to what people can agree to (if any), conditions on termination, and obligations created by the futures contract, and, to a lesser degree, by establishing a futures market. These questions are very important for how a futures market works and functions. We can imagine several issues about the nature and limits of the contract. One important issue relates to how futures contracts are terminated. A central distinction relates to whether such a contract termination should be mutual or whether either part on their own is eligible to terminate the contract. The contract termination problem is especially interesting in relation to models where a valuable consideration has already been received either in the form of a lump sum payment or the continuous provision of some valuable good. Another aspect of this question relates to the termination of contracts by the family: Should families be able to terminate the contract? This raises considerable worries in the situations where people have already received money; in either case, however, it raises difficult questions regarding autonomy and the role of the family in organ donation. Another important question pertains to the obligations created by such a contract. The question of obligations is relevant both for the organ seller, the organ buyer, and for third parties. Employing these parameters, we can differentiate and describe, briefly, four of the main proposals for a futures market.

Four Prominent Models for a futures market

Using the parameters above, we can briefly outline four prominent proposals for a futures market in organs. While numerous authors have sketched the idea (Anonymous 1974; Brams 1977), the presentation here focuses on the most elaborated proposals for a futures market.

Schwindt and Vining

The first fully-fledged presentation of a futures organ market was made by Schwindt and Vining in 1986 in an article entitled "Proposal for a future delivery market for transplant organs." Here, they present a futures market in which people are paid when signing the futures contract (Schwindt and Vining 1986, 489). While they consider several forms of payment, they prefer a cash payment to the alternatives. The market is centralized and run by the government (Schwindt and Vining 1986, 490). A government agency sets a fixed price given to sellers and charges transplant recipients (or their insurance companies) for the service of procuring an organ (Schwindt and Vining 1986, 489). Finally, they envision that the value of the contract would change over time, which is important since they suggest that people should be allowed to buy themselves out of the contract should they later regret having entered into it – but where the price of buying out reflects the value of the contract rather than the sum received upon entering the contract (Schwindt and Vining 1986, 497).

Hansmann

Henry Hansmann presents a futures market that varies from the above model on several important parameters in *The Economics and Ethics of Markets for Human Organs*. Regarding the timing of payment, the proposal is similar to the one presented above; organ sellers receive their payment upon entering into the futures contract. The first major difference pertains to the form of payment. Here, Hansmann (Hansmann 1989, 63) proposes that organ sellers receive a discount on their health insurance starting upon signing a futures contract. In terms of government regulation, Hansmann also proposes a market that is much different from the monopolistic vision of *Schwindt and Vining*. In Hansmann's depiction of the futures market, health insurers (and perhaps others) can purchase the right to procure organs. This activity would then not be a government activity, and there would be a large degree of competition (Hansmann 1989, 64). The price paid to those entering such a contract would be set by market competition (Hansmann 1989, 65), while the price the insurance company receives could be determined either by the government or by marked forces according to Hansmann (Hansmann 1989, 66). Regarding the allocation of organs, Hansmann (Hansmann 1989, 79–84) argues that there should also be a market distribution of organs. The nature of this contract is that it can be revoked whenever the organ seller wants to, with the consequence that the discount on health insurance will not continue. Hansmann (Hansmann 1989, 65) mentions the potential problem of the family veto but takes a rather optimistic view, as he envisioned that families disagreeing with the wishes of the deceased would be a rare occurrence.

Cohen's proposal

In his proposal, Lloyd Cohen departs clearly from the previous procurement systems presented above. The first important difference pertains to the timing of payment. On Cohen's proposal, a futures contract is not paid out to the organ seller until after the organs are utilized for transplant. Thus the money befalls not the organ seller but rather the family. Cohen (L. Cohen 1991, 35) also leaves open whether the market or the government should set the price. Cohen (L. Cohen 1991, 50) rules out the market allocation of organs procured through this system, though mostly for the pragmatic reason that many would find such a proposal unacceptable. Interestingly, he adds to some interesting discussions regarding the nature of the contract and the obligations it creates. Specifically, Cohen (L. Cohen 1991, 34) stresses how hospitals should be legally obliged to procure organs, so that failure to do so may be a cause for litigation and, ultimately, compensation for those who would have benefitted had the organs been procured.

Crespi's proposal

Gregory Crespi considers his proposal the best of all worlds from the above proposals (Crespi 1994). In his proposal, the timing of payment is similar to Cohen's. That is, payment is made to the family after the organs are removed. This proposal is characterised by more competition because anyone can buy a futures contract, and the prices paid are determined solely by market forces. In the end, the costs of these arrangements will be covered by those who receive a transplant (Crespi 1994). Hospitals are responsible for contacting those who have entered into a futures contract with the potential organ seller. The holder then decides whether they want organ removal to proceed. For those who have not entered into a futures contract but are suitable donors, Crespi allows their families to enter such a contract for them, but then the money is paid to a charity rather than the family. Crespi thus allows for more market and more competition among organ buyers than Cohen.

Efficiency problems

In terms of increasing the supply of organs, the rationale behind the futures market is both well-known and easily recognizable. The general thought is that we can decrease the shortage of organs by increasing the price on offer. The proponents of futures markets in organ procurement believe that a sufficiently high number of people will react to the incentive and agree to enter into a futures contract. If this is the case, creating a futures market will be an important step towards minimizing the organ shortage and the human suffering associated with it. This section assesses a number of reasons why we may doubt the efficiency of the futures market in organ procurement. In doing so, it employs the already

presented parameters and specific models to enable a discussion of whether these doubts are equally persuasive across the various types of futures markets. The efficiency concern evaluated here relates to: Crowding out, bad organs, missed opportunities, moral hazard, strength of incentive, and family refusals.

Crowding out

Inspired by the work of Richard Tittmuss regarding blood donation (Titmuss 1997), one prominent concern is that economic incentives will crowd out extrinsic motivation to donate (Dougherty 1987). The underlying thought is that if we offer people money to do something, this may be considered so problematic that more will refuse to donate. The best way to understand such a reaction is perhaps to consider introducing incentives as being in conflict with people's convictions about how a procurement system should be run. What characteristics of an organ futures market would be most likely to spark such reactions from potential sellers? Presumably, the most problematic version would be the one that pays for consent. If it is the case that people would react negatively to a procurement system which employs procedures which are too similar to a regular market transaction (Albertsen 2020b). Then the problem would be biggest for the version of the futures market, which pays people upon entering money the futures contract, less for those which provide some continuous good, such as cheaper health insurance, and even less for those systems where the money is paid to the family.

Bad organs

In the work of Titmuss, we can identify another common concern regarding market-based solutions to the organ shortage. In his treatment of blood donation, Titmuss finds that bought blood in the United States is of a lesser quality than the blood freely given in the United Kingdom. The mechanism behind this difference is supposed to be that once people are offered money, they are given an incentive to offer blood even if it is bad (or at risk of being bad). By doing so, the risks of those receiving the blood increase (Titmuss 1997). An asymmetry of information enables this. The seller knows more about his or her health history than the buyer. A similar concern could arise for some organ markets (Anonymous 1974, 1225; Williams 1994, 350). How likely is this to be a problem in the futures market? When people sell their kidneys while alive, the information asymmetry can be problematic (Danovitch and Leichtman 2006; Anonymous 1974, 1225). From black markets, we have reports of fraud on the part of the sellers, such as submitting another person's urine sample as their own during a screening process (Koplin 2014). Ultimately, the extent of such problems comes down to the ability to screen out the bad organs (Chapman 1982, 405; Hippen and Matas 2009, 143). In the present comparison, this gives an advantage to systems of family reward rather than payment for consent and to systems where government regulation ensures a proper screening of organs. Despite screening efforts, an edge for

payment to family seems a reasonable conclusion. If payment is only issued, then the incentive to sign up despite a medical history that may result in bad organs is small. If, however, we pay people to enter into the futures contract, things are more difficult, and the relevance of the information asymmetry quite clear. While efforts could be made of course, also under a model that pays upon entering the contract, to keep out those who are unlikely to yield good organ donors, this is arguably a more difficult task than doing so under the family reward scheme.

Costs and missed opportunities

We must also consider the monetary costs associated with the various specifications of the futures market. All else being equal, we would prefer the system which brought about more organs in the cheapest way. Assessing costs in proposed or potential futures markets is not easy, but some things can be assessed. The model where people are paid for their consent involves a cost that does not directly yield organs. This is the case because only a small fraction of people die in circumstances where they are, medically speaking, suitable donors (because they are sick, too old, or die in circumstances not suitable to perform a transplant). This point can be illustrated by employing recent numbers from the United Kingdom. Of the 640.000 people who died in the United Kingdom between 1 April 2021 and 31 March 2022 only 6594 were eligible donors (NHS 2022). Thus, only one will be a potential donor for every 100 people who sign up as donors. In assessing the expected costs, this gives rise to an important difference between those systems that pay people for their consent and those that pay the family after the organs are removed. This is the case because the latter system will involve paying many people for something that will not provide any organs for transplants in the end. This led Love to suggest that such a solution would be 'prohibitively expensive' (Love 1996, 186). However, the most natural consequence of this will be that the payment to each donor will be smaller in the payment for consent model—something which has other effects, which we will return to later.

Another form of missed opportunities relates to loopholes and free riding. Loopholes in this context relate to obtaining the valuable consideration without providing organs. While the above includes, perhaps mostly, innocent ways this could transpire, other forms of missed opportunities arise from intentional human behaviour. The degree to which such behaviour is possible is markedly different between systems that pay for consent and those that reward the family. Paying for consent models runs the risk of people not making good on their part of the deal. Having already paid or provided some good continuously, these models face a regulatory task to ensure that the organs are procured. This task is much easier managed in a system that rewards families for procured organs. To put matters clearly: How are we going to stop people from receiving money when entering a futures contract and then cancelling this contract five years or 5 minutes later? The existing literature provides several possible measures to address this. The first pertains to the form

of payment. If, as Hansmann proposes, people are given a discount on their health insurance for each year they do not cancel their futures contract (or if they receive some other benefit continuously), then there would be a cost associated with leaving the arrangement. Two regulatory changes to the nature of the contract would also discourage people from canceling their contracts. The first relates to a different form of payment. Two adjustments could be made if people are rewarded a lump sum of money upon entering the contract. Either they will have to pay back the money they received if they want to cancel the arrangement later, or they would have to pay the estimated contract value.

A final source of missed opportunities would be if introducing a futures market would affect how hospital staff deals with organ transplantations. After all, organs are only procured if hospital staff are willing to engage in the difficult conversation with families.[3] If, a futures market model relying on payment would mean that the hospital staff would be disinclined to enquire about organ donations, then surely that is another important source of missed opportunities. A study found that medical personnel who have a positive view on organ donation would be less comfortable asking for donation when financial incentives are involved (Altshuler and Evanisko 1992), but in general, knowledge about such effects is sparse, and some remain unconvinced about these effects (Nickerson, Jasper, and Asch 1998).

Family refusals

Family refusals will be used here to cover the situations where a potential seller organ seller has declared his willingness to sell all or some of his organs but where the family refuses to let this happen. When assessing the effectiveness of different futures markets, it is important to consider whether family refusals will be a problem. This is the case not least because family refusals are already a considerable problem in existing systems (NHS Blood and Transplant 2016).[4] For this reason alone, we can imagine that family refusals will be an issue in any system, but it could also be that a futures market with a more well-defined assignment of property rights could provide us with an improvement regarding family refusals. First off, we may suspect that families can refuse for the same reasons that organ donors could. That is, there could be specifically crowding out effects related to families. As such, a judgement similar to that made regarding how potential organ donors/sellers may evaluate different futures markets may be warranted. The more it looks like a market transaction, the stronger the crowding out of the family's willingness to donate. However, concerns are also related specifically to at least one form of the futures market. Under the assumption that families will have the right to overrule and withdraw the decisions made by their dead relatives, it could be the case that the fact that people have been paid may lead to an increase in the rate

[3] I am grateful to an anonymous reviewer for this suggestions

[4] For the general debate over the permissibility of the veto, see (Albertsen 2020a; Zambrano 2017; De Wispelaere and Stirton 2010; T. M. Wilkinson 2005; 2007; Johnston 2017; Shaw et al. 2017; Cay 2019)

of family refusals (Byrne and Thompson 2001). The reason for this is that, in the end, all this has to do with signals and noise introduced by various measures in the organ procurement system. If the family retains the right to veto, and believes that their deceased relative only consented for the sake of the money, then they might be more likely to utilize veto.

Moral hazard

Moral hazard famously describes situations where the actions of one person may negatively affect the gains of the other. In this context, the problem is that there are ways of acting in which the organ seller may decrease the value of the organ's buyer's right to remove the organs of the organ seller. That is, if the person who has entered into a futures contract contracting away the right to remove his organs behaves in ways that diminish the quality of these organs and the likelihood that they will be available for transplants. Again, this problem is clearly most relevant for that version of the futures market, where people are paid to consent rather than in the family reward systems. After all, in the family reward system, if one's organs are of insufficient quality, no payment to the family will be made. While this is problematic from the perspective of procuring enough organs, it is not problematic from the perspective of moral hazard, because the costs of those actions are not shifted onto the organ procurement system or buyers of futures contracts. However, how to address this problem within the realms of futures market that pay people to consent? One possible regulatory way to address this would be to specify in the futures contract that a person has to take due care of his organs. However, this is problematic as such a requirement can contradict otherwise prudent behaviour. Consider, for example, that some medication may be prudent to take, even though doing so poses a risk to one's organs. Perhaps the kind of solution to the moral hazard problem comes at too large a cost in terms of freedom or makes the contracts unattractive to enter. In the end, it is perhaps a questionable thought that the moral hazard problem is big for futures markets which pay people for consent. After all, people can only 'game' the system by doing things that are otherwise bad for their health. Some will surely live unhealthy lives, but they are unlikely to do so because they intend to game the organ procurement system.

Strength of incentive

How strong is the incentive at hand? The strength of an incentive reflects several things. Of course, it reflects the price on offer in the sense that a higher price provides a stronger incentive. However, that is not all. A strong incentive is clear. That is one where it is easy for people to understand what to do to obtain some good. Evaluating the possible and proposed models for a futures market, there seems to be a crucial difference between the models reflecting which solution they opt for in relation to the timing of payment. Those futures market that pays for consent and those that reward families are different regarding how strong an incentive they provide. All else being equal, it must be said that the former

arrangements provide the most unclear incentive. We know, from our general experience with opt-in procurement systems, that many people delay their decision regarding donation, and eventually, many people end up not registering their opinion regarding organ donation. The idea behind introducing incentives is that we want to forefront that decision, which seems more readily achieved with a payment connected to consent, rather than a payment given to the family at some point in the future. Given what has already been said about how few of us end up being eligible donors and that for reasons entirely beyond our control, paying for consent has the advantage that it pays people for the aspect that they can, in fact, control.

Conclusion

There has been considerable debate over regulated organ markets. Especially current markets, where people sell their kidney while alive, have received increased attention. Futures markets remain an interesting and under-discussed alternative specification of a market-based solution to the organ shortage. There is a wide range of possible specifications of the futures market. One of the major concerns remaining pertains to how efficient such a system would be in procuring organs, and the discussion points out that there are many potential sources of inefficiency. This article has tried to flesh out this particular concern while side-stepping much-discussed broader ethical concerns.

Where does the preceding discussion leave us? The ambition was to carefully assess the idea of an organ futures market. To try to better grasp what may (or may not) be achieved by pursuing this idea. While many sources of inefficiency has been identified, some, which have not been properly acknowledged in the literature, this is still only a modest step forward. The discussion leaves us with an incomplete impression of what the impact of a future market would look like. We can compare various specifications of the futures market, but an overall assessment of the potential is difficult based on the above. This is important if we are to compare what we might expect from the futures market to prominent alternatives, which includes a current market – but of course, also non-market variants such as opt-out solutions (Saunders 2012; Midtgaard and Albertsen 2021), mandated choice policies (Thaysen and Albertsen 2021; Chouhan and Draper 2003; Cotter 2011; Herz 1999) and priority rules (Kolber 2002; Albertsen 2017; Steinberg 2004b; 2004a; Veatch 2004; J. A. Chandler 2005; J. Chandler, Burkell, and Shemie 2015; Albertsen 2023b). Some of the most interesting unknowns left by the above is that we have precious little knowledge regarding how people would react to organ futures markets. While the typical focus in the crowding out literature is about how people would react regarding their donation behavior, the above discussion shows that there is a need to consider the potential effects on other stakeholders: families and healthcare professionals. A first step for future research on this could be to experimentally assess, through survey experiments, the relative impact of various arrangements on these groups (and on donation behavior). If these results are positive,

compared to what can be achieved by other procurement methods, then perhaps the call for trials should be heeded.

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