

BEYOND GIFT AND BARGAIN: SOME SUGGESTIONS FOR INCREASING KIDNEY EXCHANGES

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I INTRODUCTION

Each year, thousands of people in the United States die from end stage renal disease (ESRD), despite the fact that we have the medical knowledge necessary to save them. The reason is simple: these people need a kidney transplant and we have too few kidneys. Given our current technology, the only way to meet the massive annual shortfall between the number of kidneys that are donated and the number of kidneys that are necessary to save the lives of those with ESRD is to increase the number of living donations. The debate on how to do so has often pitted those who favor creating a “free market” in human organs against those who believe that the selling of organs by human donors poses unacceptable evils and risks. Current law prohibits donors from being paid for kidneys. Once the donation has been made, however, the kidney will often change hands in exchange for money several times before reaching the patient. There are no serious proposals to ban such transactions.¹ This article generally sympathizes with those who favor the free alienation of kidneys by donors in exchange for payment. The goal of this article, however, is not to make another charge across the no man’s land separating free-marketeers from prohibitionists. Rather, it aims to explore ways in which we can increase trust in order to foster a promising new development in transplant medicine: extended kidney exchange.

Extended kidney exchange is the process by which patients with ESRD who have a willing donor with an incompatible kidney are paired with others in a similar situation to create a chain of kidney donations that allow all of the patients to receive a transplant. When donations and transplants occur simultaneously, extended kidney donations require relatively little trust between participants in

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1. See generally Julia D. Mahoney, *The Market for Human Tissue*, 86 VA. L. REV. 163 (2000) (discussing the myriad ways in which human tissue changes hands for cash in the United States).

the otherwise-unrelated donor–patient dyads. However, if exchange of organs takes place over time, the first-moving donor may be exposed to the risk that a subsequent donor will renege on her commitment to give a kidney, resulting in the initial donor’s patient receiving nothing.

The fundamental weakness of simultaneous exchanges is that the chains of donation are too short to take advantage of every donor who is willing to give a kidney to an incompatible ESRD patient. Creating longer chains of donation requires that we generate sufficient trust for donors to participate. This article sets forth two proposals as to how financial incentives could be created that would assist in the generation of such trust. The first proposal is that participants in extended kidney exchanges obtain a performance bond in the form of a standby letter of credit from a third party. Bonding, of course, is a well-known practice in the commercial context. The issuer of a bond, generally in return for a fee, promises to pay a sum of money to an obligee in the event that the obligor—that is the person who purchased the bond—fails to perform some service. This would likely require an amendment to current federal law. The second proposal is to further amend federal law to allow payment of cash incentives to kidney donors in the very limited situation where such a kidney on the front-end would facilitate a long chain of life saving donations. As this article will explain in greater detail below, such non-simultaneous extended altruistic donation (NEAD) involves a single initial donation in which the donor does not expect to receive a kidney in return. This means that risk of irreparable injury from nonperformance by the other kidney donors can be eliminated.

The attraction of these two proposals is that while both of them involve financial incentives, neither of them involves a bare sale of organs for cash. The first proposal is ultimately about providing assurances of fidelity to one’s word. Crucially, no money would change hands between the recipient of the kidney and the donor of the kidney. Under this proposal, the cost in a successful extended kidney exchange would be incurred by the donor not the donee. The second proposal would involve the exchange of a kidney for cash or some other valuable consideration. However, this transaction would be embedded in a much larger set of exchanges where the motives of the participants, far from being crassly commercial, are usually rooted in affection and altruism. The market transaction’s sole goal is to leverage the effectiveness of personal generosity. Finally, neither proposal requires the specific performance of a promise to donate a kidney or a lawsuit against a judgment proof individual. In other words, they could provide incentives to participate in extended kidney exchanges without making unreasonable demands on our legal machinery.

This article proceeds as follows: Part II provides background on the problem and the policy proposal. It first examines the medical background of kidney donations and organ exchanges. Next, it looks at the normative and legal issues involved in organ exchanges. Part III argues that we can foster trust in non-simultaneous kidney exchanges by allowing donors to post a performance bond in the form of a standby letter of credit. Part IV shows how changing current law to

allow payment to organ donors when such donors are the first movers in a NEAD chain reduces risk in such exchanges and increases trust. Part V concludes.

II

MEDICAL, NORMATIVE, AND LEGAL BACKGROUND OF KIDNEY EXCHANGES

A. Medical Background

Each year tens of thousands of people in the United States suffer from ESRD, a capacious category that includes diseases, such as diabetes and polycystic kidney disease, that can lead to renal failure.² Kidneys perform the vital function of filtering the toxins that naturally accumulate in the blood. Once a patient's kidneys fail, there are essentially two treatment options. First, patients may go on dialysis, a process in which they are hooked to a machine for several hours a few times a week and the machine artificially scrubs their blood of toxins. In addition to the discomfort and inconvenience that dialysis inflicts upon patients, it is an imperfect replacement for a properly functioning human kidney. As a result, dialysis is not ultimately a long-term solution for those facing ESRD. While outcomes vary based on a variety of factors, the average life expectancy of the patient on dialysis is roughly five years.³

The second option for those facing ESRD is a kidney transplant, either from a cadaver or, ideally, from a living donor. Transplant is also not a perfect solution to the problem of renal failure.⁴ Some transplants fail when the body rejects the new organ.⁵ Those transplants that are successful require a permanent regime of immunosuppressant drugs to ensure that the body's own immune system does not attack the new kidney.⁶ However, the suppression of the human immune system can lead to its own complications,⁷ and, regardless, transplanted kidneys do

2. See F. A. DAVIS CO., *TABER'S CYCLOPEDIA MEDICAL DICTIONARY* 811, 1875 (Donald M. D. Venes et al. eds., 23d ed. 2017) (defining ESRD and polycystic kidney disease, stating that diabetes and polycystic kidney disease cause ESRD, and stating that ESRD leads to renal failure).

3. See Philip J. Cook & Kimberly D. Krawiec, *A Primer on Kidney Transplantation: Anatomy of the Shortage*, 77 *LAW & CONTEMP. PROBS.*, no. 3, 2014, at 1, 7 ("The average life expectancy for a patient on dialysis is about five years.").

4. See U.S. DEP'T HEALTH & HUMAN SERVS., *UNITED STATES ORGAN TRANSPLANTATION REPORT: 2012 ANNUAL DATA REPORT 13-14* (2014), available at https://srtr.transplant.hrsa.gov/annual_reports/2012/pdf/01_kidney_13.pdf [<https://perma.cc/WAK4-DSHZ>] (stating that incidence of acute rejection among adult kidney transplant patients reaches or exceeds 15% at four years post-surgery).

5. See *id.*

6. See Gorden Muduma et al., *Patient Survey to Identify Reasons for Non-Adherence and Elicitation of Quality of Life Concepts Associated with Immunosuppressant Therapy in Kidney Transplant Recipients*, 10 *PATIENT PREFER. ADHERENCE* 27, 27-28 (2016) (stating that the life-long nature of immunosuppressant drug regimens for kidney transplant patients contribute to patients not adhering to the regimens).

7. See D. Niethammer et al., *Side-Effects of Long-Term Immunosuppression versus Morbidity in Autologous Stem Cell Rescue: Striking the Balance*, 38 *RHEUMATOLOGY* 747, 748 (1999) ("All immunosuppressive drugs have . . . infections and malignancies" as their main side-effects.).

not last forever.⁸ Eventually, if the patient lives long enough, the transplanted kidney will fail and once more the patient will face dialysis and the search for a new kidney. Hence, while there is no perfect cure for ESRD, the only option that offers patients potential long-term survival is a kidney transplant.

The United States faces a chronic shortage of kidneys available for transplant. In 2012, there were 92,885 people awaiting transplant.⁹ That number has increased dramatically in recent decades. In 2002, 51,004 people were awaiting transplant.¹⁰ The increase is the natural result of a shortfall of roughly 21,000 kidneys each year.¹¹ One source of organs is donors who agree to donate kidneys in the event of their death. Successful harvesting from a dead donor, however, requires very specific conditions. The age, health, and manner of the donor's death must all be right. Thus, the vast majority of people who die are not candidates to be cadaverous kidney donors.¹² Even if it were logistically and legally possible to harvest the kidneys of every eligible person who dies in the United States, it would only increase the supply of kidneys by about 5,500.¹³ This is because the United States on the whole already does a fairly good job of making those kidneys available to ESRD patients (and eliminating the kinds of deaths that are candidates for cadaveric donations). Thus, the only way to fill the gap in needed kidneys is to increase the availability of organs from living donors. Without such an increase in supply, roughly 5,000 people awaiting transplant will die each year.¹⁴ In addition, an uncertain number of other ESRD patients who are not on the transplant waiting list because they become medically ineligible for a kidney transplant while waiting will also die.¹⁵

The overwhelming majority of living donors have some kind of relationship with an ESRD patient, most commonly as a parent, sibling, or spouse.¹⁶ The motives of such family members are understandable. Furthermore, each year there are a tiny handful of people who donate a kidney as a matter of pure altruism without any relationship to a particular donee; however, such donations are rare. In 2012, there were 5,434 directed kidney donations in the United States, that is,

8. See Adam Gondos et al., *Kidney Graft Survival in Europe and the United States: Strikingly Different Long-Term Outcomes*, 95 *TRANSPLANTATION* 267, 269 (2013) (illustrating that survival rates for kidney grafts decrease over time).

9. See U.S. DEP'T HEALTH & HUMAN SERVS., *supra* note 4, at 19.

10. *Id.*

11. See Cook & Krawiec, *supra* note 3, at 2 (stating that the annual kidney shortage is approximately 21,000 kidneys).

12. See *id.* at 2–3 (discussing the kinds of deaths that are candidates for organ donation).

13. *Id.* at 3 (“[E]ven a perfect deceased-organ consent-and-allocation system would have yielded only about 5500 kidneys in 2011 . . .”).

14. *Id.* at 1 (“5,000 people on the waiting list die each year . . .”).

15. See U.S. DEP'T HEALTH & HUMAN SERVS., *supra* note 4, at 20 (stating that over 2,000 patients on the waiting list were removed for being too sick in 2012, but not stating how many of those patients died while off the waiting list).

16. Cook & Krawiec, *supra* note 3, at 21 (most donors in 2012 were immediate family members, frequently spouses, siblings, or parents).

donations made by a particular donor to a particular donee.¹⁷ Most of these donors had some kind of family relationship with the donee. In the same period, there were a mere 182 undirected donations.¹⁸ Overall living donations increased from 1988 to 2005, but since that time, the number of live donations each year has been static despite the lengthening waiting list of those with ESRD.¹⁹

The availability of a willing donor, however, does not ensure that an ESRD patient will receive a transplant. Extensive testing is required to ensure that the donor's kidney will be acceptable to the donee's body. A mismatch of blood type and other genetic characteristics can cause the donee's body to reject a donated kidney. It is therefore not uncommon for an ESRD patient to have a donor who is willing to give a kidney that the patient cannot use.

One possible solution to this problem is a paired kidney donation. In this scenario, there are two patient-donor dyads, AB and CD. A's kidney is not compatible with B but is compatible with D, while C's kidney is not compatible with D but is compatible with A. The dyads agree to swap kidneys. It is possible to conceptualize this transaction as a bargain or sale, but the motives of those involved are generally altruistic and do not fit easily into our normal models of market exchange. The recovery rates from a donation nephrectomy are extremely high and there is no evidence that those who survive face decreased longevity.²⁰ Nevertheless, it is a major surgery that involves substantial discomfort and disruption of one's life during recovery and minor but not trivial risks.²¹ Unsurprisingly, kidney donors are overwhelmingly motivated by an intense concern for a particular individual rather than a more generalized altruism. Even so, donors sometimes change their minds at the last minute about donating or may become medically unable to donate prior to the operation.²² Accordingly, paired donations will ideally occur simultaneously to avoid the risk of a donor losing a kidney without that donor's patient receiving one in exchange.

The first bilateral kidney swap in the United States was performed in 2000.²³ It soon became clear, however, that longer chains of donations would be needed

17. *Id.* at 21.

18. *Id.* at 23.

19. *See id.* at 9–15 (showing that while the waiting list has increased linearly since 1995 and donations increased from 1988 to 2005, donations have remained static since 2005).

20. *Id.* at 7 (“The risk of death within ninety days of surgery is 3.1 per 10,000 donors . . . [and] studies find no long-term increased risk of mortality among kidney donors.”).

21. *See* A. J. Ghods, *Living Kidney Donation: The Outcomes for Donors*, 1 INT. J. ORGAN TRANSPLANT. MED. 63, 63 (2010) (“the incidence of cardiovascular disease may be higher in kidney donors”); *see also* Thomas G. Peters et al., *Living Kidney Donation: Recovery and Return to Activities of Daily Living*, 14 CLIN. TRANSPLANT. 433, 435–36 (2000) (describing some side effects and discomfort reported by forty-two kidney donors).

22. *See, e.g.*, Ingela Fehrman-Ekholm et al., *Reasons for Not Accepting Living Kidney Donors*, 61 TRANSPLANTATION 1264, 1264–65 (1996) (stating that eighteen potential kidney donors out of 146 changed their minds, nine after undergoing various investigations).

23. *See* ALVIN E. ROTH, WHO GETS WHAT—AND WHY: THE NEW ECONOMICS OF MATCHMAKING AND MARKET DESIGN 35 (2016).

to maximize the number of successful transplants through kidney exchanges. Sometimes, it will be difficult for a patient–donor dyad to find a dyad with mutually compatible kidneys. In this situation, it may be possible to create extended chains of donations. Imagine three dyads: AB, CD, and EF. A’s kidney is incompatible with B but is compatible with D. C’s kidney is incompatible with D but is compatible with F. E’s kidney is compatible with B but not F. In such a situation, all three patients—B, D, and F—can receive a kidney by linking the donations together: A donates to D, C donates to F, and E donates to B. We can think of these as “closed-loop exchanges” because the first donor ultimately gets a kidney from the final donor for “his” or “her” ESRD patient. To facilitate this process, kidney exchange clearinghouses were created, first in New England and later in other regions.²⁴ Donees with incompatible donors register with the exchange, which then tries to match them with others in the same situation.

What began as a back-of-the-envelope process by transplant surgeons has attracted the attention of economists, mathematicians, and computer scientists, who have created algorithms for the optimal allocation of kidneys through exchanges. These models suggest that in a pool of representative ESRD patients, the number of donations should be maximized through exchange loops of three to four pairs.²⁵ However, in practice the optimal number of connected pairs on actual exchanges is much, much longer.²⁶ This is because organ exchanges, as they currently exist, are thin markets. While there is a nascent national exchange program, the availability of organ exchanges still varies dramatically by region. Furthermore, patients with a compatible donor never register with the exchanges, which means that the pool of patients in the exchanges tends to skew towards those for whom it is difficult to find a match because of their blood type or antibody response. Hospitals are similarly unlikely to report easy-to-match dyads to organ exchanges, preferring to arrange those exchanges without the aid of a clearinghouse.²⁷

In extended kidney exchanges, operations are performed simultaneously. This ensures that the first-moving donor is not exposed to the risk that someone down the chain will renege on her promise to donate. Such renegeing after the

24. See generally Alvin E. Roth et al., *A Kidney Exchange Clearinghouse in New England*, 95 AM. ECON. REV. 376, 376–80 (2005) (recounting the creation of the first exchange clearinghouse in the United States).

25. See Alvin E. Roth et al., *Efficient Kidney Exchange: Coincidence of Wants in Markets with Compatibility-Based Preferences*, 97 AM. ECON. REV. 828, 840 (2007) (“While two-way exchanges account for most of the potential gains from exchange, the number of patients who benefit from exchange significantly increases when three or more pair exchanges are allowed”); Tayfun Sönmez & Utku M. Ünver, *Market Design for Kidney Exchange*, in THE HANDBOOK OF MARKET DESIGN 93, 116 (Nir Vulkan et al. eds., 2013) (“[V]irtually all possible gains from trade are achieved with two way, three way, and four way exchanges, especially when the population size is large[.]”).

26. See Itai Ashlagi et al., *The Need for (Long) Chains in Kidney Exchange* 23 (Nat’l. Bur. Econ. Res., Working Paper No. 18202, 2012), <http://www.nber.org/papers/w18202> [<https://perma.cc/7XDV-2F9J>].

27. *Id.* at 7.

initial donation chains would result in irreparable harm, as the first donor's donee would not only fail to receive a transplant, but would also lose a kidney with which she can bargain for a compatible organ in the future. However, it is very difficult to perform more than about six operations simultaneously.²⁸ Accordingly, nothing more than three or four transplants occurs in closed-loop exchanges, even though if they were to occur, lives would be saved.²⁹

An alternative process known as non-simultaneous extended altruistic donation (NEAD) has recently gained popularity. Unlike in a closed-loop exchange, the first moving donor in a NEAD chain has no particular patient that she is trying to benefit. The result is that she is never exposed to the risk of irreparable harm if a downstream donor fails to donate as promised.³⁰ This allows for much longer chains of donations. NEAD chains have involved as many as thirty-four transplants.³¹ While NEAD chains are a very promising development, their use is limited by the availability of an altruistic donor on the front end of the transaction. Without such a donor, the NEAD chain will not happen.

B. Normative Background

At first glance, the problem of extended kidney exchange looks like an example of what we could think of as the classic contracting problem.³² The basic problem is one of opportunism and the lack of trust that fear of opportunism can create. When, over time, quid is exchanged for pro, there is always the risk that one party will take the money and run without performing later. As a result, otherwise beneficial transactions do not occur. The traditional solution to this dilemma is to create legally-enforceable contracts. Once a party enters into a contract, his ability to defect is sharply limited. This generates sufficient trust for beneficial transactions to occur.³³ The solution to the problem of overly-short closed-loop exchanges might be to have longer, non-simultaneous exchanges where all the parties enter into legally enforceable contracts with one another. Despite the apparent elegance of this solution, there are moral, political, legal, and practical

28. ROTH, *supra* note 23, at 42.

29. *See id.* at 41–46.

30. Of course, if a downstream donor reneges, the chain is broken and all of the ESRD patients downstream of the reneging donor are left without a transplant. After having one's hopes raised, this is a heart-breaking experience. However, such ESRD patients still have a willing donor with an incompatible kidney, and thus may be able to join a future chain.

31. Byron Pitts et al., *Kidney Donor Chain Changes 68 Lives Forever*, ABC NEWS (Dec. 11, 2017), <http://abcnews.go.com/Health/donating-kidney-complete-stranger-order-save-loved/story?id=30288400> [<https://perma.cc/UJ9U-GKHV>]; Kevin Sack, *Lives Forever Linked Through Kidney Transplant Chain 124*, N.Y. TIMES (Feb. 18, 2012), <https://www.nytimes.com/2012/02/19/health/lives-forever-linked-through-kidney-transplant-chain-124.html> [<https://perma.cc/2MUM-ZRB9>].

32. *See* NATHAN B. OMAN, *THE DIGNITY OF COMMERCE: MARKETS AND THE MORAL FOUNDATIONS OF CONTRACT LAW* 36 (2016) (discussing the role of contract law in avoiding ex post opportunism in extended exchanges).

33. *See generally* OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985) (discussing basic contracting problems in great depth).

reasons for believing the problem cannot be solved so simply.

Most people are deeply uncomfortable with the idea of selling organs. To be sure, proposals to allow parties to sell kidneys have gained greater acceptance over the last few decades, but polling suggests that proposals for unregulated organ auctions cannot command widespread social support.³⁴ Numerous scholars have offered normative arguments against the sale of kidneys.³⁵ First, there is the argument that allowing the sale of organs by living donors would lead to the exploitation of poor and vulnerable individuals.³⁶ According to this argument, only the extremely poor and desperate will be willing to sell their kidneys, and it would be immoral to take advantage of that desperation.

Second, building on the critique of markets offered by Karl Marx and his idea of commodity fetishism, one could argue that when something is traded within a market, market participants come to see that thing as being interchangeable with substitutes in the market and possessed of a purely instrumental value.³⁷ According to this view, the danger in allowing the sale of organs is that it will lead to the commodification of human bodies and, by extension, the commodification of human beings themselves. Even someone such as Margaret Radin, who argues that markets need not inevitably lead to full commodification, might worry about the dangers of partial or incomplete commodification, particularly when dealing with human bodies.³⁸

Third, there are strong human ideas of the sacred: that which is sacred is defiled when it is traded in a market. The moral intuition is that human bodies are sacred and therefore should not to be traded. A similar point can be made using the language of moral pluralism. On this view, the problem with markets is that they rest on the assumption that all goods can be valued using a single metric.³⁹

34. A 2012 poll of Americans found that 60% supported providing credits for health care costs, while 41% supported cash payments. Interestingly, 60% of respondents found that there was a difference between providing compensation for organs and buying organs. Scott Hensley, *Poll: Americans Support Compensation for Organ Donors*, NPR (May 16, 2012), <http://www.npr.org/sections/health-shots/2012/05/16/152498553/poll-americans-show-support-for-compensation-of-organ-donors> [https://perma.cc/7HER-VWLD].

35. See, e.g., DEBRA SATZ, *WHY SOME THINGS SHOULD NOT BE FOR SALE: THE MORAL LIMITS OF MARKETS* 189–205 (2012) (setting forth arguments against markets for kidneys).

36. There is evidence to suggest that this is what is happening internationally in at least some black market sales of organs. See generally Nancy Scheper-Hughes, *The Global Traffic in Human Organs*, 41 *CURRENT ANTHRO.* 191, 224 (2000) (summarizing the evidence for an international black market in human organs).

37. See KARL MARX & FRIEDRICH ENGELS, *THE MARX-ENGELS READER* 321 (Robert C. Tucker ed., 1978) (“There is a physical relation between physical things. But it is different with commodities. There, the existence of things *qua* commodities, and the value-relation between the products of labour which stamps them as commodities, have absolutely no connexion with their physical properties and with the material relations arising therefrom.”); MARGARET JANE RADIN, *CONTESTED COMMODITIES* 3 (1996) (“Valuation in terms of dollars implies that all commodities are fungible . . .”).

38. See RADIN, *supra* note 37, at 102–14 (discussing incomplete commodification).

39. See ELIZABETH ANDERSON, *VALUE IN ETHICS AND ECONOMICS* 141–67 (1995) (applying this theory to the criticism of monistic conceptions of market activity).

This, so the argument goes, is a philosophical mistake. Some goods are incommensurable with one another. Allowing everything to be traded in the market fails to recognize this fact and thus values incommensurable goods improperly. Relatedly, there is the association of the market with self-interest and greed.⁴⁰ This belief holds that, if sale of organs were allowed, intimate decisions about the treatment of one's own body would likewise seep into the market, thus encouraging selfishness in those areas of life that should be protected from the baleful effects of naked self-interest.

In addition to these (at times abstract) moral concerns, there are also concrete, practical objections against creating an open market for the sale of kidneys. The presence of a paying market may crowd out altruistic donation and deliver inferior organs. The seminal text for this argument is Richard Titmuss's 1971 book, *The Gift Relationship: From Human Blood to Social Policy*.⁴¹ Titmuss compared the process of supplying blood in the United Kingdom and United States.⁴² At the time, the United States allowed blood banks to pay donors for blood, while such transactions were illegal in the United Kingdom.⁴³ According to Titmuss, the United Kingdom outperformed the United States, both in terms of eliminating blood shortages and eliminating contaminated blood.⁴⁴ Titmuss hypothesized that the system of payment for blood caused people to become less altruistic, diminishing overall supply.⁴⁵ In addition, he said that paid donors were drawn mainly from the "skid row" portion of the population that was disproportionately affected with hepatitis, which was then the most common medical problem with blood donations.⁴⁶

Titmuss's critique proved powerful in the United States, which abandoned paid blood donations in the 1970s.⁴⁷ Some critics of organ sales appeal to Titmuss's work to support their belief that markets for blood and organs would be pernicious. In a sensitive reappraisal of Titmuss's work, however, Kieran Healy argues that Titmuss's conclusions are highly contingent on the particular structure of the blood markets of the 1960s and early 1970s.⁴⁸ The superiority of altruistic donation, Healy argues, is not preordained. He points out that in the early

40. See OMAN, *supra* note 32, at 42–43 (discussing the association of markets with greed and avarice).

41. See generally RICHARD M. TITMUSS, *THE GIFT RELATIONSHIP: FROM HUMAN BLOOD TO SOCIAL POLICY* (1971).

42. See *id.* at 41–69.

43. See *id.* at 50, 202 (though some companies in the U.S. regularly pay their donors, the U.K. pays out, on average, one penny per seven units of blood to donors).

44. See *id.* at 196–97 (stating that, while 15–30% of American blood supply is lost, the waste in England and Wales was "infinitesimal").

45. See *id.* at 239.

46. See *id.* at 103–10, 113 (illustrating that donors tend to be unemployed, working-class, or uneducated).

47. A system of payments for blood plasma but not whole blood remains.

48. See KIERAN HEALY, *LAST BEST GIFTS: ALTRUISM AND THE MARKET FOR HUMAN BLOOD AND ORGANS* 91–92 (2006) (noting that the success of the Titmuss model was due in large part to the

1980s, the for-profit blood plasma industry was more aggressive in screening donors who might have HIV than were the blood banks who relied on altruistic donations.⁴⁹

Healy still credits Titmuss with the insight that both social meaning and institutional context are important for the success of those transfers. He notes the widespread early suspicion of organ donations and documents the extensive efforts of transplant proponents to craft institutions and social narratives that allayed these fears and that paved the way for widespread donation. The key to success in this area, Healy argues, has been a narrative surrounding organ donation centered on the ideas of altruism and “the gift of life.”⁵⁰ He suggests that the current consensus in favor of organ donation and the value of transplants may be fragile, which raises the possibility that social support for donation could collapse if the process is perceived as crassly commercial or exploitive.⁵¹

There are plausible objections that can be made to all of these arguments. Bans on paid transactions that are justified by fears of exploiting the poor may have the perverse effect of making the poor worse off. In any case, it is by no means obvious that in a system of paid donations the donors would primarily be poor. For instance, similar concerns were raised in the early years of surrogate pregnancies.⁵² Given the legalization of surrogate pregnancy in several states, there is now a generation of experience with paid surrogacy markets, and the women who participate in such markets are not generally poor and desperate.⁵³

Likewise, concerns regarding the commodification of women were frequently voiced in the early years of egg donations and sales.⁵⁴ Again, there have been several decades of experience with these markets, which have not led to a widespread social understanding in which women are valued solely on the basis of their genetic potential.⁵⁵ With regard to the desecrating effect of money, one can look to the experience of life insurance. When it was first introduced in the late-eighteenth and early-nineteenth centuries, life insurance was widely criticized as an unholy and devilish effort to benefit from death financially.⁵⁶ However, people

unusual circumstances of the early 1970s, circumstances which have now changed).

49. See *id.* at 101–04 (while blood banks were unwilling to screen blood donors for sexual practices linked to HIV transmission, for-profit companies began screening potential donors for those practices).

50. *Id.* at 25.

51. *Id.* at 112 (discussing how the bureaucratic nature of kidney donation grates against the public’s sensibilities about dead bodies).

52. See RADIN, *supra* note 37, at 138–39.

53. See Karen Busby & Delaney Vun, *Revisiting the Handmaid’s Tale: Feminist Theory Meets Empirical Research on Surrogate Mothers*, 26 CAN. J. FAM. L. 13, 22 (2010) (“[T]he empirical data consistently offers little support for the widely expressed concerns about contractual parenting being emotionally damaging or exploitive for surrogate mothers, children, or intended/social parents.”). For a more skeptical collection of anecdotes, see Martha A. Field, *Compensated Surrogacy*, 89 WASH. L. REV. 1155, 1170–71 (2014).

54. See RADIN, *supra* note 37, at 138–39 (positing reasons for society’s aversion to the sale of babies).

55. See OMAN, *supra* note 32, at 170 (discussing the experience with egg donation markets).

56. See ROY KREITNER, *CALCULATING PROMISES: THE EMERGENCE OF MODERN AMERICAN*

were able to craft understandings of life insurance, such as the altruistic desire to care for one's dependents after death, which robbed the product of its blasphemous character. This article does not seek to rehash or contribute to these debates. It is enough to note that the idea of selling kidneys is controversial, and for that reason, it is unlikely that widespread political support for a robust-but-regulated market in kidneys is currently possible.⁵⁷

C. Legal Background

There are also major legal impediments to the creation of enforceable contracts around extended kidney exchanges. In 1984, Congress reacted to growing unease around new technologies involving transplants and reports that some people were trying to sell their kidneys.⁵⁸ The result was the National Organ Transplant Act (NOTA).⁵⁹ The law created a national system for the distribution of organs that ultimately came to be administered by the United Network for Organ Sharing (UNOS), a nonprofit corporation that administers the program under a contract with the United States government.⁶⁰ The act also declared, "it shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce."⁶¹ Violation of the law is a crime that can result in a fine of up to \$50,000 and five years in prison.⁶²

In 2007, NOTA was amended by the Charlie W. Norwood Living Organ Donation Act (Norwood Act), which states that the prohibition on the transfer of human organs for "valuable consideration . . . does not apply with respect to human organ paired donation."⁶³ On its face, the statutory definition of "human organ paired donation" seems to include extended kidney exchanges.⁶⁴ However, such extended kidney exchanges are nevertheless excluded if the participants in the transaction receive anything other than a human organ in exchange for their

CONTRACT DOCTRINE 126–46 (2007) (recounting the early history of life insurance).

57. See generally T. Randolph Beard & Jim Leitzel, *Designing a Compensated-Kidney Donation System*, 77 LAW & CONTEMP. PROBS., no. 3, 2014, at 253 (discussing what a regulated system of compensated kidney donation might actually look like in the United States).

58. 129 CONG. REC. 25232 (daily ed. Sept. 21, 1983) (statement of Rep. Gore) (arguing that kidney transplantation technology dehumanizes people).

59. National Organ Transplant Act, Pub. L. No. 98-507, 98 Stat. 2339 (1984) (codified as amended at 42 U.S.C. §§ 273, 274-274e (2012)).

60. See *History of UNOS*, UNOS, <https://www.unos.org/about/history-of-unos/> [<https://perma.cc/AG57-JTQE>] (last visited Sept. 5, 2017).

61. 42 U.S.C. § 274e(a) (2012).

62. 42 U.S.C. § 274e(b) (2012) ("Any person who violates subsection (a) of this section shall be fined not more than \$50,000 or imprisoned not more than five years, or both.").

63. Charlie W. Norwood Living Organ Donation Act, Pub. L. No. 110-114, 121 Stat. 1813 (2007) (codified at 42 U.S.C. §§ 273b, 274e (2006 & Supp. IV 2011)). The Department of Justice's Office of Legal Counsel subsequently concluded that kidney exchanges did not violate the original unamended version of NOTA. See *Legality of Alternative Organ Donation Practices under 42 U.S.C. § 274e*, 31 Op. O.L.C. 40 (2007).

64. See 42 U.S.C. § 474e(c)(4)(D)–(E).

donation. Thus, a paired donation in which a person received not simply a kidney for a loved one, but also a cash payment, would be subject to the criminal prohibition on receiving “valuable consideration” in the transfer of “any human organ.” In short, under current law, kidneys may only be traded for kidneys.

Federal law merely states that transactions in which kidneys are exchanged for one another is not a federal crime. It does not follow from this that agreements to exchange kidneys are legally enforceable contracts.⁶⁵ First, there is the question of whether such a contract would satisfy the requirements of offer, acceptance, and consideration. The answer is most likely yes.⁶⁶ However, it is worth noting that whether these transactions involve consideration might be arguable.

The requirements of contractual consideration are a famously obscure question, one with which law professors have been tormenting first-year law students for over a century. Generally, the modern position is that in order for a promise to have consideration, there must be a bargain in fact between the parties.⁶⁷ In the case of extended kidney exchanges, the bargain in fact would be the promised exchange of kidneys. However, one might argue that the promise to donate a kidney in this case is gratuitous, albeit subject to the condition that the patient in the donor-patient dyad receives a kidney. In other words, the midstream donor is not actually engaged in a quid pro quo, but rather makes a conditional gift. The distinction is that between a gratuitous promise containing a condition, which remains a *nudum pactum* notwithstanding the condition, and a true bargain. Admittedly, the distinction is obscure, and the extended kidney exchange can be easily characterized as a complex bargain. However, common law courts have often manipulated the doctrine of consideration to allow or deny enforcement of agreements based on the judges’ *sub rosa* substantive evaluation of the underlying transaction.⁶⁸ Given the widespread discomfort with the transfer of organs in anything that looks like a sale, there is always the possibility that a judge would refuse to enforce a kidney exchange contract based on a consideration argument.

Perhaps more plausibly, there is also the possibility that, when faced with a suit to enforce a contract for the exchange of kidneys, a court would refuse to do so on public policy grounds. There are no reported American cases addressing the issue. Numerous states have criminal prohibitions on the sale of organs for

65. Indeed, one might argue that receiving a legally enforceable promise of a kidney, rather than a kidney itself, might be “valuable consideration” of the kind prohibited by NOTA. 42 U.S.C. § 474(a) (2012).

66. See Kieran Healy & Kimberly D. Krawiec, *Custom, Contract, and Kidney Exchange*, 62 DUKE L.J. 645, 665–66 (2012) (arguing that promises between kidney donors could result in a legally enforceable contract).

67. See RESTATEMENT (SECOND) OF CONTRACTS § 71 (AM. LAW INST. 1981) (“Requirement of Exchange”).

68. See, e.g., GRANT GILMORE, *THE DEATH OF CONTRACT* 68–69 (1995) (discussing Justice Cardozo’s manipulation of the doctrine of consideration during his tenure on the New York Court of Appeals).

valuable consideration.⁶⁹ Contracts to commit an illegal act are, of course, unenforceable.⁷⁰ However, some states have specific statutory exemptions stating that organ exchanges in paired donations are not illegal.⁷¹ Setting these statutes aside, courts have frequently refused to enforce contracts on public policy grounds when the subject matter of the contract touches on intimate matters or involves personal decisions about the use of one's body. Examples of the former category include the refusal to enforce a contract that would result in a man becoming a father via the implantation of a frozen embryo without his ongoing consent.⁷² Examples of contracts in the latter category include the refusal of courts to enforce surrogacy contracts in which a woman promises to carry a child to term on behalf of another couple.⁷³ Even where such agreements are not prohibited by law, courts may refuse to lend the assistance of the state in enforcing them. Again, given the widespread discomfort with anything resembling coerced organ donation, it is certainly possible that courts would refuse to enforce contracts to donate because of the breaching party's immediate refusal to undergo surgery.

Finally, there is the question of what legal enforcement of a contract would even mean in this context. It is inconceivable that a court would order specific performance where someone who promised to give up a kidney subsequently refuses to undergo an operation. Courts have long refused to specifically enforce ordinary personal services contracts—contracts that often involve nothing more controversial than the performance of ordinary professional services in return for lucrative compensation.⁷⁴ To imagine an American court requiring someone to submit to an invasive surgical procedure on pain of contempt is fanciful.

69. See, e.g., ALA. CODE § 22-19-175 (1975); ARIZ. REV. STAT. ANN. § 36-854 (2007); ARK. CODE ANN. § 20-17-802 (2017); CAL. PENAL CODE § 367f (West 2011); COLO. REV. STAT. ANN. § 12-34-116 (West 2017); DEL. CODE ANN. tit. 11, § 1333 (West 1995); D.C. CODE ANN. § 7-1501.01 (West 2008); FLA. STAT. ANN. § 873.01 (West 1999); GA. CODE ANN. § 16-12-160 (West 2008); HAW. REV. STAT. ANN. § 327-16 (West 2008); IDAHO CODE ANN. § 39-3417 (West 2007); 720 ILL. COMP. STAT. ANN. 5/12-20 (West 2011); IND. CODE ANN. § 35-46-5-1 (West 2016); IOWA CODE § 142C.10 (West 2007); KAN. STAT. ANN. § 65-3235 (West 2007); LA. STAT. ANN. § 14:101.1 (1986); MICH. COMP. LAWS ANN. § 333.10116 (West 2008); MINN. STAT. ANN. § 145.422 (West 1973); MO. ANN. STAT. § 194.275 (West 2008); MONT. CODE ANN. § 72-17-302 (West 1989); NEV. REV. STAT. ANN. § 201.460 (West 1987); N.H. REV. STAT. ANN. § 291-A:11 (2010); N.J. STAT. ANN. § 2C:22-2 (West 2008); N.M. STAT. ANN. § 24-6B-16 (West 2007); N.Y. PUB. HEALTH LAW § 4307 (McKinney 2009); OR. REV. STAT. ANN. § 97.981 (West 2008); 35 PA. STAT. AND CONS. STAT. ANN. § 10025 (West 1984); S.C. CODE ANN. § 44-43-10 (2009); TEX. PENAL CODE ANN. § 48.02 (West 2017); VT. STAT. ANN. tit. 9A, § 2-108 (West 1989).

70. See RESTATEMENT (SECOND) OF CONTRACTS § 179 (AM. LAW INST. 1981) (“Bases of Public Policy Against Enforcement”).

71. See, e.g., CAL. HEALTH & SAFETY CODE § 7152.2(a) (West 2011); N.Y. PUB. HEALTH LAW § 4307(b) (2009).

72. See *A.Z. v. B.Z.*, 725 N.E.2d 1051, 1059 (Mass. 2000) (refusing to enforce the provisions of a contract with a fertility center).

73. See *In re Baby M*, 537 A.2d 1227, 1264 (N.J. 1988) (refusing to enforce the provisions of a surrogacy agreement relating to custody).

74. See generally Nathan B. Oman, *Specific Performance and the Thirteenth Amendment*, 93 MINN. L. REV. 2020 (2009) (discussing the relationship between specific performance of personal service contracts and the Thirteenth Amendment).

One could, of course, enforce the contract through the award of damages. Here, two problems arise. First, there would be the difficulty of calculating damages. Current contract doctrine requires that damages be fixed with certainty.⁷⁵ The most common way in which this occurs is by awarding the disappointed breachee the difference between the contract price of what was promised and the market price at the time of breach.⁷⁶ Given the absence of a non-black market price for kidneys, it would be very difficult to determine this figure.⁷⁷ Likewise, consequential damages must be foreseeable at the time the parties enter into the contract.⁷⁸ However, there is necessarily a great deal of uncertainty as to the ultimate outcome of any transplant operation.⁷⁹ Therefore, it would be difficult to determine, for example, whether the transplant would have been successful had it been made and how long the kidney would have continued to function after the transplant. Again, unless these figures can be fixed with certainty damages will not be awarded. The second problem is not legal, but practical. Presumably, the consequences of giving up a kidney and receiving nothing in return, or of being denied a life-saving transplant that was promised, would be severe. Suppose the courts were comfortable placing a large dollar figure on this damage. Most individuals are likely to be judgment proof; many will not have the assets to satisfy such an award, and many of those who have assets that might be attached will nevertheless be protected by state homestead exemptions and other debtor protections. In short, an ordinary suit for damages, even if available as a matter of law, is a largely empty threat.

III

PROPOSAL ONE: STANDBY LETTERS OF CREDIT AND CLOSED-LOOP KIDNEY EXCHANGES

Given that the optimal allocation of kidneys in current exchanges requires donation chains that are longer than three transplants, non-simultaneous, closed-loop kidney exchanges should be considered. There are two problems with such non-simultaneous exchanges. The first is the risk that someone would give a kidney on behalf of a loved one to a stranger but that his loved one will ultimately

75. See RESTATEMENT (SECOND) OF CONTRACTS § 352 (AM. LAW INST. 1981) (“Uncertainty as a Limitation on Damages”).

76. See U.C.C. § 2-713(1) (AM. LAW INST. & UNIF. LAW COMM’N 2002) (“the measure of damages for non-delivery or repudiation by the seller is the difference between the market price at the time when the buyer learned of the breach and the contract price”).

77. See Scheper-Hughes, *supra* note 36 (discussing the black-market trade in human organs).

78. See *Hadley v. Baxendale*, 156 Eng. Rep. 145 (Ex. Ch. 1854) (holding that consequential damages must be foreseeable at the time of formation in order to be recoverable).

79. See *Kidney Disease Statistics for the United States*, NAT’L INST. DIABETES & DIGESTIVE & KIDNEY DISEASES, <https://www.niddk.nih.gov/health-information/health-statistics/kidney-disease> [<https://perma.cc/5SMJ-VQ7H>] (last visited Nov. 6, 2017) (“The probability of patient survival within 1 year post-transplant was 95% and 98% in deceased and living donor kidney transplant recipients, respectively, in 2012.”).

not receive a kidney in return because someone down the chain of donations reneges on their commitment to donate. Very little can be done to guard against this risk—once a person decides to renege on their promise to donate, that person will not be forced to make the donation. The second problem is related to the first. When it is difficult to determine whether the person further down the line is going to perform, initial donors will not participate in a closed-loop exchange without an assurance of performance. The risk here is not that donors will enter into an agreement and then the agreement will go bad. Rather, the risk is that they will never enter into the agreement in the first place.

Because currently, closed-loop extended kidney exchanges are performed simultaneously, there is very limited information on how common renegeing would be were we to attempt non-simultaneous exchanges.⁸⁰ However, there are documented cases of such renegeing occurring when exchanges happen over a long period of time.⁸¹ A study of NEAD operations conducted between 2008 and 2016 found that slightly more than 5% of chains were broken, most often because a transplant or donation was no longer medically possible.⁸² However, there were still a tiny handful of cases where donors simply backed out before donating.⁸³ The evidence that we have suggests that renegeing is likely to be very rare, but without a way of limiting this risk, non-simultaneous, closed-loop exchanges are unlikely to be performed.⁸⁴

The purchase of a performance bond could mitigate against both problems. One advantage of the bond mechanism is that it can use well-established commercial devices that are largely self-enforcing. It can also be presented as relying not on the suspect mercenary logic of an impersonal market that so concerns critics of organ sales, but rather on the moral logic of honor, fidelity to one's word, and the protection of the vulnerable. Bonds are a common commercial device and can take a variety of forms.⁸⁵ One typical example is a performance bond in

80. See Kieran Healy & Kimberly D. Krawiec, *Organ Entrepreneurs*, in CAMBRIDGE HANDBOOK ON LAW AND ENTREPRENEURSHIP (D. Gordon Smith & Christine Hurt eds., forthcoming 2018) (manuscript at 11), <https://kieranhealy.org/files/papers/orgentrep.pdf> [<https://perma.cc/B58N-NAJ8>] (“It should be noted that NEAD chain donor renegeing is extremely rare, but not unheard of.”).

81. See, e.g., S. E. Gentry et al., *The Roles of Dominos and Nonsimultaneous Chains in Kidney Paired Donation*, 9 AM. J. TRANSPLANT. 1330, 1335 (2009) (“Donor renegeing broke a NEAD chain at Johns Hopkins. In this instance there was a long interval between the intended recipient's transplant from an NDD and the request for the bridge donor to participate in the next transplant.”); see also Healy & Krawiec, *supra* note 80, manuscript at 11 (“It should be noted that NEAD chain donor renegeing is extremely rare, but not unheard of.”).

82. See N. Cowan et al., *Broken Chains and Renegeing: A Review of 1748 Kidney Paired Donation Transplants*, 17 AM. J. TRANSPLANT. 2451, 2452 (2017) (reporting a study of 1,748 kidney donations in loop or chain transactions).

83. See *id.* at 2454 (finding six cases where donors renegeed).

84. See S. E. Gentry et al., *supra* note 81, at 1330 (“We are not aware of any other chains that have been broken by an unwilling or ineligible bridge donor. However, only short-term implementation data are available, and long waits between the time one's intended recipient gets a kidney and the time one is asked to donate seem certain to increase the risk of renegeing.”).

85. See generally THE LAW OF COMMERCIAL SURETY AND MISCELLANEOUS BONDS (Bruce C.

a construction contract, where a general contractor purchases a guarantee from a bank, which ensures that the bank will either pay subcontractors in the event that the general contractor fails to do so or will pay the property owner in the event that the general contractor fails to construct the building as promised. In this case, the bond provides a kind of insurance against nonperformance of the commercial obligation. However, as a matter of law, there is no reason that a bond must guarantee such a commercial obligation. As it currently stands, commercial law provides a device that could be used in non-simultaneous, closed-loop exchanges: the standby letter of credit.

A. Letters of Credit

The letter of credit is a commercial device that was developed as part of the *lex mercatoria*, a transnational body of law created by European merchants in the Middle Ages.⁸⁶ It was originally used mainly in international transactions for the sale of goods. Suppose a weaver in Antwerp wished to buy wool from an English merchant. The weaver would approach a bank with a branch in England. For a fee, the bank would agree to issue a letter of credit to the English merchant. The letter would state that upon presentation of documents certifying shipment of the wool to the weaver, the bank would pay the merchant the purchase price of the wool. Upon receipt of the letter, the merchant would ship the wool to Antwerp and present the bank with receipts issued by the carrier. Upon finding that the receipts complied precisely with the documents demanded by the letter of credit, the bank would pay the merchant. The bank could then demand reimbursement from the weaver, who might have pre-funded the draw. In this example, the letter of credit performs two functions. First, it substitutes the credit of the bank for the credit of the weaver. Second, it eliminates the risk of a legal dispute over payment on the sale. The bank's only concern in paying out under the letter of credit is whether the merchant presented documents conforming to those contained in the letter of credit. The bank was not required to inquire into the underlying facts or substance of the sale of the wool.

Some version or another of this classic letter of credit transaction remains common in international trade.⁸⁷ However, a new device called the standby letter of credit has become common, particularly after the adoption of Article 5 of the Uniform Commercial Code governing letters of credit in the 1960s.⁸⁸ Whereas

King et al. eds., 2d ed. 2012) (summarizing the various kinds of commercial bonds and the legal issues that they create).

86. See generally JOHN F. DOLAN, *THE LAW OF LETTERS OF CREDIT: COMMERCIAL AND STANDBY CREDITS* § 3.02 (4th ed. 2007) (discussing the early history of letters of credit); JAMES STEVEN ROGERS, *THE EARLY HISTORY OF THE LAW OF BILLS AND NOTES: A STUDY OF THE ORIGINS OF ANGLO-AMERICAN COMMERCIAL LAW* (2004) (discussing the early history of bills of exchange and letters of credit).

87. See DOLAN, *supra* note 86, § 1.01 (discussing the role of letters of credit in contemporary commercial practice).

88. See *id.* § 1.05 (discussing the rise of standby letters of credit).

the primary purpose of the traditional letter of credit is to secure payment of a debt, the primary purpose of the standby letter of credit is to secure the performance of an obligation. A standby letter of credit can thus perform a function similar to a traditional surety agreement, such as a performance bond. But a standby letter of credit differs legally from a surety contract in ways that make it an ideal device for increasing trust in non-simultaneous kidney exchanges.

To understand how a standby letter of credit works, consider an example. A general contractor promises to build a house for an owner according to the specifications of an architect. In order to put to rest the owner's concerns about the house being built properly, the contractor pays a bank to issue a letter of credit to the owner, under which the bank will pay the owner a substantial sum of money if the owner presents the bank with documents from an architect stating that the house has not been completed according to specifications. Unlike in the traditional letter of credit transaction—where if all goes well, the beneficiary of the letter (the merchant) will present conforming documents to the bank and be paid—in a standby letter of credit transaction, if all goes well, the beneficiary (the owner) will never offer the documents required under the letter of credit. The point of the standby letter of credit is to ensure that the house is built, not to pay the owner.

This is a situation where the general contractor could also enter into an ordinary surety contract with the bank. However, the surety contract has different legal characteristics than the standby letter of credit. In a surety agreement, the bank would guarantee the contractor's performance of the contract with the owner. While a bank with a surety cannot raise so-called "personal defenses"⁸⁹—most notably the unenforceability of a contract because of the running of the statute of limitations,⁹⁰ or discharge of an obligation in bankruptcy⁹¹—he can raise other defenses with a surety, such as material breach,⁹² lack of consideration on the underlying contract with the owner,⁹³ or public policy objections to that contract.⁹⁴ In contrast, under a standby letter of credit, the bank cannot raise any of these defenses;⁹⁵ once conforming documents are presented, the bank must pay.

The principle of independence is central to letter of credit law. A letter of credit is generally coupled with some underlying transaction, as when it is used to pay for the purchase of goods or to guarantee performance of some obligation

89. See SAMUEL WILLISTON & RICHARD A. LORD, TREATISE ON THE LAW OF CONTRACTS § 61:7 (4th ed. 1990) (stating that personal defenses are unavailable to a surety).

90. See *id.* ("the surety may not plead the running of the statute of limitations").

91. See *id.* § 61:8 ("one liable with the bankrupt as a surety on a debt is not relieved of liability by the discharge of the principal obligor in bankruptcy.").

92. See *id.* § 61:7 ("[T]he surety may plead the defenses that are available to the principal."); *id.* § 43:5 (stating that one party's material breach discharges the other party's duties under the contract).

93. See *id.* § 7:8, § 61:7 (stating that, in general, legally enforceable promises require consideration).

94. *Id.* § 12:1, § 61:7 (stating that contracts in violation of public policy are unenforceable).

95. *Id.* § 2:23 ("[T]he letter of credit obligates the issuer to pay drafts or other demands . . . independent of any underlying contract between the customer and the beneficiary.").

as with a standby letter of credit. The independence principle means that the obligation on a letter of credit is independent of the underlying transaction in which the letter of credit is being used.⁹⁶ For example, suppose that a letter of credit is used to pay for goods. The goods are shipped, and shipping receipts conforming to the letter are presented to the issuing bank. The bank must pay under the letter of credit. This is true even if the shipped goods are non-conforming and thus, under the U.C.C.'s perfect tender rule, payment is not actually due.⁹⁷ Of course, one can always litigate about the non-conforming goods later, but commercial law has developed so that under the letter of credit, as much payment as possible is insulated from any legal risk associated with the underlying transaction.⁹⁸

The independence principle applies even when the underlying transaction is infected with fraud or some other legal defect. Perhaps the starkest statement of the independence principle comes in section 5-109 of the U.C.C., which deals with an issuer who is presented with forged—but otherwise conforming—documents. In such a case, “the issuer shall honor the presentation” if it is made by a third party to the fraud, and may honor the presentation even if it is made by the person who forged the documents, so long as the issuer is “acting in good faith.”⁹⁹ Independence extends even beyond the truth of the documents presented under the letter. For example, an issuer cannot raise the illegality of the underlying transaction as a defense when it refuses to pay in the face of a presentation of conforming documents.¹⁰⁰

B. Letters of Credit and Extended Kidney Exchanges

In an extended kidney exchange, each patient-donor dyad could purchase a letter of credit from a financial institution, such as a bank. The letter would then be given to the initial participant in the proposed non-simultaneous exchange transaction. Under the terms of the agreement with the bank, the bank would

96. For example, the Uniform Commercial Code provides:

An issuer is not responsible for:

- (1) the performance or nonperformance of the underlying contract, arrangement, or transaction,
- (2) an act or omission of others, or
- (3) observance or knowledge of the usage of a particular trade. . .

U.C.C. § 5-108(f) (AM. LAW INST. & UNIF. LAW COMM'N 1995).

97. See WILLISTON AND LORD, *supra* note 89, § 2:23 (“the letter of credit obligates the issuer to pay drafts or other demands . . . independent of any underlying contract between the customer and the beneficiary”).

98. See *id.* § 2:23. See also *Benetton S.p.A. v. Benedot, Inc.*, 642 So.2d 394, 396, 400–01 (Ala. 1994) (illustrating that a plaintiff can litigate over nonconforming goods after settling disputes related to a letter of credit).

99. See U.C.C. § 5-109(a)(1)–(2) (AM. LAW INST. & UNIF. LAW COMM'N 1995).

100. See, e.g., *Ross Bicycles, Inc. v. Citibank, N.A.*, 577 N.Y.S.2d 826, 828 (N.Y. App. Div. 1991) (“The real issue is the question of the illegal activities of Wedtech and possible illegal aspects of the plaintiff’s dealing with Wedtech. . . . The suit is not on the underlying contract but on the letter of credit. . . . [T]he defendant is a ‘third party’ . . . which cannot use this defense.” (internal citations omitted)).

pay on the letter if proof of three conditions were satisfied. First, the patient-donor dyad that purchased the letter of credit must have received a kidney as part of the non-simultaneous exchange. Second, the donor in the purchasing patient-donor dyad must have failed to donate a kidney as provided in the original extended kidney exchange agreement. Third, the presenting party must be a donor in a patient-donor dyad who donated a kidney under the extended kidney exchange agreement but whose patient did not receive a kidney in return.¹⁰¹

In the context of non-simultaneous exchange, the standby letter of credit has the virtue of eliminating legal risk about the enforceability of any underlying contract. As discussed above, a promise to donate a kidney as part of an extended kidney exchange might be a valid contract, but there is certainly reason to doubt this. Letter of credit law however, eliminates the need to resolve this question. The standby letter of credit also eliminates enforcement risk. In the event of a broken promise to donate a kidney, the disappointed party does not have to bring suit. He must merely present conforming documents to the issuer of the letter of credit, who will then pay automatically. Finally, by substituting the credit worthiness of the bank for the creditworthiness of the donor, the letter of credit eliminates the risk of a judgment-proof donor. In short, the entire transaction becomes self-enforcing, which was, of course, the historical reason that letters of credit were developed in the first place.

What would be the effect of this standby letter of credit? First, the standby letter of credit provides a credible signal of trustworthiness. Talk is cheap, but renegeing on a promise that is backed by a standby letter of credit would be very expensive. Indeed, even if a donor performs his promise and therefore does not have to indemnify the bank, entering into the transaction in the first place would be expensive. Even the performing donor would have to incur both the cost of compensating the bank for issuing the letter and the time value of the money during the period when it was in escrow. This expense would serve a precautionary function: it would weed out those who are not serious about donating.¹⁰² It would also weed out any opportunistic individuals who would make a false promise in order to induce donation from another, although the very limited evidence suggests that *akrasia*, rather than predation, is the problem.¹⁰³ The standby letter of credit thus functions like a used car warranty, which not only shifts the risk of breakdowns from buyer to seller, but also overcomes information asymmetries by signaling quality.¹⁰⁴

101. Technically, such a letter would allow a downstream donor to renege, provided that the renegeing party arranged the initial donor's ESRD patient to receive a kidney. Thus, the letter would not secure a donor's actual performance, but would only secure the supply of a kidney, which is all that is necessary to generate the trust demanded for a non-simultaneous exchange.

102. Cf. Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799, 800–06 (1941) (discussing the role of formalities in contract law).

103. See *supra* notes 80–83 (showing that renegeing is very rare and not finding a single case involving predatory renegeing, i.e., a deliberate choice to take a kidney and run rather than living up to a bargain).

104. See generally George Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market*

Second, it would reduce—but certainly not eliminate—the amount of risk undertaken by the first moving donor in a non-simultaneous exchange. This is the donor who is exposed to the risk that she will give up a kidney on behalf of a loved one without receiving a kidney for that loved one in exchange. Under the standby letter of credit, in this situation the donor would be paid a large sum of money. From this donor's point of view, payment on the letter of credit can be thought of in a number of ways. It could be seen as a straightforward purchase of a kidney for money. However, the original term of the deal between the donors in the exchange was never to sell a kidney for money. Indeed, the donors do not desire to receive money, but rather a kidney for their loved one, and there is no reason to suppose that they would accept an offer to purchase their kidney for cash were such an offer legal.

A better way to think about the payment, from the disappointed donor's point of view, is that it constitutes a kind of insurance. The point of a life insurance policy is not to make a payment that renders the beneficiary indifferent between money and the life of a loved one.¹⁰⁵ Rather, a life insurance policy reduces the risk to which one is exposed in the event of the policyholder's death, even though it does not fully eliminate that risk. Likewise, the possibility of a payout under the standby letter of credit in the event that that a donor gives up her kidney without receiving a kidney in return for her loved one mitigates a substantial risk. The possibility of a cash payment does not eliminate such a risk, but it would make it marginally more tolerable. Payment does not change the fact that the initial donor is entering into the exchange not in the hope of cash, but in the hope of a kidney for a loved one. By making the risk marginally more tolerable, the initial donation is more likely to occur, with benefits for all of the patients involved.

Third, the letter of credit provides a financial incentive for its purchaser to carry through on his promise to donate a kidney. A surety is obligated to pay a bond regardless of whether the purchaser of that bond is willing or able to indemnify the guarantor for that payment. That is, of course, the point of the surety. Likewise, the complete independence of the various parties' obligations to a letter of credit is precisely what makes that instrument different than an ordinary contract, which could be subject to implied conditions, such as the doctrine of material breach. That said, banks are unwilling to issue a standby letter of credit unless the purchaser of the letter is willing to deposit money with the bank, to indemnify the bank in the event that it is later obligated to pay under the letter. In the context of a non-simultaneous exchange, this would mean that each donor would be required to place a very large sum of money in the bank as part of the

Mechanism, 84 Q. J. ECON. 488 (1970) (providing the canonical treatment of information asymmetries in economics).

105. Such indifference is, of course, the economic precondition for a sale. If the payment of money does not render a seller at least indifferent as between the money and the objects sold, no exchange will occur.

exchange. Should the donor renege on her commitment to donate a kidney, this money would be lost. However, if she donates as promised, the money will be returned. In that case, the donor's financial cost would be limited to the fee that was paid to the bank for the issuance of the letter and the time value of the money during the period when it was in escrow. In short, the standby letter of credit creates a financial hostage that incentivizes the donor's performance. This mechanism would be largely self-enforcing, thus eliminating the cost and risk of post-breach litigation. Banks never renege on letters of credit unless they are insolvent, and set off rights allow them to obtain deposited money without suit.

The fourth benefit is not financial, but is rather moral and psychological. The letter can be understood as a pledge of fidelity by the donor on his promise to give up a kidney. This is not a sale. To the extent that there is a bargain, it ultimately involves the exchange of a kidney for a kidney, a transaction that our society has already judged to be acceptable.¹⁰⁶ The problem with non-simultaneous exchange is that it involves not simply giving up a kidney on behalf of a loved one, but a *promise* to give up a kidney on behalf of the loved one. The promise, like the completed gift, is an act of altruism. The donor suffers a major cost in the form of a lost kidney for the sole purpose of allowing a loved one to live by procuring a kidney for that loved one. Indeed, it is only the genetic accident of mismatched tissue that prevents the donor from giving his kidney directly to his loved one. The fact that the exchange occurs over time, rather than simultaneously, in no way undermines the transaction's basically altruistic structure.

However, once we inject the practice of promising into this particular act, another set of moral obligations comes into play; namely, the demands of honoring one's word. To be sure, fidelity to commitments is an important part of commercial exchange and the ordinary marketplace.¹⁰⁷ However, fidelity to one's word is not an inherently commercial virtue. Think of the moral obligation of the spouse to honor his wedding vows or the public official who takes an oath to faithfully execute the laws of the United States.¹⁰⁸ Everyone understands these to be solemn obligations; obligations whose breach would justifiably expose the breacher to the community's scorn. The person who promises to donate a kidney has also made a sort of oath. Just as organ procurement organizations have, over the last generation, cultivated an ethic of altruistic generosity around organ donation, an emphasis on honor and fidelity to one's word can be used to create a similarly

106. See 42 U.S.C. § 274e(a) (2012) (exempting organ swaps from the prohibition on selling organs).

107. See OMAN, *supra* note 32, at 76–85 (discussing the relationship between market exchange and the morality of fidelity); DAVID C. ROSE, *THE MORAL FOUNDATION OF ECONOMIC BEHAVIOR* (2011) (arguing that without internal moral checks on opportunistic behavior widespread market exchange is not possible).

108. See U.S. CONST. art. II, § 1, cl. 8 (“Before he enters the Execution of his Office, he shall take the following Oath or Affirmation:—‘I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States.’”).

positive ethic around non-simultaneous exchange.¹⁰⁹ On this view, the value of the standby letter of credit is that the heightened formality of its execution emphasizes to the donor the solemnity of the promise that she is making and invites her to place her character on the line by “putting her money where her mouth is.”

C. Standby Letters of Credit, Governing Kidney Donations, and Current Law

The risk remains that a standby letter of credit in non-simultaneous exchange would violate NOTA. There are two ways of dealing with this problem. It is possible that under the law as it is currently written, a standby letter of credit does not violate federal law. The second approach would be to change existing federal law. Turning first to the question under current law, while 42 U.S.C. § 274e makes it a crime to “transfer any human organ for valuable consideration for use in human transplantation,”¹¹⁰ the law goes on to state: “The term ‘valuable consideration’ does not include reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality, control, and storage of a human organ”¹¹¹ One might argue that the money paid under a standby letter of credit comes under this language. The Department of Justice’s Office of Legal Counsel, for example, determined that the term “valuable consideration” included only for-profit exchanges of cash for organs.¹¹² A second route under current law, comes under the Norwood Act. The Act exempts “human organ paired donation” from the prohibition on the transfer of an organ for “valuable consideration.”¹¹³ The Act explicitly recognizes extended exchanges by blessing agreements between more than two patient-donor dyads.¹¹⁴ Furthermore, the Act blesses “a single agreement [among donors and patients] to donate and receive such human organs, respectively, according to such biological compatibility in the group.”¹¹⁵ One could argue that such an agreement is thus not a crime, even if it involves a legally-enforceable contract. Finally, the Act insists that “other than” an agreement among multiple patient and donors, no other valuable consideration can be received as part of a paired organ exchange.¹¹⁶ One

109. See Healy & Krawiec, *supra* note 66, at 659 (quoting F.K. Butt et al., *Asynchronous, Out-of-Sequence, Transcontinental Chain Kidney Transplantation: A Novel Concept*, 9 AM. J. TRANSPLANT. 2180, 2183 (2009)) (stating that good will, honesty, and generosity ground donors’ faith in NEAD chains).

110. 42 U.S.C. § 274e(a) (2012).

111. 42 U.S.C. § 274e(c)(2) (2012).

112. See Legality of Alternative Organ Donation Practices Under 42 U.S.C. § 274e to Gen. Counsel Dep’t of Health and Human Servs., 31 Op. O.L.C. 40 (2007).

113. 42 U.S.C. § 274e(a) (2012).

114. See 42 U.S.C. § 274e(c)(4)(D) (2012) (“If there is any additional donor-patient pair as described in subparagraph (A) or (B), each donor in the group of donor-patient is biologically compatible as a donor of a human organ for a patient in such group.”).

115. 42 U.S.C. § 274e(c)(4)(E) (2012).

116. See 42 U.S.C. § 274e(c)(4)(F) (2012) (“Other than as described in subparagraph (E), no valuable consideration is knowingly acquired, received, or otherwise transferred with respect to the human organ referred to in such subparagraph.”).

could argue that because the standby letter of credit does nothing but secure an agreement among multiple patients, it comes within the “other than” exclusion.

Both of these statutory arguments are, however, extremely doubtful. No reported cases interpret this language and it is unlikely that either argument would be successful. A broad reading of the “removal, transportation, implantation, processing, preservation, quality, control, and storage” language in § 274e(c)(2) could effectively make an exception swallow the statute’s basic prohibition on transferring human organs for “valuable consideration.”¹¹⁷ Moreover, the Norwood Act argument runs into the very independence principle that makes the standby letter of credit otherwise attractive. The right to payment under such a standby letter of credit would be, as a matter of law, independent of the underlying agreement blessed by the Norwood Act. At the very least, no one would be well advised to attempt the creation of such a standby letter of credit without first bringing an action for declaratory relief, and the only court to consider such an action under NOTA dismissed it on standing grounds.¹¹⁸

Given this reality, amending NOTA would be the only viable way to permit standby letters of credit in extended kidney exchanges. However, doing so would not require rejecting the basic policy against the sale of organs. One might object that any bonding mechanism brings cash purchases of kidneys in by the back door, raising various ethical concerns. As noted above, from the standby letter of credit beneficiary’s point of view, the cash payment cannot be easily understood as payment for a kidney. The same is true from the point of view of the donor who purchases the letter and risks losing the funds held hostage in escrow should he renege on his promise. First, under the terms of the transaction there are no circumstances in which the renegeing donor pays money directly to someone who provided his loved one with a kidney. The only payments that he makes would pass from him to the bank that issued the letter. Furthermore, if he carries through on his commitment to donate a kidney, he would continue to incur the cost of purchasing the letter, a payment that would not generate any financial benefit for another donor. In other words, the standby letter of credit, in effect, renders his gift more costly. One might object to this fact for a variety of reasons. However, the fact that a gift becomes more costly does not seem to implicate concerns about commodification.

A standby letter of credit would, of course, create a penalty in the event of breach by a donor of his promise to make a gift. One might object that this would have the effect of coercing someone into giving up the kidney. For several reasons, however, this objection does not justify prohibiting a donor from entering into such a contract. First, the donor’s decision to enter into a kidney exchange must be fully informed and voluntary. He can neither be threatened nor bribed

117. 42 U.S.C. § 274e(c)(2) (2012).

118. See *Richards v. Holder*, No. 13–13195–LTS, 2014 WL 2805280, at *1 (D. Mass. June 19, 2014) (dismissing a declaratory action by someone wishing to purchase an organ who challenged the scope and constitutionality of NOTA on standing grounds).

into participating in the transaction. The voluntariness of the commitment *ab initio* should lessen concerns regarding coercion.

Second, the donor would only suffer a financial loss under the standby letter of credit where another person relied on his good word by giving up a kidney. This is a situation where a substantial measure of guilt attaches to a renegeing party. Unlike an enforceable promise to give the kidney, the bonding arrangement protects only a counterparty's reliance interest and never the expectation interest.¹¹⁹ Ordinarily, society is untroubled when someone is coerced because their actions have caused another harm, as in the cases of fraud and promissory estoppel. The same diminished concerns with coercion should govern here. Finally, the pressure on a donor in non-simultaneous kidney exchange has much greater benefits than does pressure on a donor outside of the context of such an exchange. This is because everyone in the downstream chain of patient-donor dyads is dependent on the performance of upstream donors. Hence, each donation of a kidney in an extended kidney exchange benefits not only the recipient of that kidney, but also everyone else in the exchange.

IV

PROPOSAL TWO: COUPLING FINANCIAL INCENTIVES WITH ALTRUISM IN NEAD CHAINS

The second proposal is more dramatic than the bonding arrangement suggested above. This proposal involves relaxing the prohibition on payments to donors in the limited situation where such a payment would make a NEAD chain possible among altruistic donors. This will, of course, will raise the hackles of those who fear the baleful effects of commodifying kidneys. However, in this case, relaxing the prohibition against incentivizing donors would not be tantamount to the creation of a full-fledged market in donated kidneys. Rather, the sole reason for allowing such a payment would be that doing so would facilitate more altruistic donations. Far from crowding out altruism, this would facilitate it. Furthermore, as already occurs in exchanges around ovum donation, such a payment could use the language and practice of gift giving.¹²⁰ This has proven a useful strategy for managing morally- and emotionally-fraught exchanges. It can also forestall the propagation of social understandings that commodification critics

119. See RESTATEMENT (SECOND) OF CONTRACTS § 344 (AM. LAW INST. 1981) (differentiating between the reliance and expectation interest); see also generally, L.L. Fuller & William R. Perdue, *The Reliance Interest in Contract Damages, Pt. 1*, 46 YALE L. J. 52 (1936); L.L. Fuller & William R. Perdue, *The Reliance Interest in Contract Damages, Pt. 2*, 46 YALE L. J. 373 (1936).

120. See Kimberly D. Krawiec, *Altruism and Intermediation in the Market for Babies*, 66 WASH. & LEE L. REV. 203, 242 (2009) (“[T]he statements and screening procedures of fertility clinics indicate that the primary motivation of egg donors should be a desire to help infertile couples and that donors whose primary motivation is financial should be disqualified.”); Kimberly D. Krawiec, *Markets, Morals, and Limits in the Exchange of Human Eggs*, 13 GEO. J.L. PUB. POL’Y 349, 354–55 (2015) (stating, for example, that ovum donation advertising appeals to donors’ altruistic motives while also offering “handsome payment for their services.”).

fear.

A. Why NEAD Chains Eliminate the Risk of Irreparable Harm

Recall the basic structure of a closed-loop kidney exchange described above. To simplify, imagine that there are three patient-donor dyads: AB, CD, and EF. B's kidney is not a match for A but is a match for C. D is not a match for C but is match for E. F is not a match for E but is a match for A. In this scenario, there is a closed loop of kidney donations and the central problem is generating the trust necessary to get the dyads to commit when the exchange extends over time. Now imagine that there is a person, Q, who is willing to donate a kidney but does not desire a kidney for a loved one in exchange. This is a NEAD chain. Q's kidney is compatible with A, who has a donor, B, whose kidney is compatible with C, who has a donor D, whose kidney is compatible with E, who in turn has a donor F whose kidney is compatible with G, someone on the kidney waiting list without a donor. We can now create a NEAD chain that begins with Q's donation to A and ends with F's donation to G. As a result of this chain of donations, A, D, E, and G all receive life-saving kidneys. This scenario has two attractive features that the closed-loop exchange lacks. First, it results in one additional person receiving a kidney, namely G.¹²¹ Second, it eliminates the risk to the first mover involved in a closed-loop kidney exchange.

To see why Q's donation eliminates this risk, recall the structure of the counterparty risk. In a closed-loop kidney exchange, the first donor takes the chance that she will donate a kidney but receive nothing for her patient in return because a downstream donor reneges on his promise to give a kidney. The entire transaction depends on high levels of trust by the first mover in the extended kidney exchange chain. In the NEAD chain made possible by Q's donation, however, Q is not part of a patient-donor dyad. Thus, he takes on no risk. Rather, he enters the transaction with the understanding that he will not be receiving a kidney in exchange for his donation. Every subsequent donor in the NEAD chain, however, can receive a kidney for his patient prior to donating. In short, Q is the magic catalyst who solves the trust problem that could otherwise bedevil non-simultaneous exchanges.

Where might we find Q? One possibility is that Q is that exceedingly rare individual who desires to gratuitously donate a kidney to a stranger. Such donors, however, make up less than 1% of the current supply of kidneys. Indeed, when a person gratuitously offers to donate a kidney to a stranger, most transplant professionals try to talk the person out of making the donation.¹²² In the past, the

121. One might ask why G should get the kidney from F, since F's donation is not necessary for E—the patient in the EF patient-donor dyad—to receive a kidney. The answer is that because E has a willing donor, F, who will put a kidney into the system, E gets off of the waiting list and into a transplant operating room. G gets the kidney from F because F's kidney is simply the next available free kidney in the system, for which G is a match and G has advanced to first place on the waiting list.

122. See Rebecca P. Winsett et al., *Perceptions of the Donation Process from Adult-to-adult Living Liver Donors*, 13 *PROG. TRANSPLANT.* 123, 125 (2003) (stating that doctors discouraged donors from

mere fact that someone was willing to make such an offer was seen by some doctors as prima facie evidence of mental illness.¹²³ Such donors are simply not a viable option for substantially increasing the number of kidneys available in the system. To be sure, if the 180 or so individuals each year who are willing to donate kidneys to strangers could be used in NEAD chains, their generosity could be leveraged. But, desirable as this is, it would not make a significant impact on the availability of kidneys.

B. Paying Initial Donors in NEAD Chains

This paper proposes that Q be found by offering cash payments or some other form of valuable financial incentive to those who are willing to donate a kidney to be used to begin a NEAD chain.¹²⁴ This is not the same thing as calling for a free market in kidneys; however, this proposal would require a change in current law. It is worth noting that the prohibition on bargaining for kidneys has already been relaxed. In 2005, Congress explicitly amended NOTA with the Norwood Act in order to allow for paired organ exchanges.¹²⁵ Such exchanges involve the exchange of a kidney, not for cash, but for another kidney. Nevertheless, under the original language of NOTA, the receipt of the kidney in exchange for an organ donation would surely constitute “valuable consideration.”¹²⁶ The 1984 law was amended to allow such kidney-for-kidney sales. The logic behind the Norwood Act was that there were opportunities for altruistic donations that were being wasted because of a tissue mismatch between donor and patient. Accordingly, Congress allowed the exchange of donated organs in order to facilitate these altruistic acts.

Two things are worth noting about this decision. First, it unambiguously allows organ trade. It simply limits the medium of exchange to a system of pure barter. Second, the system of barter authorized by the Norwood Act entwines bargain with altruistic donation. Limiting exchange to the trade of altruistically donated organs ensures that organ exchange will never be a nakedly-commercial transaction. The market in traded organs is only possible because the trades are embedded in a broader economy of gift giving. The following proposal would involve a similar entanglement of incentives and altruism.

If NOTA were amended to allow payment to first-moving donors in a NEAD

donating their organs).

123. See Robert M. Sade & Andrea D. Boan, *The Paradox of the Dead Donor Rule: Increasing Death of the Waiting List*, 14 AM. J. BIOETH. 21, 22 (2014) (“Good Samaritan donation . . . was once considered prima facie evidence of mental illness.”).

124. See Stephen J. Choi et al., *Altruism Exchanges and the Kidney Shortage*, 77 LAW & CONTEMP. PROBS., no. 3, 2014, at 289, 299 (arguing that one should be able to pay for kidneys with gifts to a charity of the donor’s choice). Polling data suggests that there is widespread support for non-cash incentives for organ donation. See Hensley, *supra* note 34.

125. Charlie W. Norwood Living Organ Donation Act, Pub. L. No. 110-144, 121 Stat. 1813 (2007) (codified at 42 U.S.C. §§ 273b, 274e (2006 & Supp. IV 2011)).

126. 42 U.S.C. § 274e(a) (2012).

chain, the same two conditions would be met. First, the exchange of organs in a trade would be authorized. However, one trade would be allowed to occur in exchange for cash or other financial incentives, rather than an organ to be donated to a loved one. Second, the exchange would not be a naked commercial transaction. Rather, the proposal would allow direct financial incentives for donation—but only in cases where the donation would then allow an extended series of altruistic donations. In other words, the “market” in traded organs would remain embedded in a broader economy of gift giving. The original logic of the Norwood Act was that without trade, there are many altruistic donations that simply will not occur. The same is true of this proposal. In particular, long chains of extended kidney donations are impossible without very high levels of mutual trust among the gift-givers. Without this trust, the gifts simply will not happen, and opportunities for altruistic donations will be wasted. Just as the Norwood Act allowed limited trading to catalyze these donations, NOTA should be amended to allow an initial sale to facilitate donations.

Such a change in the law would not lead to the wholesale commodification of human organs. It would maintain the social view that organ donation is primarily a matter of gift. Indeed, the vast majority of all kidney transplants would remain gifts. Furthermore, even the initial sale of organs would itself be encased in a social understanding that still relied heavily on the idea of gift. This could be done in two ways. First, the amount paid for a kidney donation could be limited. The goal of the proposal is not to create commerce in kidneys with a market clearing price; rather, it is to increase the number of undirected donations by offering a financial incentive. Setting the amount below a market clearing price would, of course, ensure that a chronic gap in the supply of needed kidneys remains. However, doing so would also inhibit the emergence of a robust market for kidney donations, thus allaying fears of commodification, while still marginally increasing the supply of kidneys.

Furthermore, there is no reason that a financial incentive must be structured as a straightforward purchase. Instead, for example, the payment could be made as part of a prize awarded by a foundation. A study by Muriel Niederle and Alvin Roth found that people were significantly more likely to support payments when they were structured as an award given by a private foundation rather than, say, as a payment by the government.¹²⁷ Likewise, incentives do not have to take the form of cash payments. For example, NEAD donors could be rewarded with health insurance or educational vouchers for themselves or for loved ones.

Second, a kidney exchange regime could appeal to the donor’s own sense of generosity. People usually act from mixed motives. The incentivized donor that this article’s proposal imagines could be motivated by a similar mix of compensation and altruism. The donation of their kidney would be more than a sale: it would be a gift, one that makes possible the gifts of others whose desire is to

127. See generally Muriel Niederle & Alvin E. Roth, *Philanthropically Funded Heroism Awards for Kidney Donors?*, 77 LAW & CONTEMP. PROBS., no. 3, 2014, at 131.

rescue their loved ones. Such an appeal to the donor's own sense of generosity could motivate donations that might not occur otherwise. Such a sense of generosity is by no means incompatible with paid compensation. Many of those in the caring professions—doctors, nurses, social workers, therapists, teachers, and the like—are genuinely motivated by a desire to help other people. They see their professional activities as advancing an effort to make the lives of others better. This motivation coexists with a regime in which they are paid for their services. By emphasizing the way in which a compensated donor's act facilitates altruistic giving and the life-saving transplants for those who do not receive her kidney, the supposedly pernicious social meanings that worry critics of commodification can be avoided.

There are examples of such mixed understandings of compensated donations of human tissues. Some ovum donors, for example, report that they are motivated by purely mercenary considerations.¹²⁸ Many, however, insist that in addition to the money made by donating their eggs, they are genuinely moved by the plight of childless couples and see themselves as assisting such couples.¹²⁹ Both fertility clinics and the couples themselves emphasize this understanding of egg donation, styling payments as “thank-you gifts.”¹³⁰ Anthropologists have long recognized that gift giving is never purely altruistic, but operates in a moral economy of reciprocity in which a gift creates some unspecified future obligation.¹³¹ Compensated ovum donation does not exist in the pure economy of gift, but it also is something more than the bare economy of commercial exchange. Rather, it is a hybrid of the two approaches—albeit one that leans heavily towards commerce.¹³²

For those whose concerns with the sale of organs center on commodification and the social meaning that exchange could impart to human bodies, the language of gift in ovum exchanges is not without value. Far from being meaningless rhetorical hypocrisy, it is an effort to respond to precisely the concerns that such critiques raise; namely, the social meaning of the exchange. Experience teaches that the simple dichotomy of gift and bargain does not adequately capture the complexity and nuance of which social meanings around transfers are capable. Ultimately, market exchange does not have a single, stable, or self-evident meaning. This is a fact that merchants have long understood, even if only implicitly. Hence, the bewildering variety of rhetorical envelopes in which our society wraps trade—from the impersonal order placed in a pure commodity market, to the doctors or lawyers with whom we discuss our most intimate affairs, to the soldiers or fire fighters who sell their labor but are also valorized for heroism and self-

128. See Krawiec, *supra* note 120, at 355 (some egg donors are “in it for the money”).

129. See *id.* at 355 (some egg donors donate in part to help infertile women conceive).

130. *Id.* at 355 (egg banks encourage recipients to send “thank you . . . gifts” to donors).

131. See MARCEL MAUSS, *THE GIFT: THE FORM AND REASON FOR EXCHANGE IN ARCHAIC SOCIETIES* xi (2000).

132. See HEALY, *supra* note 48, at 44 (stating that donor procurement systems have “industrialized altruism”).

sacrifice. The language of gift around ovum donation is an effort to construct a social meaning in which reproductive capacity is not reduced to a mere commodity. It provides a useful model for negotiating other morally- and emotionally-fraught exchanges.

Finally, there is the persistent concern that compensated kidney donations would harm the poor, who would disproportionately be among those who would give their organs in exchange for money. That is unfounded for two reasons. First, it is by no means obvious that the poor would be primarily the ones to donate. Similar concerns have been raised in the past about surrogate pregnancy and paid ovum donation. However, experience with these markets in the United States indicates that suppliers of ova, and those who undertake surrogate pregnancy on the whole, do not come from the ranks of the impoverished.¹³³

Second, concerns with economic exploitation could be alleviated by testing donors. For example, regulation could prohibit paid compensation of donors whose income is below the federal poverty line. Some might object that such a policy would harm the poor by depriving them of a source of income. However, the purpose of compensated donation is to facilitate NEAD chains, not to improve the lot of the poor. A more telling objection is that means-testing of donors would limit the supply that would otherwise be available if donors were not means-tested. This is possible. However, for the reasons stated above, this is not necessarily the case. Even if it were, given the moral and political concerns regarding compensated donation, a supply-limiting concession seems preferable to the current system where no additional organs are available to facilitate NEAD chains that will not otherwise occur.

V

CONCLUSION

There is little to be gained by polarizing the debate regarding the supply of kidneys for transplant with charged statements about the merits of altruism and markets. A full-fledged market in human organs in the United States is unlikely. However, this political reality does not change the medical reality that each year, thousands of people die awaiting kidney transplants. There is already a well-entrenched political and legal consensus in favor of allowing paired kidney donations. Such organ exchanges can be extended beyond bilateral trades into extended chains of donations, which have the potential to greatly increase the number of organs available for transplant. As such chains become longer, they hold hope for providing not simply more transplants, but transplants for patients for whom it is particularly difficult to find a compatible donor. However, such exchanges require high levels of trust among donors. Without such trust, many life-saving exchanges simply will not happen.

133. See generally Busby & Vun, *supra* note 53.

This article offers two proposals for facilitating such trust. The first is for donors to use standby letters of credit. Such letters would not involve the direct purchase of kidneys. Rather, they would serve primarily to provide increased—although admittedly far from perfect—assurances of performance and—again admittedly imperfect—insurance against counter-party risk. Their moral logic is ultimately that of oath-keeping, not sale. They also have the advantage of employing a well-developed legal form, which is designed to overcome practical difficulties of enforcement and counterparty risk, and which has been honed over centuries of commercial practice. The second proposal is to allow for limited financial incentives to be paid to donors who are willing to make undirected donations when their donations catalyze a NEAD chain among altruistic donors. The presence of a single gratuitous donor on the front end of a NEAD chain can eliminate exposure to the risk of irreparable harm down the chain. Such financial incentives would represent, at most, an imperfect commodification of kidneys. Current law already recognizes the legitimacy of such imperfect commodification by allowing kidneys to be traded for other kidneys. Like those uncontroversial organ swaps, paid donations for initial donors in extended exchanges would nest bargains in a network of altruistic acts and donations. This would effectively increase the number of life-saving transplants without creating a full-fledged market in human organs.