A Hierarchy of Markets: How Basic Needs Induce a Market Failure

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A Hierarchy of Markets: How Basic Needs Induce a Market Failure

Shlomit Azgad-Tromer*

What makes some markets more vulnerable than others to price gouging? This essay introduces an innovative framework for characterization of markets, based on consumers’ basic needs. Current contract law is based on a binary model: contracts which lack consent are considered void and are not enforceable under the unconscionability doctrine. Current law does not make the distinction between essential and non-essential markets. Consumers of luxuries and consumers of essentials are considered equal, and receive similar legal protection under the contractual framework of the consumer transaction. Yet, voluntariness is not binary. Rather, voluntariness is a hierarchical continuum reflecting human needs. Certain products are purchased because the consumer has to have them, while other products are purchased as a discretionary consumer choice.

This essay offers a theory for the hierarchy of markets. The essay surveys the behavioral literature discussing human needs and the distinction between essentials and luxuries, and applies the needs-based theory to consumption, creating a pyramid of markets following Maslow’s hierarchy of needs. The essay identifies the determinants of market essentiality, including a moral baseline of consumption; lack of good substitutes and inability to decline purchase; and time constraints creating difficulty to defer purchase. The continuum of market essentiality is then demonstrated using four examples, including electricity for heating, infant formula, broadband services, and a violin.

The essay argues that essential needs-based consumption induces a behavioral market failure, where consumers’ decision-making process is particularly vulnerable and distorts sellers’ incentives towards a sub-optimal equilibrium. Markets of essentials tend toward failure of demand, due to consumers’ bounded voluntariness and lower probability of informed choice. Accordingly, sellers in markets of essentials have higher incentives for collusion and lower incentives for price competition and for investment in product quality. Thus, the likelihood of mar-

* The essay has benefited from insightful discussions with Oren Bar-Gill and useful comments by Itai Ater and Michael Trebilcock.
ket failure increases with the essentiality of the product: the more basic the underlying need, the higher the probability for market failure.

The difficulty of regulators to tell which markets are essential is addressed. The essay suggests two methods for assessment of essentiality - the first, through political assessment, and the second, through analysis of market data documenting elasticity of demand for popular product categories. Low elasticity of demand for popular product categories is proposed as a market signal for consumers' bounded voluntariness and for product essentiality.

The normative implications of this structural division of markets are discussed and initial policy guidelines suggested. Essentiality and its tendency to create a behavioral market failure implies that consumer law should be structured with a hierarchy of rights, similar to constitutional law. Essential markets should be subject to a higher degree of paternalism compared with markets of non-essentials.

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INTRODUCTION

What makes some markets more vulnerable than others to price gouging? What makes consumers vulnerable to price gouging? And what causes the astronomical price increases for prescription drugs?\(^1\) Is it profit-seeking villains, such as Mr. Shkreli, taking advantage of the sick and helpless?\(^2\) We love to hate Mr. Shkreli,\(^3\) but the truth is, that it is neither Mr. Shkreli’s sociopathic personality, nor his brash manners that allow Turing to gouge its vulnerable patients. Mr. Shkreli is not alone. Rather, a fundamental flaw in the law allows corporations to take advantage of consumers’ basic needs. Mr. Shkreli was maximizing shareholder value, as CEOs ought to do under corporate law. Shkreli is simply playing by the rules to their bitter end. The discrepancy between shareholders empowerment and patients vulnerability is reflected in many corporations of the pharmaceuticals industry.

This essay introduces an innovative framework for consumer protection, based on consumers’ basic needs. Current contract law is based on a binary model: contracts which lack consent are considered void and are not enforceable under the unconscionability doctrine. Contracts which are consensual, are enforceable. Under this model, patients receive no relief: obviously, they are better with the medicine than without it. Yet, patients are not free not to choose their medicine. They need to acquire it or suffer the consequences related to their chances of survival and state of health. As many pharmaceutical companies understand well, patients in need of a life-saving medicine are likely to pay all they have for the cure. Patients in this position are similar to a person buying water in an isolated desert.

We are often bound to purchase in a particular market for the fulfillment of basic human needs. Such human needs as survival and

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2. Mr. Shkreli is the CEO of Turing Pharmaceuticals AG. In October 2015, Mr. Shkreli, a CEO appointed by a hedge fund, raised the price of Turing’s life-saving medicine, Daraprim, by 5000% overnight. He eventually scaled it back after two weeks. See Lydia Ramsey, 2 weeks after controversial pharma CEO Martin Shkreli announced he would lower the price on Daraprim, it’s the exact same price, BUSINESS INSIDER, Oct. 7, 2015, http://www.businessinsider.com/martin-shkreli-update-on-daraprim-price-2015-10
safety are served and provided for by profit-seeking corporations. In order to converge the discrepancy between public values and corporate law, this essay considers the problem as a market failure rather than a contracting failure. Instead of using the doctrine of unconscionability on a case-by-case basis to claim the agreement void, and have the patients lose the medicine, framing the case as a market failure allows the design of ex-ante regulations that would prevent the gouging of the general public. Due to consumers’ bounded voluntariness and urgency of purchase, the likelihood of an informed choice is also reduced. On the supply side, competition is less likely to assist the consumers of essentials required for satisfaction of basic needs because the constant demand lowers the incentives for price competition. When the market size is determined by exogenous consumer needs, price competition is less likely to increase the number of units sold. Whereas in markets of non-essentials, price competition may enlarge the market by bringing in consumers of other markets. When a monopolist provides a basic need, its market power is boundless; whereas when a monopolist provides a non-essential service, consumers may turn to other markets for their shopping.

Public policy should be adjusted to amend consumers’ vulnerability. Markets serving basic needs can be detected by an empirical analysis of data measuring market-level elasticity of demand in popular categories. When elasticity of demand for popular product categories is low, policy makers can tell when consumers feel they must shop in that particular product market. If consumers have bounded voluntariness, and the moral values of society support the assignment of the market as serving a basic need, that market should be considered essential and be regulated at a higher degree of paternalism. Indeed, basic needs and their tendency to induce a behavioral market failure imply that consumer protection should reflect the nature of the market. Corporations providing basic needs to the public should have duties toward the rest of us, not only for their shareholders. When we are most vulnerable, we need stronger consumer protection.

This essay offers a theory of essential markets and their regulation. The essay argues that essential needs-based consumption is creating an enhanced “behavioral market failure,”4 where consumers’ decision-making process is particularly vulnerable and inevitably distorts sellers’ incentives towards a sub-optimal equilibrium.

In part I, the essay surveys empirical and theoretical literature of consumer behavior, documenting essential needs-based consumption and discussing the nature of needs and the reflection of the hierarchy of human needs in consumption. The determinants of essentiality are identified as including the moral baseline of human rights and constitutional protection, the lack of sufficiently good substitutes, and the inability to decline or defer purchase. To outline the variety of consumer conditions, Part I analyzes four examples of voluntariness: a purchase of electricity for heating; a purchase of infant formula; a purchase of broadband services; and a purchase of a violin. The essay argues that the essential needs-based consumption increases the probability for a behavioral market failure. On the demand side, consumers are more likely to manifest cognitive limitation and bounded will power for products they must have. On the supply side, competition is less likely to reach an efficient equilibrium as the incentives for collusion rise in essential markets and the incentives for price competition decrease.

In Part II, the essay explores two main methodologies for assessing market essentiality. The first is an objective evaluation of essential needs performed from a paternalistic viewpoint of a regulator. An example of an objective evaluation of essentiality is in the European doctrine of Services of General Interest.® The second methodology for assessment of essentiality, developed herein, is using market-based heuristics of the patterns of consumers’ demand. Low market-level elasticity of demand for popular products points to circumstances correlated with essential needs-based consumption, which increase probability for a behavioral market failure. Popular products purchased under conditions of low market-level elasticity may thus be considered essential.

In part III, the essay suggests policy guidelines for regulation of essential markets. The normative implications of this structural division of markets are vast. Essential markets are prone to creating a behavioral market failure, and imply that consumer law should be structured with a hierarchy of rights, similar to constitutional law,® where essential markets are subject to a more intense consumer protection

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5. See infra, Part II(A).

than other markets.\textsuperscript{7} Bounded voluntariness requires a higher degree of consumer protection and justifies "harder" paternalism.\textsuperscript{8}

**PART I: ESSENTIAL NEEDS-BASED CONSUMPTION**

Humans have a variety of needs fulfilled through consumption. A need is a subjective feeling of personal requisite.\textsuperscript{9} Products are objects of need satisfaction. Consider a young consumer parent who purchases infant formula and later on in the same day, purchases a designer outfit for her baby. The consumer knows she can get other (less expensive) outfit substitutes, and may be able to give her baby other comparable gifts, perhaps from another product category, such as a toy, or a book. But she has to buy the formula. The formula is necessary for her baby's survival and adequate development. The consumer purchases both the outfit and the formula, but her product choice of the formula is very different from her product choice of the designer outfit. On a scale of voluntariness, the consumer makes a completely voluntary product choice when she buys the outfit. But her choice is severely limited when she buys formula: her purchase of some brand of infant formula is a requisite. The consumer is captured in the infant formula market and her choice is limited to the brands available therein. If we consider infant formula as a category of products, rather than a specific brand, her free choice is almost diminished. It is in fact not the product at all that she chooses, but rather, her baby's survival. The value underlying the consumer transaction in the case of the designer outfit is freedom of choice. But in the transaction for the infant formula, the underlying value is exogenous to market assumptions. It is simply the value of life. On a continuum of voluntariness, essential needs-based consumption is on one side of the scale, and luxury consumption is on the other.

Literature in behavioral economics distinguishes between necessary and luxury items.\textsuperscript{10} For example, food, clothing, and medical care are

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\textsuperscript{8} Id. at 1858-61.

\textsuperscript{9} The Oxford Online Dictionaries define "need" as an "object required because it is essential or very important rather than just desirable," http://www.oxforddictionaries.com/definition/english/need (last visited Oct. 25, 2015).

\textsuperscript{10} Uzma Khan, Ravi Dhar & Klaus Wertenbroch, A Behavioral Decision Theoretic Perspective on Hedonic and Utilitarian Choice, in \textit{Inside Consumption: Consumer Motives, Goals, and Desires} 144, 149 (S. Ratneshwar and David Glen Mick ed. 2005).
life requisites, which relieve an unpleasant state of discomfort. On the other hand, luxuries provide their consumers with the Latin literary meaning of excess: products purchased beyond those required, for satisfaction of a “condition of abundance, pleasure, ease and comfort,” rather than a minimal core of regular life. The distinction between luxuries and necessities can also be framed as a distinction based on the cost of substitutes. When we think a product is essentially necessary, we usually conceive the price of alternatives as very high and thus not accessible. For example, the consumer mother may be able to nurse her baby as an alternative for the formula.

Feeding a baby is a matter of survival and may most likely be considered a universal need. But some products are considered necessary due to cultural expectations. An American may feel she needs cereal on her breakfast table, but a French may prefer a croissant. Consumption is culture dependent. As Amartya Sen explains regarding nutrition, “[p]eople have been known to survive with incredibly little nutrition. . . . There is difficulty in drawing a line somewhere, and the so-called ‘minimum nutritional requirements’ have an inherent arbitrariness that goes beyond variations between groups and regions.”

Needs vary from one individual to another and also change under different circumstances, locations, and settings. What’s considered essential thus changes from one culture to another, from one geographical location to another, and from one legal system to another. Some cultures impose different requirements on their members. An essential in one culture may be a luxury in another, due to cultural habits, values, and norms. The particulars of essentiality thus reflect a particular culture’s values and its expectations and habits of living. Geographical location, too, determines much of our essential needs. The weather conditions in Massachusetts make heating and suitable winter
clothing a requisite need for its residents during winter, whereas weather conditions in Maui, Hawaii, are warm and pleasant year-round, imposing no special requirements for local consumers. Yet, if most consumers in a given society find themselves under circumstances of necessity, there is safe ground to consider that the purchase of a given product is culturally essential.

One way offered in the literature to differentiate between necessities and luxuries is consumer motivation. Necessities are typically purchased with a utilitarian goal, whereas luxuries are purchased for hedonic pleasure. Utilitarian products are functional and instrumental objects of life. Examples cited include microwaves, detergents, or personal computers. Hedonic products are “multisensory” and “provide for experimental consumption, fun, pleasure and excitement,” with cited examples including “flowers, designer clothes, music, sports cars, luxury watches, and chocolate.” Marketing researchers have documented methods for manipulating consumer motivation in order to influence consumers’ shopping patterns into the necessities rather than the luxuries category. For example, guilt-reducing justifications increase the attractiveness of hedonic products, and preferences for hedonic products are enhanced when the purchase is tied to charity donations.

Due to the declining marginal utility of money, the fraction of our needed product purchases is larger for the poor than for the wealthy.

17. Bernard Dubois, Sandor Czellar & Gilles Laurent, Consumer Segments Based on Attitudes Towards Luxury: Empirical Evidence from Twenty Countries, 16 MKTG. LETTERS 115, 118 (2005); Klaus-Peter Widemann, Nadine Hennings & Astrid Siebels, Value Based Segmentation of Luxury Consumption Behavior, 26 PSYCHOL. & MKTG. 625, 626-31 (2009).
21. Khan et al., supra note 10, at 148 (discussing the effectiveness of promised donations to charity in promoting “practical necessities” (e.g., a box of laundry detergent) to their effectiveness in promoting “frivolous luxuries” (e.g., a hot fudge sundae). The results suggest that charity incentives are more effective in promoting frivolous products than in promoting practical products.
22. Ryan T. Howell & Colleen J. Howell, The Relation of Economic Status to Subjective Well-Being in Developing Countries: A Meta-Analysis, 134 PSYCHOL. BULL., 536, 538 (2008) (suggesting that the declining marginal utility of money might be due to the fact that income influences subjective well-being primarily when it is associated with the fulfillment of basic physical needs).
The conceptual common denominator of society is reflected in the minimal market basket most consumers purchase, regardless of their income. For the poor, this minimal market basket takes most of their income. For the wealthy, it is merely a minimal core layer of consumption. This consumption hierarchy reflects Abraham Maslow's hierarchy of needs, where needs are ranked by their prominence, and needs low in the hierarchy must be fulfilled before the higher need in the hierarchy becomes salient.

According to Maslow, the physiological human needs come first, followed by needs of safety, of love, of esteem (recognition), and finally — of self-actualization. Maslow later added the need to know and to understand, as well as aesthetic needs to the list. The logic of Maslow's hierarchy of needs is defined by two principles. First, the gratification/activation principle, where satisfaction of lower-order needs leads to the activation of the next higher order need in the hierarchy. Second, the deprivation/domination principle, under which the most deficient need is the most important need. Both of Maslow's principles apply to consumer products. The more essential products are the more salient and their purchase is a requisite for purchase of luxuries. We would book our ski vacation in Europe only after we have secured the essential grocery shopping. Some products are required for the lower level of needs for human survival, whereas others are required for the higher level needs for self-actualization.

Each of our purchases is reflecting a need in Maslow's hierarchy. Thus, products may be organized in accordance to Maslow's hierarchy. For example, a violin player may purchase food, clothing, and medical care to satisfy her physical needs as well as an expensive violin by an Italian artisan. Wealth implies how high we can get in the realization of our consumption hierarchy. All consumers need the lower level of physical needs consumption, including minimal nutrition, shelter, and medical care. Fewer consumers may be able to afford products required for their self-actualization, such as the expensive violin.

Maslow's hierarchy to consumption may be used to define and sort products on the scale between necessities and luxuries. Luxuries may be defined as products purchased in order to satisfy higher order

needs, whereas necessities are products purchased for the more basic human needs. What matters in assessment of essentiality is the consumers' need of the product category rather than purchase of any particular brand. Within each category, some brands will be more expensive than others and some brands are likely to be perceived as more luxurious than others. Yet, because what we seek in defining essentiality is the satisfaction of the lower level of the underlying need, essentiality is a characteristic of categories rather than of brands. Thus, a luxurious brand purchased for the satisfaction of a basic need is still essential as it satisfies a lower level in the consumption hierarchy.

The following is a diagram of Maslow's hierarchy applied on consumption:

![Illustration 1: Maslow's Hierarchy of Needs and Product Essentiality](image)

What factors influence the essentiality of consumption? As all of our consumption may be needs-based, a normative theory is required to determine which needs are basic and which needs are discretionary. This essay suggests such theory in the following. In subsection A, the essay identifies three determinants of essentiality, including a moral baseline of consumption; lack of good substitutes and inability to decline purchase; and time constraints and difficulty to defer purchase.

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27. Maslow, * supra* note 24 (drawing on Maslow's original 1943 paper). Examples of products and illustrating arrows were added by the author.
A. Determinants of Essentiality

(1) Moral Baseline of Consumption

Essential products are products which we would expect consumers to purchase as a social moral baseline.\(^{28}\) If consumers failed to purchase essential products under market conditions, we would feel the market failed to promote consumers' minimal secured level of welfare. Some products are essential for the minimal normative life the state aims to promise its citizens.\(^{29}\) The right to live as a human being and the value of dignity evoke a minimal consumption basket that must be purchased if these rights are to be given substance.\(^{30}\) Essential products are the content of this minimal normative basket. These are products which are purchased in the consumer products market, and are requisites for fulfilling society's promise for protection of human rights under the constitutional or international human rights regime.

The material dimensions of human rights often emerge in the discourse of social and economic rights, with the right to life serving as a foundation for human rights in the economic realm.\(^{31}\) The Human Rights Committee requires the satisfaction of "essential foodstuffs, of essential primary health care, of basic shelter and housing, or of the most basic forms of education,"\(^{32}\) affirming the material aspects of human rights discourse. Essential products may be those purchased for the satisfaction of basic needs, morally defendable as "a minimum condition for a bearable life,"\(^{33}\) or for a "decent chance at a reasona-

\(^{28}\) Alan Wertheimer, Coercion 207 (1987) (identifying three kinds of expectations: the statistical, the phenomenological, and the moral. The statistical is based on calculated probabilities and the phenomenological on subjective expectations from the future. The moral may or may not coincide with these and is a normative judgment); see Trebilcock, infra note 61, at 79-80.

\(^{29}\) This extends, at times, to the general public, including the wider consumers group.

\(^{30}\) S v. Makwanyane 1995 (3) SA 391 (CC) at 506 (S. Afr.) ("[I]t is not life as a mere organic matter that the [interim] constitution cherishes, but the right to human life: the right to live as a human being, to be part of a broader community, to share in the experience of humanity... more than existence – it is a right to be treated as a human being with dignity... "); Khousa v. Minister of Social Development 2004 (6) SA 505 (CC) at 530 (S. Afr.) ("basic necessities of life [must be] accessible to all if it is to be a society in which human dignity, freedom and equality are foundational").


bly healthy and active life of more or less normal length.” Minimum levels of each of the rights require the satisfaction of basic needs amounting to survival and to life, as well as to personal security. In several regimes, including Canada and the United States, the right to life is the founding constitutional protection of citizens’ welfare entitlements. But while the principles of human rights may transform into income standardization through rigorous standards of minimum wage, there is no published attempt to classify consumer law based on these moral foundations. The state may secure minimal income, but consumers are left to decide how to spend it on their own under free market terms. The law’s eyes are shut from normative imposition of values on the public’s minimal market basket.

One reason for the divergence of moral values from consumer law may be the state action doctrine. Minimum wages and welfare entitlements are classic functions of the state, whereas consumption is completely within the realm of private law. The state action doctrine carves out private law as a realm in which state action does not apply and moral principles embedded within the constitution are deemed irrelevant. The doctrine asserts the consumer products market as a sphere within which individuals act without state involvement, or with insufficient state involvement to constitute “state action.” Without state action, there is no constitutional commitment to values and parties are left to negotiate their relationships freely.

The development of the state action doctrine may be significant for a thorough understanding of the normative neutrality of consumer protection laws. In the famous 19th century Civil Rights cases, state action invalidated the Civil Rights Act of 1875, enforcing equal protection in the spirit of the Fourteenth Amendment through a prohibition of discrimination by private bodies serving the public in establishments known as “public accommodations.” Discrimination in public accommodations manifested only “[i]ndividual invasion of

individual rights," and thus constitutional protection did not apply. With the rise of legal realism during and after the New Deal and in particular from 1927 to 1972, "the state action doctrine was at its least restrictive." During this period, the Court deployed the Constitution "as a sword as well as a shield," finding state action in privately administered electoral primaries, covenants on private property, privately owned company towns, private bus services, and private coffee shops leased on governmental property. But from 1972, with *Moose Lodge No. 107 v. Irvis*, the Court reinvigorated the state action requirement and the robust conception of private spheres. During the following years, the Court found only a few instances which amounted to state action, and mostly found actions which fell short of such constitutional protection within the private realm. In 2000, the Court reasserted state action as a limit on Congress's Fourteenth Amendment enforcement authority, holding that private acts of gender violence insufficiently implicated the state to constitute state action. Congress found an alternative source of authority through the Commerce Clause, to which the state action doctrine did not apply. But recently, in *National Federation of Independent Business v. Sebelius*, the Court held that the provision requiring anyone who failed to purchase health insurance to make a payment to the federal government under the Patient Protection and Affordable Care Act exceeds Congress's authority to regulate commerce (while not its

40. Id.
45. 407 U.S. 163, 176-79 (1972). In this case, black plaintiff challenged the refusal to serve him, arguing that the state's granting of a liquor license constituted state action to which the Fourteenth Amendment applied. The Court declined to find such action, holding that the state had not acted in any constitutional way and that the Lodge is a private actor free of constitutional obligations.
authority to tax), articulating an additional perquisite: activity. Upholding the Affordable Care Act under the Commerce Clause,53 the Supreme Court reasoned that the decision not to buy health insurance was a decision not to act, whereas commerce derived from commercial activity, without which it cannot exist.54 Thus, Congress could not regulate the decision not to buy health insurance under the umbrella of regulating commerce.55

Well into the 21st century, the law still divides the world into public and private, and the latter includes no normative protection other than the freedom to contract as a manifestation of the freedom of will. Social values, constitutional commitment, and human rights discourse apply only in the public realm as obligations imposed on the state. However, the essential dichotomy between public and private proves problematic, in particular when applied to the consumption of essential products. As Cass Sunstein argues, “state action is always present”56 because the free market against which the freedom of choice is asserted is also a mechanism provided by the State.57 The state always decides whether to regulate or not, whether to intervene in the private realm and protect a child from his abusive father or to shut its eyes from the misery present behind the door.58 Yet, consumption of essential products is not behind the private door; it is a frequent and banal behavior forming the pattern of consumers’ daily lives as institutionalized by the state. Consumers shop for essential products in stores located in the public sphere, typically provided by national or multinational corporations, setting the shopping scenery quite similar for most of the public nationwide. Privacy has nothing to do with consumption of essential products. In the reality of 21st century consumption, when the state places power on or enables nominally private parties by delegating to a few powerful corporations the authority to perform the public function of providing essential needs, “the dividing line between private action and public action becomes harder to define.”59

53. Sebelius, 132 S. Ct. at 2585-94 (Roberts, C.J.); 2644-50 (dissenting opinion).
54. Id. at 2585.
55. Id. at 2586, 2591 (citing U.S. Const. art. I, § 8, cl. 3).
57. Brest, supra note 56, at 1301.
58. DeShaney v. Winnebago Cnty. Dep’t of Soc. Serv., 489 U.S. 189, 194, 212 (1989) (stating that “oppression can result when a State undertakes a vital duty [e.g., child services] and then ignores it”).
59. Developments in the Law, supra note 37, at 1279.
To summarize, seeking the moral baseline for determining the particulars of the essential market basket of consumer law may be guided by the moral baseline of society in general, as determined by human rights discourse, by constitutional protection and by other legal principles governing the legal system. Some material purchases are required for the consumer to reach the minimal level of life that would be dignified with the protected values of her nation. In other words, there is no way to obtain protection of rights without consumption. Applying the state action doctrine on consumption of essential goods thus denies the constitutional state's promise of liberty from consumers.

(2) Lack of Sufficiently Good Substitutes and Inability to Decline Purchase

Consumers of essential products are typically not free to decline purchases, that is, declining the purchase may result in ferocious circumstances and has significant long-term costs. The consumer of essentials is captive to consumption of the product's category. Essential products tend to have insufficient good substitutes. Consumers are captive in markets of essential products and may not switch to a different market for their shopping. Consider for example, the infant whose mother is unable to breastfeed: the implication of a caregiver's failure to purchase the infant formula would be severe neurological and developmental damage. Parents must shop at the infant formula market unless they are breastfeeding full-board, assuming survival is a requisite. But parents looking to bring their infant to self-actualization may shop for books, for toys, or for developmental classes. The ability to substitute with a product of another category is a sign of non-essentiality.

Inability to decline purchase is often biological, but it is significant to note that assessment of the ability to turn down purchase is also based on moral and cultural expectations. For example, a person addicted to smoking may have a biological hurdle in declining or deferring purchase of cigarettes. Yet, our cultural expectations would place responsibility on the smoking individual and assume that her will power should be strong enough to overcome the need to smoke, despite the biological difficulty underlying the addiction. Voluntariness may have boundaries due to cultural and social expectations, as well as due to external circumstances, such as weather conditions or a war.

The discussion of essentiality is at the market level, rather than the brand level. It is the market level we seek to characterize as essential or non-essential. Essential markets offer product categories that are requisite to consumers and consumers feel they need, indeed, have to purchase. The consumer situation in the essential products market is enhanced by lack of competition, but is established on the prerequisite subjective condition of necessity of purchase within the particular market, regardless of the number of available competing brands within.

(3) Time Constraints and Difficulty to Defer Purchase

Purchase of essentials is often constrained in time and is unlikely to be deferred. Consumers must have their basic needs satisfied on time. Returning to the running example, a thirsty infant must have her formula promptly purchased and prepared. The biological or geographical circumstances of consumers make a particular consumption essential at a particular place and time. Both the difficulty in deferring purchase and the inability to decline purchase experienced by a wide public suggest essentiality of the product or service purchased.

A good example of a time-constraint essential product category is shovels purchased after a snowstorm. Empirical research documented survey responses to the hypothetical: “A hardware store has been selling snow shovels for $15. The morning after a large snowstorm, the store raises the price to $20. Please rate this action as Completely Fair, Acceptable, Unfair, Very Unfair.”\textsuperscript{61} The reported results are that eighty-two percent of respondents rated the action as unfair or very unfair.\textsuperscript{62} Because consumers’ voluntariness is restricted due to the weather conditions, consumers are not free to decline or defer purchase of the snow shovels at the updated price. Rather than comparing the price of shovels, consumers are likely to get their shovel at the closest local hardware store. The updated shovels’ price after the snowstorm may be a response to the increase of demand, but it may also be a response to the limitation of consumers’ voluntariness and their desperate need of a shovel at this particular time and place and hence the unfairness public judgment. During the storm, the hardware store assumes the role of a “situational monopoly;” “the fortuitous circumstances surrounding the interaction between the particular parties to the exchange . . . create a monopoly power that [it] . . . op-


\textsuperscript{62} Kahneman et al., supra note 61, at 729; see Trebilcock, supra note 61, at 89.
portunistically exploits in return for a quid pro quo that has no or negative social value.”

Significantly, the inability to decline or difficulty to defer a purchase tests yield a potentially different and wider circle of products as essential, compared with the application of human rights as a moral baseline for assessment of essentiality. Consumers have no human right securing their interest in the purchase of a snow shovel, but are obliged to purchase the shovel at the particular time and place of a snowstorm, and are morally frustrated by the market’s imposition of justice in cases of exploitation of their restricted voluntary will.

B. Four Examples of Essentiality

Which products are considered essential by consumers? Consider the following four examples for consumer products, entailing several significantly distinctive normative dimensions: electricity for heating; infant formula; broadband services; and a violin. This essay presents the four examples briefly and then discusses the consumer situations described.

(1) Electricity for Heating

The first example is electricity. The consumer in our example lives in an area where the winter conditions are harsh and temperatures frequently fall below 30 degrees Fahrenheit. The consumer lives in an apartment with only one method of heating available and it is electricity-based. Installing alternative heating methods is very expensive and thus the consumer needs to use electricity in order to keep her apartment warm enough to survive the winter. There is only one electricity provider operating in her geographical area.

But the electricity provider is not similar to other monopolies; it is a monopoly acting in an essential market. Monopolies are a well-known market failure, but it is significant to note whether the monopolist provider is acting in an essential or non-essential market. A monopoly of diamonds, for example, is likely to create market-failure in the supply of diamonds. Yet, consumers may switch to purchase jewelry with pearls or avoid purchase of precious stones altogether. When a monopoly is acting in an essential market, consumers are bound to purchase at the monopolist price. The underlying value of purchase of electricity for heating is survival, which is an established

63. Trebilcock, supra note 61, at 93.
64. Id.
human right. To sustain her life, the electricity consumer has little variety to choose from. There is only one electricity provider in her area and her apartment has only one heating method available. She cannot defer purchase because it is freezing outside. There are really only bad substitutes. So, her choice is binary: she may choose to stay cold and potentially suffer from health and survival problems, or she may choose to turn on the heat.

(2) Infant Formula

Milk for feeding a baby has to contain a particular nutritional composition, which may be provided solely by a mother’s milk or by infant formula. Infants are not able to survive on any other nutrition; infants drinking water or cow’s milk were shown to suffer significant developmental defects. Mothers are thus strongly encouraged to breastfeed their babies for at least the first year of their lives and, in some parts of the world, including Europe, longer, into the toddler years. However, some mothers may face limitations in full-board breastfeeding, due to physical limitations or, by necessity or by choice, extracurricular motherhood activities, such as a demanding career. In addition, in our society, many babies are born into families with only male parents. While in previous centuries, only babies who were breastfed survived, starting in the 20th century infant formula was developed and proven to provide a manufactured simulation of human milk. Consumers in 2015 may walk into supermarkets and find several competing brands offering a substitute sufficiently close to breast milk for their infants’ developmental thriving.

The Committee has noted that the right to life has been too often narrowly interpreted. The expression “inherent right to life” cannot properly be understood in a restrictive manner, and the protection of this right requires that States adopt positive measures. In this connection, the Committee considers that it would be desirable for States parties to take all possible measures to reduce infant mortality and to increase life expectancy, especially in adopting measures to eliminate malnutrition and epidemics.

66. Mauer et al., supra note 60, at 253-54.

67. Wikipedia on “infant formula”:
The U.S. Federal Food, Drug, and Cosmetic Act defines infant formula as “a food which purports to be or is represented for special dietary use solely as a food for infants by reason of its simulation of human milk or its suitability as a complete or partial substitute for human milk.”
The tremendous scientific achievement of developing infant formula has surely changed human lives and saved many. The consumer is able to bottle-feed his baby even when her mother is away. By putting infant formula on the supermarket’s shelves, the formula provider expanded possibilities for consumers without derogating them. Other societies may have allocated the necessary infant formula in different methods, but market-based allocation is perhaps the most efficient method of offering a range of options and synchronizing the demand with the scarce supply. Having several competing brands for a product simulating a mother’s milk is a great achievement of our markets.

What makes the transaction for infant formula special is the underlying consumer motivation. The consumer purchases the formula for her baby to survive. As in the electricity for heating example, the value underlying the transaction is beyond autonomous consumer choice that serves as the foundational logic of consumer product markets. Rather, the value underlying the consumer transaction is human survival, a recognized and well-established human right. Human rights treaty bodies state that states should “adopt positive measures [and] take all possible measures to reduce infant mortality and to increase life expectancy, especially in adopting measures to eliminate malnutrition and epidemics.” As a normative base-line, we would expect the parent to purchase infant formula. Failure to purchase it would violate the infant’s human right, which we expect the state to protect.

It is also significant to note the commercial implication of the consumer parent condition. When the consumer enters the supermarket to buy infant formula, the seller knows she is likely to choose some formula from the options on the shelves, whatever those are. The consumer is not likely to return home and decline, or even defer, purchase. Unlike the consumer of the designer baby outfit who may walk out of the designer store and pick a toy or a book instead, the consumer of infant formula is unlikely to return home without it. Her baby is thirsty.

68. Under a Nozickian rights-based theory, the distinction between threats and offers suggests a moral foundation for contractual enforcement. When a proposal increases possibilities open to the offeree relative to the precontractual period, we may say that the proposal is an offer, and vice versa. See Trebilcock, supra note 61, at 79 (discussing Robert Nozick, “Coercion,” in Sidney Morgenbesser, et al. eds., Philosophy, Science and Method: Essays in Honor of Ernest Nagel, 440-72 (1969)).

69. See Young, supra note 15, at 129 n.82.
(3) Broadband Services

The third example is broadband services. In this example, our consumer lives in Northern America. There is only one broadband service provider in her area. The consumer frequently needs to respond to emails from her employer and her clients beyond her work hours, which is difficult to do from her cellular network connection due to the slow download of large files she needs to respond to. The consumer also uses the broadband connection to keep in touch with her friends as well as read and respond to their updates in the social media website she is connected to. Broadband services are necessary for both her social integration and her career.

(4) Violin

The fourth consumer plays the violin. She does many things during her day, but playing the violin really makes her feel there is no other place she would rather be. When she plays the violin, she feels her talent reaches its peak. The consumer can use the violin at the music school where she teaches, but she really wants to play in the evenings and weekends. She prefers to have her own private instrument. She saves money from her wages and purchases a hand-made violin from an Italian seller. The new violin enhances the beauty of the music she makes.

(5) Discussion

All four purchases are Pareto efficient: all four consumers are better off with the purchased product than they were before the transaction occurred. Indeed, life would be unbearable for the four consumers without these purchases. Under a Paretian analysis, the four transactions benefit both parties to the consumer contract. There is no doubt that the four transactions expanded the consumers' available options, offering them a significant improvement in quality of life. All four transactions should be enforceable. But there are still some significant differences between the four consumer transactions.

The first two examples describe product choices under life-threatening situations. The consumer of infant formula and the consumer of electricity for heating would be endangering their baby's life or their own life if they decline or defer purchase. Theoretically, the con-

70. "A state of allocation of resources in which it is impossible to make any one individual better off without making at least one individual worse off." When a contract is Pareto efficient, both parties are maximizing their utility. See Wikipedia on “Pareto efficiency,” https://en.wikipedia.org/wiki/Pareto_efficiency.
A HIERARCHY OF MARKETS

consumer transaction for infant formula and for electricity is analogous to
the example Trebilcock gives for exploitation but not creation of life-
threatening risks: a tug taking a foundering ship and its crew in tow. In
Trebilcock's example, the rescue is done for an agreed, but extor-
tionate, salvage fee that vastly exceeds the competitive value of the
services entailed. But even before we look at the transaction price,
we can see that the consumers of life-preserving products and the
crew of the foundering ship are in a similar human condition. Price
and quality of service are of secondary importance to them. Indeed,
they have little meaning without sustaining their life first. Like the
consumer of electricity, the crew is likely to pay any price for the tug
and is not likely to negotiate better service. They must simply make
the transaction happen promptly, as must the consumer of electricity
who turns on the heat.

The significant difference between the first two examples is that the
consumer who purchases heat from the sole electricity supplier in her
area is analogous to the crew rescued by the solitary tug ship, whereas
the consumer of infant formula has several rescuing ships competing
to give it the tug service, but the competition is taking place in a
closed market where all suppliers know that the size of the pie is pre-
determined. Transaction with one of them is bound to happen soon.
Sellers know that consumers are captive who must purchase at their
market and will pay any price to a monopoly or an oligopoly. Given
the bounded voluntariness, the sellers' incentives to collude arise.
Compared with sellers of non-essential products who may attract
more buyers and enlarge their markets by price competition, sellers of
essential products face a constant market size. Competing on price in
an essential market is less likely because any price reduction would
only give the seller a larger share of the same size of the pie. In equi-
librium, other sellers would respond in price reductions of their own
leading to the ultimate expected outcome, which would lower sellers' revenues.

As a product category, both infant formula and electricity for heat-
ing are purchases that consumers must make and in both the underly-
ing value is human survival, a well-established human right. Sellers of
both the infant formula and the electricity for heat are analogous to
an owner of a clean water spring in an oasis. According to Hayek, a
threat to withhold a resource that is crucial for consumers' existence

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71. TREBILCOCK, supra note 61, at 85-86.
72. Id.
should be considered coercive. Yet, considering long term policy effects, restricting the enforceability of these Pareto-efficient transactions may reduce consumer welfare. For example, we have many good reasons to encourage scientific endeavors, which may come to fruition and result in infant formula. Declaring the purchase of infant formula or the purchase of heating electricity unenforceable would be disastrous in terms of long term consumer welfare because it might deter ex-ante development efforts for products consumers may really need. Incentives for development and provision of life-preserving products and services should be strongly encouraged. As Trebilcock puts it, "we are dealing with a problem of market failure, not contracting failure, and the normative reference point is appropriately a consumer or total welfare standard, not coercion or voluntariness in exchange."74

The third example of the consumer who purchases broadband services from a sole supplier operating in her neighborhood is materially different. The consumer feels that she needs the broadband services for her work and for social integration. However, these are not interests protected by established human rights. The consumer strongly prefers to make the purchase, but she does not have to make it. Yet, the consumer has limited freedom of choice in declining to purchase the broadband services. In her cultural setting, it would be bizarre not to be connected. If she chose not to connect, it might harm her work relationships with her employer and her clients. Declining the purchase of broadband services is also likely to harm her social belonging to her community and friends who share experiences with each other through the social media. She really cannot afford to stay disconnected. Price and quality of the broadband service are again secondary to the underlying interest motivating the transaction. She decides to do with whatever everybody else does and she is not alone in this consumer choice. Everybody she knows checks emails during the evening and visits their favorite websites daily. Broadband services are a prerequisite to a common habit of her culture. Subscribing to the service is simply an adherence to cultural expectations, rather than an exercise of free choice.

In the fourth example, the consumer makes a deliberate choice to purchase the violin. She can definitely do without the new instrument, but the purchase adds value to her satisfaction and contributes to her need of self-actualization. Her choice of the particular unique hand-

74. Trebilcock, supra note 61, at 96.
made violin brings together the instrumental, representative and symbolic values of choice.\footnote{75. T. M. Scanlon, \textit{What We Owe to Each Other} 251-56 (2000). Scanlon identifies three reasons we have to value free choice. First, instrumentality of choice. Probabilities of achieving satisfaction are potentially greater if the consumer chooses the product for herself rather than receives it as a result of a choice made by another or by a random selection process. Freedom of consumer choice is instrumental because it enhances future consumer satisfaction and contributes to maximization of diverse consumer tastes and objectives. Second, the representative value of choice, value arising when features of the consumer’s self are manifested and reflected in the product chosen. Third, the symbolic value of choice. It is manifested every time a person purchases a product that reflects on and contributes to her perceived self-identity.} This particular violin is exactly what she will enjoy playing and it manifests her music miraculously. The consumer spends a considerable amount of time researching her options before she makes a purchase. The quality and price of the violin are central to her ultimate choice. The market functions at its best.

Notably, the purchase of broadband services would not be considered essential under the human rights approach because we do not have human rights protection for social integration. But due to cultural expectations and social boundaries of choice, we are not able to freely decline purchase of broadband services Thus, broadband services may be considered essential under the inability to decline test as a normative assessment of essential products.

Here is a table summarizing these four examples:

<table>
<thead>
<tr>
<th>Moral Baseline</th>
<th>Electricity for Heat</th>
<th>Infant formula</th>
<th>Broadband Services</th>
<th>Violin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom not to purchase</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Human Rights protection</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Underlying Need</td>
<td>Survival</td>
<td>Survival</td>
<td>Social Integration</td>
<td>Self-Actualization</td>
</tr>
</tbody>
</table>

C. \textit{A Behavioral Market Failure}

In the following, I argue that markets of essential products, characterized by the determinants discussed above, are prone to failure. In other words, the likelihood of market failure and the magnitude of failure increase with the essentiality of the product; the more basic the underlying need, the higher the probability for market failure and the higher the magnitude of failure. This phenomenon occurs due to the combined effects of both demand and supply in markets of essential products as discussed below.
(1) Failure of Demand

To achieve efficiency, markets must engage rational agents who respond to changes in price and in quality. They are able to rank outcomes from least preferred to most preferred. Markets tend towards inefficiency when there is a failure in voluntariness underlying the transactions within and when information asymmetries between parties to an exchange impede its voluntariness. “Dire constraints destroy freedom of action” and contracts formed under threats are unenforceable under doctrines of duress and of necessity. For this reason, our legal system finds it unthinkable to enforce a contract signed with a gun directed at the promisee’s head. Contracts signed out of necessity are likewise not enforced. “[A] surgeon runs out of gas on a lonely desert road where she might perish. A passerby offers to sell her five liters of gas for $50,000. Even if the surgeon accepts the offer, the court will not enforce her promise to pay... because it was given out of necessity.”

The circumstances of consumers of essential products are analogous to those of the surgeon in Cooter and Ulen’s example above. Consider the consumer who needs electricity for heating her apartment. Like the surgeon, she needs the electricity for fulfilling her human right to survival. As in the purchase of fuel in the isolated desert, there are no real substitutes for the purchase of electricity because replacing the apartment’s heating technology is unaffordable. Because winter comes in specific times of the year, the electricity consumer cannot defer the purchase. Like the surgeon in the desert, she needs the product in a particular time and place. Both cases exemplify the same binary choice between survival and purchase, on the one hand, and the lack thereof, on the other. The purchase of essential products by consumers is motivated by a value exogenous to the logic of the markets - the desire to survive, to live, or to provide similar values to those whom they love.

Both the surgeon and the electricity consumer have only one supplier for their essential product. Yet, their situation is very much similar to the consumer of infant formula, who is captive in the infant formula market and must purchase formula for her baby to survive. The difference outlined in the formula example is that the parent consumer has several brands of formula to pick from. Indeed, if developed, efficient competition between the various formula brands may

76. ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS, 225-33 (5th ed. 2007).
77. Id. at 46.
78. Id. at 225.
79. Id. at 226.
reduce the formula price. Yet, as discussed in sub-section (2) below, competition in an essential market is less likely to reach efficient equilibrium.80 Focusing on the demand side, the parent consumer, exactly like the electricity consumer who turns on the heat, or the surgeon shopping for fuel in the desert, must get the product in order to attain a higher order value and thus experiences bounded voluntariness.

The failure of free voluntary will is enhanced by increased probability for biased and uninformed consumer choice, due to the effect of time constraints and necessity on purchase of essential products. Empirical research suggests that for products purchased under time constraints, it is less likely that consumers have systematically processed the applicable product information.81 Because shopping for essentials is timely and task-oriented, the likelihood for subliminal, automatic, and immediate “mindless” choice of products is higher for essential, needs-based consumption than consumption of luxuries, which is more likely to be a deliberate and conscious choice.82

When a product meets an essential physical or emotional need, consumers

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80. See infra Part I (C)(2).
82. The autonomous consumer, who makes her decisions by processing product information and comparing pros and cons for alternatives, is often replaced by an impulsive “mindless” consumer whose consumption habits are driven by unconscious, automatically-activated attitudes. A key concept that requires deliberation here is that of autonomy. Since both System 1 and System 2 decisions stem from the same subject, it is philosophically important to justify our preference for one over the other. One way to define autonomy is as a relationship between individuals’ actions and their preferences, and between individuals’ preferences and their selves. Autonomy is defined here as a consistency between one’s self (as accorded by her desired preferences) and one’s behavior. Note that the underlying assumption here is that the set of preferences is separate from the “self”: the core self and a set of preferences that is presumably detached from that core. This assumption was severely criticized as artificial and far-fetched. See Susan Wolf, Sanity and the Metaphysics of Responsibility, in Responsibility, Character and the Emotions 46 (Ferdinand Schoeman Ed., 1987). On mindless choosing, see generally Brian Wansink, Mindless Eating: Why We Eat More Than We Think (2006). This is true for most consumers, even if some sophisticated consumers may be able to overcome this human tendency and negotiate contractual devices that would overcome this problem. DellaVigna and Malmendier show that sophisticated consumers demand commitment devices to increase their consumption of investment goods (e.g., health club). Sellers supply these devices in the form of low per-usage prices. Naïve users overestimate their future self-control and therefore their usage of the investment goods. The firm offers a contract with a discount on the per-usage price and a higher flat fee, since the individuals overestimate the value of the discount. See Stefano Della Vigna & Ulrike Malmendier, Contract Design and Self-Control: Theory and Evidence, 119 Q. J. Econ. 353, 353 (2004). As the group of sophisticated consumers may not be significant enough to correct the market failure for the general public (including the group of naïve consumers), the sophisticated group may be subsidized by the naïve group, as Della Vigna and Malmendier show.
may subliminally make the purchase,\textsuperscript{83} using the automatic decision-making process of System 1.\textsuperscript{84} When a product is required for a higher need of self-actualization, the deliberate process of System 2 is more likely to be triggered.\textsuperscript{85} The more urgent our need, the less likely we are to study the particular characteristics of our product choice and read the accompanying disclosures.\textsuperscript{86} Consumer needs may determine consumers' willingness to make the effort to carefully gather and analyze information.\textsuperscript{87} The violin player is likely to conduct thorough research before she chooses her musical instrument artisan, but is less likely to read information about the quality and nature of the electricity she needs for heating her apartment. We rarely look into the information on the chemical composition of liquids when we grab a glass of water to quench our thirst, but we are more likely to ask about ingredients and flavor when choosing a beer at our favorite local brewer.

(2) Failure of Supply

This bias in the demand side of the market is reflected in product supply. Sellers know that consumers must purchase from their product category. In markets of essential products, the demand and the

83. See generally Erin J. Strahan, Steven J. Spencer & Mark P. Zanna, \textit{Subliminal Priming and Persuasion: Striking While the Iron is Hot}, 38 J. EXPERIMENTAL SOC. PSYCHOL. 556, 556-68 (2002) (demonstrating that subliminally priming a goal-relevant cognition (thirst in Studies 1 and 2; sadness in Study 3) influenced behavior (in Study 1) and enhanced the persuasiveness of an ad targeting the goal (in Studies 2 and 3) when people were motivated to pursue the goal (when they were thirsty in Studies 1 and 2; when they expected to interact with another person in Study 3)). Put differently, the essential need for quenching one's thirst and the essential need for social interaction impact the subliminal purchase decision.


85. Dijksterhuis \textit{et al.}, \textit{The Unconscious Consumer: Effects of Environment on Consumer Behavior}, 15 J. CONSUMER PSYCHOL. 195, 198 (explaining that "[t]he vast majority of choices . . . are not the result of much information processing at all").

86. Suri & Monroe, \textit{supra} note 81, at 100.

87. Consumers have physiological and emotional needs and nonconscious concerns and influences. See Bargh, \textit{supra} note 84, at 282 (2002) (explaining that the motivation for the purchase of goods may be subliminal wants and desires for "things" consumers "need to get done, or pressing concerns on their minds").
size of the market tend to be constant. Electricity providers may calculate the expected demand based on weather forecasts. Providers of infant formula may be able to calculate expected market demand based on the growth rate of the population. Given the rather constant size of the market for essential products, sellers may compete within the market on their respective market shares. Sellers of non-essential products and sellers of luxuries, on the other hand, may have to compete on their market shares in a constantly changing market size. Consumers may enter and exit the non-essential product market.

To see why this characteristic of markets of essential products affects the probability of market failure in the supply side, consider first the incentive for collusion in markets of essential products versus the incentive for collusion in non-essential markets. In a market of essential products, a monopoly or oligopoly may be able to charge excessive prices; consumers are captive in the market and must purchase the product category. Further, their purchase is motivated by an essential need exogenous to the market price. Price is secondary to the higher order value attained through purchase. On the other hand, in non-essential markets, a monopoly or oligopoly charging excessive prices typically leads to reduction in the size of the market. If the seller increases the price, consumers may exit the market and shop at a different market; non-essential products extend competition to different product categories. If the designer outfit for her baby is over-priced, the consumer mother may shop for her baby at the development toy store next door. Competition law literature shows that excessive prices will not necessarily invite entry of new providers and, in many instances, excessive prices are likely to remain due to lack of price competition among rivals. To the extent that the behavioral market failure causes excessive pricing, competition will not aid in making such excessive pricing self-correcting.

Essential needs-based consumption may be a case demonstrating the boundaries of competition in amending behavioral market failures. Consider the incentives of sellers to compete in markets of essential products versus markets of non-essential products. In markets of essential products, discounts given by one competitor would increase its market share. But competitors are likely to respond

88. Ariel Ezrachi & David Gilo, Are Excessive Prices Really Self-Correcting?, 5 J. COMPETITION LAW & ECON. 1, 8 (2009).
89. Id. at 2.
90. But see BAR-GILL, supra note 4, at 2.
91. Sellers in essential markets are rarely individuals. Mostly, these are multi-national corporations of considerable organizational scale.
with price reductions of their own. Consumers would continue shopping in similar quantities, determined by their exogenous essential needs, and would be less responsive to the attractive price. Due to the constant demand for quantities sold at the market, this scenario would leave all competitors with smaller long-term revenues because the scope of the proceeds attained from the same amount of units sold would shrink. That is, a reduction in prices may increase seller A’s market share, but would reduce the whole pie of proceeds from the market, given the rather constant amount of quantities consumed. Foreseeing this equilibrium, sellers would be inclined to minimize price competition in markets of essential products. On the other hand, in markets of non-essential products, reduction in prices and a price competition may result in bigger market size and a larger pie of proceeds. Competition in non-essential markets is more likely to reach the optimum point of marginal cost because it may benefit all competitors to have lower pricing levels, as the market size may increase as a result, thereby increasing all of their respective shares. Of course, this analysis is a function of market size and, in very large markets, competition on market segment may prove profitable enough to create good incentives for price competition among sellers, even with constant demand.

The incentives for investment in product quality are also smaller in markets of essential products, compared to markets of non-essentials. In markets of essential products, when consumers must make the purchase promptly, consumers are less likely to be actively searching, processing, and comparing product knowledge. In turn, consumers are less likely to translate their product knowledge into product quality and finally into price. Without consumers’ deliberate process of product choice, sellers of higher quality products will not be able to distinguish themselves from sellers of lower quality products, and low-quality sellers will have incentives to hide their products’ quality. This scenario is typically called market for lemons, since the market creates a race to the bottom on product quality. Specifically, no seller has incentives to invest in higher quality products when higher quality cannot translate into higher prices. In addition, sellers of essentials have fewer incentives to invest in product quality compared with sellers of non-essentials because their gain in improved quality is limited

92. See Suri & Monroe, supra note 81, at 92-93 (discussing the effect of time constraints on demand).
to a larger market share of a constant market size, as consumers purchase predetermined quantities according to exogenous interests. In markets of non-essentials, on the other hand, improving quality may increase the size of the market and bring more consumers to it, in addition to increasing the sellers’ share within that market. Investment in quality of non-essentials is likely to be more rewarding from the sellers’ perspective. This analysis is subject to market size. In very large markets, a bigger market share may justify efforts in improving quality despite the constant market size.

The following table summarizes why essentiality correlates with behavioral market failure and why markets of essential products tend towards behavioral market failure more than markets of non-essentials:

<table>
<thead>
<tr>
<th></th>
<th>Essential Products</th>
<th>Non-Essential Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntariness</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Likelihood of Informed Choice</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Supply Side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentives for Collusion</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Likelihood of Competition to Reach Efficiency</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Incentives for Investment in Product Quality</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

**PART II: WHAT'S ESSENTIAL?**

How can regulators and lawmakers tell when a behavioral market failure occurs? Which product choices are motivated by an essential need? Indeed, which products are essential? Assessment of subjective thoughts and feelings for the entire consumer public is an impossible mission. This part of the essay explores two methods for determining what is essential in the consumer market basket. The first is an objective-paternalistic measure of the requirements for a healthy life. The second is composed of market data collected about the consumption patterns of products, which may signal bounded voluntariness of consumers’ product choices, increasing the probability of a behavioral market failure affecting the product’s demand.
A. Objective Assessment: Services of General Interest

To assess what is essential for consumers' life, regulators and lawmakers may use traditional political decision making processes, with or without the professional guidance of public health scientists. Policy makers may articulate a complete market basket for a full and healthy human life, composing an objective list of requirements for minimum living, including products required not only for healthy nutrition, but also for fitness and recreation, housing, and social and cultural integration. Articulation of essential products is a means of evaluating minimum costs of living, and may also be used by policy makers for the purpose of setting minimal wage and for poverty analysis. For example, experts of public health policy proposed "consensual dietary guidelines," recommending, among others, "no more than 35% of total dietary energy from fat; a polyunsaturated/saturated fat ratio >0.45; <10% of dietary energy from non-intrinsic sugars; at least five portions of fruit and vegetables (400 grams) excluding potatoes a day; and two portions of fish a week, one of them oily . . . . [i]n addition [to] . . . dietary reference values for major vitamins and minerals." Studies of public health policy provide "consensual evidence" defining the major personal requisites for health in nutrition, physical activity, and psychological relations.

One prominent example for objective assessment of essential products is the European doctrine of Services of General Interest. European law classifies some services as services of general interest and, as such, imposes on their providers specific public service obligations as well as optional state aid for requisite finance. Of particular interest in this essay are the services of general economic interest (SGEI). These are economic activities that deliver outcomes in the overall public good that would or would not be supplied by the market without public intervention under different conditions in terms of objective quality, safety, affordability, equal treatment, or universal

94. See, e.g., J. N. Morris et al., A Minimum Income for Healthy Living, 54 J. EPIDEMIOLOGY & COMMUNITY HEALTH 885 (2000) (using an objective public health approach to identify representative minimal costs per week in the U.K.) Specifically, the authors use research that provides consensual evidence that defines the major personal requisites for health in nutrition, physical activity and psychological relations, estimating the minimal costs and comparing them to the statutory minimum wages.
95. Id. at 886.
96. Id. at 887.
Rather than seeking plain market functioning and restricting regulation to instances of an economic market failure, European law imposes a normative evaluation of market outcomes to justify regulatory intervention. Article 14 of the Treaty on the Functioning of the European Union (TFEU) into the Lisbon Treaty and annexed to the Treaty on European Union and to the Treaty on the Functioning of the European Union (TFEU) provide six values that must be applied to all Services of General Economic Interest across the European Union: a high level of quality, safety, affordability, equal treatment, the promotion of universal access, and the promotion of human rights. In an opinion of the Advocate General Ruiz-Jarabo Colomer, the general conditions for the provision of services of general economic interest was framed. It stated that these services should be uninterrupted for the benefit of all consumers throughout the relevant territory and available at uniform tariff rates that are affordable and transparent. Recognizing the boundaries of competition in these general interest services, European law provides regulation that seeks to guarantee the rights of inhabitants to access fundamental goods and services at a specific normative level for each of the following values:

- Quality: Quality objectives vary and are precise for each sector. Yet, a collection of various sources allows us to pick out the reliability and continuity of services; the existence of mechanisms of compensation in the event of the standard of services being poor; user and consumer protection; sustainable development, among others.
- Safety: Consumer protection of risks includes physical safety for the provision of services as well as safety and reliability of networks and materials.

The European Commission considers that in "some cases of services of general interest, public intervention may be necessary to improve the security of supply, in


99. EUROPEAN CONFEDERATION OF INDEPENDENT TRADE UNIONS, PROVIDING HIGH-QUALITY PUBLIC SERVICES IN EUROPE BASED ON THE VALUES OF PROTOCOL 26 TFEU 6 (Study Short Version 2012) (presenting the core results of a study by Pierre Bauby and Mihaela M. Similie).

100. Id. at §§ 54-56.

101. See 1997 O.J. (L 15) 22; see also GREEN PAPER ON SERVICES OF GENERAL INTEREST, supra note 98, at 6.

102. GREEN PAPER ON SERVICES OF GENERAL INTEREST, supra note 98, at 6.

103. Id. at 18–19.
particular in order to address the risk of long-term under-investment in infrastructure and to guarantee the availability of sufficient capacity.”

- **Affordability:** Affordability is relative to the economic and social conditions of each territory as well as to needs and technologies. Thus, it varies from one location to another and evolves over time. European law provides the possibility of compensating the costs incurred in order to achieve the normative tasks of affordability and accessibility.

- **Equal Treatment:** The Charter of Fundamental Rights of the EU was adopted in 2000 and has been binding since the entry into force of the Lisbon Treaty on 1 December 2009. It contains a specific title (Title III) on equality, which bans any form of discrimination.

- **Promoting Universal Access:** European law acknowledges a fundamental right of access to services of general economic interest. Acknowledging the market cannot provide universal access or total geographical coverage, community action aims to guarantee the universal access to Services of General Economic Interest, in particular in the field of trans-European networks for transport, energy, and telecommunication.

- **Promoting Human Rights:** Services of General Economic Interest are a subset of the larger category of Services of General Interest. No definition has been given by any EU institution as to the ac-

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104. *Id.* at 20.
106. **GREEN PAPER ON SERVICES OF GENERAL INTEREST**, supra note 98, at 7-8.
107. “[T]he Union and the Member States . . . shall take care that such services operate on the basis of principles and conditions, particularly economic and financial conditions, which enable them to fulfill their missions.” **TFEU** art. 14. Application of Article 14 is without prejudice to Articles 93, 106, and 107 of **TFEU**, which establish the role of the European Commission in control of state aid and the conditions under which derogations from application of this control may be granted to Service of General Interest. **TFEU** art. 14; **Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions: A Quality Framework for Services of General Interest in Europe**, at 5 n.9, COM (2011) 900 final (Dec. 20, 2011).
tual coverage of Services of General Interest. The Court of Justice for the European Union has accepted various services as such, including the distribution of water, gas, and electricity, countrywide collection and delivery of mail, the operation of unprofitable airlines, ambulance transport, and the pharmaceuticals wholesale business. In addition, the Commission has issued a recommendation on access to basic banking services. Yet, public authorities in the European member states have considerable discretion when it comes to defining what they regard as services of general economic interest and no theory provides guidelines for classification of products and services as such. This applies only in sectors that have been harmonized at the European Union level and where objectives of general interest have been taken into account. The member states' discretion, however, cannot contradict the rules governing such harmonization.

Member states have discretion in defining additional services as services of general economic interest, subject to EU control for manifest error.

Using the political decision-making process for determining the scope of essentiality indirectly reflects public opinion because the representatives are elected by the public. However, consumers' needs may deviate from the politically-recommended requirements for life. Consumers may feel they need other products. A need is an individ-

117. Citizens are a part of the larger consumer public.
ual, subjective feeling: "what is a luxury to some may seem an outright necessity to others." Applying an objective measurement of essentiality is using a paternalistic approach to consumer protection laws, which is rooted in the realm of private law.

B. Assessment of Essentiality Based on Market Data

Market-based indicators reflecting a particular public's consumption patterns in a particular place and time may make a better foundation for a normative definition of essential needs since they are based on actual consumer preferences in the local market of a particular culture. Using market data for assessment of product essentiality is culture-neutral and may be applied to any consumer product market with different outcomes, according to the actual patterns of consumption in the culture examined.

In the following, the essay suggests assessment of product essentiality using data that document market-level elasticity of demand for popular products. Lower market-level elasticity of demand suggests weaker consumer responsiveness to products' prices. Product popularity is measured using the statistical market basket that determines the Consumer Price Index (CPI), which is based on statistical analysis of expenditure surveys, suggesting that the product is consumed widely by the public. When a product category shows both inelasticity and high popularity, this product category is likely to be purchased under a feeling of necessity by a large consumer public, thereby creating increased likelihood for a behavioral market failure. These products may be considered "essential."

(1) Market-level Elasticity of Demand

Demand is a representation of consumer preferences, expressed in terms of quantities purchased at different prices. Demand curves are frequently used in microeconomics analysis, usually under Alfred Marshall's convention, indicating for a product or a group of products the quantity that will be purchased at each price, holding constant the

119. Consider the words of Amartya Sen: "People have been known to survive with incredibly little nutrition . . . . There is difficulty in drawing a line somewhere, and the so-called 'minimum nutritional requirements' have an inherent arbitrariness that goes well beyond variations between groups and regions." AMARTYA SEN, POVERTY AND FAMINES: AN ESSAY ON ENTITLEMENT AND DEPRIVATION 12 (1982).
120. Gregory J. Werden, Demand Elasticities in Antitrust Analysis, 66 ANTITRUST L. J. 363, 364 n.6 (1998) ("The first expression of a demand curve as a mathematical expression is credited to Pietro Verri in his 1760 Elementi del Commercio. See DONALD W. KATZNER, STATIC DEMAND THEORY 7 (1970); JOSEPH A. SCHUMPETER, HISTORY OF ECONOMIC ANALYSIS 307 n.13 (1954)").
prices of all other products, nominal income, and consumer tastes.\footnote{121} The Law of Demand introduced by Marshall is a description of consumers' sensitivity to prices, stating that the higher the product's price, the lesser the quantity that will be purchased.\footnote{122} Elasticity of demand, originally termed \textit{own-price elasticity of demand}, indicates the responsiveness of quantities demanded to changes in price.\footnote{123} Specifically, elasticity of demand is the proportionate change in quantities demanded divided by the proportionate change in price that induced the quantities change. Put otherwise: The Price Elasticity of Demand is "the percentage change in quantity demanded divided by the percentage change in price."\footnote{124} Its formal definition is simple, where elasticity of demand is:

\[
En = \frac{\text{Percentage change in Quantity Demanded}}{\text{Percentage change in Price}}
\]

The assumption underlying free markets is that consumers will respond to increases in price by changing their consumption patterns and lowering the quantities consumed.\footnote{125} Price sensitivity is assumed as a characteristic of all consumers. Elasticity of demand is thus a measure of consumer responsiveness.\footnote{126} For example, when elasticity of demand is high, a low percentage of change in price triggers a high percentage of change in quantities consumed. And vice versa: When...
elasticity of demand is low, a significant change in price triggers a meager change in quantities consumed, and consumers keep buying similar quantities despite the higher prices. Price is elastic when a given percent of change in price triggers a greater change in quantity consumed. Price is inelastic when a given change in price yields a smaller change in quantity consumed. Consumer demand is unit elastic when the percentage of change in consumed products is exactly the same as the percentage of change in price. Demand is elastic if elasticity exceeds one; demand is inelastic if less than one; demand is said to be unit elastic if elasticity is one exactly.127

Scholars of Economics use various methods for assessment of elasticity. As most products and commodities are not homogeneous, but rather are product categories comprised of a collection of various kinds of products that are distinguished in quality and in origin, consumers may respond to price alterations with amendment to quality of various brands within the product category, with no (or little) amendment to quantity consumed in the category as a whole. For example, should the price of beef increase, in search of protein, consumers may alter their choices within the meat category, and prefer chicken,128 without altering the total amount of meat purchased. Even within the beef category, there are various slices with a wide array of flavors and nutritional value.129 “Houthakker and Prais thus suggest several estimates of “elasticity of quality,” which is the elasticity of unit value with respect to total household expenditure (or income).”130 In addition, prices need to be assessed with respect to their actual effect on consumption, including taking into account the economies of scale of larger households.131 Methodology for assessment of elasticity requires attention to the specific product market and its characteristics.

Elasticity is highly related to market power. A monopolist supplying a product with neither perfect nor close substitutes may be able to increase prices with reasonable resilience to consumers’ response and reduced consumption. The proportionate amount in which a monopolist would raise prices above marginal cost is determined by the elasticity of the demand curve the monopolist faces.132 In contrast, the

127. Werden, supra note 120, at 366.
129. Deaton, supra note 131, at 420.
130. Id. at 420 (citing J.S. Cramer, Interactions of Income and Price in Consumer Demand, 14 INT'L ECON. REV. 351, 353 (1973)).
132. Werden, supra note 120, at 369 (showing a profit maximization formula by a monopolist).
A competitive firm faces an infinitely elastic demand curve through the relevant range, and thus the competitive marginal price equals marginal cost.\textsuperscript{133}

Assessment of demand elasticities is commonly used by economists as evidence of market power.\textsuperscript{134} Antitrust literature defines “market power” as the ability to raise prices by restricting output,\textsuperscript{135} the ability to profitably maintain prices above competitive levels for a significant period of time\textsuperscript{136} or the ability to raise prices above the competitive level without losing so many sales that the price increase is unprofitable and becomes rescinded.\textsuperscript{137} Abba Lerner proposed to measure the “degree of monopoly power” by:

\[
\frac{p - cp}{p}
\]

Denoting marginal cost by $c$ and marginal revenue by $p$.\textsuperscript{138} This equation, known as the “Lerner index,” shows that market power is closely related to elasticity of demand faced by the firm.\textsuperscript{139}

Elasticity is thus highly significant for antitrust scrutiny. Antitrust laws define market power as “the ability of a single seller to raise price and restrict output,”\textsuperscript{140} so that “prices can be raised above the levels that would be charged in a competitive market,”\textsuperscript{141} but the antitrust scrutiny usually comes into effect when market power is sufficient to allow a firm to earn more than just a competitive return on investment. That is, to earn monopoly profits.\textsuperscript{142} Monopoly power is defined under the antitrust convention as “a high degree of market power,”\textsuperscript{143} a degree of market power sufficient to cause a profit-maximizing firm to price in excess of long-run marginal cost.\textsuperscript{144} The mea-

\begin{itemize}
  \item \textsuperscript{133} \textit{Id.} at 370.
  \item \textsuperscript{134} \textit{Id.} at 380.
  \item \textsuperscript{135} \textsc{Phillip E. Areeda} \& \textsc{Louis Kaplow}, \textsc{Antitrust Law} 86 (Little, Brown and Co. 4th ed. 1995).
  \item \textsuperscript{136} \textit{Werden}, supra note 120, at 370 (citing \textsc{U.S. Dep't of Justice and Federal Trade Comm.}, \textsc{Horizontal Merger Guidelines} 0.1 (1992), reprinted in 4 Trade Reg. Rep. (CCH) 13,104.
  \item \textsuperscript{138} \textsc{Abba P. Lerner}, \textit{The Concept of Monopoly and the Measurement of Monopoly Power}, 1 \textit{Rev. Econ. Stud.} 157, 169 (1934).
  \item \textsuperscript{139} \textit{Werden}, supra note 120, at 372.
  \item \textsuperscript{140} \textit{Fortner Enters v. U.S. Steel Corp.}, 394 U.S. 495, 503 (1969).
  \item \textsuperscript{142} \textit{Werden}, supra note 120, at 370.
  \item \textsuperscript{143} \textsc{Landes} \& \textsc{Posner}, supra note 137, at 937
  \item \textsuperscript{144} \textit{Werden}, supra note 120, at 373.
\end{itemize}
sure of monopoly power is the Lerner Index, but with long-run marginal cost used in place of short-run marginal cost.\textsuperscript{145} In the \textit{Cellophane} case, the Supreme Court defined the term “Monopoly power” as “the power to control prices or exclude competition.”\textsuperscript{146} In Antitrust law, a “monopoly means an excessive degree of market control, whether viewed in terms of power to fix prices or power to exclude rivals from the market, or both.”\textsuperscript{147} In the words of the Supreme Court, “what constrains [a] defendant’s ability to raise prices . . . is the elasticity of demand faced by the defendant – the degree to which its sales fall . . . as its price rises.”\textsuperscript{148} For example, in its antitrust proceedings, Kodak argued that the geographic scope of the relevant market was the entire world, and that the estimated demand elasticities between Kodak and Fuji are as high, so that “if Kodak were to raise its price by five percent, it would lose ten percent of sales.”\textsuperscript{149} The court held that “Price elasticities are better measures of market power [than market shares],”\textsuperscript{150} accepting Kodak’s economist expert opinion and reasoning that the high elasticity resulted in a lack of market power.\textsuperscript{151} When supply and demand were not particularly elastic, an agreement among firms accounting for a substantial share of the relevant market could reduce supply and raise prices.\textsuperscript{152}

Elasticity may also be used as a market signal of essentiality, as it is highly correlated with the determinants of essentiality discussed above. Low elasticity is a signal of bounded voluntariness. When elasticity is zero, consumers are indifferent to price, and are willing to pay anything in order to get hold of the product. In real life, elasticity is never zero, because consumers have limited resources. Low elasticity signals that consumers are eager to obtain the product. When elasticity is low, and consumers fail to respond to prices, their adherence to the purchase of the product suggests a stiffness of consumer motivation—that something limits their ability to avoid purchase and seek

\textsuperscript{145} Id. at 373.
\textsuperscript{150} Id. at 1472.
\textsuperscript{151} Id. at 1473; see Eastman, 63 F. 3d at 108 (The Court of Appeals accepted the elasticity evidence as well).
substitutes or alter their choice. According to the textbook of MicroEconomics for “necessities like food, fuel, shoes, and prescription drugs demand tends to be inelastic, such items are stuff of life and cannot easily be foregone when prices rise. By contrast, you can substitute other goods when luxuries like European holidays, 17 year old scotch whiskey and Italian designer clothing rise in price.”

Demand tends to be more elastic when there are substitutes for a product and less elastic when the product has few or less satisfactory substitutes. Consider the demand for a particular brand of salt: one brand of salt is “a more-or-less perfect substitute to any other,” so demand is expected to be highly elastic. Substitution can be affected by the properties of the product or by consumer motivation: for example, demand for airline travel for leisure is price elastic (-1.52), because leisure travelers may have reasonably good alternatives for air travel, whereas business travelers are naturally more time-sensitive and thus perceive the alternative automobile transport as more expensive, resulting in a lower elasticity of demand (-1.15).

Elasticity is also signaling the difficulty to defer purchase of a product, discussed above as the third determinant of essentiality. Time constraints are also of essence in the assessment of elasticities of demand. If oil prices increase, consumers may not be able to drive less in the short run because many of the car trips cannot be abandoned or altered: for example, consumers need to keep going to work. Relocating closer to work, or trading to a more efficient car with better gas mileage are longer term moves, whereas in the short-run, consumers would be bound to keep purchasing fuel despite the higher prices. As a result, “the demand for gasoline will be much more elastic in the long run than in the short run.” Similar effects may be traced every time consumers are bound by high switching costs. In the short-run, consumers are captive and must keep purchasing despite the higher prices, but in the long-run, they may be able to replace providers: natural gas for households has meager short-term

156. Besanko & Braeutigam, supra note 154, at 53.
157. Frank, supra note 155, at 119.
158. Id.
159. Id.
160. Id. (See figure 4.26 for an analysis of the short term vs. long term equilibrium).
elasticity documented (-0.1), yet, “a whopping” (-10.7) in the long-
run.\textsuperscript{161}

For the purpose of assessment ofessentiality, the important heuris-
tic should be the market-level elasticity rather than the brand-level
elasticity. For example, demand for individual models of automobiles
is highly elastic (between -3.5 and -6.5), yet the market-level price
elasticity of demand for automobiles generally falls between -1 and
1.5, and is considerably less elastic.\textsuperscript{162} Consumers feel they need a car
but are less sensitive to its particular model.\textsuperscript{163} If the price of any
particular car model went up, consumers would switch to the now
lower-priced models, but would keep purchasing products at the auto-
mobiles market.\textsuperscript{164} While demand can be inelastic at the market level,
it can be highly elastic at the individual brand level.\textsuperscript{165} Essentiality is a
characteristic of product categories rather than particular brands. If
one of the brands raises its price, consumers may alter their choices
and purchase a competing brand, but they must get some brand of the
essential category, making the market inelastic, and essential.

The following is a table summarizing the relation between elasticity,
competition and essentiality:

<table>
<thead>
<tr>
<th>Competition</th>
<th>Essentiality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>Elastic*</td>
</tr>
<tr>
<td></td>
<td>Elastic†</td>
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<tr>
<td>Low</td>
<td>Elastic*</td>
</tr>
<tr>
<td></td>
<td>Elastic†</td>
</tr>
</tbody>
</table>

* Brand-level price elasticity
† Market-level price elasticity

Low elasticity documented at the market-level is a signal of cultural
perception of subjective need: low market-level elasticity suggests
many consumers feel they need the product category regardless of its
price: consumers are captive within the market for the generic prod-
uct. An assessment of the degree of market-level elasticity of demand
may be used as a means to detect which products are purchased with
essential needs-based motivation. Consumers’ responsiveness to price
at the market-level may be a market indicator for subjective feelings

\textsuperscript{161} Id. at 120.
\textsuperscript{162} BESANKO & BRAEUTIGAM, supra note 154, at 54-55.
\textsuperscript{163} Id.
\textsuperscript{164} Id.
\textsuperscript{165} Id.
of the public regarding the necessity of purchase within that particular market. For popular products, a public conception of luxuries would reflect in higher market-level elasticity of demand, whereas a public perception of necessities would reflect in lower elasticity of demand, signaling that the product is more likely to be purchased under conditions of a behavioral market failure.\(^{166}\)

Empirical evidence strengthens this hypothesis about the structure of consumer demand, and suggests low elasticity may signal bounded voluntariness, which correlates with a behavioral market failure. Consumers show less responsiveness to price when they subjectively assign a product as needed. For example, elasticity of water usage decreases in the summer months as all users are less responsive to price changes when seasonal needs require water usage for outdoor uses (vegetation and swimming pools).\(^{167}\) Reductions in precipitation lead to increases in water use and reductions in the number of days of precipitation reduce water usage for both seasons.\(^{168}\) Fuel, which is essential for transportation, shows to have very low elasticity of demand. The literature on the price elasticity of gasoline demand shows that the average short-run elasticity is -0.09, and the average long-run elasticity is -0.31.\(^{169}\) Bus rides also score very low demand elasticities, with rides to work most inelastic (-0.1 to -0.19), scoring almost half the elasticity of the average recorded elasticity for transit for general purposes (-0.22 to -0.33) and less than half elasticity of demand for rides for shopping trip purposes (-0.32 to -0.49).\(^{170}\) Consumers just have to get to work, and elasticity is lower, whereas they may defer shopping or travel to the outlets by other means. Demand for health care is consistently found to be price inelastic.\(^{171}\) Although the range of price elasticity

\(^{166}\) See Bar-Gill, supra note 4, at 2; Angus Deaton & John Muellbauer, Economics and Consumer Behavior 19 (1980) (suggesting that this would apply to popular products only, as luxuries consumed only by the very wealthy are expected to show lower elasticity due to widening wealth gaps and the rational indifference to costs at this social segment).


\(^{168}\) Id. at 13.


estimates is relatively wide, it tends to center on −0.17, meaning that a 1 percent increase in the price of health care will lead to a 0.17 percent reduction in health care expenditures.\textsuperscript{172} Social integration needs and cultural differences are also reflected in the elasticity of demand. For example, broadband demand is relatively elastic to price in Latin America and the Caribbean, but not in the OECD, where Internet connectivity is an established means of social communication.\textsuperscript{173}

Much additional empirical research is required in order to establish correlativety between automatic decision-making, needs-based consumer motivation and elasticity of demand. From a normative perspective, we may use the existing evidence as a signal of guidance towards better policy of consumer protection. We know that consumers have different consumption motivations. When consumption motivation is essentially needs-based, consumers feel the purchase of a product is necessary. If consumers feel they cannot afford to live without a product, consumers are likely to be less price-sensitive, and thus elasticity of demand is recorded as lower. Elasticity of demand recorded on popular products used by most of the public may thus serve as a market based heuristic for the subjective feeling of essential necessity shared by many consumers in a given market.\textsuperscript{174}

(2) Product Popularity

Low market-level elasticity serves as a good signal for essential products, but it is not sufficiently narrow to create a sound definition to be used by regulators. Widening wealth gaps due to inequalities of

\textsuperscript{172} The price-induced changes in demand for health care can in large part be attributed to changes in the probability of accessing any care rather than to changes in the number of visits once care has been accessed. In addition, the studies consistently find lower levels of demand elasticity at lower levels of cost-sharing. The demand for health is also found to be income inelastic. The estimates of income elasticity of demand are in the range of 0 to 0.2. The positive sign of the elasticity measure indicates that as income increases, the demand for health care services also increases. The magnitude of the elasticity, however, suggests that the demand response is relatively small.


\textsuperscript{174} Popularity is a requisite complementary test. Due to widening wealth gaps, luxuries used by the very wealthy may reflect inelastic demand as their costs are meager to the very large pockets of their consumers. \textit{See} discussion \textit{infra} Part III.
income from labor and capital may create distortions.\footnote{THOMAS PIKETTY, CAPITAL IN THE TWENTY FIRST CENTURY 336 (Translated by Arthur Goldhammer, 2014).} The very wealthy consumers may be less responsive to prices of luxuries, because the gap between their resources and the costs blurs the difference, and is indeed insignificant for their pockets. Thus, market-level elasticity may signal essentiality only in popular markets, purchased by most of the public. Because consumers tend to make more mindful choices and better research alternatives for their big purchases, the larger the share of expenditures accounted for by a product compared to the consumer's budget, the higher the expected elasticity would be, and vice versa: the smaller the share of the total expenditure accounted for by a good, compared to the consumer's budget, the less elastic demand will be.\footnote{BESANKO & BRAEUTIGAM, supra note 154, at 53; FRANK, supra note 155, at 119.}

For this reason, essentiality may be assessed by low market-level elasticity for documented for popular products on product's popularity. In order to be considered essential, a product has to be commonly purchased. A framework fitting for the popularity test requirement may be the CPI: the Consumer Price Index, which measures changes in costs for a representative market basket, developed based on statistical analysis of detailed expenditure information provided by families and individuals on what they actually bought. Statistical analysis is performed on expenditures data coming from thousands of diaries and interviews, to determine the importance and statistical weight of various consumer products. For the current CPI, this information was collected from the Consumer Expenditure Surveys for 2011 and 2012.\footnote{In each of 2011 and 2012, about 7,000 families from around the country provided information each quarter on their spending habits in the interview survey. To collect information on frequently purchased items, such as food and personal care products, another 7,000 families in each of these years kept diaries listing everything they bought during a 2-week period. Bureau of Labor Statistics, http://www.bls.gov/cpi.} The CPI is measured for two reference populations, all urban consumers and urban wage earners and clerical workers. The all-urban consumer group represents about 87 percent of the total U.S. population.\footnote{http://www.bls.gov/cpi/cpifaq.htm.} It is based on the expenditures of spending patterns of the population as follows: people living in rural nonmetropolitan areas, farm families, people in the Armed Forces, and those in institutions, such as prisons and mental hospitals; almost all residents of urban or metropolitan areas, including professionals, the self-employed, the poor, the unemployed, and retired people; as well as urban wage earners and clerical workers.

\footnotesize{175. THOMAS PIKETTY, CAPITAL IN THE TWENTY FIRST CENTURY 336 (Translated by Arthur Goldhammer, 2014).}

\footnotesize{176. BESANKO & BRAEUTIGAM, supra note 154, at 53; FRANK, supra note 155, at 119.}

\footnotesize{177. In each of 2011 and 2012, about 7,000 families from around the country provided information each quarter on their spending habits in the interview survey. To collect information on frequently purchased items, such as food and personal care products, another 7,000 families in each of these years kept diaries listing everything they bought during a 2-week period. Bureau of Labor Statistics, http://www.bls.gov/cpi.}

The CPI includes more than 200 items divided into eight categories: (1) FOOD AND BEVERAGES (breakfast cereal, milk, coffee, chicken, wine, full service meals, snacks); (2) HOUSING (rent of primary residence, owners' equivalent rent, fuel oil, bedroom furniture); (3) APPAREL (men's shirts and sweaters, women's dresses, jewelry); (4) TRANSPORTATION (new vehicles, airline fares, gasoline, motor vehicle insurance); (5) MEDICAL CARE (prescription drugs and medical supplies, physicians' services, eyeglasses and eye care, hospital services); (6) RECREATION (televisions, toys, pets and pet products, sports equipment, admissions); (7) EDUCATION AND COMMUNICATION (college tuition, postage, telephone services, computer software and accessories); (8) OTHER GOODS AND SERVICES (tobacco and smoking products, haircuts and other personal services, funeral expenses).

The Bureau thus chooses specific items within stores and businesses frequented by consumers to assess their cost. Reflecting the public's consumption patterns, this statistically measured market basket should be the framework for the third popularity test.

Notably, essentiality—whether established on objective-paternalistic grounds, or documented through the market heuristics suggested above—is not an immediate cause of normative action, and some regulatory discretion is required before tailoring the appropriate policy. The additional discretion is required due to the normative dimension of essentiality. For example, cigarettes have documented low market-level elasticity,\textsuperscript{179} and may indeed be popular in some cultures. Yet, our cultural ethos of personhood assumes human discretion in smoking, and declaring cigarettes 'essential' would be culturally inappropriate.\textsuperscript{180}

**PART III: POLICY IMPLICATIONS**

The category of essential products, increasing the likelihood and the magnitude of a behavioral market failure, implies that consumer law should be structured with a hierarchy of rights, similar to constitutional or international human rights laws.\textsuperscript{181} Sunstein sketches a con-

\textsuperscript{179} The estimated market-level elasticity for cigarettes is -0.107; when the price of all the individuals brands of cigarettes go up, overall demand for cigarettes is not likely to be affected very much.

\textsuperscript{180} Declaring cigarettes essential may also be economically inefficient, as essentiality may create incentives to smoke, rather than quit smoking. Besanko & Braeutigam, supra note 154, at 52.

\textsuperscript{181} Minimum essential levels of rights to food, health, housing and education reflect a "minimalist" rights strategy recognized by the United Nations and adopted by several regimes worldwide. Joshua Cohen, Minimiaism about Human Rights: The Most We Can Hope For?, 12 J. Pol.
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continuum of paternalism, with "hard" paternalism signifying higher costs imposed "on choosers", and "soft paternalism" referring to governmental actions imposed to influence welfare "without imposing material costs on choosers."182 In this "continuum" of paternalism, essential products are likely to justify "hardest" points, whereas non-essentials may be regulated with softer intervening approaches.183 The underlying values of essential consumption and bounded voluntariness require a greater degree of protection compared with non-essential consumption. Because consumers of essentials are particularly vulnerable, and due to the moral significance of essential consumption, and to the tendency of essential markets to create a behavioral market failure, regulators should consider implying the normative minimal rights provided for by their state into regulation of essentials. Such "hard" paternalism may be exercised, for example, through price regulation or subsidies creating public accessibility to products that are requisite for human rights. The continuum of paternalism echoes the continuum of product essentiality in a variety of consumer protection regulations. This continuum also applies to antitrust policy: as monopolist supply is more harmful in markets for essential products, and competition might be less robust in essential markets,184 greater scrutiny of essential product markets by the antitrust authorities may be required.

Assessment of essentiality is also of significance for policy makers. In regimes applying price control policy, such paternalistic measures should be adopted after reviewing empirical data about market-level elasticity of demand. Using the elasticity data is subject to normative assessment and should also be subject to hearing sellers’ arguments regarding competition and its vulnerability. Empirical evidence of low market-level elasticity of demand is one consideration out of many that should be taken into account. Documented low market-level elasticity of demand should shift the burden, so that sellers would be required to show competition is vibrant enough to secure consumers’ welfare despite low elasticity. Essentiality and bounded

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183. See id., Sunstein’s discussion of the continuum.
184. See id. at 1868; see also infra Part III(A)(2).
voluntariness have wide implications on contractual enforcement, and may be taken into account by courts discussing enforcement of standardized forms and applying consumers' unconscionability doctrine. Unconscionability, generally recognized as the absence of meaningful choice, must be determined on a case-by-case basis, but courts' attention may be given to the essentiality of the underlying purchase as a consideration in assessment of bounded voluntariness and of inequality of bargaining power. Finally, the hierarchy of human needs, reflected in a hierarchy of consumption affects the purpose of consumer law. Essentiality signals that autonomy cannot be meaningfully exercised, and thus may not provide an independent underlying value for consumer protection law, nor serve as a useful "heuristic" for consumer welfare.

IV. Conclusion

This essay offered a theory of essential products, suggesting a hierarchy of consumer protection for consumption of essentials versus consumption of non-essentials. The essay surveyed behavioral literature discussing human needs and the distinction between essentials and luxuries, and suggested a pyramid of consumption following Maslow's hierarchy of needs. The essay identified three determinants of essentiality, including a moral baseline of consumption; lack of good substitutes and inability to decline purchase, and time constraints. The continuum of essentiality was exemplified using four cases of consumption, including electricity for heating, infant formula, broadband services and a violin.

Essential needs-based consumption was shown to enhance the likelihood of a behavioral market failure, as consumers' decision-making process is particularly vulnerable and inevitably distorts sellers' incentives towards a sub optimal equilibrium. The essay argued that markets of essentials tend toward failure of demand, due to consumers' bounded voluntariness and lower probability of informed choice. Accordingly, sellers in markets of essentials have higher incentives for collusion and lower incentives for price competition and for investment in product quality. The more basic the underlying need, the higher the likelihood of market failure.

The difficulty of regulators to tell what's essential was addressed. The essay suggested two methods for assessment of essentiality, the

186. Sunstein, supra note 182, at 1886.
first, through political assessment, and the second, through analysis of market data documenting elasticity of demand for popular product categories. Low elasticity of demand for popular product categories was sketched as a market signal for consumers' bounded voluntariness and for product essentiality.

The normative implications of this structural division of consumption were discussed and policy guidelines were suggested. Essentiality and its tendency to create a behavioral market failure implies that essential products should be subject to a higher degree paternalism compared with non-essentials, and regulators seeking to enhance consumer welfare should treat markets of essentials with greater scrutiny compared with markets of non-essentials.