FAIRNESS AND ALLOCATIVE EFFICIENCY: MAYBE NOT SO DIFFERENT
AFTER ALL?

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Abstract. Efficiency and fairness are typically seen as conflicting. This article challenges such a view. Claims and arguments about the efficiency of market relations can be translated into ones about their fairness, and vice versa. At least, this is possible when market efficiency is about consumer welfare maximization and the notion of fairness is the one defended by the neo-Aristotelian tradition defended by Gordley. While Gordley lucidly rejects economic justifications based on total welfare, he incorporates many economic insights in his own theory. Importantly, the reasons for rejecting an economic approach based on total welfare do not apply to one based on consumer welfare. The analysis shows that there is a price minimization logic at the core of both the neo-Aristotelian theory and the consumer welfare-based economic analysis of the market mechanism. Gordley’s account of fair prices establishes a connection between fairness and efficiency that is more convincing than the ones offered by Schumpeter, Friedman and Golecki. Such a connection clarifies certain unclear aspects of Gordley’s theory with regard to the role of scarcity and of information duties. Importantly, the proposed approach does not deny the importance of total welfare as a social goal, but places it within the broader notion of distributive justice.

Keywords: efficiency – fairness – consumer welfare – Aristotle – Gordley – translation

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1. “Fairness or Efficiency?” This is the Wrong Question

“Market relations ought to be fair or efficient?” This short question encapsulates the core of the conceptual disconnect between legal and economic research. The tensions between the two disciplines ultimately rest of the divergent answers to this question. This article shows that this sempiternal disagreement rests on a false assumption, namely that fairness and market efficiency are necessarily different concepts. A different account is possible. An efficient allocation of resources maximises consumer welfare, and not total welfare. At the same time, an efficient allocation of resources ensures the equality between the performances of the contractual parties and therefore the fairness of market relation. Accordingly, a fair market allocation is efficient and an efficient market allocation is fair.

The opposition between fairness and efficiency is one of the obstacles to a fruitful collaboration between legal and economic scholars. Legal scholars consider fairness—whatever “fairness” means exactly—as central if not prevalent normative concept for the analysis of market relations. Economists instead want market relations to be efficient. As long as this divergence is not solved, interdisciplinary legal and economic analysis of marker relations will remain dissatisfactory for either legal or economic scholars. This essay shows that a mutually satisfactory solution is possible.

A collaboration between legal and economic research requires respecting the core commitments of the disciplines involved while, at the same time, reaping all the benefits of their comparative advantages. This is the primary claim of my dissertation, titled “The case for a collaboration between law and economics: Minimalism, consumer welfare and fairness in EU antitrust and consumer law”. This primary claim is warranted by three sub-claims: one economic, one translational, and one doctrinal. The economic claim holds that consumer welfare is a maximand used in market efficiency analysis in alternative to total welfare. The translation claim holds that with consumer welfare as the maximand, it is possible to offer a plausible economic account of fair market relations. Finally, the doctrinal claim holds that consumer welfare explains better than total welfare the content and practice of a significant portion of EU antitrust and consumer law as it currently stands. This essay presents the main arguments in support of the translation claim.

The opposition between efficiency and fairness is often formulated in economic analysis by saying that efficiency is based on an ex ante perspective and fairness on an ex post perspective. A lottery or a bet is typically used to exemplify the difference.2 Imagine Carlo and Silvia bet 1 EUR each on the result of a coin flip. Carlo bets on head, Silvia on tail. If the coin is not loaded, then both parties have a 0.5 probability of winning. Silvia wins. Ex post, Carlo is worse off in comparison to Silvia, but ex ante they have the same chances of winning. Accordingly, fairness would focus on the distribution of the losses between the parties after the event occurred.

What are the problems of the fairness perspective? Kaplow and Shavell explain that, from the economist’s perspective, the problems with fairness are two. On the one hand, fairness theories are not very

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clear in explaining what they require. On the other hand, even when they are clear, “many notions of fairness focus on particular consequences and thereby ignore or undervalue other plausibly relevant aspects”. These aspects have in particular to do with the consequences in terms of incentives and ultimately the reduction of total welfare. Hence, the ex ante approach is better because more determinate and comprehensive.

The question then becomes if the ex post approach can have any room in normative analyses. Judge Easterbrook’s scholarship is illustrative of the tension. In 1983, Easterbrook writes:

[a] broad, representative spectrum of legal and economic commentators, discussing a large number of questions, have proven beyond question that ex ante analysis is the appropriate way to look at legal matters.

Yet, a couple of years later, Easterbrook reconsiders the point:

[t]he principles laid down today will influence whether similar parties will be in similar situations tomorrow. Indeed, judges who look at cases merely as occasions for the fair apportionment of gains and losses almost invariably ensure that there will be fewer gains and more losses tomorrow. … My point is not that creating incentives for future conduct should be the Court’s sole objective in adjudicating legal disputes, but that the Court is bound to send the wrong signals to the economic system unless the Justices appreciate the consequences of legal rules for future behavior.

It seems that this second view is more descriptive of the communis opinio among the economists of law, especially those with a higher sensibility to legal questions. And arguably, any legal scholar who agrees that laws are human artefacts with purposes and can be better or worse at that, will be inclined not to ignore “the consequences of legal rules for future behaviour”.

Yet, in Fairness versus Welfare, Kaplow and Shavell push fairness again into a corner by arguing that often a fairness approach makes both parties worse-off. This lead to a dilemma. While inclined to consider “the consequences of legal rules for future behaviour”, many legal scholars want market relations to be fair. But can it be fair to make both parties worse-off? This seems hardly to be the case.

This essay proposes a solution to this problem based on the neo-Aristotelian theory of fairness, which was ignored in Fairness versus Welfare. In fact, Kaplow and Shavell group under the label of “fairness theories” in the field of contracts the literature considering contractual obligations as promises and the one considering the breach of contract as a tort. Thus, they do not engage with the neo-Aristotelian tradition. However, they recognise that fairness could be compatible with their claims about the importance of the ex ante perspective. Thus, while they shut the door to the considered theories of fairness, they do not shut it once and for all. Moreover, they state that

if an analyst thought that a concept of well-being that was qualitatively different from the welfare economic one (say, an objective view of the good life) was normatively compelling, … there would be no change to the logic of our argument that giving any weight to a notion of fairness that is independent of well-being always raises the possibility that everyone would be made worse off.

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3 Kaplow and Shavell 2002: 49.
4 Easterbrook 1983: 486.
5 Easterbrook 1985: 10-11.
This is exactly what the neo-Aristotelian tradition does. Writers in this tradition believe that there is a distinctively correct way of living, which is *eudemonia*—a life lived according to virtue. Aristotle’s virtue theory is very complex, and I will make no attempt to offer a comprehensive account of it—primarily because for my argument it is not necessary to go beyond a rudimentary sketch of the theory. Virtues are praise-worthy states and can be distinguished in virtues of character and virtues of intellect. Virtuous actions are the ‘mean’ between deficiency and excess. For example, courage is the mean between fear and confidence; temperance is the mean in the bearing of pleasure and pain (excessive tendency to pleasure is intemperance, and excessive tendency to pain is insensitivity). “Mean” is not to be understood as the “arithmetic mean”. In particular, depending on our natural tendencies, it is closer to the virtue to indulge in one excess than in the other. For example, Aristotle believes it is better to excess in confidence than in fear. Justice is also a virtue and it is further divided in various categories. For current purposes, what is crucial is that justice in exchange is also called equality in exchange, fairness and commutative justice.

For the most part, this essay explains in what sense—according to the neo-Aristotelian tradition—parties to a fair exchange are equal and how this account fits with the economic analysis of market efficiency. A fair market exchange enshrines a cost minimization plus compensation logic, derogated only when scarcity is physiological—because in this situation scarcity sends meaningful signals for the coordination of producers and consumers on the market. The analysis will clarify several points of Gordley’s explanatory project and, in particular, his analysis of scarcity and information duties.

Building upon this central finding, the essay shows how the idea that fairness and efficiency are conflicting concepts can be rejected. The key insight is that both approaches identify the function of the market mechanism in price minimization, with the price covering also risk and information costs. As a final point, the essay discusses the relationship between consumer and total welfare as it can be articulated within a neo-Aristotelian framework. The result is thus a conceptual framework that can plausibly translate economic insights into a normative discourse that, in comparison to mainstream economics of law, is closer to legal thinking. This is the case because the framework proposed here is compatible with a commitment to the fairness of market relations without being oblivious to the importance of the *ex ante* perspective.

The essay is structured as follows. Section 2 claims that consumer welfare can be used as maximand in the analysis of the efficiency of market allocations. In other terms, the claim is that “market efficiency” is ambiguous, and the ambiguity lies in the alternative between using consumer welfare or total welfare as the maximand. Section 3 points out that between the neo-Aristotelian tradition and the economics of law there is

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8 Aristotle considers the goal, function, purpose of human life to be *eudemonia*—a term typically translated as “happiness”, “good or best life”, “human flourishing”. As the translations have all advantages and disadvantages for current purposes, in the few instances where I refer to this concept in the essay, I use the term “*eudemonia*”.

9 For a more detailed discussion but still quite concise see, for example, Shields 2014: 387-400.

10 EN I, 13, 1103a. “States” are “those things in respect of which we are well or badly disposed in relation to feelings” (EN II, 5, 1105b).

11 With more common terms, we may say that indulging excessively in pleasure is hedonistic and in pain is masochistic. However, the virtue of temperance does not relate to all sort of pleasures (EN III, 10): Interestingly, it is basically concerned with those pleasures that imply the consumption of material resources; in fact, intemperate spending is one of the ways in which one can be wasteful (EN IV, 1).

12 EN II, 6, 8 and 9.

13 EN II, 8 and 9.
Comments are welcome, but do not cite (yet).

an incompletely theorized agreement about desirable market relations converging on the centrality of considerations of need, cost, and scarcity to determine market prices. Section 4 shows that “scarcity” has to mean “physiological scarcity”, which is scarcity that sends meaningful signals for the reallocation of productive factors or consumptions. Economists discussing cases of pathological scarcity show that when allocation of resource is not well coordinated by the price mechanism, non-market allocations might well be more attractive. Section 5 discusses the role of information and risk allocation in the neo-Aristotelian account. It points out that information cost and risk allocation follow a cost minimization plus compensation logic which ensure the equality in the exchange of the parties and clarifies some ambiguities in Gordley’s account. Section 6 defends the previous account against alternative ones by Schumpeter, David Friedman and Golecki. Section 7 points out that according to the conceptual framework developed in this essay, fairness and the ex ante perspective are compatible. Section 8 shows that the relationship between fairness and distributive justice according to the neo-Aristotelian tradition gives room to total welfare as a valuable social goal. Section 9 concludes.

2. Market Efficiency Can Be About Consumer Welfare From an Economic Point of View

This section summarises my conceptual research on the maximand for the efficiency of market allocation. The claim is that consumer welfare can be used as maximand in the analysis of the efficiency of market allocations. This does not mean that it is wrong to assume total welfare as maximand. It just means that it is possible to make an economic analysis of market allocations in terms of consumer welfare maximization in alternative to one in terms of total welfare maximization. In other words, the claim is that “market efficiency” is ambiguous, and the ambiguity lies in the alternative between using consumer welfare or total welfare as the maximand.

To succeed in warranting the claim, the argument has just to make it plausible that consumer welfare can be used as maximand in the analysis of market efficiency. The argument proceeds in three steps. First, it is shown that the justification of a total welfare approach rests on the difficulty of justifying the distributive preference towards consumers in the welfare analysis of monopoly prices. Second, some economists do not consider this discomfort a sufficient reason to adopt the total welfare approach and even choose the consumer welfare one. Finally, the tension between a consumer and a total welfare approach surfaces also in ambiguities about the concept of consumer sovereignty and of principal-agent relation. Let us look at this aspects in order.

Monopoly prices have at least two effects. First, they cause a deadweight-loss; second, they have a distributive effect from consumers to producers (they transfer welfare from consumers to producers). There is overlapping consensus on the view that the deadweight-loss is a reason to consider monopoly undesirable. But what about the transfers? Four positions can be distinguished:

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14 See Esposito forthcoming, ch. 3. See also Esposito 2016, Esposito and Grundmann 2017 and Esposito and De Almeida 2018.
Comments are welcome, but do not cite (yet).

1. It is natural to choose a total welfare approach;\(^\text{15}\)
2. While transfers raise difficult normative questions, the deadweight-loss is sufficient to conclude that the competitive outcome is more desirable;\(^\text{16}\)
3. Transfers are irrelevant because the benefits to the producer cancel out the losses of the consumers and, therefore, only the deadweight-loss matters;\(^\text{17}\)
4. There is no reason to prefer consumers to producers and, therefore, only the deadweight-loss matters.\(^\text{18}\)

For current purposes, what matters is that these justifications of the total welfare approach are not particularly strong. (1) is a clear example of naturalistic fallacy—that it is allegedly natural to do something does not imply that it ought to be done. (2) leaves the point of the normative significance of transfers undecided. (3) and (4) are quite similar. The difference rests on heavy assumptions about welfare made in (3), which are substituted in (4) by a focus on the equality between market participants. Beside this difference, they both just state that no reason was found to take the consumer welfare approach. Let us move to the second step of the argument.

Some economists adopt a consumer welfare approach. For example, Baumol and Blinder state that the “main reason for the strength of public reaction against monopoly” is that “a monopolist’s higher price enables him to grow rich at the consumer’s expense”.\(^\text{19}\) In addition, monopolistic output is “too small from the viewpoint of consumers’ best interest” and it also “distort[s] consumer demand”.\(^\text{20}\) Interestingly, sometimes there is a tension between the maximand described in natural language and the one expressed by the mathematical formula. I found this to happen in particular about product liability and in regulated industries,\(^\text{21}\) but I would not be surprised to find it elsewhere too. For example, in the analysis of product liability, the equation introduced by Shavell assumes consumer welfare as the maximand even if it calls it total welfare: \(^\text{22}\)

\[
\text{let } c \text{ be the direct production cost per unit of a firm’s product, } x \text{ the cost of care per unit of the product, } s \text{ the quantity of the product produced and consumer, and } u(s) \text{ the utility consumers obtain from the product. Then social welfare is } u(s) - [c + x + p(x)h], \text{ where the term in brackets is the production cost, cost of care, and expected harm suffered by strangers per unit.}
\]

The point I am making here is simply that it is entirely possible to adopt consumer welfare as the maximand in the efficiency analysis of a market allocation. Thus, “allocative efficiency” is ambiguous because the maximand can be either consumer or total welfare. A confirmation of this comes from the presence of ambiguities similar to the one just identified can be found in the concepts of consumer sovereignty and principal-agent relationship.

\(^\text{15}\) For example, Mankiw 2015: 145.
\(^\text{16}\) For example, Harberger 1954: 87.
\(^\text{17}\) For example, Hirshleifer 1976: 286.
\(^\text{18}\) For example, Cowen and Tabarrok 2010: 225.
\(^\text{19}\) Baumol and Blinder 1979: 442-443.
\(^\text{20}\) Baumol and Blinder 1979: 443.
\(^\text{21}\) On the regulation literature, see Esposito and De Almeida 2018.
\(^\text{22}\) Shavell 2007: 156.
According to Hutt, who is considered to be the originator of the concept of consumer sovereignty, the only test of the desirability of a given flow of production is the utility to consumers … [while] the sacrifices and discomforts of the producers (or, for that matter, the happiness and satisfactions they derive from their work) are of no relevance whatever from the point of view of total welfare.

In other terms, Hutt considers consumer choices as the choices regarding which ends should be pursued on the market and producer choices as the ones regarding the best means for pursuing them. Interestingly, he went as far as to redefine “total welfare” in terms of consumer welfare, by incorporating a distinctive distributive effect in favour of consumers in the concept. However, a much weaker version of the concept of consumer sovereignty is also available in the literature. According to it, for a market exchange to be consistent with consumer sovereignty it is necessary and sufficient that consumers indirectly determine the characteristics of what is produced. The implication is that transfers from the consumers do not matter and the total welfare maximand is back into business. For current purposes, we do not need to adjudicate between these two conceptions of consumer sovereignty. It suffice to point out that the two conceptions exist and that their difference rests on the ambiguity of “allocative efficiency” just identified.

Let us now move to the concept of principal-agent relationship. The central problem in this type of relationships is that the party with the informational advantage is able of taking advantage of it to obtain an information rent. This situation leads to a trade-off between information rents and “efficiency”. Importantly, “efficiency” here is used in significantly different ways. One strand of the literature accepts as maximand total welfare. However, in the other, the maximand is the interest of the principal. Notably, if we qualify the consumer as the principal, these two strands of the principal-agent literature rest on the same ambiguity seen above about “allocative efficiency”.

In the light of the above, the claim that consumer welfare is a possible economic maximand in the efficiency analysis of a market allocation should have been sufficiently warranted to justify its adoption for the sake of the broader argument explored in this essay.


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23 Hutt 1940: 5, 1936: 311: “in replacing the idea of economic welfare by that of consumers’ sovereignty, we have not destroyed the significance of most utility studies. … We have, however, introduced a concept which greatly enhances the realism of economic theory. … Incidentally, it brings economic science much more vividly into relation with political science”. Buchanan, in his homage essay to Hutt, defines consumer sovereignty as the criterion according to which “[v]alue to consumer of final products and services … may be used to make the distinction between voluntary agreements that pass the ultimate value test and those that do not” (Buchanan 1988: 6).

24 Hutt 1940: 3. See also Fraser 1939: 5; Hildebrand 1951: 21 and 32; Kaldor 1951: 4; Reekie 1988: 6; Rothenberg 1962: 270; Persky 1993: 188.


26 Malin and Martimort 2002: 159; Laffont and Martimort 2001: 38. For further references, see Esposito and Grundmann 2017: 12-21.
Comments are welcome, but do not cite (yet).

Gordley shows that many economic insights are incorporated into the neo-Aristotelian account of fair market relations. Commutative justice, contractual fairness or equality in exchange is the result of well-functioning markets. Two points are particularly explicit in his account, as we shall see. First, supply and demand in a competitive market context determine fair prices. Second, risk allocation and information duties ought to be established by considering who the cheapest cost avoider is or, in other terms, with the view of minimizing costs. Thus, Gordley’s account of fair market relations seems very compatible with an ex ante perspective. Yet, Gordley criticizes mainstream economics of law for its failure at taking fairness seriously.27

Against this background, Gordley has tried to reconcile his approach with the economic one in two different ways. The economics of law and the neo-Aristotelian tradition merely converge, in the sense that they would condemn typically the same terms as unfair, but the economist for its inefficiency and the neo-Aristotelian scholar for its unfairness.28 Gordley then moves one step further when holds that economics offers “valid” conclusions once the members of society are also virtuous.29 Either way, Gordley’s account presupposes that efficiency and fairness are different concepts to be reconciled.

Gordley underestimates the depth of the agreement between his approach and the economics of law. Gordley does not only agree on outcomes with the economics of law. Gordley also agrees that the market mechanism plays an essential role in determining the desirable contents of a market transaction with regard to price, but also information costs and risk allocation. In so doing, Gordley succeeds in integrating considerations of incentives in his account of fair market relations. The disagreement is focused on the reasons why supply and demand (or need, cost and scarcity) play such an important role in determining the content of market transactions. And, in this regard, the disagreement springs from the conflict between total welfare and fairness.

Gordley sees a clear and quite deep connection between the understanding of the neo-Aristotelians and of economists about market relations. This is testified clearly by his unambiguous statement that what neo-Aristotelians refer to as need, cost and scarcity is what economists call supply and demand. Thus, considerations about need, cost and scarcity in the former framework can be translated into considerations about the dynamic of supply and demand in economic terms, and vice versa. Yet, Gordley is dissatisfied with economic reasoning because its utilitarian heritage does not allow it to grasp the reasons found in legal discourse. These reasons often have to do with the undue advantage of a party over the other, and not with the consequences about total welfare.30

The consumer welfare maximand allows, as anticipated, finding agreement also at a deeper level of theorization. To see this, let us consider how the relationship between need, cost, and scarcity determine a fair price for Gordley. Need sets the limit of the desire of the consumer, in the sense that if the price is too

30 See below, Section 6.2.
high, the consumer is not motivated to exchange.\textsuperscript{31} In principal-agent terms, need is the participation constraint of the consumer.\textsuperscript{32} Cost represents the amount that should be paid to produce the good. A fair price covers these costs. Scarcity means “the quantity available” and justifies prices raising above costs.\textsuperscript{33} The idea is that the market mechanism works by raising the price above costs so that the quantity available meets the number of consumers willing to pay the requested price. The next section analyses the role of scarcity in more detail.

Against this background, it is crucial to see in what sense if the price is set by normal or competitive market conditions, the two parties are equal. The starting point is that equality in exchange consists in keeping unchanged the individual shares of resources of the contracting parties.\textsuperscript{34} Parties are equal because the value of what they give is equal to the value of what they receive. In other terms, there is equality between the exchange value of the performances. We can thus see why fairness or equality in exchange is also called commutative justice in the neo-Aristotelian tradition. As the value of what is given and received is equal, the value of the resources the two parties have before and after the exchange is the same. Thus, if the value of Carlo’s resources is 100 EUR before buying a beer from Silvia at the competitive price of 3 EUR, it remains 100 EUR once Carlo has bought the beer.

As a matter of Aristotelian exegesis, the secondary literature is divided, and for good reasons,\textsuperscript{35} on the claim that equality in exchange is equality of exchange values. Gordley is representative of the view that the equality is between the market values of the exchanged goods under normal market conditions. Others, for example Golecki, hold that equality is obtained when there is an equal split of the gains because equality comes from the equal satisfaction of needs. The difference between the two views is discussed in Section 6.3. It can be already pointed out that Gordley’s position is in line with a variety of Aristotle’s commitments, among which in particular the idea that\textsuperscript{36}

\begin{equation}
\text{everything that is exchanged must be in some way commensurable. This is where the money comes in; it functions as a kind of mean since it is a measure of everything, including, therefore, excess and deficiency. It can tell us, for example, how many shoes are equal to a house or some food.}
\end{equation}

This passage clearly tells us that the equality must hold between the goods produced, and this equality is expressed in terms of money. Thus, for example, 5 EUR of butter equal 5 EUR of margarine. While as a matter of Aristotelian exegesis the point is open to debate, it is quite uncontroversial that the neo-Aristotelian tradition identifies in the exchange value the core determinant of fair market relations.

Be this as it may, saying that the prices are the same does not tell us much about the costs and, one may rightfully object, if just prices maximize consumer welfare then they ought to minimize costs. Indeed. An account of fair prices including a cost minimization logic is possible and actually implicit in the concept

\textsuperscript{31} Gordley 1981: 1605.
\textsuperscript{32} “Need” can be expressed as $P_c(E) > P_c(\neg E)$, with “$P$” meaning preference, “$c$” meaning consumer, and “$E$” meaning exchange. About the relation between preference and welfare, it is important to stress that there is an ongoing debate in economics on how to make welfare judgments after the behavioural turn because preferences are not considered a conclusive welfare indicator anymore.
\textsuperscript{33} Gordley 2006: 362.
\textsuperscript{34} Gordley 2006: 363.
\textsuperscript{35} See the book-length study by Meikle 1995.
\textsuperscript{36} EN, V, 5, 1133a.
Comments are welcome, but do not cite (yet).

of commutative justice of the neo-Aristotelian tradition. The neo-Aristotelian account of a fair price is recast more explicitly (or at least comfortably for an economist) in terms of price minimization rather than party equality, without any implication for its meaning. As anticipated, Gordley finds a cost minimization logic behind the fairness of doctrine about ancillary terms allocating risks and information duties, enshrined in the economic expression ‘cheapest cost avoider’. The price mechanism allows variating the price accordingly to the cost-minimizing allocation of these duties, thereby making the compensation of the burdened party possible.

There is no reason for applying different logics to prices and other terms. To see this, is it sufficient to recall the idea of pass-on, that mainstream economics of law invokes to point out that mandatory changes in contractual terms will be reflected in price variations. Thus, commutative justice includes a claim to the minimization of production costs. In other terms, the fair price includes a concern for the minimization of that price, not only in terms of avoiding transfers from consumers to producers but also in terms of avoiding that those producers inflate unnecessarily production costs.

At the core of both the neo-Aristotelian theory, there is a price minimization logic. The price minimization logic implies that consumers satisfy their needs in exchange for the share of purchasing power that is just necessary to cover the costs (fairness theory) and, therefore, maximize their welfare (economic theory).

The account given so far has focused on the relationship between need and cost. What is still unaccounted for is the role of scarcity. It is a delicate point, because scarcity justifies prices above production costs. It is thus necessary to explain how, and when, scarcity justifies prices to rise above costs.

4. Scarcity Specified: The Signalling Function of Physiological Scarcity

In the neo-Aristotelian tradition the fair price—the price making contractual parties equal—is determined by the interplay of need, cost, and scarcity. We have also seen that Gordley treats these three concepts as co-referential with supply and demand. In the previous section, need was taken to determine the participation constraint of the consumer and explained that a price in line with costs is fair because the exchange value of the performances is the same.

The role of scarcity has not been explained yet. The claim of this section is that scarcity has a signalling function, in that it allows for economic profits in the short-run and therefore calls for the entrance of new producers in the market—thereby increasing supply, reducing scarcity and ultimately bringing prices

37 For an insightful analysis, see Craswell 1991.
38 The great caveat relates, as implied by the behavioural turn in economics, to those cases where the preferences of consumers are not a conclusive indicator of their welfare or eudemonia. I consider this problem elsewhere, elaborating on the relation between the concept of prudence and the concept of behavioural market failure(s). Gordley’s view on the relation between contract law and prudence is expressed in Gordley 2007.
more in line with costs. As a consequence, when scarcity does not exercise this coordinating function between different markets, letting prices increase because of scarcity has no justification.

As we shall see, Gordley recognises that the neo-Aristotelian tradition does not articulate accurately the role of scarcity in determining fair market prices, but has failed to offer a better account of his own. Gordley fails to do so because in his view economists do not have an account for situations where scarcity does not exercise provide meaningful signals to market participants. Let us consider two other occasions in which Gordley refers to a famine. In both instances, Gordley thinks of famine as a situation in which distributive justice is at stake. In both occasions, he claims that economists would reply that the case is “aberrational”, but in one occasion he adds that in this situation an economist could observe that the standard theory “does not apply”. Unfortunately, Gordley has not inquired more on this topic from an economic point of view. He simply reduces the economists’ position to the proposition that “[a]s modern economists have recognized, if prices were frozen, there would be no incentive to produce more of the goods that are short in supply”. Had he gone deeper, he would have seen that in some situations of scarcity, also economists think of price increases as undesirable.

Against this background, the analysis is divided into three steps. First, “scarcity” must be understood as natural scarcity, because contrived scarcity leads to unfair prices. Second, natural scarcity justifies price increases only as a means to signal that it is desirable to have inter-market shifts of factors of production or demand. The implication is that when this is not the case prices ought not to rise in response to scarcity, to the effect that the legal systems steps in much more intrusively in the allocation of resources. The third step reconnects these findings to Gordley’s account and shows that the argument of this section does not depart dramatically from Gordley’s own account, but simply orders more systematically his considerations on the matter.

The first step can be walked quickly. It is quite obvious that the scarcity we are referring to cannot be the contrived scarcity. In fact, the monopolist who limits its output at the level where marginal revenues equal marginal costs is a central case of contrived scarcity. If contrived scarcity were to justify the increase of prices, the whole idea of prices equal to costs would collapse. Thus, the scarcity we are referring to here is natural scarcity. The question then becomes what makes a price increase because of natural scarcity valuable or normatively attractive. This section defends the view that scarcity has a signalling function. Allowing for economic profits in the short-run and calls for the entrance of new producers in the market—thereby increasing supply, reducing scarcity and ultimately bringing prices more in line with costs. To this end, Section 4.1 shows the economic pedigree of this claim and Section 4.2 shows how it fits in Gordley’s account of the neo-Aristotelian tradition.

Plausibly, this signalling function is exercised better by prices than by other contractual terms. This fact leads to the observation that scarcity is, therefore, more important to prices than to other contractual terms, which in turn implies that – if Gordley is correct – one can expect a less intrusive system for the fairness control of prices than of other terms. Indeed, this is what one finds in Directive 93/13/EEC.


Gordley 2015: 207; see also Gordley 2006: 363.

Gordley 1981: 1612 comes close to admitting the possibility of this when he observes that “a society would prevent price fluctuations entirely by freezing prices if it could do so without fear of causing greater evils”.

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39 Plausibly, this signalling function is exercised better by prices than by other contractual terms. This fact leads to the observation that scarcity is, therefore, more important to prices than to other contractual terms, which in turn implies that – if Gordley is correct – one can expect a less intrusive system for the fairness control of prices than of other terms. Indeed, this is what one finds in Directive 93/13/EEC.


41 Gordley 2015: 207; see also Gordley 2006: 363.

42 Gordley 1981: 1612 comes close to admitting the possibility of this when he observes that “a society would prevent price fluctuations entirely by freezing prices if it could do so without fear of causing greater evils”.

Comments are welcome, but do not cite (yet).

The conceptual claim of this section can be put to work immediately. In economics, there is widespread agreement on the idea that the natural scarcity is physiological and contrived scarcity is pathological. A famine, for Gordley but also for me and probably for you, is a prime example of a pathological scarcity. This finding suggests the opportunity of abandoning the distinction natural/contrived because of its erroneous suggestion that scarcity caused by natural events has still to be handled with the market mechanism. Thus, I prefer and will use from now on the functional distinction between physiological and pathological scarcity, so that scarcity is physiological if price signals are considered the appropriate means to manage it; otherwise it is pathological.

To see why this distinction is helpful, consider an outrageous example by Posner. Posner considers a case of scarcity, in which the unequal distribution of income makes the result particularly irritating, obnoxious even. A rich person wants a drug (a pituitary extract) to let his “gerbil” grow oversized, and he overbids a poor man who wants to cure his child of a disease that will make him grow as a dwarf. The irritation comes from the fact that the great difference in wealth, united with the very different uses of the resource to be allocated both points into the direction of a wrong outcome. Crucially, Posner does not defend the outcome on its own, but rather by asking us to think “that in the long run, there may be more and cheaper pituitary extract, and fewer dwarves, if the society does not try to allocate the product to those who will derive the greatest happiness from it.” Plausibly, this can be understood as a claim that the scarcity of the drug is physiological, in the sense that the market mechanism is capable of dealing with this scarcity better than with an allocation by the state—all things considered.

4.1 The signalling function of scarcity and its failure in case of pathological scarcity

If the social function of scarcity is that of being a signal to producers and consumers, when the signal is not effective or meaningful in determining a reallocation of productive factors or consumption, then prices should not be allowed to increase as a consequence of scarcity. Physiological scarcity attracts producers from other markets. From their perspective, physiological scarcity is the opportunity cost of operating in their current market rather than moving to the market where a product has become scarcer. Conversely, if supply is excessive, producers are motivated to move to a market with higher margins of profit. The same also applies to consumers, who can shop around motivated by lower prices. Thus, physiological variations in scarcity allow for the coordination, through the market mechanism, of producers and consumers in different markets. This is the beneficial effect of allowing the price to variate above and below cost in consideration of the variation in the natural scarcity of a product.

43 Another primary example of natural scarcity in this sense which is actually pathological is found is medical shortages, for example in the emergency room, which are not dealt with via the price system. See, seminal on this topic, Hall 1997; see also Foster 1983.
45 This is true in the absence of transaction costs (for example, transportation and switching costs). When there are present they reduce the opportunity cost. For example, the farmer Ferdinando becomes aware that in the neighbouring market corn is sold at 2 EUR/Kg more than in his usual market. If the transportation cost is 0,5 EUR/Kg, then the opportunity cost for Ferdinando is 1,5 and not 2 EUR/Kg.
Comments are welcome, but do not cite (yet).

_Pace_ Gordley, economists know there are situations in which the market mechanism does not give sufficient incentives to producers to enter one market or consumers to exit it. As a consequence, price increments have no social function. Producers would receive an advantage, to the detriment of the consumers, without doing anything useful in return. This claim can be seen in a particularly clear way by looking at how scarcity is related to the functioning of the economy in times of war—a situation also referred to by Gordley as aberrational. The argument can be generalized to all cases of pathological scarcity—that is, a scarcity that does not provide effective or meaningful signals to producers in other markets.46

For William Hutt, who had a particularly sophisticated sensibility about the role of consumers in the market, “[t]emporary natural scarcity cannot be held to cause the “right” values; for it will have no tendency to bring about desirable developments in the long run. … Hence, in times of catastrophe or war, rationing, with or without free bidding, may be preferable to competition”.47 Writing at the doorstep of World War II, Richards explains the problem as follows:48

> [t]he fundamental question is whether reliance shall continue to be placed on normal competitive forces and technique, operating through the pricing system, to regrade and re-assess consumers’ preferences, to redirect supplies into the new channels of production and consumption and to call forth increasing supplies of products now required in greater total than formerly, or whether such technique is now inadequate and whether the new object of war and the many problems which arise from it necessitate (further) Government interference and control ….

Similarly, at the climax of the conflict, the Harvard economist Paul Sweezy observed that about “the problem of channelling the goods which can be produced to those who ought to get them … we must not count very much on the price system”.49 These citations leave no doubt about the signalling function of scarcity and profits and the justifiable reduction in the reliance on the market mechanism when this function cannot be pursued.

These authors also had a clear concern for the fairness of making profits in times of war. For Hutt, when scarcity fails as a coordination mechanism,50

> [t]here is no reason why private owners should have the right to benefit in such cases unless the situation is such that productive resources are thereby likely to be attracted in with sufficient rapidity to rectify the scarcity immediately.

Richards and Sweezy make similar considerations. To Richards, a pressing problem is to “prevent nationals or groups of nationals from utilizing the circumstances of war conditions to obtain undue gains at the expense of the community”.51 Similarly, Sweezy finds that “quite irrational and indefensible inequalities in

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46 An insightful general discussion can be found in Cox 2013. See also Edwards 1974 (discussing the rationing of gas during the oil crisis), Weitzman 1977 (comparing the price system with rationing), Neary 2008 (giving an accessible explanation of the effects of rationing on the prices of other non-rationed commodities).
47 Hutt 1935: 352.
48 Richards 1939: 311.
49 Sweezy 1943: 69.
50 Hutt 1935: 351-352.
51 Richards 1939: 312. At page 317, Richards criticizes the reliance on taxes to address these issues with an argument that could have been written by a moral philosopher: [taxation] does nothing to rectify the unjust distribution of ’war’ burdens. War profiteering, particularly in necessaries, affects adversely the lower income groups. No rectification of these initial ‘injustices’ can be obtained through subsequent payment to the State by producers of excess profits on such sales-the two groups are not identical.
Comments are welcome, but do not cite (yet).

Income would develop, with war profiteering at one end of the scale finding its true counterpart in starvation at the other end.\textsuperscript{52}

These quotations show that when scarcity does not provide any useful signalling function to coordinate the factors of production across different markets, there is no justification from an economic point of view for the raising in prices, to the effect that when this happens, the result is unfair. A confirmation of this line of reasoning is found in the fact that in the long-run producers make zero economic profits in perfect competition and return over capital is equalized in all the markets. In this scenario, in fact, physiological scarcity across the markets is optimally dealt with, so that there is no signalling function to perform. Hence, scarcity is determined only by production costs, and prices are based only on needs and costs.

This finding allows us to give a full account of the relationship between need, cost, and scarcity in the neo-Aristotelian tradition as a matter of commutative justice only. This is a central claim of Gordley’s account, which was in tension with the connection he made between scarcity and distributive justice.

4.2 Scarcity as a signal and the neo-Aristotelian tradition

Gordley does not offer a clear account of the role of scarcity in the determination of fair prices. Overall, Gordley seems to justify, at least recently, the role of scarcity on pragmatic grounds because he observes that “there are … certain changes in the distribution of purchasing power that we cannot prevent”.\textsuperscript{53} The core of his account of the relevant literature and of its features is that, contrary to modern economists, the neo-Aristotelians did not conceive of “supply and demand as separate schedules that clear at a unique equilibrium price” and of market prices as tending towards a long-run equilibrium.\textsuperscript{54} They took market prices as representing the communis aestimatio of the value of a good. Around this central idea, Gordley offers a series of additional considerations, not articulated in a clear conceptual framework.\textsuperscript{55} First, the neo-Aristotelians understood that if producers systematically do no cover costs, they will cease to produce. Second, when the market price is normatively dissatisfactory, public authorities are entitled to regulate them. Third, lining, as an alternative to price increases, is an unattractive way to solve problems of scarcity because “if buyers queue up because the market doesn’t clear, goods will no longer go to those who are willing to pay the most but to those who happen to queue up first”. The last, which is by far the most important for current purposes is the claim that\textsuperscript{56}

\[\text{Whatever the earlier writers may have had in mind, the entire argument just sketched can be restated more precisely and more persuasively in terms of modern economics. Suppose … that the economy were actually in the long-run equilibrium state hypothesized by economists: prices would never change and producers would always recover their costs. In that event, contracts at the market price would not change the wealth of the parties in the sense of the purchasing power that each of them commands.}\]

\textsuperscript{52} Sweezy 1943: 66.
\textsuperscript{53} Gordley 2006: 363.
\textsuperscript{55} Ibidem.
\textsuperscript{56} Gordley 1981: 1611-1612.
Let us move backwards from this last idea. In a long-run competitive general equilibrium, in all the markets, prices and quantity exchanged are constrained by production costs only. As long as consumers are willing to pay such a price in return for the good or service, the exchange will take place. At the same time, the equality in exchange is attained. If this is the case, then rather than a mere pragmatic constraint to the fairness of market relations, it might well be that scarcity is beneficial as long as it is instrumental to shifts in production and consumption eventually leading to the said long-run equilibrium. Producers exiting the market because there is not sufficient demand for their product is part of this process. Queuing, instead, does not provide signals to producers that are as meaningful as price increments. Additionally, the proposed line of reasoning gives a theoretical reason for price regulation, namely that scarcity is not exercising its signalling function, so that it is pointless to let prices increase.

Following the claim of this section about the signalling function of scarcity is attractive from the perspective of the neo-Aristotelian tradition Gordley defends. This claim makes the framework more coherent both internally and with economic theory—a line of argument Gordley himself has considered—and avoids the justification of the role of scarcity on the grounds of the convenient but suspicious observation that pragmatic reasons imply that there is so much equality in exchange that we can ensure. On the contrary, scarcity has a socially meaningful function which has to do with equality in exchange. To see these ideas in practice, let us conclude by looking at a case analysed by the Aquinas about a famine in a county.57

A merchant transports corn from a neighbouring area, and he knows other merchants are arriving as well, to the effect that the Aquinas wonders if it is fair for the merchant to hide the information about the other merchants and to apply high prices as a consequence. Aquinas says it is fair, and Gordley accepts the claim, but without explaining why it is fair to withhold this information and charge higher prices.

This section explains why. The merchant responds to a physiological scarcity and transports the corn from an area where corn is less scarce to an area where it is scarcer. The rationale for withholding the information then is that the merchant has embarked in a trip to the starving county motivated by profit and if forbidden to make this profit, merchants would have fewer incentives to do the same in the future. Not only physiological scarcity explains why the merchant behaved fairly, but the perspective in this reasoning is clearly ex ante.

In the light of the above, it can be understood why physiological scarcity allows for prices to rise above costs while being fair. Prices above costs have a signalling function that is part of the coordination exercised by the market mechanism of producers and consumers in different markets. As a consequence, when the scarcity is pathological, expectably, the legal system intervenes because price increases find no justification. The next section looks more in detail to two components of the cost of a product that are not production costs strictu sensu, information costs and risk.

5. Extended Production Costs: Risk and Information

The discussion so far has established a connection between the concept of commutative justice and the market mechanism by pointing out that when prices are in line with cost and physiological scarcity, the price is fair. We now move to see how to account for problems of information and risk allocation in a neo-Aristotelian perspective. How, in other terms, it is fair to establish duties about information and risk. The two topics can be treated together because Gordley sees in the law of mistake a “risk-allocation question”. However, as we shall see below, his analysis of risk allocation about the law of mistake is quite problematic, so that it is best to start from the allocation of risk in ancillary terms, where Gordley declares “we can learn from the economists”.

Gordley accepts the economic argument that “the parties would want to place risks and burdens on whichever party can bear them most easily”. The market mechanism then incorporates the risk allocation, which operates like any other cost of production, in the price. The argument about the fairness of allocating risks to the cheapest cost avoider can be summarized as follows:

[a]n economist would say that this allocation of risks and burdens is ‘efficient’ because there is no way to change it in return for compensation so as to make both parties better off. The Aristotelian approach explains why it is not only efficient but fair. … [T]he contract is fair when (a) party assumes the risk and is compensated for doing so.

This argument is crucial for current purposes. Gordley connects the criterion of the cheapest cost avoider, the price mechanism and equality in exchange. Allocating the risks to the cheapest cost avoider is not only Pareto efficient, but it is also fair since price variations adjust the value of the performances so as to compensate the party who assumes the risk for such assumption. This process ensures the equality of the exchange value of the performances. Notably, it also maximizes consumer welfare. As seen above, when costs are minimized, and the consumer just pays a sum of just compensating the producer, consumer welfare is maximized.

There is another reference to risk in Gordley’s scholarship that requires consideration. It is related to the justification of price variations, and it is alternative to the one based on physiological scarcity. The claim is that price fluctuations preserve the equality of the parties like a “fair bet” does because “the party who failed to recoup his costs might as easily made a gain”. This explanation is important for this inquiry because the idea of a bet is central to explain the difference between ex ante and ex post perspectives in the economics of law. Yet, here it is meant to explain fairness. I find this explanation problematic because it disconnects the fair allocation of risk to risk minimization plus compensation logic just discussed. Moreover, it seems based on a puzzling conception of risk, where risk is not a matter of degree, and it cannot be handled

60 Gordley even accepts the controversial argument that also a monopolist would operate in this way and exploit its bargaining power only in the calculation of monopoly price. The argument is controversial because it rests on a set of non-trivial assumptions even when behavioural insights are not considered. For an overview, see Esposito 2017.
better or worse by the different contracting parties. This is particularly clear in the observation that “Molina defended the rule that the risk of physical destruction fell on the buyer before delivery by observing that, as he could lose if the goods perished, so he could gain if their condition improved”. Molina suggests that the risk of destruction and the possibility of an improvement in the market value cancel out each other. But this is a contingent matter, not a conceptual one. And, additionally, one may wonder if these rules give the right incentives to the seller who has custody of the good to minimize the risk of destruction. Gordley articulates this problematic “fair bet” justification of price fluctuations as speculative and alternative to the one based on physiological scarcity. Since the latter is very fitting with economic theory and with the general scheme of the neo-Aristotelian account, the “fair bet” justification is rejected.

We can now move to information. As anticipated, Gordley accepts that the same logic also applies to information. Indeed, the economic function of mandatory information disclosure is minimizing the cost of information. These norms regulate the information flow from the more to the less informed. Typically, information duties fall on the professional, but this is not always the case. For example, in financial regulation also clients have duties to provide information. Similarly, it is most likely that the consumer makes a mistake, but this is not always the case.

Gordley articulates two rationales, one for the case of mutual mistake and one for the case of a unilateral mistake. The first rationale rests on the metaphysical thesis that every kind of object has a proper purpose. For example, objects belonging to the kind “houses” ought to be habitable. Hence, relief for mistake shall be granted when “a performance is unsuitable, not only to the purposes of the party who is to receive it, but to the purposes of parties in general who would otherwise have contracted for such a performance”. According to this line of reasoning, Gordley explains, relief should be granted for the purchase of a cow mistakenly believed to be sterile because no one would slaughter it.

The rationale in case of a unilateral mistake is different. Here, Gordley follows again a logic of information cost minimization:

[t]he seller knows that because of the character of the performance, it will answer to the needs of parties with specific characteristics but not those with others. That risk arises because the performance is not one suitable to the needs of all those who have a certain need. If the purchaser is wrong about his own characteristics which make the performance suitable to him, he should bear the risk. He is in the best position to know, and the seller should not have to run the risk that prices will fall because of the buyer's error. But if the buyer knows his own characteristics correctly, for example, his shoe size, then the risk ought to fall on the seller who inadvertently sells him the wrong size shoe. He is in the best position to identify such a mistake, and if it occurs recurrently, to spread the risk across all the buyers who might be harmed.

The presence of two tests requires explaining their relationship. Are the unsuitability and the information cost minimization tests alternative or in a hierarchical relationship of some sort? Are they even compatible?

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63 Gordley 1991: 100.
64 A useful distinction here is between inspection, experience and credence information. See, for a clear illustration, de Jager 2016: 19. Note, however, that the distinction is not satisfactorily made in terms of goods because goods (and performances more generally) are multidimensional, so that information over one attribute could be obtained by inspection and on another by experience, while on another it could not be achieved at all.
In my view, the main problem lies in the vagueness of the concept of unsuitability. Reconsider the example of the cow mistakenly believed to be sterile. It is extremely doubtful that no one would slaughter it. If the costs of reselling the cow as a fertile one are high enough and the new owner is not in need of a fertile cow, he can actually be expected to slaughter it. Moreover, it is not self-evident that the information cost minimization criterion would lead to the conclusion that relief should be granted, but Gordley does not discuss the point because he takes an ex post perspective and asks who is in the “better economic position … to face the consequences of the mistake” once it has been made.\(^{67}\) Thus, Gordley makes the move economists often charge legal scholars of, namely focusing on an ex post perspective about legal intervention.\(^{68}\)

From an ex ante perspective, it depends on who the cheapest information collector was. If sellers are typically the ones in the best position to collect information about the fertility of cows, then relief should not be given to the seller who mistakenly believes he is selling a sterile cow. Finally, the unsuitability criterion does not explain an element that is rather important for mistake defences, namely the role of the recognisability or recognition of the mistake by the defendant.\(^{69}\) This criterion is explainable from an information cost minimization perspective because it provides incentives to correct recognisable and recognised mistakes and allocates the consequences of non-corrected recognisable mistakes, thereby giving incentives to be informed and to inform.\(^{70}\) As this duty operates during negotiations, the price mechanism can still be used, as in the case of ancillary terms, to ensure the fair compensation for cost minimizing information collecting and sharing.

In the light of these considerations, the information cost minimization test cannot be readily understood as an extension of the unsuitability test. On the contrary, the unsuitability test can be understood as a criterion for establishing the duty to inform. If the seller is reasonably expectable to be aware of knowing that a good is unsuitable for normal uses, then it makes sense to impose upon him the duty to disclose the information that the good object of the contract is unsuitable for these expectable uses. If the seller fails to collect and later share information about risks she is in a better position to collect, giving a remedy to her counterparty makes sense.

The cost minimization test should then be preferred to the unsuitability test as the main criterion for information policy not only from an economic but also from a neo-Aristotelian perspective. To Gordley’s credit, his discussion focuses primarily on cases of mutual mistake and treats cases of unilateral mistakes as exceptions, “not(ing) in passing” that commutative justice requires a duty to disclose information in these cases.\(^{71}\) Thus, it might well be that had he focused more on unilateral mistakes, his account would have been

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\(^{67}\) Gordley 2006: 315. I am thankful to Hanoch Dagan for point out to me that this was a problem of ex ante v ex post perspective. To Gordley’s credit, the author is very aware of the distinction between ex ante and ex post perspectives. See, for example, his discussion of the limits of the ex ante perspective when both parties consider a risk ex ante to be too remote to be worth of explicit allocation (Gordley 2006: 376-377).

\(^{68}\) See above, Introduction, Section 4.1.

\(^{69}\) See DCFR Model Rule II. – 7:201 and the commentary by the Study Group for a discussion of the diffusion of this criterion in Europe.

\(^{70}\) See De Geest and Kovač 2010 and Zhou 2011.

\(^{71}\) Gordley 2006: 322.
more linear. In the light of the above, the prevalence of the information cost minimization over the unsuitability test seems preferable.

Does the information cost minimization criterion maximize consumer welfare? Typically, information duties are associated with information that the professional is expectable to have. At the same time, this information is typically more difficult, burdensome, costly to find for the consumer. Thus, the law imposes on the professional a duty to (collect and) disclose this information to the consumer. Notably, while it is expectable that the professional passes the cost of this disclosure on the consumer, this mechanism (if the market is well-functioning) is still less costly for the consumer than bearing the costs of searching the information independently. It is thus allocative efficient from a consumer welfare perspective.

There is, however, another major concern about the duty of sharing information, namely that the informed party might have incurred costs justifying the withholding of information. In other words, the concern is not deterring from the acquisition of valuable information. In fact, forcing to share information might reduce the incentives to collect the information in the first place. We can rephrase the point in terms of scarcity. The scarcity of knowledge is a reason for having prices that depart from costs. The clearest example of this approach is the institution of patents. Patents are a means to reward innovation by granting temporary monopoly power. Notably, the quantification of the reward is delegated to the market system, so that some patents are worthless and others change the life of the inventor. Although Gordley does not discuss problems related to information acquisition, we know that physiological scarcity justifies the raising of prices as a signal to producers—in this case of knowledge. Accordingly, when scarcity is physiological, prices rising above costs are justified. Admittedly, it is difficult to estimate when the information scarcity is physiological or pathological. However, the point is also debated heavily in the literature on the optimal information acquisition.

The conclusion reached so far is that at the core of both the neo-Aristotelian theory and the market mechanism there is a price minimization logic. To see this clearly, imagine a market in which supply meets demand and prices equal costs. This is the core of the perfect competition model. Under these conditions, the price minimization logic implies that consumers satisfy their needs in exchange for the share of purchasing power that is just necessary to cover the costs (fairness theory) and, therefore, maximize their surplus (economic theory). These findings can be reinforced by looking at three accounts of the relationship between fairness and efficiency which are incompatible with Gordley’s but also inferior to his for one reason or another.

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72 See De Geest and Kovač 2010 and Zhou 2011.
73 The situation is much more complex than this, obviously. The evidence in support of the idea that patents are necessary is weak, there is the need to allocate patent rights between employers and employees, how to regulate patent-settlements, the interplay between patents and the access to essential facilities, etc.
74 An additional problem occurs when the consumer is more informed. In situations like this, the consumer welfare approach clearly points in the direction of the desirability of the exchange. From a neo-Aristotelian perspective, the point requires a more thorough exploration.
75 See, in particular, the review in Zhou 2011.
6. Inferior Economic Accounts on Fairness and Efficiency

To confirm the findings of the previous two sections, it is useful to look at three additional ways in which mainstream economic theory and Aristotle’s concept of commutative justice have been related to each other. These analyses are dissatisfactory to some extent but lead to the same claim reached by Gordley once they are corrected. I first comment Schumpeter’s discussion of commutative justice in his monumental *The History of Economic Thought*. Second, a short article by David Friedman (Milton’s son) entitled *In defense of Thomas Aquinas and the just price*. Third, I discuss the more recent contribution by Golecki to *Aristotle and the Philosophy of Law*, discussing the relation between commutative justice, economics and mainstream economically-informed legal research.

6.1 Schumpeter on fairness and efficiency

Schumpeter observes that “Aristotle’s embryonic ‘pure’ economics” has greatly influenced the methodology adopted by Smith in *The Wealth of the Nations* and was importantly integrated by “later scholastics”. In Schumpeter’s view, “if A barters shoes for B’s loaves of bread, Aristotelian justice requires that the shoes equal the loaves when both are multiplied by their normal competitive prices; if A sells the shoes to B for money, the same rule will determine the amount of money he ought to get”. This conclusion follows, Schumpeter suggests, from the claim that for Aristotle the monopoly price is unjust and, therefore, “actual commodity prices” cannot be the criterion for determining whether are exchange price is commutatively just or not.

It is indeed the case that Schumpeter’s claim fits perfectly in the argumentative strategy of this dissertation and with its claims. The analysis hinges on the claim that monopoly is ‘bad’. An argument for this claim is then given in the light of Aristotle’s discussion of commutative justice. Unfortunately, there is a serious weakness in Schumpeter’s argument, namely that Aristotle never condemns monopoly as unjust. Contrary to Schumpeter’s claim, in the passages of *Politics* and *Nichomachean Ethics* where Aristotle refers to monopolistic prices, there is no explicit condemnation of monopolistic behaviour. And one cannot find any criticism even in the *Economics*, the treaty on economic activities controversially attributed to Aristotle.

I see two possible strategies for repairing Schumpeter’s argument. First, the condemnation of monopolistic behaviour is implicit in Aristotle’s thinking—all that is need is to make it explicit. Second, even if Aristotle did not condemn monopolies, it is sufficient that the neo-Aristotelian tradition did. The main purpose of this essay is proving that efficiency and fairness are not necessarily conflicting concepts. Whether Aristotle himself and/or the neo-Aristotelian tradition allow connecting commutative justice to the

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76 Schumpeter 1986: 96.
77 Schumpeter 1986: 98.
78 Schumpeter 1986: 97.
79 Schumpeter 1986: 96. This is problematic especially for Schumpeter’s claim since Aristotle had clear in mind the fact that monopolistic pricing is often based on contrived scarcity (Pol. I, 11).
condemnation of monopolistic behaviour is not of pivotal importance. What is important is that the connection can be established. This essay focuses on the first repairing strategy, as the second is amply documented in Gordley’s writings. While Aristotle did not say that monopoly prices are bad per se, his theory of virtue and the concept of eudemonia imply that the virtuous man in normal circumstances ought not to charge monopoly prices. Thus, Schumpeter’s argument is repaired by moving the claim from the level of commutative justice to that of virtuous life while, at the same time, accepting that monopoly prices can be justified in Aristotle’s theory.

The monopoly price is the price a vicious person would ask. At least two vices are relevant here: greed and stinginess. A greedy person chooses more than the mean of what is good and too little of what is bad—not necessarily of money. Stinginess, instead, is more specifically concerned with money, as it is one of the opposites of the virtue of generosity, which is necessarily concerned with money. One of the types of stingy actions is taking excessive amounts of money from others. For example, this is the case of “people who lend small sums of money at high rates on interest”. Indeed, lending money falls within the scope of application of commutative justice, to the effect that the stingy money lender violates the mean by taking too much from the borrower. The action of the stingy money lender is thus unfair. More generally, a stingy person is driven by a “disgraceful love of gain”. Similar considerations are made by Aristotle when he discusses a way of “property acquisition” that he calls “wealth acquisition” and consists in being driven by an unlimited desire for wealth. The problem of wealth acquisition is that the actions are not directed towards eudemonia. The conclusion that monopoly prices are unfair follows from the observation that they escape from the price minimization logic described above. Monopoly prices are justified neither by cost nor by physiological scarcity. Instead, they are based on the profit-maximization calculus of the monopolist, whose actions are affected by the vices of greed and stinginess. Stinginess, in particular, implies being unfair to others by giving them too little or asking them too much in exchange. Thus, if monopoly prices are motivated by the desire for money per se, as it typically happens, then they are arguably unfair.

There is, however, an important caveat. The end, purpose, goal of the agent is essential for Aristotle to determine whether a person is vicious and, if so, what his vice is. For example, a person committing adultery for money is greedy but not intemperate, because the action was not motivated by appetite. About the purpose of monopolists, both examples Aristotle gives in Politics are ambiguous. In the first, after predicting a great harvest thanks to his knowledge of the stars, Thales the Milesian monopolized temporarily the olive-presses industry of Chios and Miletus to prove that “philosophers can easily be rich if they like, but

80 Thus, all three strategies are viable solutions to warrant the claim defended in this section. However, under the assumption that being more or less consistent with Aristotle’s theory is relevant to establish the strength of the argument, the strength of the strategy is decreasing from the first to the third.
81 Commentators feel at ease in concluding that the unfair person is always greedy. See Crisp 2000: 24 and Miller 1995: 87-88.
82 EN V, 1-2.
83 EN IV 1, 1119b and 1121b-1122a. Note that generosity is not the virtue always concerned with money, as there is also magnificence, which “surpasses generosity in its large scale” (EN IV, 2).
84 EN IV 1, 1122a.
85 Pol. I, 9, 1257a.
86 EN V, 2, 1130a.
that their ambition is of another sort”. In the second, a man monopolizes the available iron and makes a great profit out of it. He is consequently exiled as his actions were considered contrary to the interest of the tyrant of the city. Aristotle does not criticize these behaviours, and this is especially problematic for the second example, where the man seems to act out of greed and stinginess. Instead, Thales seems to have Aristotle’s approval (as he is acting to defend the reputation of philosophers). The explanation of this gap rests partially in the observation that in Politics Aristotle is giving a piece of advice to all those, but especially statesmen, that can be in need of money. At the same time, the conclusion that monopoly prices are normally unfair can be reinforced by considering that Aristotle’s philosophical method emphasises the importance of central cases. In Politics, Aristotle makes it abundantly clear that in his view “wealth acquisition” is the normal attitude in the marketplace. However, this does not imply that this attitude is justified by Aristotle. Wealth is important—Aristotle admits—to live a good life because eudemonia requires material goods. However, a life dedicated to wealth is “justly censured” because wealth should be pursued only to the extent it is needed to achieve eudemonia.

On these grounds, it seems plausible to conclude that charging a monopoly price is normally an unjust action. Thus, Schumpeter could be agreed with in holding the price set by the profit-maximizing monopolist is, at least normally, unfair.

6.2 David Friedman on fairness and efficiency

David Friedman has surprisingly offered almost compatible views about fairness and efficiency to the ones proposed in this essay. This is surprising because his book Law’s Order is a clear example of mainstream economics of law. In the article In defense of Thomas Aquinas and the just price, Friedman distinguishes two theses about contracts and prices. The first requires only that the “price was acceptable to both parties” and would correspond to “current legal practice and conventional economic views”, while the second required exchanges to be made at the just price, which “was either the intrinsic value of the commodity or its value to the seller, whichever was higher”. In other terms, Friedman opposes the view that Pareto efficiency is sufficient to conclude that the contract is desirable to the concept of just price as determined by cost and scarcity. In Friedman’s view, the purpose of the doctrine of just price was to “determine the price in … non-competitive situations” and if this is the case, “it may have served a useful economic purpose”.

Just price would be, for Friedman, a tool to identify a proxy of the “price at which the merchants in the competitive market could afford to sell it”. The merit of this procedure would be its considerable

87 Pol. I, 11.
88 Aristotle does the same in Economics.
89 See Finnis 2011: 9-11 and Shields 2014: 386. An important application of this method can be found in Aristotle’s influential distinction between law and equity in EN V, 14.
90 P I, 9, 12571-1257b.
91 EN I, 8 and VII, 13.
93 D. Friedman 2000.
95 D. Friedman 1980: 236.
96 D. Friedman 1980: 237.
determinacy and the capacity of market prices to approximate the estimation of “subjective values”, with the possibility of considering higher than normal costs incurred by the seller. So far, Friedman’s approach is fully compatible with the assumption of the consumer welfare maximand in efficiency analysis. Indeed, Friedman even notes that when “the buyer was willing to pay more than the market price … the doctrine [of just price] would allocate virtually all of the surplus to the buyer”.

The problem comes from the additional, axiological claim that the economic justification of the just price doctrine is simply that of being “a useful device to minimize the (bargaining) costs resulting from imperfect competition”. This justification is in fact indeed compatible with a total welfare approach and with “conventional economic views”. But, at the same time, it plays lip service to fairness. The problem of the unjust contract is not that it is unfair to the aggrieved party, but that it does not minimize bargaining costs. From a different perspective, the unfair price is not a wrong to the aggrieved party, but it is wrong because it does not minimize transaction costs.

In the light of the above, it is obvious that Friedman’s account has two market differences from the analysis proposed in this article. First, allocative efficiency is about—like in mainstream economics—total welfare. Second, the economic account of the just price is insensitive to considerations about the equality of the parties and, as such, is not an account of fairness. In other terms, Friedman instrumentalizes the just price doctrine to the end of total welfare maximization.

6.3 Golecki on fairness and efficiency

Golecki has reconsidered recently the relationship between the Aristotelian tradition and economically-informed legal research. His analysis has a great deal in common with the approach followed in this essay. In particular, in Golecki’s view, “[t]he theory of Aristotle may be regarded as the ethical foundation for the economic theory, whereas economic theory of contract determines necessary conditions for a proper moral choice”. However, there are several points of disagreement between Golecki’s account of Aristotle’s theory and the one given in this essay. Discussing them will prove helpful in strengthening the translation claim.

Golecki takes the view that Aristotle had a subjective theory of commutative justice, which was later objectified by the Aquinas. This reading of Aristotle’s theory fits uncomfortably with the reconstruction given above, in which need is just a participation constraint for the consumer and it is the interplay of cost and physiological scarcity that determines the fairness of the exchange. Moreover, this subjective reading can hardly be reconciled with Golecki’s own observation that individual subjective utility is an “introductory

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97 D. Friedman 1980: 237.
98 D. Friedman 1980: 240.
99 Golecki 2013: 254.
100 Golecki 2013: 257.
101 See, in particular EN V, 4, 1132a where Aristotle states that justice in exchange “consists in having an equal amount both before and after the transaction” and that “what is just in rectification will be the mean between loss and gain” and V, 5 where Aristotle rejects the claim that “reciprocity is just without qualification” – as in a principal-agent model, reciprocity is merely a participation constraint that is necessary in order for voluntary transactions to take place. Note that also Miller 1995: 93 gets the point wrong.
Comments are welcome, but do not cite (yet).

condition of exchange” but is not “directly related … to the fairness of exchange”.102 This observation is, in fact, a reformulation of the idea that need is just a participation constraint. In consideration of these elements and also of the lack of arguments given by the author to support this subjective reading of Aristotle’s commutative justice, the claim must be rejected.103

At this point, Golecki considers three reparatory strategies used in the literature. The first strategy, attributed to Gordley and Murphy, is based on an objective notion of value, but it would fail because “the majority of legal systems define reciprocity in contracts in purely subjective terms, referring to the exchanges of promises and the underlying consent of parties”.104 An obvious objection to this claim is that EU law welcomes an objective notion of value both in competition and consumer law.105 Given the weak evidentiary support to Golecki’s claim,106 Gordley’s scholarship remains convincingly accurate both in its account of Aristotle’s theory and in its explanatory claim.107 The second and the third strategies modify “some basic principles of Aristotelian theory”. The second basically tries to build a will theory and is found wanting by Golecki in several versions. As will theories are not relevant for the purposes of this dissertation, they are not discussed here. The third strategy, the most important and interesting one for current purposes is based on the use of mathematics and, in particular, game theory. Golecki calls this strategy “functional approach” and connects it clearly with mainstream economics of law by giving Posner as the pivotal example of its use. In Golecki’s view, Posner has tried to give “a new meaning to the idea of commutative justice” based on the concept of “optimal allocation of resources”.108

Elsewhere, I show that these two strategies fail.109 For current purposes, it suffices to note that even if they were to succeed, they would not show the compatibility of the noe-Aristotelian theory with efficiency for the simple fact that they are both meant to offer novel accounts of what fairness is about.

To sum up, we have seen that a fair price is based on the interaction of need, cost, and scarcity. When these concepts determine the price, this tends to be minimized. Parties, then, are equal in the sense that they are both price-takers, but also and more importantly in the sense that the value of the exchanged resources is equal. And this is true both in case of a market exchange and of a barter.

7. Fairness and Ex Ante Perspective

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102 Golecki 2013: 262. A similar tension can be found in Crespo 2008, compare pp. 18 and 22. In the language used in this dissertation, need is a participation constraint.
103 Note that for the purposes of this dissertation, it would also be sufficient to subscribe to the view that a subjective theory of value was later rejected in the Aristotelian tradition.
104 Golecki 2013: 258.
105 To give just two examples: neither the “unfair test” under Article 4 Directive 93/13/EEC nor the “average consumer” in the CJEU case-law can be understood in a subjective sense.
106 Golecki 2013: 249.
108 Golecki 2013: 260.
109 Esposito forthcoming, ch. 4, sec. 5.3.
This section has two goals: 1) to recapitulate the argument about the relationship of fairness and efficiency of this essay and 2) to point out the compatibility of the account with an ex ante perspective.

This essay shows that analyses of market relations in terms of efficiency and in terms of fairness can be related more deeply and fruitfully than what it is typically supposed once the maximand is consumer welfare and the theory of fairness is the neo-Aristotelian one. The main strategies to connect fairness and efficiency presuppose that searching for the fairness of a market relation is a different task than searching for its efficiency.

In other terms, this essay has found classes of inferences where efficiency and fairness can be used interchangeably. Assume that consumers are prudent and consumer welfare is appropriately represented by preferences as measured by consumers’ willingness to pay. Under these circumstances, both approaches agree that the function of the market mechanism is price minimization for the consumer, with the price including also risk and information costs. This is not simply an outcome. This is a norm, a guiding principle, that applies to the different dimensions of the contractual relation (price, information, risk). Moreover, the two frameworks also agree in finding that when scarcity is pathological, the legal system becomes a valid alternative to the market as an allocative device.

In other terms, imagine a contract where the price equal production costs and information costs and risks are allocative so as to minimize their value, and then the consumer pays the resulting amount to the producer. This contract is efficient from a consumer welfare perspective. And it is also fair from a neo-Aristotelian perspective. Now, imagine that prices are above cost because there is scarcity. If the scarcity provides meaning signals to producers and consumers, the price is still efficient and fair. Conversely, imagine the producer refrains from giving a piece of information to the consumer very difficult to retrieve for the latter. In this case, the contract is inefficient and unfair. It is inefficient because to retrieve the information, the consumer must pay more than what it cost the producer to disclose the information. It is also unfair because to retrieve the information, the consumer must pay more than what it cost the producer to disclose. And the same considerations apply to risk allocation.

By now, it should be clear why an argument about the inefficiency of the contract can be translated in an argument about its unfairness. Under the considered conceptual frameworks, the arguments leading to the conclusion that a contract is inefficient and unfair are the same.

Cannot the same be if efficiency is about total welfare? No. If efficiency is about total welfare, minimizing the price is instrumental to maximizing quantities and to minimize costs. One way to see this is thinking of the difference between simple monopoly and monopoly with perfect price discrimination. The problem of prices going up in case of simple monopoly is not that it is unfair to consumers, but that by reducing the quantities sold, it reduces total welfare. What happens to the exploited consumers is irrelevant. And in fact, if the monopolist perfectly discriminates and applies to each and every consumer his reserve price, then this market outcome is efficient from a total welfare perspective. Hence, claims about fairness cannot be translated into ones about total welfare.
Comments are welcome, but do not cite (yet).

We can also see why the efficiency analysis of market relations in terms of consumer welfare are not in conflict with fairness claims. If claims about market efficiency can be translated into claims about market fairness, it follows that the efficiency and fairness are not in conflict.

Is the proposed account of fair market relations capable also of addressing the economists’ concern for the importance of the ex ante perspective? I do not see why not. From an ex ante perspective the distribution of welfare is irrelevant as long as total welfare is maximized. The analysis of market relations proposed here considers the relations between the parties and the market mechanism, as means of coordination between consumers and producers on the market and between markets and examines the consequences of different courses of action in terms of allocative efficiency. And this is what advocates of the ex ante approach ultimately requires.

8. Fairness, Total Welfare and Distributive Justice

So far, this essay has articulated an account of fair market relations with prudent consumers and shown that such an account can be translated in one about the efficiency of the market, once the maximand is consumer welfare. It is time to discuss the relation between fairness or commutative justice and distributive justice in the neo-Aristotelian tradition. The relationship is, in fact, useful to address a possible objection by the total welfare approach.

Distributive justice is concerned with the division of the available resources among the members of the political community. Aristotle believes that the form of government of a community determines the notion of distributive justice it will follow. Thus, there is an instrumental coherence between the government of a community and the notion of distributive justice it will follow. The division of resources between the constituents is thus a political choice, distinct from fairness in market relations. The political distribution has to be done according to merit, but what “merit” means depends on the political organization of the community. As Bartlett and Collins summarize, “in the dispute about what constitutes merit, democrats say that it is freedom; oligarchs, wealth; others, noble birth; and aristocrats, virtue”. Thus, for Aristotle, distributive justice rests on an incompletely theorized agreement, according to which merit is the criterion of distributive justice, but “merit” can mean very different things. Ultimately, the criterion of distributive justice is “established by the public authority”.

Gordley explains that in the neo-Aristotelian tradition, fairness and distributive justice are related because “we have to view society as an ongoing enterprise, concerned at the social level with ensuring, so far as possible, that each person has a fair share, and in individual transactions, that no one increases his share

111 As Baracchi 2008: 166 concurs with Aristotle’s own words, “all agree that what is just in distribution should be according to merit … of some sort, but not everyone means the same merit” (EN V, 3, 1131a).
113 Building on this idea might be insightful for those interested in merging considerations of desert in the normative framework of welfare economics. See Medina and Zamir 2010, Adler 2012.
114 Golecki 2013: 256.
Comments are welcome, but do not cite (yet).

by depriving another of his resources”. 115 The claim has support in Aristotle’s own writings and the contemporary secondary literature. 116 Thus, the general idea is that we maximize our welfare when acting as consumers but at the same time our actions remain neutral from a distributive justice perspective. The implications of this observation are far-reaching. The fairness of market relations isolates market relations and makes them neutral to the distributive justice of social relations. Accordingly, distributive justice can trump fairness. For example, increasing the salaries of workers in an industry to the detriment of consumers might well be justified in terms of distributive justice even if it reduces consumer welfare on the considered market.

Against this background, the proponent of the total welfare approach may advance the following request of clarification: if allocative efficiency is not about total welfare, what is the place for the intuition that a more affluent society is a better one ceteris paribus? It is indeed a good question. Ultimately, I think that the concept of total welfare is reduced to its components of the sum of the welfare of the members of the community and it thus plays no explicit role anymore. More precisely, total welfare is in part substituted by fairness and in part by distributive justice.

Of fairness we have discussed at length. Of distributive justice, we have seen that it is based on a normative assessment of the merit of the members of the community. This means that depending on the notion of merits, one could come up with different criteria for the aggregation of individual welfare. From this perspective, it then makes sense to associate considerations about total welfare to distributive justice. Obviously, much more should and could be said about the relationship between total welfare and distributive justice. However, this is not the right place for that. Here, it is appropriate to limit the analysis to the clarification that total welfare matters and to sketch how it relates to the neo-Aristotelian framework.

9. Conclusion

This essay has advanced the counterintuitive claim that efficiency and fairness are not necessarily in conflict. In fact, they can justify the same class of actions, namely market exchanges in which prices are equal to costs (including risk and information) unless scarcity is physiological. In economic terms, these transactions maximise consumer welfare; in fairness terms, they ensure the equality of the performance of the parties.

The findings of this essay imply that the fact that economists think of market relations in terms of their efficiency and legal scholars in terms of their fairness is not an unsurmountable obstacle to a collaboration between the disciplines. Admittedly, efficiency-as-consumer-welfare and fairness-as-equality-of-performances are not mainstream conceptions neither in economic nor in legal theory. But this is not the point. The point is that they are conceptions of efficiency and fairness. While the received view presents efficiency and fairness as conflicting, this essay offers a different route. A route that will be particularly appealing to scholars interested in a collaboration between disciplines.

116 See, in particular, EN V, 3-5, and, for example, Bartlett and Collins 2011: 298.
Comments are welcome, but do not cite (yet).

A final note. The claim advanced here works at the theoretical level; it shows that it is conceptually possible for arguments about fairness to warrant claims about efficiency and vice versa. Yet, this does not suffice to grant legitimacy to economic insight in any actual legal discourse. To do so, one must show that the conceptions of efficiency and fairness articulated in this essay fit with legal discourse. And this is a proof that requires careful doctrinal analysis. Such an inquiry, which cannot be articulated here, has been successful for EU antitrust and consumer law.

For current purposes, it is important to stress how the fitness with EU legal practice reinforces the findings of this essay. The fitness with EU legal practice gives a reason to prefer efficiency-as-consumer-welfare and fairness-as-equality-of-performances to their mainstream alternatives. The strength of this reason increases with the higher importance one gives to theoretical fitness vis-à-vis theoretical justification.

Bibliography


Aristotle, *Economics*.


Aristotle, *Politics*.


117 For my proposal on how to warrant this claim, see Esposito forthcoming, ch. 5-8.
Comments are welcome, but do not cite (yet).


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