

Jackson, William A.

**Article — Accepted Manuscript (Postprint)**  
**The Ethics of Price Variation**

Forum for Social Economics

*Suggested Citation:* Jackson, William A. (2024) : The Ethics of Price Variation, Forum for Social Economics, ISSN 1874-6381, Taylor & Francis, London, Vol. 53, Iss. 2, pp. 201-215, <https://doi.org/10.1080/07360932.2022.2080753> , <https://www.tandfonline.com/doi/full/10.1080/07360932.2022.2080753>

This Version is available at:

<https://hdl.handle.net/10419/300528>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<http://creativecommons.org/licenses/by-nc-nd/4.0/>

## THE ETHICS OF PRICE VARIATION

William A. Jackson

Department of Economics and Related Studies,  
University of York, York YO10 5DD, UK

Email: [william.jackson@york.ac.uk](mailto:william.jackson@york.ac.uk)

### Abstract

Orthodox price theory turns on flexible prices that move frequently to maintain market-clearing equilibrium. Fixed prices are a source of market imperfections and failures. In the traditional ethics of pricing, by contrast, prices should be set at a just norm and stay there, with only rare amendments. The current paper examines these attitudes to price variation and finds them inadequate: orthodox economics is too supportive of continual price changes, while the traditional ethics dwell too much on the just price. A case is made for treating price stability as being distinct from the just price and valuable in itself. Rather than yearning for an elusive optimum, ethical assessment of pricing can then be based on acceptable ranges for the price level and price variation.

**Keywords:** ethics, pricing, stability, market power, regulation

**JEL codes:** D40, D63, L51

## **1. Introduction**

Among the pivotal questions of economic justice is how prices should be determined. Ever since the birth of economic philosophy, writers have pondered the ‘just price’ at which trade is balanced, such that neither sellers nor buyers have an advantage and benefits are shared (De Roover, 1958; Hamouda and Price, 1997; Reiff, 2013, Chapter 2; Elegido, 2020; Pinto-Garay, Ferrero and Scalzo, 2021). From the traditional ethical viewpoint, the price in all markets should be just and change only when the just price needs to be amended. Destabilising prices or manipulating them for personal gain would be unethical. These arguments, tied to the just price, hint at a preference for price stability but do not engage directly with price variation.

The traditional ethics of pricing has been undermined by the onset of neoclassical economics as the orthodoxy. In neoclassical modelling, markets gravitate to an efficient market-clearing equilibrium, with relative prices as the adjustment mechanism, and prices should be flexible, so as to reach equilibrium speedily. Neoclassical theory welcomes variable prices, the faster moving the better, and dislikes rigid or ‘sticky’ prices that prevent the economy from adjusting (Blinder et al., 1998). Endorsement of variable prices, a tacit ethical judgement, breaks away from the traditional ethics. The neoclassical vision relies on swift attainment of equilibria through smooth, rapid price changes.

Ethical issues raised by price variation have been obscured by the fixation on the just price and by the fact that price variation takes several forms. For a single good or service, the price can vary over time. It can also vary over place or among buyers, leading to price discrimination. In aggregate, we have changes in the average price level and the macroeconomic matter of inflation. Neoclassical economics revolves around relative pricing, on which its equilibrium concept rests, and sees inflation as a separate, monetary topic. Separating relative prices from inflation is not a safe assumption. Changes in the prices of goods and services will have implications for both relative prices and the average price level. Different forms of price variation are related, so it is best to embrace them all.

The current paper aims to fill a gap in the literature by examining the ethics of price variation, as against the just price. It seeks to make two main contributions. First, it surveys the ethics of pricing, emphasising the sparse coverage of price movements, and highlights the tendency to approve price flexibility as neoclassical economics became the orthodoxy. This switch of attitude has received little attention and will be brought out in the following discussion. Second, it agrees with the ethical case for balanced trade, but suggests that this should be accompanied by a case for price stability, which is valuable whether or not the price is just. Price stability will be better appreciated if considered in its own right. The paper draws no formal distinctions between ethics, morality, justice or fairness – these terms are used interchangeably to refer to the presence of value judgements in economic discourse.

Section 2 traces ethical views, from their ancient origins to modern versions, with the stress on price variation. Section 3 looks at neoclassical theory and its acclaim for price changes as the means of achieving efficiency. Section 4 investigates the nature of pricing and the reasons why price variation should be limited. Section 5 explores price variation in practice, and Section 6 concludes the paper.

## **2. Ethical Views of Price Variation**

Ethical assessment of pricing goes back to ancient philosophy. Aristotle argued that trade should be unbiased towards sellers or buyers, displaying balance (Aristotle, 1953, Book 5, 1962, Book 1, Chapters 9 and 10; Crespo, 2009). The just price should be in line with production costs and share benefits evenly among traders. If prices were to diverge from the just norm, they would be ethically suspect through loss of balance. Trading purely for profits at other people's expense was immoral. Ancient writings called forth a long-standing tradition of ethical appraisal of prices (De Roover, 1958; Wilson, 1975; Hamouda and Price, 1997; Reiff, 2013, Chapter 2). The ethical guidelines pertained to any organised trading, as a recommendation on how to proceed and a deterrent to malpractices.

Similar guidelines survived into the medieval era (Baldwin, 1959). The scholastic philosophy of Thomas Aquinas adapted Aristotelian ideas to a Christian frame and preserved Aristotle's beliefs on trade: it was ethical as long as it was balanced (Friedman, 1980; Koehn and Wilbratte, 2012; Koehler, 2016). Trading to obtain mutual benefits in a regulated environment could be approved – market towns flourished as centres of trade during medieval times. Profiteering and irregular trading were disapproved. Christian thought frowned on borrowing or lending, because interest payments without a service offered in return were usury, a type of profiteering (Mews and Abraham, 2007). Medieval scholars gave qualified support for commerce, provided that it satisfied the ethics of pricing.

The traditional ethical account interprets prices as norms designed to be just. Their social attributes connote that they should not be set exclusively by sellers or buyers, which would yield unevenness. To ensure balance, prices should be overseen by external authorities or collectively by the traders themselves. Letting prices emerge haphazardly without oversight would be wrong – either sellers or buyers could seize control and upset the symmetry of the market. Trading at just prices must be monitored and managed.

How do price variations fit into the traditional ethics? With a regulated environment overseen by external authorities, the just norm will hold and prices will not vary over time or among traders. If social, material or technological circumstances change, then the authorities can amend the norm after ethical reassessment. The ensuing price variations should be movements of the norm; other price movements would unbalance the market and create undue gains for sellers or buyers. The right kind of price variation is to have occasional amendments to the just price, in response to external events, with ethical oversight. Price variation should be warranted on ethical grounds.

Attempts by traders to evade the just norm and manipulate the terms of trade for private gain were a breach of market rules. They did happen, but the authorities suppressed and penalised them. In medieval trade, for instance, assorted malpractices rooted in price manipulation were identified: *forestalling* was to buy at lower, unofficial prices before a market opens, *regrating* was to buy with the intention of selling for a profit, and

*engrossing* was to buy in order to force an artificial rise in price (Herbruck, 1929). All of them secure an advantage by trading at terms outside the norm. Market organisers urged traders to respect the market price, taking it as given, and had sole permission to adjust it, in a balanced, even-handed manner. Any market with wayward, unstable pricing would be suspected of harbouring malpractices. While there was no disavowal of price variation, the desire was for a just norm. Changes in the norm to maintain justice were acceptable; other price movements or differentials were dubious.

Ethical appraisal of pricing lasted until the arrival of capitalism in the eighteenth century, when it was challenged by the campaign for *laissez-faire*. The invisible-hand argument implies that competitive, self-interested market trade, left alone, will generate social gains, even though this was never the traders' goal. Benefits appear spontaneously, without ethical oversight, and regulation is redundant, as it might interfere with competition. Pleas for ethical oversight of trade began to seem an outdated, pre-capitalist stance.

Despite the manifesto for capitalism and free trade, classical political economy did not abandon ethics. Adam Smith, often credited with the invisible-hand argument, devoted much attention to ethics, in *The Theory of Moral Sentiments* and elsewhere (Smith, 1759; Bassiry and Jones, 1993; Montes, 2004). Classical economic theory, formalised by David Ricardo, left room for prices to be ethical norms: market-clearing equilibria are absent, prices must be set deliberately, and ethics can still influence price setting (Downward, 2009; Martins, 2014, Chapter 1; Otteson, 2019). The classical surplus approach concedes that market power will be commonplace, so ethical doubts about pricing remain an issue. Only with the advent of neoclassical economics in the late-nineteenth century were the traditional ethics cast out from economic theory.

The ethics of pricing have been affirmed by institutional economists and others who rejected the neoclassical vision. John Commons, for example, pointed out the legal foundations of capitalism, whereby property and contract law is a prerequisite for organised trade (Commons, 1924). Nothing occurs spontaneously, including price-setting, and the legal system is crucial. All prices must be set by human agents within an institutional environment, subject to given procedures. The arbiter of justice is

the law, which should specify ‘reasonable value’ that balances the conflicting interests of sellers and buyers (Commons, 1924, 1925, 1936; Dugger, 1979; Ramstad, 2001; Obeng-Odoom, 2018). The yardstick of a price being reasonable would be legal judgements on acceptable practices and codes of conduct in trade. Price variations would have to be regulated if justice were to be upheld. Reasonable value revives the older case for just prices.

Philosophers have continued to write about economic justice and the ethics of pricing (Gewirth, 1985; Wolff, 2003; Reiff, 2013, 2019; Stacy and Lee, 2013). A prime example is Reiff (2013, Chapter 4), who bases the just price on costs of production, so that profiting from a mark-up over costs would be immoral. Since private profit is ubiquitous in capitalist economies, this would censure the prices of most goods and services as unjust. For a more liberal outlook, Reiff argues that many prices that exceed production costs are tolerably unjust if the margin is not excessive and lies within certain limits. Only the prices above these limits would be exploitative and intolerably unjust. A compromise can be reached in the middle ground between the high price sought by producers/sellers and the just price advocated on ethical criteria. Traditional doctrines of the just price may thus be augmented to fit the workings of modern capitalism. Even if the just price proves elusive, one can distinguish degrees of injustice that are tolerable from those that are not. The compromise reflects attitudes found among the general public – they will accept a moderate mark-up of prices over production costs but complain when prices are perceived to be unduly high.

In wider policy discussion, the traditional ethics have resurfaced with the fair-trade movement (Nicholls and Opal, 2005; Linton, 2012). Fair trade is proposed internationally, unlike the just price in a single market, but derives from similar worries over imbalances. Multinational corporations have swayed the terms of trade to their own advantage and the disadvantage of small producers in developing countries. Such lopsided commerce can be viewed as unethical. Regulating international trade is far from straightforward, there being no global authority to carry it out, and the fair-trade movement operates through bottom-up networks that promote ethical trading. Markets could be moralised by consumer decisions to buy ethically, without always chasing the lowest price (Stehr, 2008; Stehr and Adolf, 2010; Zak, 2008, 2011). On a large enough

scale, this behaviour would force multinationals to meet the new, ethical consumer demand. Fair trade and moralised markets hark back to the traditional ethics of pricing.

### **3. The Neoclassical View of Price Variation**

The shift from classical political economy to neoclassical economics, sometimes described as the Marginalist Revolution, transformed economic theory from the late-nineteenth century onwards (Milonakis and Fine, 2009, Chapter 6). Individualistic models of rational choice became the theoretical core, and equilibrium was redrawn as market clearing instead of profit-rate equalisation. The classical focus on reproduction and growth was replaced by a focus on competitive exchange, while the social and structural features of markets were brushed aside (Jackson, 2007; Nicholas, 2012). Market-clearing equilibrium is Pareto efficient, according to the fundamental theorems of welfare economics, and constitutes a universal benchmark (Blaug, 2007). In neoclassical models, price norms are superfluous: variable prices are the means by which the economy equilibrates and allocates resources efficiently.

Because the quest for Pareto efficiency entails a value judgement, neoclassical economics still has ethical content. Under perfect competition, market power is eliminated, neither sellers nor buyers dominate, and the equilibrium appears to be just. If markets operate as they should, then efficiency will emerge automatically, and the market price coincides with the just price. The ethics of pricing are met by competition alone, hence the enthrallment with efficiency rather than economic justice. Orthodox economics says little about the just price but talks endlessly about equilibrium. Once the just price is synonymous with the market price it can be conveniently forgotten. Efficiency in neoclassical theory derives from prices moving quickly towards market-clearing equilibrium – slow movement will bring inefficiencies and welfare losses.

Should markets fail to reach equilibrium, outside intervention might be able to correct the failures and promote efficiency. Chances for ethical oversight come forth, as in the



traditional ethics of pricing, yet a big difference persists. In the traditional view, external intervention resets the price norm at a just level and holds it there; in the neoclassical view, it gets prices moving again, allegedly towards equilibrium. The former wishes to revise the price norm, the latter to erase it. Removing imperfections and letting prices move freely towards equilibrium is the neoclassical goal, a conclusion built into the theory from the outset. We end up with the familiar orthodox verdict on rigid, sticky or inflexible prices, which recognises them as existing but struggles to explain them (Greenwald and Stiglitz, 1989; Blinder et al., 1998). Prices should change whenever external factors change, in short run or long run.

Variable and differentiated prices often turn out to be optimal in neoclassical models. An example is the ‘dynamic prices’ for areas such as energy supply with periodic changes in demand (Faruqui, 2012; Joskow and Wolfram, 2012). Optimisation declares that prices should be higher during peak demand and lower when demand slackens off. The price then varies for the same item consumed at different times of day, with some consumers paying more than others. This flouts horizontal equity, as revealed by the alternative name for dynamic pricing: individual-level price discrimination. Uneven treatment of buyers may be regarded as unfair and provoke consumer dissatisfaction (Garbarino and Lee, 2003; Haws and Bearden, 2006). Another example is ‘nonlinear pricing’, in which the price depends on the amount purchased, with a lower average price for bulk buying (Wilson, 1993). This too can be given an efficiency rationale but discriminates among customers.

Having several prices for the same item is not supposed to endure – it breaks the ‘law of one price’ and fuels arbitrage that makes prices converge on the equilibrium (Isard, 1977; Richardson, 1978). If arbitrage opportunities are limited, as with services or time-specific goods, room for price differentials will be greater: the goods can be kept apart, as if they are unique items. In perfect price discrimination, the seller charges each buyer their maximum willingness to pay and enjoys the best possible terms of trade (Phlips, 1988). Cross-sectional price discrimination is pushed to the extreme, trading gains are biased towards the seller, yet trade is efficient. Inefficiency enters the scene only when the seller charges all buyers a single, higher price and thereby diminishes trade, as in monopoly or oligopoly. Discriminatory pricing can be defended for reducing

efficiency losses, especially under increasing returns and economies of scope, so it may seem ethical (Elegido, 2011). Price variation may well be reckoned superior to uniform pricing.

Neoclassical theory depicts price movements as the means of attaining equilibrium, but stays silent on how they occur in reality. They are modelled through comparative-statics, putting one equilibrium against another, and artificial devices like the ‘Walrasian auctioneer’ are routinely adopted (Fisher, 1989). Stability of market-clearing equilibrium has been an unresolved issue, defying numerous efforts to tackle it (Ackerman, 2002; Kirman, 2006). Rapid price movements may not have the equilibrating function assigned to them, even in an abstract theoretical model, and could yield random, unknowable consequences. If neoclassical analysis has major flaws on its own theoretical terrain, it will be a poor guide to economic practice.

The implausibility of perfect competition motivated the theories of monopolistic and imperfect competition developed in the mid-twentieth century (Chamberlin, 1933; Robinson, 1933). These theories admit that firms have market power and influence the conditions of supply and demand to set prices above the market-clearing level. Profit maximisation is still the assumed objective of firms and pricing still a significant mode of competition. Although the new theories could stand alone, the later orthodox literature has embodied them in the structure-conduct-performance framework (Scherer, 1980). Market structures are arrayed as points on a scale, with perfect competition at one pole, monopoly at the other, and imperfect competition in between. The only Pareto-efficient option is perfect competition, which must therefore be the ideal. All the other options are imperfect, marred by price rigidities and market failures.

A more thorough critique of orthodoxy requires an approach that cannot be merged with neoclassical economics, as in theories of oligopoly emphasising strategic interaction (Rothschild, 1947). Large corporations with extensive market power aim to prolong their dominance – the true objective is not to maximise profits but to safeguard the status quo. Pricing policy switches from seeking the highest price possible to generating a chronic surplus. Oligopolists want fixed prices that maintain their profits, as against variable prices that could threaten profitability. Trying to eradicate rival firms through price

competition would be unwise, since the rivals also have great market power. Instead, firms interact strategically, with competition by non-price methods less damaging for collective profits, such as advertising, branding and marketing. Any price competition will be modest and fleeting, confined to the disposal of new entrants or temporary discounting bound up with advertising campaigns. Prices will be much less variable than neoclassical theory would predict.

#### **4. Benefits of Limited Price Variation**

Applause for flexible pricing obscures why prices should be stable and adjusted only occasionally. The traditional ethics of pricing has retained its force. To manipulate prices for private gain, ignoring the harm done to other people, can be seen as immoral. Cautious price movements that respond to external changes and preserve balanced trading can be seen as morally acceptable. Various other concerns provide reasons for limited price variation. The arguments below are independent of the just price and pertain at any price level. Even if prices are unjust, price stability may nonetheless have value.

##### **4.1 Trading Volumes**

The main purpose of a price is to assist trade and boost its volume. On a typical dictionary definition, a price is the sum in money for which something can be bought or sold. Setting and publishing prices informs potential traders about the terms of trade, helping them decide whether to proceed. Without a published price, people must arrange their own terms of trade through bargaining, haggling or higgling (Fanselow, 1990; Brown, 1994). The simplicity of a single price has been lost; completing a transaction takes time and effort from the traders, who must thrash out an agreement. While the terms of trade should be mutually acceptable, they hinge on bargaining power and may be unfair. Trading volumes will be low, depressed by uncertain terms of trade that differ with every purchase.

## **4.2 Information**

The informational role of prices requires them to be stable. A price that always moves around is hardly a price at all – it communicates no durable rate of exchange. For prices to be informative, they should stay constant long enough to be normalised and observed. A norm can be revised when necessary, though revisions should be rare. Ceaseless price movements will impede decision-making, discourage trade and reduce welfare (Shackle, 1972, Chapter 21; Hodgson, 1988, Chapter 8; Jackson, 2019, Chapter 7). Prices should adhere to a fixed-but-adjustable pattern with periods of stability punctuated by occasional adjustments. Traders can then enter the market sure that they know the terms of trade and will not encounter sudden price changes.

## **4.3 Consistency**

Market prices are disseminated far and wide, for the advice of the public. A key feature of a market is consistent pricing, in which traders face the same price and trading conditions. Variable prices breach horizontal equity: traders selling or buying the same item are not treated the same. Some price differentials might come from an item being subdivided into categories viewed as separate items in separate markets, but a well-organised market should not be susceptible to fragmentation. Uniform pricing is ethically desirable as it guarantees evenness among all entrants to the market.

## **4.4 Income Security**

In a capitalist economy, where many things are commodified, most incomes stem from prices. Producers must sell output to realise profits, so their revenue depends on regular trade at a stable price. Workers sell time and services on a labour market, which tethers earnings to the wage rate. Income security throughout the economy hangs on the stability of prices and wages. If prices change frequently, many incomes will be destabilised.

Private firms may go bust if their revenues fall and costs rise after unforeseen price movements. Wage earners may lose their livelihoods if wage rates are variable and could plummet at any time.

#### **4.5 Macroeconomic Stability**

As noted by Keynesian economics, short-run macroeconomic adjustment happens through output changes; relative prices remain steady when aggregate demand rises or falls. Supply and demand curves are ill-defined, and prices are set by producers/sellers who shun the price movements that neoclassical theory would advocate (Gu and Lee, 2012). Output changes are the preferred option, easily achievable for producers operating with excess capacity. Rapid price and wage movements across the whole economy lead to both relative-price changes and inflation. Unanticipated price disturbances create fundamental uncertainty that deters investment, hindering prospects for growth (Lavoie, 2014, Chapter 1). Price stability has macroeconomic advantages, because it upholds aggregate demand and keeps the economy running. Flexibility is accomplished not by price movements but by output, employment and productivity changes within the economy's capacity limits (Jackson, 2015). Belying the free-market imagery of flexible prices, capitalist economies prosper when prices are stable and do not add to the uncertainties for investors.

#### **4.6 Moderated Inflation**

The orthodox separation of inflation and pricing, with inflation derived from changes in the money supply, is untenable in practice. Alternatives to the orthodox view stress cost-push inflation, driven by interactions among individual prices. Inflation rises with the frequency at which prices and wages are revised in a wage-price spiral. Greater stability of individual prices translates into lower inflation for the economy. Moderated inflation should not be squeezed down to zero. Efforts to do so through deflationary policies would have harsh consequences from the shrinkage of aggregate demand, decline in economic activity, rise in unemployment, and loss of bargaining power for the poorest

sections of society. Prices that adjust occasionally but not continually should produce positive but low inflation, arguably the best outcome.

#### **4.7 Reduced Speculation**

Most speculation feeds on price movements or differentials that allow speculators to buy low and sell high – their profit is someone else’s loss, in an unproductive, zero-sum game. Stable prices narrow the openings for exploiting other traders. Speculators thrive on markets with little regulation, unequal access to information, and volatile prices; they may at times encourage the price changes from which they benefit. Where markets are prone to speculation, efforts to block it can restore price stability and calm down the trading conditions: an example is the Tobin tax designed to temper financial speculation (Tobin, 1978; Ul Haq, Kaul and Grunberg, 1996; Erturk, 2006). Subduing speculative trade would stabilise the economy and curb the risk of financial crises.

### **5. Price Variation in Practice**

Prices seldom change continually in actual markets. Diversity among price movements has been well documented – comparisons of fixed and flexible prices are widespread, as are references to price rigidities and stickiness (Andersen, 1994; Blinder et al., 1998; Bils and Klenow, 2004). Some prices vary more than others. Gardiner Means made a famous distinction between ‘market prices’ that change frequently and ‘administered prices’ that change rarely (Means, 1935, 1939). The two categories were defined through the number of price changes during a given period. In Means’ original empirical work based on US price data for 1926-1933, market prices changed almost every month during the eight-year period; administered prices had fewer than five price changes; other cases were unclassified (Means, 1935). The border dividing market prices from administered prices was always arbitrary and imprecise. Even market prices underwent periods of constancy among the intermittent price movements.

To treat prices as variables, a stock assumption of neoclassical economics, is to exaggerate their variability. Prices move stepwise, with plateaus interrupted by occasional adjustments (Carlton, 1986; Powers and Powers, 2001; Rátfai, 2007; Wolman, 2007; Klenow and Malin, 2010). Empirical studies of price movements rest on two main indicators: the average frequency of price changes, and the average price durations for different goods and services. Average frequency is measured by the proportion of prices that change in a given period. An international comparative survey of the mean monthly price-change frequency for consumer goods and services found a median value of 19%, the majority of countries falling in the range from 10% to 30% (Álvarez, 2008, Table 2; Klenow and Malin, 2010, Table 1). Average duration is measured by the number of months that elapse between price changes. Empirical results based on US consumer price data for the period 1988-2009 found a mean price duration of 6.2 months for all items, with 3.0 months for durable goods, 5.8 months for non-durable goods, and 9.4 months for services (Klenow and Malin, 2010, Table 5). Similar empirical results including European data found an average price duration of 13.0 months for the Euro area and 6.7 months for the US, suggesting lower price variation in Europe (Dhyne et al., 2006, Table 2). These findings demonstrate that prices undergo stepwise adjustment with periods of constancy. Some markets have shorter plateaus and more frequent changes, but all markets follow the same pattern.

Financial markets are often thought to epitomise rapid price adjustment. Trading volumes change quickly and high-frequency transaction data record myriad price changes. Even here, however, data have to be discrete rather than continuous: market rules stipulate that prices must be on a pre-specified scale, as multiples of the smallest permitted price adjustment (Russell and Engle, 2010). The fastest price changes are never quite smooth and instantaneous. Daily trading patterns in financial markets take a U-shape, since most trading occurs near the start and close of trade, with a lull in the middle; accordingly, price durations take an inverted U-shape (McInish and Wood, 1992; Russell and Engle, 2010). Price variability diminishes at certain times of day. Sociological studies of financial markets show that price making, networking and other non-competitive elements are common, notwithstanding the aura of competitive purity (Knorr Cetina and Bruegger, 2002; Sassen, 2005; Preda, 2007). In place of well-behaved

‘efficient markets’, there is a risk of instability, attested by the history of financial crises and crashes (Kindleberger and Aliber, 2011; Bilginsoy, 2015). Large price movements are linked to crises and speculative behaviour, as opposed to convergence on equilibrium.

Manufactured goods have stable, cost-determined prices that change rarely (Gu and Lee, 2012). With no external authority to act as referee, producers/sellers can set their own prices. Empirical studies of price duration find a contrast between raw materials and manufactured goods: in the US study of price duration cited above, the average duration was 1.1 months for raw goods but 6.9 months for processed goods and services (Klenow and Malin, 2010, Table 5). Price stability protects the manufacturers through prices normalised to generate profit from a mark-up of price over costs. It can protect buyers as well, allowing prices to convey information, reduce uncertainty and establish normal terms of trade. Yet prices are high and it is not the balanced trade that traditional ethics would endorse.

In markets for natural produce and raw materials, sellers cannot control supply, which depends on environmental factors. Prices are demand-determined and change with external events (Kalecki, 1971, Chapter 5). Volatile prices will be troublesome to both sellers, whose incomes are rendered insecure, and buyers, who face capricious pricing for food and other needs. Price regulation can prevent unruly price changes. The Common Agricultural Policy (CAP) of the European Union, for example, stabilises agricultural prices by manipulating demand, in order to bolster farmers’ incomes and Europe’s food production (Ackrill, 2000). Estimates of the welfare effects confirm that the beneficiaries are producers, while the losers are consumers and taxpayers: Buckwell et al. (1982) estimated that in 1980 the average gain to producers in the EC-9 countries was \$30,686 million, against an average loss to consumers and taxpayers of \$34,580 million and \$11,494 million respectively (Demekas et al., 1988, Table 2). The monetary estimates can only be approximate, but the biases are clear enough. As with manufactured goods, price stability is tarnished by a high price set to benefit the producer/seller side of the market.

Less developed countries see a different method of price stabilisation for natural produce. Here the local producers have scant influence and market power lies with the



buyers, multinational corporations based in developed countries. Scarcity of natural resources might be expected to lift their prices, but the chronic trend has been a worsening of the terms of trade for primary producers, summarised by the Prebisch-Singer thesis (Toye and Toye, 2003). An empirical study using international data compiled over several centuries found a negative average annual price change for various natural products: examples are tea at -1.40%, coffee at -0.77%, sugar at -1.20%, jute at -1.48%, wool at -0.65%, and silver at -0.82% (Harvey et al., 2010, Table 1). Resource prices have fallen to low levels that favour the multinationals and developed countries but harm the countries from which the produce originated. This imbalance has prompted the campaign for global fair trade (Raynolds, Murray and Wilkinson, 2007; Archer and Fritsch, 2010). Better organisation among consumers and local producers should improve the terms of trade by countering the power of the multinationals. No global authority is available to act as neutral, omnipotent regulator.

Price variation in practice mirrors the traditional ethics in so far that prices change only intermittently and move stepwise. The drawback is that prices are high, usually set by the producers/sellers or by regulators under their sway (as with the CAP). Traders have stabilised prices through market power, with ambiguous results: the stability has value for all traders, even those on the weaker side of the market, but enforces an unjust price. Although the ethical consequences are mixed, the benefits from stable prices have been appreciated and offset the pressures for price amendments.

## **6. Conclusion**

Orthodox price theory and the traditional ethics of pricing each have a narrow, unrealistic view of how prices should be determined. The orthodox view, guided by neoclassical economics, wants prices to be mobile in pursuit of market-clearing equilibrium, yet price fixing is routine in modern developed economies, a strategic choice by oligopolies to secure their profits. The traditional ethics of pricing wants prices to be just and treats price stability as secondary, in a definite ranking – balanced trade first, then stable prices.

Reality is seldom so neat: prices are set and normalised by sellers with market power, at levels above the just price.

A broader approach is for price variation to be an ethical question distinct from the price level, as the current paper has argued. Prioritising the just price imposes unnecessary restrictions on ethical assessment. A case for stable prices can be persuasive, even if they are unjust, and in choosing a stable or unstable price at the same level, the stable option would be preferable. Price stability eases trade, underpins livelihoods and sustains the economy, regardless of whether trade is balanced. Valuing stability for its own sake will permit compromises between balance and stability.

The upshot is an extended middle-ground argument that applies not only to the price level but to price variation. Prices should be neither too high nor too volatile, both aspects staying inside tolerable limits. Compromises can be reached within these limits. Such a perspective tallies with public attitudes towards pricing, which will tolerate occasional price rises but object if things go too far and prices are deemed unduly high or volatile. The yardstick of acceptability could be public opinion or its formal expression through legal judgements. Tolerable limits for price variation could be higher in some markets than others: lowest for basic needs, where volatile prices have immediate social consequences; highest for financial markets, where price changes are less direct in their social effects.

Moderate price changes as an ethical goal will carry over to moderate inflation. If rises in individual prices are limited, average price rises will also be limited, given the significance of costs in causing inflation. The aim would not be zero inflation, too severe in its deflationary impact, but a tolerable inflation rate, low and steady. Dampening of price variations across time and place can encompass inflation and the average price level. The middle-ground argument thus pertains to all the different forms of price variation.

Ethical assessment of pricing should go beyond the just price to consider price movements and the role of prices in the economy. The case for balanced trade can remain, accompanied by a case for price stability, keeping both the price level and price variation within acceptable ranges. Assessment is no longer fixated on a hypothetical ideal;

instead, it seeks tolerable outcomes that avoid large inequities and let prices fulfil their proper functions. Paying heed to price variation can strengthen the ethics of pricing and increase its practical relevance.

## **Acknowledgements**

I am grateful to Franklin Obeng-Odoom and two anonymous referees for their helpful comments and advice.

## **References**

- Ackerman, F. (2002). Still dead after all these years: interpreting the failure of general equilibrium theory. *Journal of Economic Methodology*, 9(2), 119-139.
- Ackrill, R. (2000). *The Common Agricultural Policy*. Sheffield: Sheffield Academic Press.
- Álvarez, L.J. (2008). What do micro price data tell us on the validity of the New Keynesian Phillips Curve. *Economics: The Open-Access, Open-Assessment E-Journal*, 2(19), 1-36.
- Andersen, T.M. (1994). *Price Rigidity: Causes and Macroeconomic Implications*. Oxford: Oxford University Press.
- Archer, C., & Fritsch, S. (2010). Global fair trade: humanizing globalization and reintroducing the normative to international political economy. *Review of International Political Economy*, 17(1), 103-128.
- Aristotle (1953). *The Nicomachean Ethics*, translated by J.A.K. Thomson. Harmondsworth: Penguin.
- Aristotle (1962). *The Politics*, translated by T.A. Sinclair. Harmondsworth: Penguin.

- Baldwin, J.W. (1959). The medieval theories of the just price: Romanists, canonists, and theologians in the twelfth and thirteenth centuries. *Transactions of the American Philosophical Society*, 49(4), 1-92.
- Bassiry, G.R., & Jones, M. (1993). Adam Smith and the ethics of contemporary capitalism. *Journal of Business Ethics*, 12(8), 621-627.
- Bilginsoy, C. (2015). *A History of Financial Crises: Dreams and Follies of Expectations*. London: Routledge.
- Bils, M., & Klenow, P.J. (2004). Some evidence on the importance of sticky prices. *Journal of Political Economy*, 112(5), 947-985.
- Blaug, M. (2007). The fundamental theorems of modern welfare economics, historically contemplated. *History of Political Economy*, 39(2), 185-207.
- Blinder, A.S., Canetti, E.R.D., Lebow, D.E., & Rudd, J.B. (1998). *Asking About Prices: A New Approach to Understanding Price Stickiness*. New York: Russell Sage Foundation.
- Brown, V. (1994). Higgling: the language of markets in economic discourse. *History of Political Economy*, 26 (Supplement), 66-93.
- Buckwell, A.E., Harvey, D.R., Thompson, K.J., & Parton, K.A. (1982). *The Costs of the Common Agricultural Policy*. London: Croom Helm.
- Carlton, D.W. (1986). The rigidity of prices. *American Economic Review*, 76(4), 637-658.
- Chamberlin, E.H. (1933). *The Theory of Monopolistic Competition: A Re-Orientation of the Theory of Value*. Cambridge, MA: Harvard University Press.
- Commons, J.R. (1924). *Legal Foundations of Capitalism*. New York: Macmillan.
- Commons, J.R. (1925). Law and economics. *Yale Law Journal*, 34(4), 371-382.
- Commons, J.R. (1936). Institutional economics. *American Economic Review*, 26(1) (Supplement), 237-249.
- Crespo, R. (2009). Aristotle. In J. Peil & I. Van Staveren (Eds), *Handbook of Economics and Ethics* (pp. 14-20). Cheltenham: Edward Elgar.
- De Roover, R. (1958). The concept of the just price: theory and economic policy. *Journal of Economic History*, 18(4), 418-434.
- Demekas, D.G., Bartholdy, K., Gupta, S., Lipschitz, L., & Mayer, T. (1988). The effects of the Common Agricultural Policy of the European Community: A survey of the literature. *Journal of Common Market Studies*, 27(2), 113-146.

- Dhyne, E., Álvarez, L.J., Le Bihan, H., Veronese, G., Dias, D., Hoffmann, J., Jonker, N., Lünemann, P., Rumler, F., & Vilmunen, J. (2006). Price changes in the Euro area and the United States: some facts from individual consumer price data. *Journal of Economic Perspectives*, 20(2), 171-192.
- Downward, P. (2009). Prices. In J. Peil & I. Van Staveren (Eds), *Handbook of Economics and Ethics* (pp. 399-406). Cheltenham: Edward Elgar.
- Dugger, W.M. (1979). The reform method of John R. Commons. *Journal of Economic Issues*, 13(2), 369-381.
- Elegido, J.M. (2011). The ethics of price discrimination. *Business Ethics Quarterly*, 21(4), 633-660.
- Elegido, J.M. (2020). The ethics of pricing. In L. Eagle, S. Dahl, P. De Pelsmacker & C.R. Taylor (Eds), *The Sage Handbook of Marketing Ethics* (pp. 399-410). London: Sage.
- Erturk, K.A. (2006). On the Tobin Tax. *Review of Political Economy*, 18(1), 71-78.
- Fanselow, F.S. (1990). The bazaar economy or how bizarre is the bazaar really? *Man*, 25(2), 250-265.
- Faruqui, A. (2012). The ethics of dynamic pricing. In F.P. Sioshansi (Ed.), *Smart Grid: Integrating Renewable, Distributed and Efficient Energy* (pp. 61-83). Amsterdam: Elsevier.
- Fisher, F.M. (1989). Adjustment processes and stability. In J. Eatwell, M. Milgate & P. Newman (Eds), *General Equilibrium* (pp. 36-42). London: Macmillan.
- Friedman, D.D. (1980). In defense of Thomas Aquinas and the just price. *History of Political Economy*, 12(2), 234-242.
- Garbarino, E., & Lee, O.F. (2003). Dynamic pricing in internet retail: effects on consumer trust. *Psychology and Marketing*, 20(6), 495-513.
- Gewirth, A. (1985). Economic justice: concepts and criteria. In K. Kipnis & D.T. Meyers (Eds), *Economic Justice: Private Rights and Public Responsibilities* (pp. 7-32). Totowa, NJ: Rowman and Allanheld.
- Greenwald, B., & Stiglitz, J.E. (1989). Toward a theory of rigidities. *American Economic Review*, 79(2), 364-369.
- Gu, G.C., & Lee, F.S. (2012). 'Prices and pricing. In J.E. King (Ed.), *The Elgar Companion to Post Keynesian Economics*, 2<sup>nd</sup> edn (pp. 456-463). Cheltenham: Edward Elgar.
- Hamouda, O.F., & Price, B.B. (1997). The justice of the just price. *European Journal of the History of Economic Thought*, 4(2), 191-216.

- Harvey, D.I., Kellard, N.M., Madsen, J.B., & Wohar, M.E. (2010). The Prebisch-Singer hypothesis: four centuries of evidence. *Review of Economics and Statistics*, 92(2), 367-377.
- Haws, K.L., & Bearden, W.O. (2006). Dynamic pricing and consumer fairness perceptions. *Journal of Consumer Research*, 33(3), 304-311.
- Herbruck, W. (1929). Forestalling, regrating and engrossing. *Michigan Law Review*, 27(4), 365-388.
- Hodgson, G.M. (1988). *Economics and Institutions: A Manifesto for a Modern Institutional Economics*. Cambridge: Polity Press.
- Isard, P. (1977). How far can we push the “law of one price”? *American Economic Review*, 67(5), 942-948.
- Jackson, W.A. (2007). On the social structure of markets. *Cambridge Journal of Economics*, 31(2), 235-253.
- Jackson, W.A. (2015). Markets and the meaning of flexibility. *Economic Issues*, 20(2), 45-65.
- Jackson, W.A. (2019). *Markets: Perspectives from Economic and Social Theory*. London: Routledge.
- Joskow, P.L., & Wolfram, C.D. (2012). Dynamic pricing of electricity. *American Economic Review*, 102(3), 381-385.
- Kalecki, M. (1971). *Selected Essays on the Dynamics of the Capitalist Economy*. Cambridge: Cambridge University Press.
- Kindleberger, C.P., & Aliber, R.Z. (2011). *Manias, Panics and Crashes: A History of Financial Crises*, 5<sup>th</sup> edn. Basingstoke: Palgrave Macmillan.
- Kirman, A.P. (2006). Demand theory and general equilibrium: from explanation to introspection, a journey down the wrong road. *History of Political Economy*, 38(5), 246-280.
- Klenow, P.J., & Malin, B.A. (2010). Microeconomic evidence on price-setting. In B.M. Friedman & F.H. Hahn (Eds), *Handbook of Monetary Economics*, Vol. 3 (pp. 231-284). Amsterdam: North-Holland.
- Knorr Cetina, K., & Bruegger, U. (2002). Global microstructures: the virtual societies of financial markets. *American Journal of Sociology*, 107(4), 905-950.
- Koehler, B. (2016). The thirteenth-century economics of Thomas Aquinas. *Economic Affairs*, 36(1), 56-63.

- Koehn, D., & Wilbratte, B. (2012). A defense of a Thomistic concept of the just price. *Business Ethics Quarterly*, 22(3), 501-526.
- Lavoie, M. (2014). *Post-Keynesian Economics: New Foundations*. Cheltenham: Edward Elgar.
- Linton, A. (2012). *Fair Trade from the Ground Up: New Markets for Social Justice*. Seattle: University of Washington Press.
- Martins, N.O. (2014). *The Cambridge Revival of Political Economy*. London: Routledge.
- McInish, T.H., & Wood, R.A. (1992). An analysis of intraday patterns in bid/ask spreads for NYSE stocks. *Journal of Finance*, 47(2), 753-764.
- Means, G.C. (1935). *Industrial Prices and Their Relative Inflexibility*. Senate Document no. 13. 74<sup>th</sup> Congress, 1<sup>st</sup> sess. Washington, DC: Government Printing Office.
- Means, G.C. (1939). *The Structure of the American Economy, Part I: Basic Characteristics*. Washington DC: Government Printing Office.
- Mews, C.J., & Abraham, I. (2007). Usury and just compensation: religious and financial ethics in historical perspective. *Journal of Business Ethics*, 72(1), 1-15.
- Milonakis, D., & Fine, B. (2009). *From Political Economy to Economics: Method, the Social and the Historical in the Evolution of Economic Theory*. London: Routledge.
- Montes, L. (2004). *Adam Smith in Context: A Critical Reassessment of Some Central Components of His Thought*. Basingstoke: Palgrave Macmillan.
- Nicholas, H. (2012). What is the problem with neoclassical price theory? *World Review of Political Economy*, 3(4), 457-477.
- Nicholls, A., & Opal, C. (2005). *Fair Trade: Market-Driven Ethical Consumption*. London: Sage.
- Obeng-Odoom, F. (2018). Valuing unregistered urban land in Indonesia. *Evolutionary and Institutional Economics Review*, 15(2), 315-340.
- Otteson, J.R. (2019). Humane markets: the classical tradition of political economy. In M.D. White (Ed.), *The Oxford Handbook of Ethics and Economics* (pp. 295-315). Oxford: Oxford University Press.
- Phlips, L. (1988). Price discrimination: a survey of the theory. *Journal of Economic Surveys*, 2(2), 135-167.
- Pinto-Garay, J., Ferrero, I., & Scalzo, G. (2021). Pricing for a common good: beyond ethical minimalism in commercial practices. *Philosophy of Management*, 20(3), 271-291.

- Powers, E.T., & Powers, N.J. (2001). The size and frequency of price changes: evidence from grocery stores. *Review of Industrial Organization*, 18(4), 397-416.
- Preda, A. (2007). The sociological approach to financial markets. *Journal of Economic Surveys*, 21(3), 506-533.
- Ramstad, Y. (2001). John R. Commons's reasonable value and the problem of just price. *Journal of Economic Issues*, 35(2), 253-277.
- Rátfai, A. (2007). The frequency and size of price adjustment: microeconomic evidence. *Managerial and Decision Economics*, 28(7), 751-762.
- Raynolds, L.T., Murray, D.L., & Wilkinson, J. (Eds) (2007). *Fair Trade: The Challenges of Transforming Globalization*. London: Routledge.
- Reiff, M.R. (2013). *Exploitation and Economic Justice in the Liberal Capitalist State*. Oxford: Oxford University Press.
- Reiff, M.R. (2019). The just price, exploitation, and prescription drugs: why free marketeers should object to profiteering by the pharmaceutical industry. *Review of Social Economy*, 77(2), 108-142.
- Richardson, J.D. (1978). Some empirical evidence on commodity arbitrage and the law of one price. *Journal of International Economics*, 8(2), 341-351.
- Robinson, J. (1933). *The Economics of Imperfect Competition*. London: Macmillan.
- Rothschild, K.W. (1947). Price theory and oligopoly. *Economic Journal*, 57(227), 299-320.
- Russell, J.R., & Engle, R.F. (2010). Analysis of high-frequency data. In Y. Aït-Sahalia & L.P. Hansen (Eds), *Handbook of Financial Econometrics, Volume 1 – Tools and Techniques* (pp. 383-426). Amsterdam: North-Holland.
- Sassen, S. (2005). The embeddedness of electronic markets: the case of global capital markets. In K. Knorr Cetina & A. Preda (Eds), *The Sociology of Financial Markets*, (pp. 17-37). Oxford: Oxford University Press.
- Scherer, F.M. (1980). *Industrial Market Structure and Economic Performance*, 2<sup>nd</sup> edn. Boston: Houghton Mifflin.
- Shackle, G.L.S. (1972). *Epistemics and Economics: A Critique of Economic Doctrines*. Cambridge: Cambridge University Press.
- Smith, A. (1759). *The Theory of Moral Sentiments*, edited by D.D. Raphael & A.L. Macfie. Oxford: Oxford University Press, 1976.
- Stacy, H.M., & Lee, W.-C. (Eds) (2013). *Economic Justice: Philosophical and Legal Perspectives*. Dordrecht: Springer.



- Stehr, N. (2008), *Moral Markets: How Knowledge and Affluence Change Consumers and Products*. Boulder, CO: Paradigm Publishers.
- Stehr, N., & Adolf, M. (2010). Consumption between market and morals: a socio-cultural consideration of moralized markets. *European Journal of Social Theory*, 13(2), 213-228.
- Tobin, J. (1978). A proposal for international monetary reform. *Eastern Economic Journal*, 4(3/4), 153-159.
- Toye, J., & Toye, R. (2003). The origins and interpretation of the Prebisch-Singer thesis. *History of Political Economy*, 35(3), 437-467.
- Ul Haq, M., Kaul, I., & Grunberg, I. (Eds) (1996). *The Tobin Tax: Coping with Financial Volatility*. Oxford: Oxford University Press.
- Wilson, G.W. (1975). The economics of the just price. *History of Political Economy*, 7(1), 56-74.
- Wilson, R.B. (1993). *Nonlinear Pricing*. Oxford: Oxford University Press.
- Wolff, J. (2003). Economic justice. In H. LaFollette (Ed.), *The Oxford Handbook of Practical Ethics* (pp. 433-458). Oxford: Oxford University Press.
- Wolman, A.L. (2007). The frequency and costs of individual price adjustment. *Managerial and Decision Economics*, 28(6), 531-552.
- Zak, P.J. (Ed.) (2008). *Moral Markets: The Critical Role of Values in the Economy*. Princeton: Princeton University Press.
- Zak, P.J. (2011). Moral markets. *Journal of Economic Behavior and Organization*, 77(2), 212-233.