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Fairness in economics: can it "make sense", and how?

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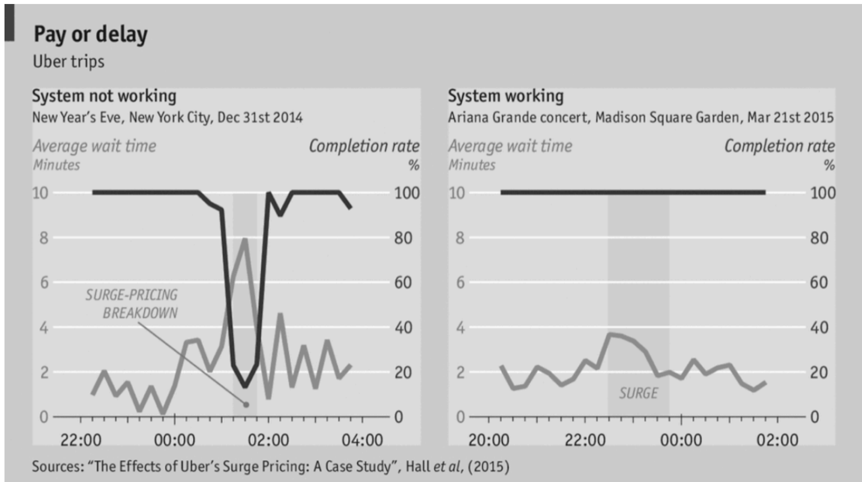
Surge pricing: unfair, but sound economics?

The dismal science's embrace of surge pricing

- Uber surge pricing: adjusting price to changing demand and supply conditions, in real time
  - Demand side: avoid rationing, priority to riders with high willingness to pay
  - Supply side: encourage more drivers to hit the road
  - Conform to microeconomics 1.01
- Efficiency benefits confirmed empirically
  - Price surge mechanism increases car availability in peak demand periods



Source: *The Economist*

Surge pricing: unfair, but sound economics?

Popular outrage against surge pricing

- NYC customers outraged when Uber prices rose following Sep. 2016 bombings or the 2011 New Year Eve's snowstorm
  - Uber announced temporary suspension of surge pricing

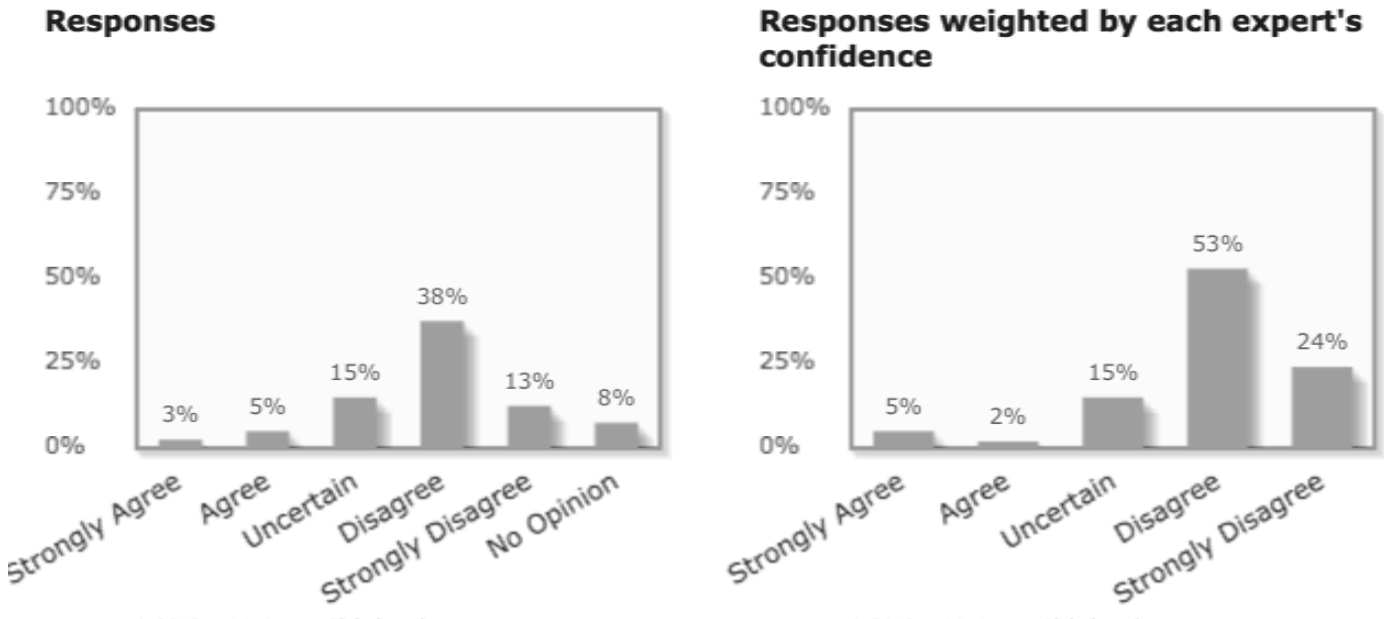
- 35 states have laws against "price gouging"…

  … which most economists disagree with

The dismal science vs. the rest of us/them?

Price Gouging

Connecticut should pass its Senate Bill 60, which states that during a "severe weather event emergency, no person within the chain of distribution of consumer goods and services shall sell or offer to sell consumer goods or services for a price that is unconscionably excessive."



Source: IGM economic experts panel

Economists, economic agents and fairness

- Should economists care about fairness? Is it a relevant economic concept?
  - Implications for competition law to the extent that its implementation makes much room for economic reasoning

- Do economic agents care about fairness, and how should economists take that into account?
  - Implications for functioning of markets
  - Implications for economic analysis of competition cases

Market prices, efficiency and fairness

Economists unwillingly fed early debates on fair income distribution

- Positive vs. normative approach
  - Economists from the outset have focused on *positive* price theory
  - Legal scholars have long complained about this short-sightedness

    '*The issue of* fair prices*, which so rightly concerned medieval theologians, is highly topical today and most contemporary economists fail to grasp how important it is*' (R. Jay, *Revue d'économie politique*, 1901 – my translation)

- Normative assessment with respect to *efficiency* rather than fairness

- But fairness considerations intertwined with economic analysis from the outset: **rent theory**
  - The first meaningful, non-obvious result stated by economists (Ricardo, 1817)
  - … and the focus of an extremely active political campaign based on fairness considerations (John Stuart Mill, Henry George)
    - Land rent is determined with respect to productivity differential relative to worst cultivated land
    - Exogenous changes that increase cultivated areas (population increase, bad harvest abroad) increase land rent
    - "Unearned increment"… then extended to value of urban land, impact of railway construction, etc.
    - 1890-1910: tax reform in UK largely based on campaign against 'unearned increment' with references to theory of rent

Market prices, efficiency and fairness

The classical approach: disentangling fairness from economic analysis

- 'Marginal revolution' (late 19th century)
  - At last, a theory of prices that unifies demand and supply issues
  - Under competitive conditions (atomistic demand and supply), price = marginal cost = marginal utility
    - Competitive equilibrium outcomes are efficient
- Concerns over fairness deemed largely irrelevant or redundant
  - Unhindered competition leads to "fair" prices since they are equal to both (marginal) costs and utility / value
  - Tampering with price system would yield negative side effects
  - Intervention with prices is justified only in the presence of market failures
    - Justifying minimum wages by labour market monopsony
    - "Pigouvian" taxes (such as carbon taxes)
    - Regulation of natural monopolies
- Fairness concerns should be dealt with through tax system, not interfering with market mechanisms
  - 'Georgist' tradition in US: free-trade, competition + land taxes
  - Still dominant view among economists, but often at odds with non-economists', i.e. on agriculture: better help farmers through direct income support measures than by artificially raising food prices, setting up quotas or tariffs, regulating retailers' flexibility to cut prices
- Economic analysis of fairness/justice: a lively field in the 20th century but remote from mainstream
  - John Rawls, Amartya Sen (Economics Nobel prize 1998)
  - Key theoretical ingredient: what would have been agreed upon behind "veil of ignorance"?

Economists, fairness and antitrust

The beginning of antitrust laws

- Political context: perception of unfair economic power
  - Robber barons, 'malefactors of great wealth'

- Economists' views largely shaped by concepts other than 'fairness'
  - Views in favour of a moderate approach to cartels
    - Purported instability of full-fledged competition, leading to alternation of price wars and monopoly
    - Mostly an efficiency argument driven by (we now know) incorrect view that competition prevents firms from recouping fixed costs
    - Different focus than ethical argument (common at the time) on need for fair return
  - Views in favour of antitrust laws
    - Unfair market practices are those that prevent competition from functioning
      - *Procedural* rather than *distributional* justice
    - Early 20th-century economists (John Bates Clark, Alfred Marshall) focused on danger from exclusionary practices such as targeted price-cutting
      - Similar to logic of 'as-efficient competitor' test
      - Less concerned about cartels and exploitative pricing, assumed to be vulnerable to entry if exclusionary practices are precluded

Economists, fairness and antitrust

The decline of fairness concerns

- Article 102: *'Such abuse may, in particular, consist in*

    (a) '*Such abuse may, in particular, consist in directly or indirectly imposing **unfair** purchase or selling prices or other **unfair** trading conditions (…)*

    (c) *applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage*

- The 'more economic approach' seems to leave little room for such fairness considerations
    - Targeted price cuts and other practices envisioned in Article 102 are now deemed problematic only to the extent that they have to potential to exclude competitors in a way that harms consumers (Commission's Guidance paper, 2008)

Fairness strikes back: when cooperative game theory meets IP

What does the 'F' in FRAND stand for?

- Still a lively debate on what 'fair' means in the context of compulsory licensing of standard-essential patents
  - Often, little use for market-based benchmark since standard is *de facto* monopoly

- Among the many ideas floated in recent years, two can be related to economists' approach to fairness
  - Relevant thought experiment: which prices would have emerged had various pieces of IP been competing against each other *before* decision was made on a standard
    - Related to old argument that relevant counterfactual is a hypothetical competitive market (just like old arguments on minimum wages)
    - Logical similarity to Rawlsian 'veil of ignorance'
  - Proposals to use apportionment method borrowed from cooperative game theory: Shapley value
    - Shapley value (1953): a method for 'fairly' apportioning value created through cooperation, in the absence of any market
    - In the context of IP: Defined as average marginal contribution of each piece of IP, under alternative assumptions about which other IP is selected
    - Advocated in several recent papers as a 'common-sense check' even though a literal application seems impractical

Empirical economic psychology: fairness matters

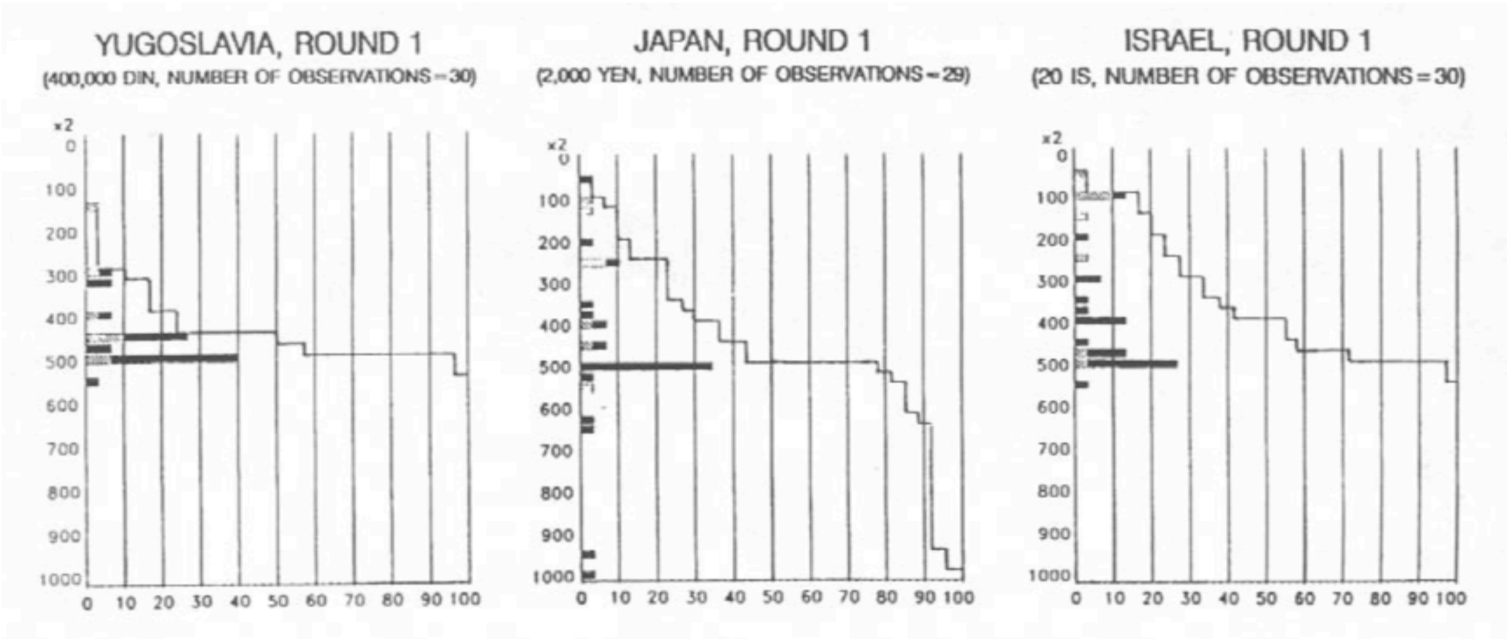
A classical experiment: the ultimatum game

- Fairness from the viewpoint of empirical economic psychology
  - Behavioural game theory has stress how actual people differ from *homo œconomicus*
    - Concern for fairness is one of these departures
  - Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler, "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," *American Economic Review*, 76 (1986), 728–741.
  - J. Rotemberg, "Fair pricing", *Journal of the European Economic Association*, 2009

- Famous, oft-repeated experiment: Ultimatum game
  - Setting
    - 100 $ at stake
    - Player 1 offers X% to Player 2
    - If Player 2 accepts, Player 1 gets (100-X)% and Player 2 gets X
  - The outcome according to standard ('homo œconomicus') theory
    - Player 2 is better off accepting any offer above zero
    - Therefore, Player 1 should offer almost nothing and keeping almost 100 $ for herself
  - Observed outcomes
    - Agents may leave money on the table to punish unfair proposal
    - Anticipating this, or out of a concern for fairness, division proposals are less unequal than predicted by theory
  - Similar results observed in non-human primates
    - Proctor, Williamson and de Waal (2013), Chimpanzees play the ultimatum game, *Proceedings of the National Academy of Sciences*, 110 (6): 2070–2075.

Empirical economic psychology: fairness matters

A classical experiment: the ultimatum game



Empirical economic psychology: fairness matters

How concerns over fairness affect the functioning of markets

- Long-standing puzzle for practicioners of the dismal science: why do sellers sometimes leave money on the table?
  - *'Firms in the sports and entertainment industries offer their customers tickets at standard prices for events that clearly generate excess demand. Popular new models of automobiles may have waiting lists that extend for months. Manufacturers in a number of industries operate with backlogs in booms and allocate shipments when they obviously could raise prices and reduce the queue.'* (Arthur Okun, 1981)
  - Even antitrust's arch-villain sometimes failed to maximise profits out of concerns for fairness: in 1920, Standard Oil California reacted to a severe gasoline shortage by imposing a rationing scheme rather than by raising prices. Internal documents mentioned that SOCal '*tried to maintain the appearance of being fair*'.

- Proposed explanation (Okun, 1981): Customers view price increases not justified by cost increases as unfair and sellers take this into account:

  '*In practice, observed pricing behavior is a vast distance from do-it-yourself auctioneering*'

Final remarks

Which room for fairness in competition law?

- Overall, good reasons to be skeptical of recourse to fairness in competition law debates
  - An example: ongoing debates on agricultural markets and retail regulation in France seem to be about to launch a new cycle, similar to one that took place in the 1990-2000 decades:
    - Concern over 'fair wholesale prices' leads to laws restricting retailers' flexibility to cut prices
    - Unintended consequences (higher retail prices, collusion) then lead to slow scrapping of these laws
  - Caveat: appeal to fairness may be needed for competition law to enjoy enough public support

- Implementation must take into account how fairness concerns affect working of markets
  - Merger simulation
    - Hypothetised price increases may meet "irrational" resistance
  - Cartels
    - Long-standing puzzle: why do sellers sometimes collude on list price even though actual competition is on rebates, which cannot be monitored?
    - Possible answer : framing 'fair price' perceptions?
  - Analysis of dominance: the role of 'competition against oneself'
    - Theory of durable monopolist (hardcover and paperbacks, new and old versions of a smartphone etc.)
    - But consumers' perceptions of fairness alter their behaviour (not just their feelings) and in particular their reaction to price changes over time by durable goods monopolist (E. Anderson, D. Simester, "Price stickiness and customer antagonism", *Quarterly Journal of Economics*, 2010).
  - More generally, empirical economists tends to estimate key supply and demand parameters (costs, demand elasticities) on the basis of observable data + assumption of full rationality of all agents
    - Accurately predicting impact of merger / interpreting disputed market conduct requires one to take into account deviations from *homo œconomicus* (including fairness concerns)