

Economic Markets as Calculative Collective Devices

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Conferências pré-print

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Journal Organization Studies (OS)

[...] promotes the understanding of organizations, organizing and the organized, and the societal relevance of that understanding. OS prompts engagement with organizations and organizing as psychological, social, economic, cultural, political, historical and philosophical phenomena, and is the leading journal in the development of relevant and impactful knowledge of how organizations and organizing shape and are shaped by societies.

"Markets are collective devices that allow **compromises** to be reached, not only on the nature of the goods to produce and distribute but also on the **value** to be given to them."

Conceitos a serem consensuados antes de mergulharmos

- Compromise
- Value
- Price

Compromise

noun

1

a: settlement of differences by arbitration or by consent reached by mutual concessions

b: something intermediate between or blending qualities of two different things

2 : a concession to something derogatory or prejudicial

intransitive verb

1

a : to come to agreement by mutual concession

b: to find or follow a way between extremes

2 : to make a shameful or disreputable concession

wouldn't compromise with their principles

transitive verb

1

a: to reveal or expose to an unauthorized person and especially to an enemy

b: to cause the impairment of

c: to expose to suspicion, discredit, or mischief

His reputation has been compromised.

2 : to adjust or settle by mutual concessions

An arbiter was brought in to compromise their differences.

3 : (obsolete) to bind by mutual agreement



Diferença entre valor e preço em uma transação

Valor:

subjetivo

"individual"

a priori

Preço:

objetivo

"coletivo"

a posteriori



Reflexão adicional

Qual a diferença entre comprador e vendedor?

- Precisamos aplicar a simetria para os dois lados.
- Um lado vende dinheiros e recebe o pagamento em bens.

The Notion of Calculation Re-examined

Dois riscos a serem evitados:

The first is the risk of reverting to an abstract and formal view of economic markets governed by impersonal laws (such as the law of demand) and consisting of disembodied economic agents reduced to their preferences and calculative competencies. (p. 1230)



the law of demand

Formula

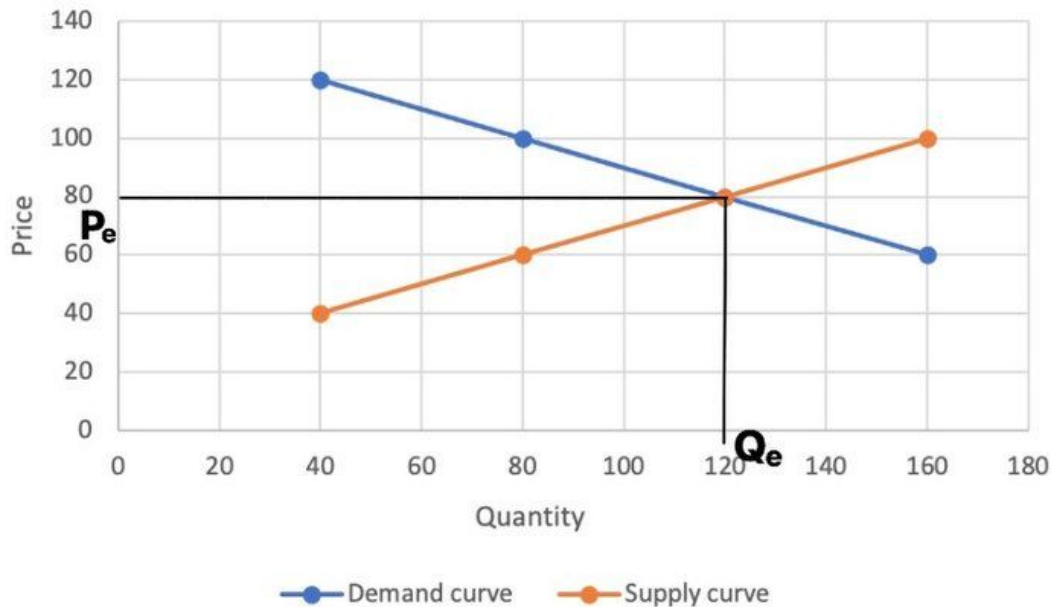
$$Q_x = f(P_x; \mathbf{Y})$$

Q_x = quantity demanded of good x

f = demand function

P_x = price of the good

\mathbf{Y} = list of other parameters held constant



Wikipedia

https://en.wikipedia.org/wiki/Law_of_demand

The Notion of Calculation Re-examined

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The second risk, more subtle and more common in sociology, consists in simply getting rid of this cumbersome notion by dissolving the problem of calculation in the detail of ethnographic description. (p. 1230)

The Notion of Calculation Re-examined

definition of calculation as a three-step process:

First, in order to be calculated, the entities taken into account have to be detached.
[...]

[Second...] the entities considered (**taken 'into account'**) are associated with one another and subjected to manipulations and transformations [...]

A third step is necessary to obtain an accomplished calculation: a result has to be extracted. A new entity must be produced (a sum, an ordered list, an evaluation, a binary choice, etc.) that corresponds precisely to the manipulations effected in the calculative space and, consequently, links (summa-rizes) the entities taken into account (p.1231)

1 - Making Goods Calculable

- Objectification
- Singularization
- Co-elaboration of Properties
- Singularizing a Good To Make It Calculable

1 - Making Goods Calculable

- Objectification

Materiality and physicality must not be confused. A fish sold on the Marseilles market or a week's skiing holiday bought by an English person dreaming of snow and sun are both material, in the sense that they both are things that 'hold together' and that can be appropriated because they have objectified properties. (p. 1233)

In order to construct objectified — and thus detachable — goods, a wide variety of social connections need to take place: first, upstream from the actual transaction, during the design and qualification of the good, then when market participants meet together, and afterwards, when, for instance, the seller (a notion that encompasses a collective including designers, producers and salespersons) tries to grasp the reactions of the consumer with a view to taking them into account in the future. (p. 1233)

1 - Making Goods Calculable

- Singularization

The process of individualization or singularization consists in a gradual definition of the properties of the product, shaped in such a way that it can enter into the consumer's world and become attached to it. (Chamberlin 1946) (p. 1233/4)

Throughout the process the thing — a product undergoing qualification — is progressively transformed into a good (Callon et al. 2002). (p. 1234)

a thing whose properties have been adjusted to the buyer's world, if necessary by transforming that world (p. 1234)

1 - Making Goods Calculable

- Co-elaboration of Properties

One of the main requirements that designers and sellers have to meet is the study of buyers' attachments in order to be able to propose new ones. Hence, there is no irreducible opposition between the practices that produce entanglement and the market transaction that implies a break (Slater 2002). (p. 1324)

The paradox is that, to achieve the transaction through which the buyer and the seller will be quits, increasingly heavy investments in the exploration of attachments and in their reconfiguration are necessary. In short, to expand the market it is necessary to produce more and more attachments. The proliferation of merchandise goes hand in hand with the proliferation of noncommercial attachments. (p. 1234/5)

1 - Making Goods Calculable

- Singularizing a Good To Make It Calculable

Profiling a product consists in establishing a calculative space in which it can be connected and compared to a finite list of other products. (p. 1235)

Singularizing a product also means linking it to other products in the same space or on the same list. This is a process of classification, clustering and sorting that makes products **both comparable and different**. (p. 1235)

In the vocabulary of professionals of qualification, this has a name: **positioning**. (p. 1235)

The good has been placed in a frame with other goods. Relations have been established between them, leading to new classifications that allow forms of comparison: the good can finally be calculated. (p. 1235)

2 - Distributed Calculative Agencies

- Distribution and Equipment
- Asymmetries

2 - Distributed Calculative Agencies

- Distribution and Equipment

For Herbert Simon, it is because agents are faced with complicated tasks that, to relieve their brains and enhance their performance, they conceive of tools, create rules and routines or set up organizations to calculate for them. (p. 1236)

they have extended actors' cognitive capacities by redistributing their brains, at least implicitly. (p. 1237)

DEBK, simply by being there, and available, proposes this calculation to the entrepreneur, who accepts the 'invitation' — a movement that resonates with the notion of affordance (Gibson 1979) — and asks DEBK to perform the calculation.

2 - Distributed Calculative Agencies

- Asymmetries

A calculative agency will be all the more powerful when it is able to:

- a) establish a long, yet finite list of diverse entities;
- b) allow rich and varied relations between the entities thus selected, so that the space of possible classifications and reclassifications is largely open;
- c) formalize procedures and algorithms likely to multiply the possible hierarchies and classifications between these entities. (p. 1238)

Daniel Pink caveats



irrespective of how strong the consumer's calculative agency that evaluates the attachment of goods to his or her own world may be, it remains weak compared with the calculative power of supply, which is highly equipped, at least in the case of mass retail (see Cochoy 2004). (p.1238)

we should not conclude that asymmetries always develop in the same direction (with supply dominating demand) or that they are final. In certain cases it is the buyer or the customer who is in a dominant calculative position (p.1238)

The struggle for more autonomy or recognition often involves efforts to acquire calculative equipment. (p.1238)

3 - Calculated Encounters

- Algorithmic Configurations
- Calculating and Calculated Algorithmic Configurations
- From Algorithmic Configurations to Abstract Markets

Problema do cálculo econômico



The very concept of a market is problematical because, in the general sense of the term, it implies the existence of an abstract space in which aggregate demands and supplies encounter and cross one another and, through successive adjustments, end up defining what is commonly known as the market price. In this conception, the abstract market is a structure that formats (and explains) each individual commercial transaction. It is consistent with Cournot's famous comment: 'We know that economists understand by the term market not a particular place where sales and purchases are carried out but a whole territory in which parties are in such free intercourse with one another that prices are levelled out easily and promptly' (Cournot 1838: 55). (p. 1239/40)

we need to [...] take as a point of departure the transaction itself, that is, not the macrostructure of a hypothetical market but its 'microstructure' (p. 1240)

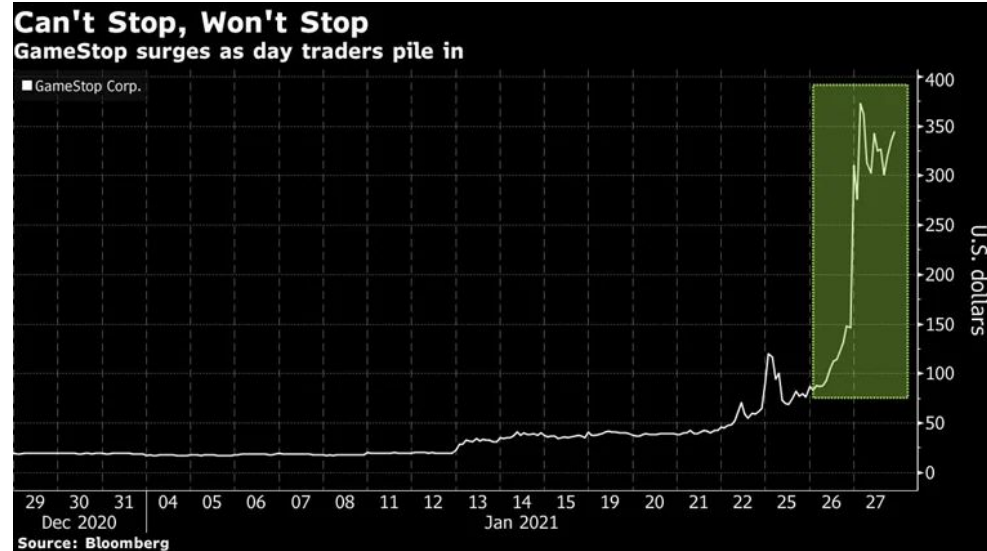
3 - Calculated Encounters

- Algorithmic Configurations

An important choice consisted, for instance, in opting for either an electronically assisted open outcry or a fully automated exchange. These two options, translated in different algorithmic configurations, recast the balances of power between bankers and stockbrokers differently. (p. 1241)

algorithmic configuration as a response to the 'manipulation' of closing prices...

the GameStop short squeeze case



3 - Calculated Encounters

- Calculating and Calculated Algorithmic Configurations

Algorithmic configurations are calculative devices in the sense that we have given to this term. They:

- a) circumscribe the group of calculative agencies that are to be met, by making them identifiable and enumerable;
- b) organize their encounter, that is, their connection; and
- c) establish the rules or conventions that set the order in which these connections must be treated and taken into account (formats, queues, etc.). (p. 1242)

[...] These configurations of encounters do not always contribute directly to price determination. In supermarkets, for instance, prices are displayed (p.1242)

3 - Calculated Encounters

- From Algorithmic Configurations to Abstract Markets

The identification and clarification of microstructures [...] raise two types of question.

The first concerns the relationship between the choice of certain forms of organization and the effects produced by those choices on the functioning of the aggregate market (and especially on price setting).

The second concerns the conditions of validity of the abstract models that provide a synthetic and stylized description of the functioning of markets as calculative devices. (p. 1243)

Catedral e Bazar



there is clearly something that can be described as an aggregate market, but its structure — if we stick to the word — is the result obtained by the economist when he or she composes a large number of singular market transactions, and not the frame defining the rules and format of those transactions. In this case, Kirman imagines a simulation that is based on the particular characteristics of the algorithmic configuration of the Marseilles fish market: transactions are bilateral, with undisclosed and non-negotiated prices; the prices set for the same category of fish by the same seller for different customers vary widely; and the encounters between buyers and sellers are regulated by powerful networks of loyalty. (p. 1244)

3 - Calculated Encounters

- From Algorithmic Configurations to Abstract Markets

abstract markets exist and their production requires efforts in abstraction, in this case performed by an economist. (p. 1244)

To 'abstract' — and it is important here to consider abstraction not as a purely intellectual stance but as a practice — is a calculative activity, which explains why and how economics (as a calculative discipline) can play a role in the description of markets, i.e. in making explicit their calculative features. (p. 1244)

Conclusion

Economic calculation is not an anthropological fiction, precisely because it is not a purely human mechanical and mental competence; it is distributed among human actors and material devices (p. 1245)

These three elements (goods, agents and exchanges) constitute three possible starting-points for exploring markets as complex calculative devices. (p. 1245)

Conclusion

[...] calculation as the only possibility for action? Our approach [...]

First, it highlights the fact that there are several ways of calculating values and reaching compromises.

Second, it makes empirically observable and theoretically analysable the fact that certain agencies are exempt (or prevented, depending on the point of view) from calculation, whereas others concentrate the most powerful calculative tools in their own hands.

Third, it suggests that open discussions and even public debates on the way of organizing calculations (or on the way of excluding certain modes of calculation) are possible.

In short, it restores to markets the political dimension that belongs to them and constitutes their organization as an object of debate and questioning. (p. 1245)