



Toward a theory of monopolistic competition [☆]

Mathieu Parenti ^{a,b,*}, Philip Ushchev ^c, Jacques-François Thisse ^{d,c,b}

^a ECARES, Université Libre de Bruxelles, Belgium

^b CEPR

^c National Research University Higher School of Economics, Russian Federation

^d CORE, Université Catholique de Louvain, Belgium

Received 30 May 2016; final version received 13 September 2016; accepted 25 October 2016

Available online 31 October 2016

Abstract

We propose a general model of monopolistic competition, which encompasses existing models while being flexible enough to take into account new demand and competition features. Even though preferences need not be additive and/or homothetic, the market outcome is still driven by the sole variable elasticity of substitution. We impose elementary conditions on this function to guarantee empirically relevant properties of a free-entry equilibrium. Comparative statics with respect to market size and productivity shocks are characterized through necessary and sufficient conditions. Furthermore, we show that the attention to the CES based on its normative implications was misguided: we propose a new class of preferences, which express consumers' uncertainty about their love for variety, that yield variable markups and may sustain the optimum. Last, we show how our approach can cope with heterogeneous firms once it is recognized that the elasticity of substitution is firm-specific.

© 2016 Elsevier Inc. All rights reserved.

JEL classification: D43; L11; L13

Keywords: Monopolistic competition; General equilibrium; Additive preferences; Homothetic preferences

[☆] We are grateful to two referees, C. d'Aspremont, K. Behrens, A. Costinot, F. Di Comite, R. Dos Santos, S. Kichko, H. Konishi, V. Ivanova, P. Legros, M.-A. López García, O. Loginova, Y. Murata, G. Ottaviano, J. Tharakan and seminar audience at Bologna U., Brown, CEFIM, Columbia, ECORES, E.I.E.F., Lille 1, NES, Princeton, Stockholm U., UABarcelona, and UQAMontréal for comments and suggestions. We owe special thanks to A. Savvateev for discussions about the application of functional analysis to the consumer problem. The study has been funded by the Russian Academic Excellence Project '5-100'.

* Corresponding author.

E-mail addresses: mparenti@ulb.ac.be (M. Parenti), ph.ushchev@gmail.com (P. Ushchev), jacques.thisse@uclouvain.be (J.-F. Thisse).

1. Introduction

The constant elasticity of substitution (CES) model of monopolistic competition, developed by [Dixit and Stiglitz \(1977\)](#), has been used in so many economic fields that a large number of scholars view it as virtually *the* model of monopolistic competition. For example, [Head and Mayer \(2014\)](#) observe that the CES is “nearly ubiquitous” in the trade literature. However, owing to its extreme simplicity, this model leads to predictions that contradict basic findings in economic theory. For example, unlike what the CES predicts, prices and firm sizes are affected by entry and market size, markups vary with costs and consumer income, while the pass-through is incomplete. Recent empirical studies conducted at the firm level provide direct evidence for these findings ([De Loecker and Goldberg, 2014](#)).

In addition, tweaking the CES or using other specific models in the hope of getting around those difficulties prevents a direct comparison between results. We realize that such a research strategy is motivated by its tractability, but one takes the chance of ignoring the fragility of the results. For example, by nesting quadratic preferences into a quasi-linear utility, [Melitz and Ottaviano \(2008\)](#) show that prices depend on market size but suppress the per capita income effect. Markups depend on per capita income under the linear expenditure system in an open economy ([Simonovska, 2015](#)), but this effect disappears in a closed economy under additive preferences ([Zhelobodko et al., 2012](#)). Under indirectly additive preferences, there is an income effect but market size has no impact on prices ([Bertoletti and Etro, 2016](#)). Prices are independent of the number of competitors in the CES model of monopolistic competition, but not in oligopolistic competition ([d’Aspremont et al., 1996](#)). Therefore, the absence of a general framework makes it hard to deal with the implications of different specifications of preferences.

The supply side of monopolistic competition models has attracted a great deal of attention ever since the work of [Melitz \(2003\)](#). In a very recent work, [Hottman et al. \(2016\)](#) find that 50 to 75% of the variance in U.S. firm size can be attributed to differences in what these authors call “firms’ appeal,” that is, the demand side, and less than 20% to average marginal cost differences. Thus, we may safely conclude that it is time to pay more attention to the *demand side*. This is where we hope to contribute by showing that working with general preferences is both doable and desirable.

Our aim is to develop *a general equilibrium model of monopolistic competition* that leads to clear-cut predictions regarding the impact of various types of shocks on the market outcome. Working at a high level of generality is desirable because it buys enough flexibility to capture a much wider range of industrial patterns than specific models. For example, working with non-additive and nonhomothetic preferences allows us to uncover how markups may react to both population size and income effects, and under which circumstances the pass-through is incomplete. As our set-up encompasses all existing models of monopolistic competition, including those with CES, quadratic, CARA, and translog preferences, we may determine when a result is, or is not, specific to a functional form. Furthermore, despite its generality, our set-up leads to a neat comparative statics in market size, per capita income, and production efficiency, which is economical enough to be summarized in a simple table ([Table 1](#) in [Section 3.2.4](#)).

From the applied viewpoint, our approach suggests the following research strategy. Using stylized facts permits one to restrict the class of admissible preferences to work with. The next step is to find a functional form of utility that belongs to this class while displaying enough flexibility to capture a wide range of possible effects. One can then estimate the structural parameters of the model and check whether its predictions are consistent with the theory. It is worth noting that this approach has been taken recently by [Mayer et al. \(2016\)](#) who focus on additive preferences.

Download English Version:

<https://daneshyari.com/en/article/5100143>

Download Persian Version:

<https://daneshyari.com/article/5100143>

[Daneshyari.com](https://daneshyari.com)