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On the optimal implementation of agricultural policy reforms

Fabienne Féménia [a,c], Alexandre Gohin [a,b,*]

[a] UMR SMART 1302 INRA AGROCAMPUS, 4 allée Adolphe Bobierre, 35011 Rennes, France
[b] CEPII, 113 rue de Grenelle, 75007 Paris, France
[c] IFPRI, 2033 K St NW, Washington, DC 2000-1002, USA

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Abstract

Economic analyses of farm policies generally focus on long run, steady state impacts while the transition dynamics are often overlooked. In this paper we develop a determinist dynamic computable general equilibrium analysis allowing agents to form adaptive versus perfect expectations. Using an illustrative CAP reform scenario, we simulate an abrupt versus a gradual implementation of this reform. Our results show that if economic agents are able to perfectly anticipate the impacts of the reform, delaying its implementation is never optimal. On the other hand, if agents gradually learn from market developments, we find some cases where a gradual implementation of this reform is welfare improving. Such gradual implementation allows minimizing adjustment costs.

JEL classification: Q18; Q11; D58; D8

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1. Introduction

Agricultural policies in developed countries have undergone several reforms since their creation. These reforms have almost always been implemented gradually. This is notably the case of the Common Agricultural Policy (CAP) of the European Union (EU): the reduction of support prices begun in 1992 and was reinforced in 1999 and 2003 reforms, while the decoupling of farm payments started in 2003 and was pursued with the 2008 Health Check. A new CAP reform is

* Corresponding author at: 4 allée Adolphe Bobierre, 35011 Rennes, France. Tel.: +33 2 23 48 54 06.
E-mail address: alexandre.gohin@rennes.inra.fr (A. Gohin).

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currently under discussion for the 2014–2020 period. First legal proposals made by the European Commission (EC, 2011) include a gradual change of direct payments toward more uniformed direct payments per hectare.

When deciding the implementation of a policy reform, policy makers face both economic and political tradeoffs. Indeed, these reforms are often difficult to agree upon due the opposition of stakeholders including farmers and a gradual reform generally benefits from a better political acceptability. Furthermore, there might be a time lag between the implementation of a reform and agents' adaptation to the new policy because of adjustment costs. Hence reforming gradually may lessen these adjustment costs and may be economically justified. On the other hand, a too long implementation of a reform may ultimately become economically inefficient if the steady state benefits are postponed too far away and are thus heavily discounted. A quick implementation can also be motivated by some political considerations as it may confer some credibility to its elected members (Haggard & Webb, 1993).To our knowledge, few economic analyses focus on the transition dynamics and thus deal with this optimal implementation of policy reforms. Furthermore, only a small part of the existing studies specifically addresses agricultural policy issues. Among these is the analysis of Yanagida, Azzam, and Linsenmeyer (1987) who argue that suppressing immediately agricultural price supports in the US is preferable to suppressing them gradually. The reason is that a gradual reform generates cyclical market movements. However this study is based on an econometric model focused on market impacts without any computation of economic welfare effects. On the contrary, using a dynamic Computable General Equilibrium (CGE) framework with static expectations for investment decisions, Levy and Wijnbergen (1995) argue that a progressive liberalization of Mexican agriculture is preferable to an immediate reform. Even if an immediate liberalization induces larger economic gains, the authors prove that gradualism is not very costly while it allows a mitigation of the welfare losses for the group affected. The analysis of Adams, Andersen, and Jacobsen (2001) confirms this trade-off between smoothness and short run efficiency losses. These authors develop a dynamic CGE model on the Danish economy, with static versus perfect expectations, to analyze the implementation of a quota on pig production. They conclude that whether announcement (gradual) or surprise (abrupt) implementation is to be preferred depends on agents' attitude toward risks and how they discount the future.In this article we focus on the role played by price and return expectations formed by economic agents in the optimal implementation of a CAP reform. The basic intuition is the following: the more stakeholders are able to correctly anticipate the market effects of the reforms, the more the reforms can be implemented quickly. Adams et al. (2001) also express this intuition but do not formally test it. More generally, different economic studies have already shown that these expectations can be crucial when evaluating policy reforms (Pereira & Shoven, 1988). In this respect, we develop a dynamic CGE model aimed at simulating the effects of agricultural policy reforms on farm markets and welfare. This dynamic model is developed using different expectations schemes, ranging from perfect expectations to pure naivety. Using this framework, we simulate the effects of a radical reform, namely the total suppression of the CAP in the EU arable crop sectors (cereals and oilseeds). This policy scenario slightly differs from the first legal proposals for the next CAP, where market protection from imports is still maintained. But this policy scenario is usually tested in economic analysis, as recently by Psaltopoulos, Balamou, Skuras, Ratinger, and Sieber (2011) or by Perali, Pieroni, and Standardi (2012). This policy scenario is implemented in one step or implemented gradually (over five years). Our simulation results show that, if economic agents have perfect expectations, delaying the implementation of reforms is never optimal. On the other hand, if agents gradually learn from market developments because of their imperfect knowledge of the true structure of the economic, we find some cases where a progressive implementation of