# Consequences of Deregulation in Victorian Egg Industry: a comment

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We welcome the paper by Alston (1986). First, it updates estimates of the transfer of income from consumers to egg producers and of social costs resulting from regulation of the egg industry in Victoria. Second, it uses an estimation approach which refines that used in the BAE *Review* (BAE 1983) and which is in theory closer to the conceptual model formulated by the BAE (1983, Figure 3, p. 37). Thus, the Alston paper adds to the range of estimation approaches used and the actual estimates obtained on Australian and State level transfers and social costs of regulation of the industry.

However, we take issue with Alston's remarks on two points. First, he appears to be questioning the desirability of using the BAE estimates for policy discussion purposes. Second, he queries the BAE estimates of income transfers for Australia which are much larger than those estimated for Victoria alone.

Before explaining why we take issue with his remarks, it would be helpful to summarise the background and nature of the BAE study briefly. The BAE study was a comprehensive inquiry into egg marketing arrangements in Australia. The study was oriented at the Australia level rather than at individual State or Territory level. Estimation of aspects such as income transfers was an important but only a small part of it. The basic aim in the study was to bring into policy discussions, taking place at the time in the Standing Committee on Agriculture, the fundamental fact that the arrangements being used to regulate the industry then had the potential to involve substantial social costs and income transfers. The study found that the regulation of the industry was not serving its stated purpose and a move toward more liberalised marketing arrangements was recommended on the basis of economic efficiency criteria.

The recommendations put forward in the BAE *Review* did not require precise estimates of income transfers or social costs. The recommendations rested on the fact that the arrangements then were not the most suitable or efficient to achieve the objectives for which they were designed. The BAE paper only aimed to present estimates which indicated broad orders of magnitude of the transfers and social costs involved – that is, whether the estimates were significant or not. This aspect of the estimates was made explicit in the *Review* (p. 40). The estimates were also judged to be adequate for the stated purpose by those involved in the policy discussions. As Watson (1985, p. 10) stated, "the BAE estimates are still significant". We therefore find Alston's questioning of the usefulness of the BAE estimates for policy discussion purposes rather misguided.

As for the actual estimates of income transfers and social costs, the conceptual model formulated by the BAE is almost identical to the model used by Alston (see his Figure 1). However, in practice, the BAE found that the conceptual model could not be used for estimation purposes because of a number of severe data constraints. The data constraints are more formidable at the Australia level (which is an aggregation for seven States and the Australian Capital Territory with dissimilar arrangements) than those Alston encountered at a single State (Victoria) level. For example, it is not known exactly how much of total egg production comes from non-commercial operations, or the marketing margins that might apply under deregulation. Estimates have put non-commercial production as high as 77 per cent of commercial production based on Australian Bureau of Statistics data, whereas other estimates have put non-commercial production at only 16 per cent of commercial production. The BAE and

Alston estimates of income transfers and social costs are therefore based on data containing such discrepancies. It was this lack of quality of information that caused the BAE to base its estimates on a range of information, not just on the simple model estimates given in Appendix B of the *Review*, and to label the estimates obtained as broad orders of magnitude. Contrary to what Alston states, estimates were also obtained using quota values as well as import parity prices and marginal costs of production (see BAE 1983, pp. 19, 42, 45).

While the conceptual models are almost identical, there is a difference between the model estimation approaches used by Alston and the BAE for measurement of income transfers and social costs. Alston states that there are two conceptual errors in the BAE approach.

The first error relates to how account is taken of the effect of quotas. Leaving aside the question of non-commercial production, which could make quotas relatively ineffective, the BAE accounted for the effect of quotas in two ways. First, implicit allowance was made for the value of the quota in various marketing costs which capture some of that value (for example, the wholesale margin for producer agents). Second, the effect of quotas could be accounted for in the calculation of the hindrance to structural adjustment. It is debatable on economic grounds whether this effect should be treated as a social cost or partly as an income transfer (see Posner 1975; Johnson, Spriggs and Van Kooten 1982; Veeman 1982b).

The second conceptual error that Alston says exists relates to the BAE estimation of demand at farm/retail level. Rather than estimate the demand curve at the farm level, the BAE estimated a retail level demand curve and made adjustments to the income transfer for marketing costs. Although there is a one-to-one relationship between estimates from these two methods, the BAE method would appear simpler, more flexible and appropriately utilising available information, such as on the demand curves. In 1984, the Bureau calculated and distributed, to those involved in policy discussions, alternative estimates taking into account a different approach to the effect of quotas and

various adjustments for marketing costs. The most likely value of these alternative estimates was virtually identical to that given in the BAE *Review*.

Inevitably, any estimate is subject to some uncertainty. In both Alston's and the BAE's estimates, there is uncertainty concerning the slope and structural form of the supply and demand curves. There is uncertainty about the effectiveness of quotas and the extent of non-commercial production. More specifically, Alston's use of the New South Wales egg industry as an "unregulated" industry benchmark for the Victorian industry is questionable. The New South Wales industry is not unregulated like the US industry which was used as a benchmark for analysis of the Canadian industry in Veeman (1982a). Hence, the New South Wales industry would have regulatory costs built in to its cost structure. Such costs can be quite significant as shown by Harling and Thompson (1983). Moreover, the discount rate or planning horizon may differ between New South Wales and Victorian producers, given the different directions the industries in these two States have gone and the relative risk involved in investing in hen quota in each State. The quota value approach faces more general problems in that it only measures producer rents and not rents and transfers applying elsewhere in the marketing chain, and often administrative means are used to obscure true quota values.

As for the BAE's Australia-level estimates of income transfers being larger than the estimates for Victoria, there is no reason why they have to be similar when they relate to different years, institutional marketing arrangements and regions (Victoria versus Australia as a whole). As a matter of fact, in retrospect the BAE estimates appear to be conservative. In New South Wales, the State for which the BAE estimates are likely to be most relevant, there has already been a 13.5 per cent fall in real egg prices since 1981-82 (equivalent to 25c a dozen). Furthermore, the current levy of 19c a dozen of eggs reflects the current cost of surplus eggs. Eggs are still being produced and quota values are still high, which implies possible further falls in the price of eggs in New South

Wales. Thus, there is evidence indicating that the BAE estimate of income transfer at 40c a dozen of eggs is conservative.

It is important to note that, in spite of the differences between the approaches taken by Alston and the BAE, the policy implications of Alston's findings are not contradictory to those put forward by the BAE. As newer analytical approaches are conceived and better quality data become available, it is likely that estimates will be revised. But those estimates are likely only to support the basic thrust of the policy guidelines given in the BAE study. The paper by Alston is a good example of that. If this is the likely outcome, then a case may exist in future publicly funded research for devoting more research resources to obtaining better quality data and for developing economically more efficient policy alternatives than for refining the estimates based on currently available data.

## References

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# Consequences of Deregulation in Victorian Egg Industry: a reply

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I have claimed (Alston 1986) that the BAE (1983) made two conceptual errors when estimating the effects of egg industry regulations. Trewin and Bhati (1986) disagree and defend the method used by the BAE, primarily on the grounds that data limitations prevented them from using the type of approach that I have advocated. This disagreement has persisted through several rounds of correspondence and a seminar I gave on the topic at the BAE. I will now use a simplified model to attempt, once more, to clarify why I believe the BAE approach is wrong and why data problems do not constitute an adequate defence for using it.

To focus on the issue, let us make the following simplifying assumptions: (a) all eggs are consumed domestically as shell eggs so that the equalisation arrangements and hen levies are irrelevant; (b) yields are constant so that eggs are produced in fixed proportion to the number of hens; (c) there are no supply distortions due to quotas so that regulated costs (excluding quota rents) are equal to unregulated costs for any given quantity of eggs; (d) there is no black market or non-commercial production; and (e) the farm to retail marketing margin is constant, independent of the quantity produced.

Under these assumptions, hen quotas operate exactly like perfectly transferable egg quotas. In this world the retail price of eggs is equal to the price at the farm gate plus the farm to retail marketing margin, and the farm-gate price of eggs is equal to unregulated marginal costs of producing the quota quantity plus quota rents.

The correct approach to estimate the effects of quotas is to eliminate the quota rents by equating unregulated supply and

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