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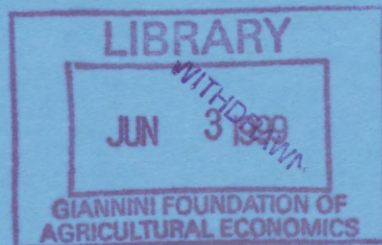
Department of Economics
UNIVERSITY OF CANTERBURY
CHRISTCHURCH, NEW ZEALAND

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**IN SEARCH OF ETHICAL PREFERENCES IN
PRIVATE MARKETS: THE DEMAND FOR
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Department of Economics, University of Canterbury
Christchurch, New Zealand

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BY JEREMY CLARK[†]

April 19, 1999

Departures from self-interested behavior have been observed in a broad range of economics experiments, and suggested by case studies of ethical purchase behaviour. These are often attributed to people's ethical preferences or altruism. This paper looks for empirical evidence of ethical purchase behaviour in a decentralized, private good market. From the assumption that a good's marginal utility is conditional upon its perceived ethical status, it follows that demand for the good should shift with changes in its perceived ethical status relative to other goods. This assumption is tested with reference to Canadian demand for Chilean wine in the years 1962 to 1994. It is asked whether consumer demand shifted to the left during Chile's military dictatorship between 1973 and 1989. Despite suggestive changes in export trade patterns before and after the dictatorship, no significant evidence of ethical purchase behaviour is found after controlling for relative prices and expenditure.

JEL classification: D12; D64

[†] Economics Department, University of Canterbury, Private Bag 4800, Christchurch, New Zealand. E-mail: j.clark@econ.canterbury.ac.nz

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I. INTRODUCTION

Do consumers care about the conditions under which their goods are produced? Or about the external effects of their purchases? If they do, can these preferences play any observable role in decentralized markets? The answers are not obvious. On the one hand, competitive markets with full information and without externalities are thought to allocate resources efficiently. Under such markets, we would expect to see production tailored to meet the preferences of all stripes of consumers, including the socially conscious. On the other hand, a chief characteristic of markets is their ability to economize on the transmission of information through prices. As Milton and Rose Friedman (1980, p. 16) observed, when purchasing pencils, we need know only their price. We need not know the conditions under which the pencil-makers laboured. If they are foreign pencil-makers, we need not know the local environmental effects of their production. Thus, we might predict that private markets will generate goods that purposefully appeal to ethical purchase concerns. With imperfect information, however, we might also predict that goods made under ethical or unethical conditions may not be differentiable. As economies become increasingly open to trade, the information available on the conditions or external effects of production can become increasingly remote. For example, there are reports that hardware tools or toys made by prison labour in China are mixed with conventionally produced goods for export (Globe and Mail 1992; United States Congress 1994). Thus, if we fail to observe ethical purchase *behaviour* in decentralized markets, it could be due to a lack of external preferences, or to lack of information.

Limited evidence of external preferences comes from economics experiments. With often small financial stakes, a substantial minority of subjects in bargaining, public good and other experiments appear to care about the distribution of money between themselves and others. This

apparent preference for fairness or altruism has been observed to respond negatively to cost, market framing, and subject anonymity. This paper attempts to move the positive investigation of ethical preferences from experiments to observed markets. It adapts a standard model of consumer demand to ask whether ethical preferences can be seen to influence demand when information on production conditions or effects is available. The model is applied to the case of Canadian demand for wine from Chile in the years between 1962 and 1994. During this period, Chile suffered a well-publicized military coup and dictatorship, human rights abuses, and a subsequent return to democracy. Canada is assumed to be a price taker for Chilean wine, and so a simple log linear demand for Chilean wine is estimated. There appear to be dramatic reversals in the quantity of wine sold from Chile to Canada during the years of military rule. Surprisingly, however, no significant decrease in demand for Chilean wine in Canada is found once price and income effects are taken into account.

The paper begins with a review of the small literature concerning ethical purchase preferences in section 2. Section 3 presents a standard model of consumer demand incorporating a simple binary representation of ethical preferences. Section 4 tests the model in the case of Canadian demand for wine from Chile. This is followed in section 5 with a brief discussion and conclusion.

II. ETHICAL PURCHASE BEHAVIOUR IN DECENTRALIZED MARKETS

Economists from Adam Smith to John Harsanyi have recognized that people might possess sympathy, "fellow-feeling" or "external" preferences over the welfare of others (Cambell and Skinner 1982; Harsanyi 1986). Yet self-regarding preferences have been seen as sufficiently dominant that positive economists could safely ignore "fellow-feeling" in economic agents, especially in the impersonal realm of competitive markets. Indeed, economic agents who claim to "trade for the

public good" have commonly been viewed with suspicion (e.g. Adam Smith 1976, p. 456). Yet there is some evidence that consumers have ethical or external preferences, and that these preferences could influence market outcomes.

In economics experiments conducted over the past thirty years, a consistent minority of anonymous subjects in a wide variety of decision-making, bargaining and public good environments have deliberately given money away to others (Hoffman and Spitzer 1982; Ledyard 1995; and Roth 1995). Relevant here, Kahneman et al. (1988a) found that subjects in bargaining experiments preferred at some personal cost to share surplus with others who themselves had been generous in allocating surplus. Hoffman, McCabe and Smith (1994) have increased the financial stakes in ultimatum bargaining experiments, and found scale independence in the distribution of offers. In the case of public good experiments, Andreoni (1996) has tested whether cooperative behaviour can be attributed to error or altruism, and has found evidence of both.

When we turn to non-experimental tests of external preferences, the evidence is mixed. Initial research into voluntary charitable giving has found evidence that individuals care not only for the total level of charitable provision, but also for the level of their own contributions (Andreoni 1990). More recently, researchers have attempted to show through donor identification and contribution patterns that charitable giving could be attributable in part to self-promotion or insurance, rather than concern for others (Harbaugh 1996). Much less attention has been paid, however, to external preferences in decentralized markets for private goods. A literature within business ethics has asked which factors influence consumers' ethical judgements (Kahneman et al., 1988b; Vitell and Muncy 1992). This literature has relied mainly on surveys where consumers are presented with vignettes about producer behaviour and asked for moral assessments. A rare survey of ethical purchase *behaviour* is presented

in N. Craig Smith's *Morality and the Market* (1990). Smith presents case studies of ethical purchase campaigns, often boycotts organized against companies or countries accused of unethical dealings. He also informally models the formation of highly motivated pressure groups who use the media to overcome information deficiencies about production conditions or externalities. Descriptive case studies include campaigns against firms banking in apartheid-era South Africa, producing cruise missiles, processing Angolan coffee, selling infant formula in developing countries, and growing grapes with non-unionized migrant workers. On the basis of these and other case studies, Smith identifies the characteristics of goods most susceptible to ethical purchase boycotts. They tend to be

1. consumer (final) goods
2. with low cost
3. frequently purchased
4. branded
5. perishable
6. distributed through retail outlets
7. publicly purchased
8. with substitutes readily available.

This list has striking parallels to the factors that have been found to influence ethical behaviour experimentally. Notably, experimental ethical behaviour has been shown to respond to price, information and the anonymity of decision-makers (Eckel and Grossman 1997; Hoffman et al., 1996).

As mentioned, Smith's case studies are descriptive rather than empirical. In addition, his criteria for success is measured in part by corporate response to threatened action, rather than by actual change in consumption patterns. This paper will attempt to test empirically for non-strategic ethical purchase behaviour, informed by Smith's findings.¹

¹ "Non-strategic" refers to the fact that individual consumers are price-takers in large markets and so presumably do not hope to unilaterally influence producer behaviour.

III. CONSUMER DEMAND AND ETHICAL PURCHASE BEHAVIOUR

A comprehensive model of ethical purchase behaviour would have to confront the role of information in markets. One could think, for example, of modeling the formation of pressure groups by individuals with the strongest ethical purchase concerns. These individuals might research and publicize information on production conditions or externalities on behalf of less motivated (free-riding) consumers. In addition, a comprehensive model would have to provide a criteria for defining "ethical" and "unethical" behaviour on the part of firms or countries. For example, one could construct ethical production indices for countries or firms based upon their use of involuntary (prison or child) labour, violation of environmental law, participation in human rights abuses, etc.

As a first step, however, I shall retain the standard model of consumer demand. Full information shall be assumed, and the criteria for ethical status shall be left unspecified. To begin, consider the standard preferences of consumer i :

$$U_i = U_i(x_1, \dots, x_j, \dots, x_m)$$

$$\text{where } U_j' > 0, U_j'' \leq 0 \quad \text{for } j = 1, \dots, m \quad (1)$$

Consumer i seeks to maximize his utility by purchasing physical goods, subject to each good's relative price, and his total income.

$$\text{Max } U_i(x_1, \dots, x_m)$$

$$\text{s.t. } p_1 x_1 + \dots + p_m x_m \leq M_i \quad (2)$$

$$- \quad x_j^* (p_1, \dots, p_m, M_i) \quad \text{for } j = 1, \dots, m$$

Solving (2) results in (Marshallian) demands for each of $j = 1, \dots, m$ goods. Ethical consumption preferences can be introduced mechanically in two steps. First, in the words of Smith (1987), assume that each good has a potential "negative product augmentation" for the consumer. In the simplest

possible case, assume he or she attributes to each good an ethical status of "o.k." or "not o.k." Second, assume that the marginal utility the consumer receives from a good is conditional upon that ethical status. Thus, for consumer i ,

$$\frac{\delta U(x_1, \dots, x_j, \dots, x_m / I = \cdot; \dots, j = o.k., \dots, m = \cdot)}{\delta x_j} > \frac{\delta U(x_1, \dots, x_j, \dots, x_m / I = \cdot; \dots, j = not\ o.k., \dots, m = \cdot)}{\delta x_j} \quad (3)$$

With these two assumptions in mind, consider the first order conditions from the consumer's problem for any two goods, say 1 and 2. Substituting their first order conditions together, we have

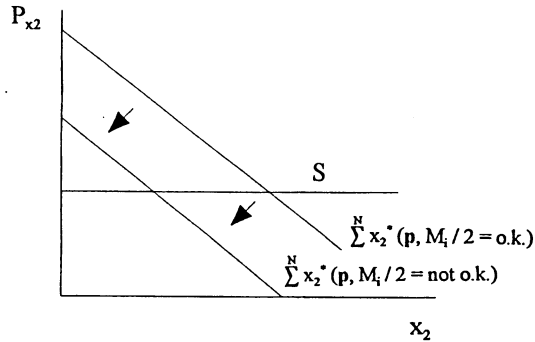
$$MRS_{2,1} = \frac{U_1}{U_2} = \frac{p_1}{p_2} \quad (4)$$

If consumer i judges the ethical status of good 2 to drop from "o.k." to "not o.k." while good 1's status remains unchanged, the ratio of marginal utilities would increase. That is, the marginal rate at which i would give up good 2 to get more of good 1 ($MRS_{2,1}$) would increase. If the ratio of prices did not change, i would then want to purchase less of good 2 relative to good 1 to restore (4).

$$x_2^*(p, M_i/2 = not\ o.k.) < x_2^*(p, M_i/2 = o.k.) \quad (5)$$

We may aggregate this result across a group of N like-minded consumers. Figure 1 illustrates the effect of good 2's fall from grace in consumers' eyes. Note that if the consumers are price takers and supply is perfectly elastic, price should remain constant, but the quantity of good 2 sold should fall. Similarly, if good 2 should regain ethical standing, all else equal, demand should shift back to the right. We shall turn next to test empirically for the existence of such an ethical demand shift.

FIGURE 1
 SHIFTS IN DEMAND CAUSED BY A CHANGE IN ETHICAL STATUS



IV. ETHICAL PURCHASE BEHAVIOUR: THE CASE OF CHILEAN WINE

Background. A good such as bottled wine would seem well-suited as a test instrument for ethical purchase behaviour according to Smith's criteria. It is a consumer good with a small budget share, frequently and publicly purchased in Canada from liquor outlets, with many substitute varieties available. Of special relevance, bottled wine provides prominent information concerning its country of origin. Thus, purchasers of wine are more likely to be aware of its national origin than purchasers of other consumer goods.

Chile, situated along the south-west coast of South America, has long enjoyed a reputation for ideal wine-growing conditions, and as the premium wine-producing country of South America (Simon 1981, Robard 1984). Red wines, such as *Cabernet Sauvignon*, *Cabernet Franc*, *Cot Rouge* and *Merlot* have been exported to Britain, France and Spain since before the Second World War.

Canada began importing Chilean wines in the early 1960's, and by 1994 Chile supplied almost 10 percent of Canada's wine imports (U.N. annual). Chilean wines enjoy a reputation as being of "excellent quality and value for money" in comparison with European and American wines (Simon p. 557). Yet the country producing this wine has experienced great political upheaval.

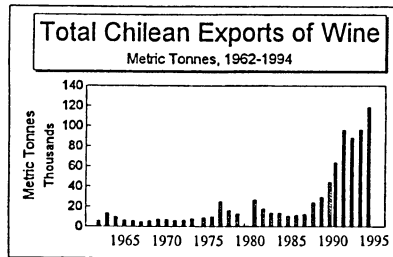
Prior to 1970, Chile was governed under a constitutional and democratic political system. The country was characterized by a stability and tolerance of free discussion that was exceptional in South America (Alexander 1978). Though fairly industrialized by regional standards, Chile did not escape the problems of rural poverty and land distribution among native Americans and mixed-race *mestizos* (Edwards and Edwards 1994). Moderate social and land reforms in the 1960's under President Eduardo Frei were replaced by more aggressive reforms in 1970 under Salvador Allende. Allende led a coalition of socialists and communists who together proposed a program of nationalization, price controls, and land redistribution. High inflation, agrarian land expropriation, and black market expansion experienced under Allende led to increasing political confrontation. On September 11, 1973, an army coup replaced Allende's government with a military dictatorship, eventually concentrated under General Augusto Pinochet. In the four years following the coup, a newly-organized secret police force brutally murdered, tortured or exiled thousands of civilians (Oppenheim 1993). Yet concurrently, free market reforms were implemented, and private property rights were re-secured. After mounting international pressure, a revised military-backed constitution was implemented in 1980, but it promised a transition to constitutional government only by 1990. Following widespread political protests against the dictatorship in the early 1980's, a plebiscite was held on Pinochet's continuing rule in October 1988. Free elections were finally held in November of 1989, and newly elected President Patricio Aylwin took office in March, 1990.

Chile's 1973 coup, severe political repression, and subsequent struggle for democratic restoration received widespread attention in North America. *Time*, *Newsweek* and *Maclean's* between them featured 14 articles on the Chilean military's takeover or human rights abuses in 1973 alone, and 62 articles between 1973 and 1989 (Reader's Guide, Canadian Periodical Index). Thus, awareness of the political conditions in Chile among Canadian wine consumers should have been relatively high. In addition, the change in Chile's political status had a distinct beginning and end. Finally, in contrast to cases such as South Africa, the Canadian government took no action to discourage trade with Chile as a result of the coup or human rights abuses.² Thus any change in demand may be attributed to the decisions of individual consumers. For these reasons, Chilean wine seems a promising good to study for evidence of ethical purchase behaviour. We thus move from historical overview to empirical question: did Canadian consumers reduce demand for Chilean wine because of information about the political and human rights abuses in Chile?

Descriptive statistics of trade flows certainly suggest interesting shifts in trade patterns between Chile and Canada during this period. To set the stage, Figure 2 illustrates the total world exports of Chilean wine in the years before, during and after the military dictatorship. The data come from Chilean-reported data in the *United Nations Commodity Trade Statistics* (U.N. annual). Years under military rule are in pale grey, and no data is available for the year 1979. Wine exports rose gradually in the years before and after the coup in 1973, falling only in the early 1980's, before rising dramatically in the late 1980's when civilian rule was restored. Thus the supply of Chilean wine

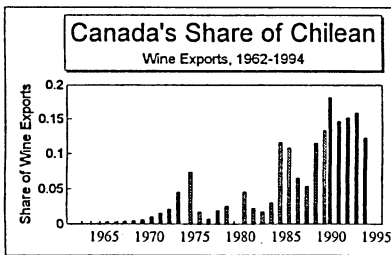
² Norman Frohlich has pointed out that the union handling liquor distribution in the province of Manitoba refused to handle Chilean wine following the coup. It is hoped that Manitoba's small share of Canada's wine imports (2.6% in fiscal 1974) will not seriously bias the results to be presented (Statistics Canada annual).

FIGURE 2
TOTAL EXPORTS OF CHILEAN WINE, 1962 - 1994

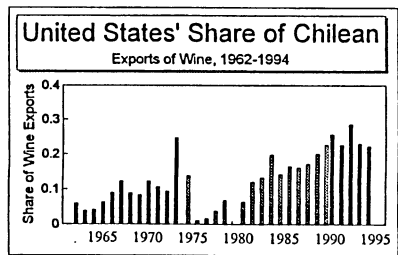


Source: United Nations *Commodity Trade Statistics*, 1962-1994

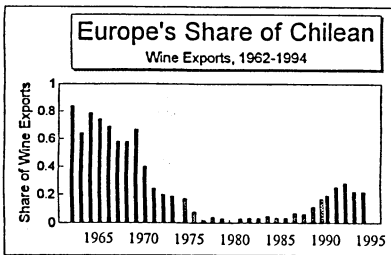
FIGURE 3
FOREIGN MARKET SHARES OF CHILEAN WINE EXPORTS



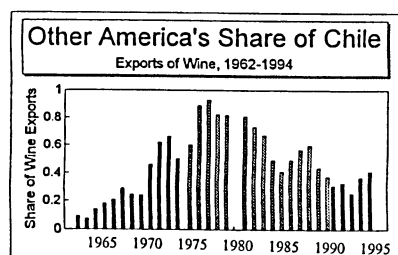
(a)



(b)



(c)



(d)

Source: United Nations *Commodity Trade Statistics*, 1962-1994

available for export did not appear to drop following the 1973 coup. Yet while total exports of wine remained healthy, Figures 3 a, b, c, and d reveal that the destination of exports tended to shift away from Canada, the United States and Western Europe in the 1970's, and towards other South American countries. Conversely, in the late 1980's, the share of exports to North America and Western Europe increased again, and the share to South America declined.

The quantity data might suggest that the demand for Chilean wine among wealthy Western consumers decreased following reports of the atrocities carried out in Chile, and recovered when civilian rule was restored. Yet the less we control for possible confounding influences, the less we can be sure this is so. Either price or income effects, for example, could have accounted for the shift in trade patterns. The relative price of substitute wines in Canada may have fallen in the 1970's and risen in the late 1980's from supply effects. Alternatively, expenditures on all wines in Canada may have dropped and then rebounded just as Chilean democracy was being restored. To control for these effects, we turn next to regression analysis.

Statistical Model Estimation. Suppose consumer i considers Chilean wine to be a distinct good j within the separable commodity group of m alcoholic beverages.³ i 's demand is

$$x_j(p, M_i; \text{ethical status of goods } 1, \dots, j, \dots, m), \quad (6)$$

where p is a vector of the m prices, and M_i is i 's total expenditures on alcoholic beverages.

³ The partition of commodities into separable groups for purposes of demand estimation requires one of several strong restrictions on a consumer's indirect utility or cost function (see Deaton and Muellbauer 1980, 130). Nevertheless, alcoholic beverages are commonly treated as separable from other goods in empirical work. Theil and Clements (1987, p. 215), for example, find in a systems-wide analysis using data from Australia, Britain and the United States that wine and beer/spirits form two block-independent groups in consumption.

Aggregate demand for wine across the Canadian population, N , would be:

$$X_j = \sum^N x_j(p, M_i; \text{ethical status of goods } 1, \dots, j, \dots, m) \quad (7)$$

Strictly speaking, observed market demand can only be considered the exact linear aggregation of individual demands if consumers have linear Engel curves with identical slopes for good j (Deaton and Muellbauer 1980, p. 150). This seems a heroic assumption, but aggregate data is all that is available. To estimate market demand, I shall follow the original path of Stone (1954) as summarized by Deaton and Muellbauer (p. 61). We start with a simple logarithmic market demand function, but with the addition of ethical status demand shifters:

$$\log X_j = \beta_0 + \beta_1 \log \sum^N M + \beta_2 N + \sum^m \beta_{jk} \log p_k + \sum^m \gamma_{jk} Unethical_1 + \epsilon \quad (8)$$

β_1 is alcohol expenditure elasticity and the β_{jk} are the cross- and own price elasticities between the prices of the m beverages and Chilean wine, j . The ethical status demand shifters imply that demand for j will shift to the left if j 's ethical status falls to "not o.k.," ($\gamma_{jj} < 0$) or if the ethical status of another good rises to "o.k." ($\gamma_{jk} > 0$). The γ 's may thus be thought of as "cross ethical status" elasticities. Returning to Stone's approach, we decompose the cross price elasticities using the Slutsky equation $\beta_{jk} = \beta_{jk}^* - \beta_j w_k$, where β_{jk}^* is compensated cross price elasticity and w_k is the expenditure share of the k^{th} good. This is substituted into (8).

$$\log X_j = \beta_0 + \beta_1 \{ \log \sum^N M - \sum^m w_k \log p_k \} + \beta_2 N + \sum^m \beta_{jk}^* \log p_k + \sum^m \gamma_{jk} Unethical_1 + \epsilon \quad (9)$$

Expressing the sum of each good's expenditure share multiplied by its price as a general price index, P , (9) may be restated as: