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9 Import Surveillance as a Strategic Trade Policy

L. Alan Winters

The European Community (EC) policy of import surveillance entails the public announcement that henceforth the commission will collect detailed statistics on particular imports either prior to or immediately after their importation. This paper considers two aspects of surveillance. First, it studies—for the first time, to my knowledge—the effects of import surveillance on the volumes, prices, and origins of EC imports. Second, it argues that through such a study it is possible to cast light on the existence of strategic behavior among firms and policymakers. Prima facie surveillance appears unlikely to have a material impact on imports, for it seems to amount merely to the collection of detailed trade statistics. But, if the imposition of surveillance affects exporters' subjective probabilities about further trade measures, then it is easy to imagine it affecting trade flows. This would transform it from the category of innocuous statistical procedures to that of subtle nontariff barriers to trade, an issue of immediate and direct interest to trade economists and policymakers. My results suggest that, at least sometimes, surveillance curtails imports.

On the second objective, if import surveillance does indeed affect import flows, it is evidence of strategic behavior—that is, "actions . . . taken to induce favourable responses by rivals" (Grossman 1987, 49). Surveillance has a negligible direct impact on the costs and revenues of undertaking trade; hence any observed reduction in imports due to surveillance must stem from indirect, or strategic, pressures, whereby exporters feel that by altering their behavior they can influence the subsequent actions by the importing country government.

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That is, by responding "cooperatively" to surveillance they can avoid something worse. The identification of strategic behavior among exporters is of interest in itself, but it is more important in the context of the present conference because of the light it sheds on the empirical relevance of "strategic trade policy."

Strategic trade policy has been around for about ten years. Its first five years produced a series of theoretical models which showed how, under certain circumstances, trade policies could manipulate foreign firms' reactions to the advantage of the home country. Its second five years has been oriented more toward the empirical implementation of these models; however, given their complexity and the difficulties of measuring some of the crucial variables, studies have entailed calibration and simulation rather than estimation and hypothesis testing.

Calibration studies are useful for illustrating the mechanisms of the models they treat and for assessing the relative sizes of the effects they postulate, and with sufficient sensitivity analysis they can produce robust results of direct relevance to policymakers. They are, however, only the first step toward the full empirical investigation of strategic trade policy. Baldwin (1989) suggests a second step—namely a more thorough attempt to estimate the relevant parameters from many (or at least several) data points. In this paper I explore a third level of empiricism—an attempt to test directly for the presence of strategic effects. At one level, empirical testing could involve estimating the parameters of a fully specified econometric model and then asking whether at a suitable level of significance they fall within the ranges necessary to produce strategic behavior. There are at least two disadvantages to such an indirect approach. First, it requires the precise specification of a model in terms of parameters and observables, a task of immense complexity and, given our present ignorance, arbitrariness. Second, the circumstances necessary for strategic behavior cannot usually be boiled down to a single parameter, but rather entail the interaction of many parameters and data. The resulting multivariate statistical tests are not only difficult to formulate and interpret, but are also, when confronted with poor data such as trade economists have, prone to be very weak.[1]

In this paper, therefore, I adopt a different, nonparametric, approach. On the basis of verbal reasoning I identify the qualitative changes in trade behavior that would be consistent with strategic responses to import surveillance. I then move immediately to the data to see if they can reject the hypothesis of no change in favor of that of "strategic" changes. The results are almost universally more consistent with the latter hypothesis than the former but do not often achieve the degree of definition necessary to reject the former at conventional

1. In fact, it is actually quite difficult to devise models in which the existence (as opposed to the magnitude) of strategic behavior may be represented parametrically. Certainly the well-known examples of strategic trade models, such as Baldwin and Krugman (1988), presume strategic behavior if markets are not perfectly competitive.

significance levels. Moreover, I must also admit that, although the tests conducted here are grounded in real data, what they gain in terms of contact with the real world they lose in terms of theoretical sophistication. Indeed, while I shall argue that import surveillance has genuinely strategic dimensions, the test proposed deals only indirectly with one of the principal features of the current theory—namely imperfect competition. Nonetheless, the attempt is justified, for identifying strategic behavior in very simple cases is a reasonable first step toward finding it elsewhere.

9.1 Import Surveillance

The empirical work of sections 9.3 and 9.4 below considers the effects of the European Community's policy of import surveillance on its import flows. Two forms of surveillance exist. The first, which concerns trade between EC member countries, is designed to identify the "need" for, and then support the application of, an Article 115 ruling which imposes quantitative limits on the circulation of foreign goods within the EC.[2] Such rulings are the means to market segmentation among member states and a necessary prop for members' own national trade restrictions. They are applied most frequently to textile trade in order to enforce the "burden sharing" provisions of the Multifiber Arrangement (MFA) but also occur for other sectors.[3] While the existence of a surveillance stage prior to, rather than simultaneous with, the imposition of an Article 115 ruling suggests that the Commission may believe that surveillance affects behavior, I have not examined the effects of such surveillance because it is so obviously and so readily supplemented by directly trade-restricting measures.

The second form of surveillance is of imports into the Community from nonmember countries. Surveillance and other trade policies toward third-country imports are governed by Article 113 of the Treaty of Rome as implemented in the Council Regulations "Common Rules for Imports." For the analysis of this paper, Regulation No. 288/82 of 1982 (*Official Journal*, [*OJ*], no. L35/1, 1982) will be taken as representative of the legal position. This regulation strictly covered only imports from Western countries over the period 1982–86, but previous and subsequent regulations (e.g., nos. 926/79 and 1243/86) were virtually identical in the nature of their surveillance provisions.

Article 1 of Regulation No. 288/82 states that the importation of goods into the EC shall be free except under certain listed circumstances, of which surveillance is *not* one. That is, surveillance is not recognized de jure as curtailing imports at all. Moreover, the mechanics of surveillance, as set out in Article 11 of the regulation, are not particularly arduous, so it would be difficult to main-

2. I refer to Article 115 of the Treaty of Rome. Some details of the article and its application are given in Volker (1987).

3. The MFA is negotiated with exporters by the European Community, but quotas are then distributed among member states to spread the "burden" of cheap imports.

tain that surveillance represented a direct barrier to imports. Thus if the imposition of surveillance has detectable effects on imports, it must be for strategic reasons. That is, because exporters, realizing that their environment has changed, believe it advantageous to change their behavior. Moving one stage back, surveillance will have been used strategically, as well as having acted strategically, if the European Commission, realizing this possibility, has adopted or manipulated surveillance to induce the changes in exporter behavior that it wishes to see.

The likelihood of such strategic use of surveillance becomes apparent as soon as one goes into the details of Regulation No. 288/82. Either the Commission or a member-state government may initiate consultations on an import flow, and if the prima facie evidence suggests the need for action (surveillance or protection) a full investigation into the case may be instituted. At both stages "the trend of imports . . . and substantial injury or threat of substantial injury to Community producers resulting from such imports" are examined, paying particular attention, *inter alia*, to the rate of increase of imports, significant price undercutting relative to Community producers, and trends in local output, employment, profits, and the like.

"Where developments . . . threaten to cause injury to Community producers and where the interests of the Community so require, importation . . . may be made subject to either retrospective or prior surveillance" (Article 10). By contrast, "where a product is imported . . . in such greatly increased quantities . . . as to cause, or threaten to cause, substantial injury to Community producers," and where there is great urgency, the Community may "alter the import rules," that is, impose licensing and quantitative restrictions (Article 15). Thus the difference between the circumstances in which surveillance and quantitative restrictions may be imposed is one of degree rather than of nature. Surveillance is not primarily an information-gathering tool—that comes at the investigation stage—but rather an explicitly forward-looking policy addressing threatened injury. Article 15 on protective measures admits the possibility that surveillance may be superseded by protection by discussing the transitional arrangements from one to the other (par. 1 [a]), but there is no presumption that surveillance leads to protection nor that protection should be preceded by surveillance. Surveillance does, however, expedite the statistical analysis of affected imports and, with prior surveillance, put in place some of the machinery for controlling imports. Thus it does imply an increased threat of future import restrictions.

Prior surveillance is clearly the more threatening form of the policy. Not only does it institute a system of documentation which might readily be transformed into an authorization system, but it also requires national authorities to report monthly in arrears both actual trade statistics and the value and volume of trade for which documents have been issued. Because these documents must be obtained prior to importation the monthly reports act at least partly as an early warning system. An import document is required to state, inter alia, the

nature and origin of the product, the quantity and price of the transaction, and the place and date of importation. It *must* be authorized free of charge by an EC national authority within five days of presentation, and importation must await authorization. Interestingly, the prices and quantities quoted on the document are treated respectively as lower limits on the actual prices and upper limits on the actual quantities that may be traded. This alone suggests something of the intentions of the policy. Import licenses are issued to the importer on the basis of invoices for firm orders. These are the documents that firms will require for their own accounts, so that the extra work entailed in satisfying prior surveillance is very slight. Certainly, it could not account for significant trade diversion to nonsurveyed suppliers.

The previous paragraph notwithstanding, however, it would be easy to exaggerate the distinction between prior and retrospective surveillance. The procedures of consultation and investigation described above may all be bypassed by the Commission or member states in cases of perceived urgency.[4] and the administrative machinery required to stop imports while licensing procedures are introduced is not great. Thus even though retrospective surveillance entails only the prompt transmission to Brussels of ex post trade statistics in the affected product groups and is quite invisible to private traders, I will treat it as equivalent to prior surveillance.

Two further features of surveillance should be noted briefly. First, it is imposed for a finite period only—usually for the remainder of the year of imposition and the next year in the first instance. However, it may simply be extended by a new Commission regulation and so de facto can be indefinite. That said, however, we do observe instances in which it is removed. Second, surveillance is usually applied discriminatorily—only certain exporters are named in the regulations of application. Moreover, GATT notwithstanding, the European Community's recent import restrictions have also usually been discriminatory, so we may interpret discriminatory surveillance as having a quite country-specific message. Countries facing surveillance will thus generally interpret it as a potential precursor to selective import controls, so that the effects of responses to surveillance can generally be held to be internal to the group of surveyed countries.[5]

Over time the use of surveillance appears to have increased and its application to have become less constrained by the regulation. It is now applied in broader circumstances and makes less of its nonrestrictive nature than previously. Thus Regulation No. 646/75 (*OJ*, no. L67/21, 1975) imposing surveillance on zip fasteners noted that surveillance was "purely documentary" and

4. That is, they may be done retrospectively after surveillance has been introduced.

5. Regulation No. 288/82 is implicitly based on GATT's Article XIX, which allows only nondiscriminatory emergency actions, but since the European Community uses other means for import restrictions this fact does not disturb the interpretation in the text. Indeed in 1982, Regulation No. 288/82 was the basis of no EC-wide import restrictions but did support many national restrictions, a high proportion of which were discriminatory.

did "not affect in any way freedom of importation"; such disclaimers are not encountered in recent legislation. Moreover, while during the late 1970s other countries' import restrictions were quoted as reasons for increased imports, they have more recently been noted in justification of surveillance because they *threaten* increased imports: thus Regulation No. 418/87 (*OJ*, no. L42/25, 1987) on imports of urea from Eastern Europe notes "the addition of trade measures concerning urea by certain third countries, including the United States of America, *may* lead to a considerable increase in exports from producer countries to the Community" (emphasis added). A similar case was Regulation No. 1245/87 which established prior surveillance on imports of personal computers, electrical hand tools, and color televisions expressly because of the punitive duties imposed on these goods by the United States. Finally, surveillance has recently been introduced independently of the Common Rules, as in Council Regulation No. 1909/86 (*OJ*, no. L165/1, 1986). This notes that because "the United States of America has imposed restrictions on imports of certain products from the Community," and because "these measures threaten to cause injury to the Community producers concerned . . . it is necessary for the Community to introduce surveillance for imports of certain products originating in the United States." This is strategic use writ large.

9.2 Responses to Surveillance

Exporters' responses to surveillance must be considered on at least two levels—the individual firm and the exporting country government.[6] A third, intermediate, level might be a trade association which institutes collective action but without the force of law. The crucial factor determining an exporter's response to surveillance is the extent to which *any* action it takes could influence the types or probabilities of more formal protective measures being imposed at a later date; this in turn relates to the likely responses of the surveying government to changes in total exports and the extent to which the individual firm can influence total exports.

The simplest and most direct form of strategic behavior occurs if an exporting firm believes that surveillance is the precursor to an effective antidumping action. It would then have an immediate and direct incentive to raise prices and reduce trade. The incentive would be immediate because in the European Community, unlike the United States, once an antidumping action is started it refers to historical prices and there is no obligation on the commission to accept an undertaking to charge higher prices instead of imposing duties. It is direct because any antidumping duty imposed will be perfectly negatively correlated with the import price and will be calculated and levied on the

6. In preparing this section I have benefited from seeing some unpublished notes by Carl Hamilton.

specific firm concerned: all the incentives to modify behavior are internalized and point the same way. It is virtually impossible to assess whether firms do see surveillance as the precursor to antidumping actions, but several factors suggest that it may not be a very plausible view: the frequency with which antidumping actions are introduced without previous surveillance, which suggests no constraint on the European Community to introduce the policies in sequence, the separate legislative bases of the two approaches, and the fact that antidumping actions entail more detailed information collection than surveillance. Finally, and most significantly, in only one of our cases below have antidumping actions followed the imposition of surveillance, in three cases antidumping actions have preceded surveillance (by several years), and in a number of cases antidumping actions have been taken against closely related but not identical products to those suffering surveillance.[7] All this seems to indicate a substantial degree of independence between the two forms of trade policy.

If surveillance is seen as the harbinger of inevitable quantitative restrictions, no firm will have an incentive to reduce its exports and most will wish to expand them immediately. Expansion may merely reflect an intertemporal shift in sales—an attempt to get the goods in before the door is shut or before tariffs are imposed. It may also, however, have a strategic dimension. The rents which quantitative restrictions (QRs)—especially voluntary export restraints (VERs)—create are proportional to sales, and sales quotas for individual firms are more often than not related to past sales. Thus a firm expecting to face a QR will believe itself likely to do better the higher its base-year exports. Moreover, this is likely to be so regardless of whether the quota allocation is made by the importing or the exporting countries. Given that the majority of new protectionism has taken the form of discriminatory QRs, this jockeying for position seems a strong possibility. Yoffie (1983), for example, reports such behavior on the part of Taiwanese and Korean exporters of footwear to the United States in 1976: protection seemed inevitable, but a principal policy objective was to postpone it long enough to build up base levels from which to negotiate. Yoffie tells the story more from the point of view of the trade associations and governments than from that of individual firms, but the principle is the same. Under these circumstances surveillance is likely to be greeted by booming import volumes and stable or decreasing import unit value from the surveyed sources.[8]

7. I am grateful to Patrick Messerlin for providing the information concerning EC antidumping actions.

8. Since nearly completing this work, I have seen Hoekman and Leidy (1989) and Anderson (1989) which formalize some of the ideas of this paragraph. The latter, which my discussant is too modest to mention below, shows that if the probability of a VER is exogenous any industry will seek to increase its exports while it has the chance. If, on the other hand, the probability is endogenous and the industry is imperfectly competitive, self-restraint may be optimal.

If, contrary to the previous case, exporters are strongly convinced that surveillance will not be followed by protection—perhaps because of broader political considerations—we should expect no change in export behavior.

The notion that future protection is quite independent of import behavior under surveillance is not convincing. The European Community has the means to impose import restrictions immediately if it is determined to do so, and so is presumably using surveillance to probe exporters' reactions. Moreover the information collected during surveillance can be a potent weapon in any debate about an import restriction. Thus overall it seems more likely that the probability of future restrictions will be positively related to the current import level, and that there will be some incentive to curtail exports in the face of surveillance. There may, however, be difficulties in doing so.

Ignoring dynamic considerations, the individual exporter faces a prisoner's dilemma. Even if he accepts the need for restraint overall, his own incentives are toward unrestrained exporting. Moreover, if he believes that everyone else is exercising restraint, he may even find it profitable to increase his own exports to take advantage of their restraint.[9] The outcome of this situation depends partly on the number of exporters involved: the fewer the firms, the more likely that effective cooperation (restraint) will occur. Thus *ceteris paribus* we should expect surveillance to have a stronger restraining effect on imports the less competitive the supplying industry. Competitiveness is difficult to assess, but, given the scope for market segmentation and the greater likelihood of technical differences between firms, it seems likely to be lower in sophisticated goods (e.g., hi-fi equipment) than in simple ones (e.g., footwear).

Another condition making for cooperation is the role of government or collective trade associations. Industries and countries with strong traditions of government involvement in exporting are more likely to be able to restrain exports than others.[10] Indeed, the imposition of surveillance may be the signal to create an export control system which had previously been suppressed for fear of infringing antitrust law. Previously competitive exporters may indeed appeal to governments to police export restraint agreements in order to avoid free-rider problems. This is particularly likely if any resulting restraint drives up export prices, for then incumbent firms will be anxious to ensure that their efforts are not undermined by new entrants.

Even if exporting governments do not wish to create or police an export management scheme, they may be forced into closer association with the industry than previously. If surveillance contains even a hint of future protection,

9. A suggestion of this kind of behavior is evident in Taiwanese exports of footwear to the United Kingdom in the mid-1980s. These were ostensibly governed by an industry-to-industry restraint agreement; the Taiwanese claimed to be trying to enforce it, but by 1984 it was being overshipped by 150 percent. After the U. K. industry refused to sign it in 1985, exports fell.

10. Even cooperation developed for quite different purposes—e.g., over the enforcement of standards—probably makes export control easier. This may further strengthen the tendency for imports of sophisticated goods to respond more directly to surveillance than do those of simpler goods.

the government will probably wish to prepare its negotiating strategy. At a minimum this is likely to entail collecting information.

It is difficult to identify a priori countries which are more likely to be able to impose constraint, but anecdote suggests that perhaps Korea and Japan fall into the category. Both have strong traditions of "administrative guidance," and Wakasugi (1989) suggests that in Japan the Ministry of International Trade and Industry (MITI) has a well-established tradition of watching for and responding to trade threats of this kind. Less speculatively, however, we might expect that where more than one country falls under surveillance, export restraint is less likely to result because the prisoner's dilemma will be more difficult to solve between countries than between firms. Even here, however, if there is a possibility that subsequent protection could discriminate between exporters, individual countries may still wish to restrain.

In this section, I have argued that surveillance may affect imports either positively or negatively. Tentatively, the probability of a negative effect seems greater (i) the fewer the countries whose imports are surveyed, (ii) the less competitive the exporting industry, (iii) the more sophisticated the goods concerned, and (iv) the greater the role in exporting assumed by government or trade associations. The probability of a positive effect is most closely related to (i) the strength of the threat of future protection, and its sensitivity to changes in the level of imports, and (ii) the extent to which existing trade will influence quota distribution under any future restrictions. Several of these observations are testable, and thus in principle we are able to test for the existence of strategic behavior. There are, however, a number of practical difficulties to overcome first.

9.3 The Tests

An ideal test of surveillance would construct a model of import behavior with which to predict imports in the absence of surveillance (an *anti-monde*), and then ask whether actual imports differed significantly from predicted levels. This is what I do here, in principle, but my anti-mondes are far from ideal. Taking each of several instances of surveillance I seek to identify material changes in the levels or growth rates of imports, their geographical composition, and their prices (unit values) at the times of the imposition and removal of surveillance. So far as possible the data cover the period from five years before the imposition to five years after its removal, bounded by 1972 and 1987. They are drawn from Eurostat Commodity Trade Statistics; the external trade data refer to the European Community as a whole, although separate data are collected on intra-EC trade in the surveyed commodities.

The sample of instances of EC surveillance considered excludes all occurrences in agricultural products, textiles, and steel. These are the sectors most prone to surveillance, but they are also subject to such widespread and vigorous directly trade-restricting policies that it is impossible to disentangle the

effects of surveillance from the other effects. Similarly, among the remaining commodities I excluded any years for which there was strong evidence of other community trade policy (apart from tariffs) such as unofficial VERs.[11] Finally, a number of instances of surveillance could not be studied because of data difficulties—especially the subdivision and recombination of the relevant headings in the trade statistics. Table 9.1 describes the final sample of cases investigated.

The engineering products in which Japan was subject to surveillance in the early 1980s are particularly difficult to interpret. In all, 10 commodities were subject to discussions between the European Community and Japan as "sensitive products." In February 1983 Japan agreed to "moderate" its exports, while at the same time, the European Community continued or introduced retrospective import surveillance. The terms of the export moderation agreement remain secret, but the broad outline was published in the *EC Bulletin* (no. 2, 1983). It recognizes five categories of goods

(i) general export moderation: in the case of five products in particular—light utility vehicles (vans), fork-lift trucks, motor cycles, quartz watches and hi-fi equipment—consultations could be held in the event of failure to observe this principle;
(ii) continuation of the moderation introduced in 1982 for exports of cars and numerically controlled machine-tools;
(iii) for colour television cathode tubes, a specific level of moderation for three years (1983, 1984 and 1985);
(iv) moderation of exports of colour television sets for two years (1983 and 1984); renewable for a third year;
(v) an *ad hoc* solution for video recorders (assurances as to prices and quantities).

On the basis of this report I assume in the main analysis that surveillance was overridden by effective QRs for color-TV cathode ray tubes, color televisions, and videocassette recorders during the period 1983–85. Data definition difficulties prevent us from considering cathode ray tubes, and videocassette recorders experienced domestic tax increases and a tariff increase from 8 to 14 percent in 1986; we therefore include only color TVs in this exercise, and assume that from 1986 onward surveillance was the principal policy extant.[12] The five commodities in category (i) appear to have had little more than surveillance in operation over 1983–85, and I therefore proceed as if the "general

11. Surveillance is sometimes thought to represent the official dimension of industry-to-industry arrangements, and it is possible that such private deals lie behind some of our examples. If so, any strategic component of any observed changes in trade behavior is reduced, but the fact of the changes themselves is not altered. Moreover, if hidden VERs cause the changes reported below, surveillance is still affecting trade to the extent that the private arrangements cannot be made effective without it.

12. I include imports of Korean video tape recorders below because trade increased despite the tariff increase and surveillance. Thus there is no danger of confusing the effects of the two policies.

Table 9.1 Sample of Instances of EC Surveillance

Product and NIMEXE Heading[a]	Type of Surveillance:[b] Initial Regulation	Cited Exporters	Period[c]	Analytical Group[d]
Slide fasteners:		All[e]	1975–79	I
98.02-10	P: 646/75			
98.02-90				
Phosphate fertilizers:				
31.05-12	P: 440/77	All	1977–83	I
Titanium:		All	1987	I
81.04-59				
81.04-61				
81.04-63				
Footwear:				
64.02-40	P: 716/78 (5/78–10/78)	DCs[f]	1978–87	II
64.02-61	R: 78/560 (after 10/78)			
64.02-69				
64.01-65				
64.03-00				
64.05-31				
Certain machine tools:[g]				
84.45-12	R: 536/81	Japan	1981–87	III
84.45-14			[1981–82, 1986–87]	
84.45-16				
84.45-36				
84.45-37				
84.45-51				
84.45-94				
84.45-48	R: 653/83	Japan	1983–87	IV
			[1986–87]	
Color TVs:[g]				
85.15-25	R: 537/81	Japan	1981–87	III
	P: 1245/87 (after 3/87)		[1981–82, 1986–87]	
Quartz watches:[g]				
85.15-21	R: 653/83	Japan	1983–87	IV
85.15-25				
Hi-fi equipment:[g]				
85.14-40	R: 653/83	Japan	1983–87	IV
85.14-60			[1986–87]	
92.11-10				
92.11-32				
92.11-34				
92.11-37				
Light commercial vehicles:[g]				
87.02-86	R: 3544/82	Japan	1983–87	IV
			[1986–87]	

(*continued*)

Table 9.1 (continued)

Product and NIMEXE Heading[a]	Type of Surveillance:[b] Initial Regulation	Cited Exporters	Period[c]	Analytical Group[d]
Motorcycles:[g]				
87.09-59	R: 3543/82	Japan	1983–87 [1986–87]	IV
Videocassette recorders:[h]				
92.11-80	R: 235/86	Korea	1986–87	V

[a]Heading in initial year of imposition.

[b]R = retrospective; P = prior.

[c]Years of imposition. Dates in brackets are years in which surveillance was the principal policy.

[d]Group in which the heading is put for subsequent analysis.

[e]Japan is named in text of the regulation, but not singled out for surveillance.

[f]Effectively all major footwear-exporting developing countries—Brazil, Hong Kong, Korea, Malaysia, Pakistan, Spain, Taiwan, China, Czechoslosvakia, Poland, and Rumania.

[g]See section 9.3 of text for details.

[h]Tariff increase from 8 to 14 percent in 1985.

moderation" had no effect. Similar arguments may be made about motor vehicles and machine tools. However, although there is no official record of the moderation agreements from 1982, the national restrictions on imports of motor vehicles in France, Italy, the United Kingdom, and, according to Bronkers (1987), Belgium and Germany from 1981 were sufficiently strong that I felt obliged to ignore this commodity in this analysis. For machine tools the situation is more complex. Press comment during 1983–85 suggested that an effective VER existed over that period, and so I treat machine tools analogously to the goods in EC category (iii). I omit one surveyed category (NIMEXE category 84.45–64), however, because its trade was exceedingly small prior to surveillance, which distorts the growth rates I consider below.

I measure the effects of import surveillance on the affected suppliers in four obvious ways: the volume of imports, the import share, the unit value of imports, and the unit value of imports relative to that of intra-EC imports.

It is clearly important to consider the absolute effects of surveillance on imports and their prices, but the two relative statistics are likely to be the more informative ones. Not only do they allow crudely for the inherent trends of the markets involved, but they are also among the indicator variables named in the trade regulations, and so may be imbued with a direct strategic relevance.[13]

A potential problem of using the intra-EC unit value as the norm for the

13. The share measure essentially incorporates market demand into the anti-monde, along with time, which enters when we consider growth rates. It is difficult to think of a more sophisticated anti-monde for modeling price/quantity outcomes without detailed commodity-level investigation, which is plainly inappropriate for a study of this kind.

import unit value is that international trade policy is designed at least partly to support EC prices; thus the relative unit value measure may understate the extent of the surveillance-induced increase in import prices (if any). The sign of the relativity should be robust, however, for it is extremely unlikely that an x percent increase in import prices will generate a larger than x percent increase in intra-EC trade prices. In the absence of explicit models of import demand from which to derive the anti-mondes, I use two simple statistical constructs—the extrapolation of past trends and no change from the last nonsurveillance year.

In nearly every instance, surveillance has been imposed in response to rapidly increasing imports from the surveyed sources. When comparisons are made between imports under surveillance and extrapolations of these growth rates, the results indicate strong negative responses to surveillance. Extrapolating at the average growth rate of the previous four years (fewer in certain cases where data deficiencies required it) I calculated the ratio of actual to predicted import volumes for the first year of surveillance. Out of the 35 ratios, 27 were below unity, as shown in figure 9.1. The effects on the volume share are even stronger, as are those for later years of surveillance. On this basis, therefore, there is very strong evidence that import surveillance curtails imports, and, although there are differences between commodity groups, they are dominated by the general tendency.

Perhaps more informative is an analysis based on the conservative anti-monde of no change from the last presurveillance year. Table 9.2 reports two

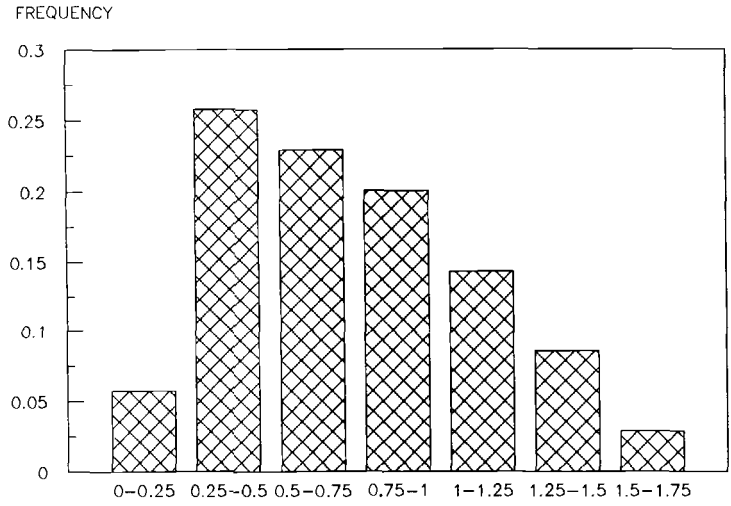

Fig. 9.1 Ratio of actual to predicted imports: First year of surveillance

Table 9.2 Effects of Surveillance relative to "No-change" Anti-Monde

	Number of Positive Deviations					Mean Proportionate Deviation			
	A	B	C	D	*N*	A	B	C	D
					Group I				
Year 1	5	3	3	4	6	0.208	−0.034	−0.045	0.108
Year 2	3	1	3	3	3	0.474	−0.010	0.208	0.241
Year 3	3	1	3	3	3	0.601	−0.029	0.346	0.304
Year 4	3	1	3	3	3	0.302	−0.021	0.594	0.348
Year 5	3	1	3	2	3	0.389	−0.023	0.577	0.331
					Group II				
Year 1	2	2	3	0	6	−0.179	−0.019	−0.001	−0.076
Year 2	3	4	5	3	6	0.091	0.000	0.093	−0.023
Year 3	5	5	5	3	6	0.485	0.048	0.239	−0.059
Year 4	4	3	6	3	6	0.452	0.056	0.444	0.064
Year 5	5	3	6	4	6	0.477	0.047	0.564	0.074
Year 6	6	4	6	2	6	0.517	0.069	0.584	−0.016
Year 7	5	4	6	3	6	0.609	0.069	0.826	0.095
					Group III				
Year 1	3	3	8	6	8	−0.123	−0.019	0.236	0.131
Year 2	2	3	8	4	8	−0.297	−0.066	0.242	0.049
Year 3									
Year 4									
Year 5									
Year 6	2	1	8	6	8	0.019	−0.075	0.493	0.129
Year 7	1	1	8	6	8	−0.151	−0.102	0.469	0.088
					Group IV				
Year 1	6	7	14	12	15	−0.097	−0.019	0.371	0.183
Year 2	9	9	15	13	15	0.054	−0.015	0.318	0.184
Year 3	6	7	13	14	15	0.036	−0.024	0.473	0.203
Year 4	5	2	10	9	10	0.260	−0.045	0.617	0.161
Year 5	6	3	8	8	8	0.459	−0.054	0.781	0.148
					Group V				
Year 1	1	1	0	0	1	4.500	0.050	−0.152	−0.234
Year 2	1	1	0	0	1	16.193	0.142	−0.215	−0.217
					Total				
Year 1	17	16	28	22	36	0.198	−0.009	0.194	0.071
Year 2	18	18	31	23	33	0.647	−0.005	0.240	0.117
Year 3	14	13	21	20	24	0.238	−0.007	0.400	0.137
Year 4	10	3	23	17	19	0.277	−0.017	0.526	0.111
Year 5	11	4	21	16	17	0.466	−0.013	0.638	0.117

Notes: Definition of Groups:

Group I: Universal surveillance (98.02-10,98.02-90, 31.05-12, 81.04-59, 81.04-61, 81.04 - 63)

Group II: Footwear (64.01-65, 64.02-40, 64.02-61, 64.02-69, 64.03-00, 64.05-31)

Group III: Japanese goods from 1981 (84.45-12, 84.45-14, 84.45-16, 84.45-36, 84.45-37, 84.45-51, 84.45-94, 85.15-25)

Table 9.2 (continued)

Group IV: Japanese goods from 1983 (84.45-48, 91.01-21, 91.01-25, 87.07-21, 87.07-24, 87.07-25, 87.07-27, 92.11-10, 92.11-32, 92.11-34, 92.11-37, 85.14-40, 85.14-60, 87.02-86, 87.09-59)

Group V: Korea (92.11-80)

Definition of Columns:

A: Proportionate change in volume of imports to the European Community from surveyed country(ies)

B: Change in share of surveyed countries in EC imports including intra-EC trade

C: Proportionate change in unit value of imports from surveyed countries

D: Proportionate change in the unit value of imports from the surveyed countries relative to the unit value intra-EC trade.

sets of results for five groups of commodities. The first four columns of the table report the number of instances in which actual imports (share, unit value, or relative unit value) exceeded the presurveillance value, and the last four columns the unweighted means of the proportionate deviations of actual imports from presurveillance values. Unweighted sums and means are appropriate because I am investigating the existence of trade effects rather than trying to quantify their overall impact. The table reports data for up to seven years of surveillance, although given the usual amounts of change in trading conditions the later years should not be taken too seriously. The number of cases varies from year to year because not all surveillance lasted or could be observed for seven years. Group III refers to goods from Japan first surveyed in 1981 but for which the years 1983–85 were covered by "moderation" agreements—hence the three missing years. Group I includes goods with different starting dates for surveillance, but the remaining groups are homogeneous in that regard: group II, starting in 1978; group III, 1981; group IV, 1983; and group V, 1986.[14]

The no-change anti-monde almost certainly biases the results toward finding too many positive trade effects associated with surveillance, for, over the years concerned, trade in most headings of NIMEXE grew significantly. On the other hand, this anti-monde poses fewer problems when looking at the effects of surveillance after several years, and any negative effects it uncovers seem likely to be genuine cases of trade curtailment. Prima facie the totals at the foot of table 9.2 suggest virtually no systematic effects of surveillance at all. The loss of import share (column B) is consistently negative, but the mean effect is small and at least for the first three years only half or fewer of the individual instances record declines in share.

14. Such homogeneity is a disadvantage for this analysis, because it makes it more difficult to disentangle the effects of n years' surveillance from those of general shifts in import behavior over real time, for example, in response to exchange rate changes or the business cycle. On the other hand, the consistency of our results over groups and their consistency with our predictions offer at least some comfort. See Anderson's comment, which follows this paper, for more on this difficulty.

The results for the individual groups are more informative than the totals, however. Three groups display a consistent tendency for surveillance to be accompanied by rising relative unit values and declining market shares—cases of universal surveillance (group I) and the two Japanese groups (III and IV). The latter two are consistent with several of our hypotheses: the goods are sophisticated, only one country was surveyed, and Japan is sometimes held to have well-developed mechanisms for cooperation. The only concern about this result is the possibility that there were covert moderation agreements behind these groups for more years than we have allowed. However, since the only legal teeth to such agreements was surveillance, even in this case one may still argue that surveillance is having its predicted effects. Besides, in section 9.4 I consider a much more restrictive selection of years and commodities for seeking surveillance effects and find the results largely unaffected.

Groups II and V generally record negative responses in relative unit values (column D) and positive import share responses (column B). These also appear explicable in terms of the arguments above. For footwear (group II), 11 developing country sources were surveyed; these countries have no traditions of mutual cooperation, and footwear is a highly fragmented industry in most of them. Thus it is not surprising that effective restraint was hard to organize.[15] Moreover, it is not clear that it was ever required, for the European Community has steadfastly resisted calls for community-wide protection in footwear; in these cases the implicit threat may have been rather weak.[16]

Group V contains only one case, but it provides no refutation of our hypotheses. Korea had a small share of the EC videocassette recorder (VCR) market in 1986. Despite earlier restrictions on Japan, the sector was still sensitive in the European Community in 1986, and Korea had experienced many previous instances of restrictions. Thus an aggressive attempt to establish a market position while the opportunity lasted looks like a rational response to surveillance. In 1987, the European Community instituted antidumping actions against Korean VCRs; however even if this was in retaliation for Korea's "aggressive selling" during 1986 and 1987, the "aggression" may well have been optimal, for Japanese exporters were also faced by antidumping investigations at the same time. Thus Korea had arguably managed to attain a reasonable share of the market before the undertakings extracted by the EC antidumping authorities cartelized it.

Group I—the cases of universal surveillance—appears to refute the arguments of section 9.2 above. Because surveillance refers to all countries, one might expect severe difficulties of coordination to produce the same outcome

15. The initial fall in volume may be explicable in terms of the U. K. and French restrictions on Taiwan introduced in 1977.

16. EC footwear protectionism has been national—although in the recent instances of Italian and French restrictions on Korean and Taiwanese footwear the measures have been formally introduced and validated by the European Community.

as observed for footwear (group II), but in fact this case is consistently one of rising relative unit values and falling market shares. This could reflect the early dates of two of the three cases; surveillance of industrial products was unusual in 1975 and 1977, and European *dirigisme* was strong at least in terms of articulated views of economic management if not in terms of implemented trade policies. More likely, however, it reflects the structure of imports. Although ostensibly universal, surveillance was effectively focused on only one or two countries because of their high shares of EC imports. For our two types of slide fasteners Japan accounted for 73 and 88 percent of the last presurveillance year's extra-EC imports, while for phosphate fertilizers the U.S. share was 92 percent, and for titanium the United States and Japan jointly accounted for 99 percent of each heading. Thus overall the negative effect of surveillance on imports seems quite explicable.

The consistency of the results in table 9.2 is striking. However, one must be cautious in interpreting them, because the changes observed are only rarely statistically significantly different from zero. Under a null hypothesis of no surveillance effect the five declines in market share recorded for group III (column B, years 1 and 2) could have occurred by chance with probability 15 percent, and the seven declines (in years 6 and 7) only with probability 3.5 percent. Otherwise the sign counts on market shares are wholly insignificant. Those on the relative unit values are stronger, but even then not overwhelmingly so. Similarly I calculated standard deviations for year-on-year changes in the four indicators from historical data (i.e., changes in the four years before surveillance) in order to check the statistical significance (difference from zero) of the first year's results for each group in table 9.2.[17] The absolute and relative increases in unit values for groups III and IV and the relative increase for group I are the only significant ones. The market share changes generally have ratios to their standard errors of just over unity. Even the changes described in figure 9.1 are only occasionally significant. Using historical data to calculate the expected change in volume and its standard error, only for six trade headings can we reject the hypothesis that the change in the first year of surveillance comes from the same population as prior changes. On the other hand, 27 out of 35 negative changes does significantly reject the hypothesis that surveillance has no systematic effect.

The lack of statistical significance in the results is disappointing, but it is not surprising given the small sample of cases available for investigation and the extreme noisiness of finely disaggregated trade data. Moreover, although the data cannot generally reject the hypothesis of no surveillance effects at say 95 percent significance, they nonetheless suggest that the alternative hypothesis of some effect provides a better explanation of observed phenomena than the null hypothesis of no effect.

17. This could not be done for group V because only one year's prior data are available.

9.4 Further Analysis

The consequences of removing surveillance are not the opposite of those of imposing it. As we have seen, there is a marked tendency for the import share of the surveyed country to fall during the period of surveillance, but it shows no sign of recovering subsequent to its removal. This suggests that surveillance is removed only after the "danger" has passed, which is a perfectly plausible conclusion in light of what we know of the way that governments set trade policy. Although not particularly damaging to my hypotheses, neither does this observation lend them much prima facie support, however, unless one interprets it as evidence that surveillance eventually causes exporters to move out of the surveyed markets permanently. The observation does, however, reinforce the view that surveillance has adverse effects on the volume of imports.

The second extension of the analysis asks which countries gain market share as a result of the losses inflicted on surveyed countries. For group I—the cases of universal surveillance—the answer is obvious—intra-EC trade, for that is all that escapes surveillance. Thus from table 9.2 it is plain that following surveillance EC supplies of the surveyed goods became on average more competitive (column D) and increased their market shares. It is also true, however, that the dominant suppliers lost some market share to their smaller rivals, despite the fact that the latter were also under surveillance.

For the Japanese cases, groups III and IV, the results on trade diversion are displayed in table 9.3. Here I am able to distinguish between nonsurveyed extra-EC sources of imports and intra-EC sources. No general tendency is evident. For group III, extra-EC imports fall initially along with those from the surveyed countries, which may indicate a spillover of strategic behavior to nonsurveyed countries. The corresponding increase in the intra-EC share is strong. By years 6 and 7, however, some of the trade destruction is undone as nonsurveyed extra-EC suppliers show the greatest increase in trade above base levels.

Turning to group IV, the effects are rather different, with surveyed suppliers generally being replaced by nonsurveyed extra-EC suppliers—that is, trade diversion. These results suggest that intra-EC trade gains virtually nothing from third-country import surveillance, whose principal effect is simple trade diversion. One cause of this outcome is apparent from columns C and D. With the Japanese constrained, European suppliers raise their prices by 10–20 percent over the first three years of surveillance (compare columns C and D of table 9.2), but the nonsurveyed extra-EC suppliers do so hardly at all (column C of table 9.3). By years 4 and 5, however, these effects are also starting to reverse.

The evidence of table 9.3 is ambiguous and, of course, says nothing about the levels of domestic sales in EC member states. It does suggest, however, that it is far from certain that surveillance diverts sales significantly from the surveyed sources to local firms. This is in line with analyses of other nontariff barriers, which also frequently appear to result primarily in trade diversion.

Table 9.3 Trade Diversion and Trade Destruction Due to Import Surveillance

	Number of Positive Deviations					Mean Proportionate Deviation			
	A	B	*C*	D	*N*	A	B	*C*	D
					Group III				
Extra-EC trade									
Year 1	2	3	8	6	8	−0.201	−0.043	0.260	0.156
Year 2	3	3	7	5	8	−0.110	−0.004	0.416	0.163
Year 6	7	6	7	4	8	0.755	0.071	0.380	0.031
Year 7	5	6	7	3	8	0.611	0.031	0.389	−0.006
Intra-EC trade									
Year 1	5	7	6		8	0.065	0.062	0.102	
Year 2	2	5	7		8	−0.063	0.070	0.204	
Year 6	7	4	8		8	0.318	0.005	0.333	
Year 7	7	7	8		8	0.519	0.071	0.376	
					Group IV				
Extra-EC trade									
Year 2	8	10	8	8	15	0.301	0.047	0.028	−0.038
Year 3	10	11	10	6	15	0.407	0.064	0.084	−0.021
Year 4	7	7	8	5	10	0.405	0.001	0.174	−0.001
Year 5	5	4	7	4	8	0.803	−0.016	0.179	−0.033
Intra-EC trade									
Year 1	3	7	12		15	−0.033	−0.001	0.073	
Year 2	6	7	13		15	0.008	−0.032	0.087	
Year 3	8	6	13		15	0.051	−0.040	0.142	
Year 4	9	8	10		10	0.662	0.038	0.182	
Year 5	8	6	8		8	1.024	0.050	0.230	

Definitions: See definitions for table 9.2.

As the discussion in section 9.3 suggests, there is considerable uncertainty outside the relevant bits of MITI and the European Commission as what were the exact terms of the EC-Japan trade agreement of 1983. Above I interpreted it rather liberally, arguing that, for several of the goods mentioned, "general moderation" amounted to no more than surveillance. I also faced uncertainty as to when (and if) known export restraint agreements expired. It is useful, therefore, to rework parts of the analysis under more rigid interpretations. This is done in table 9.4, which presents results for the surveillance of Japanese goods in two new classes. The new classification uses information from Jones (1987) on British VERs and assumes that if any of the categories mentioned in surveillance regulations were identified by Jones as facing British VERs, they were also covered by EC-wide VERs. Thus if it errs, table 9.4 errs on the side of caution. This adjustment excludes all Japanese products over the period 1983–85 and several others either previously or subsequently. Group III′ now refers only to the years 1981 and 1982, while group IV′ refers to 1986 and

Table 9.4 **Effects of Surveillance, Alternative Classifications**

	Number of Positive Deviations					Mean Proportionate Deviation			
	A	B	C	D	*N*	A	B	C	D
					Group III'				
1981	2	2	7	5	7	−0.162	−0.024	0.245	0.130
1982	1	2	7	3	7	−0.363	−0.077	0.243	0.039
					Group IV'				
1986	3	2	9	6	9	0.208	−0.058	0.645	0.116
1987	3	2	7	5	7	0.134	−0.065	0.612	0.043

Notes: Definition of Groups:

Group III': 84.45-12, 84.45-14, 84.45-16, 84.45-36, 84.45-37, 84.45-51, 84.45-94

Group IV': 84.45-36, 84.45-37, 84.45-48, 84.45-51, 84.45-94, 85.14-40, 85.14-60; 87.09-59, 92.11-80

Definition of Columns:

See definitions for table 9.2.

1987 regardless of whether surveillance was instituted in 1981 (group III) or 1983 (group IV). Given the smallness of the sample this seemed a more useful classification than that used in tables 9.2 and 9.3. The revision of the classification makes no difference to the conclusions above.

Fundamental to the whole of this analysis is that exporters believe that surveillance increases the probability of future QRs but that if they restrain themselves the probability is offsettingly reduced. It would be of interest to know whether such a view has any foundation. Unfortunately, our data shed little light on the matter, for we do not know the levels at which the European Community's triggers for further protection, if any, were set. Given that the pressures for, and politics of, protection differ so much between industries and time periods these triggers are bound to differ from case to case.

Among our categories only groups III and III' moved from surveillance to QRs. They, in fact, showed the strongest reduction in the surveyed countries' market shares that we observed, which might suggest that strategic responses to the threat implied by surveillance was misplaced. There are, however, a number of special factors that encouraged the imposition of the VER in 1983 and which could plausibly outweigh any strategic considerations. The European Community and Japan were negotiating VERs on other goods, and the European Community was anxious to obtain a comprehensive package to bolster its trade-policy-making role in the face of challenges from national governments. Surveillance had stimulated intra-EC shares; thus there was more incentive to defend its results by formalizing them than if trade diversion had occurred. Machine tools—the only commodity in group III—were held to be a highly strategic sector at the time. It is also possible that the factor that per-

mits a cooperative response to surveillance—namely, a concentrated or well-organized industry—also facilitates creating a VER, for it is clear with whom the European Community should negotiate (even if indirectly via Japanese officials), and on the export side it is easier to prevent dissenting or newly entering firms from disrupting the process.

The fact that surveillance is removed only when the "danger" has passed lends some credence to the endogeneity of trade policy, but overall it is clear that a firm ruling on this possibility must await a different exercise. All I can conclude here is that my results are not inconsistent with the maintained hypothesis that the probability of surveillance transforming into something worse depends on the level of imports under surveillance.

9.5 Conclusions

The conclusions of this analysis come on two levels. In terms of description we have shown that more often than not imposing import surveillance, which ostensibly entails only collecting detailed trade information, curtails imports. In some cases it induces an absolute fall in imports, in a majority it causes the surveyed countries' market shares to fall, and in nearly all it reduces the rate of growth of imports. It raises the prices of the surveyed imports and probably also those of the European Community's local production. In some cases it diverts trade toward extra-EC nonsurveyed suppliers and in others toward intra-EC trade. In short, import surveillance has detectable and lasting protective effects, and this is so whether the reasons are strategic or otherwise.

Analytically I have provided a model which distinguishes the circumstances in which surveillance is likely to reduce imports from those where it might increase them. The former was predicted to occur when exporters plausibly believed that they could influence the probability of future QRs. In part this depended on perceptions of the European Community's propensity to protect certain sectors, but it was also argued to be more likely if surveillance was discriminatory and concerned goods from relatively concentrated industries. These factors allowed me to predict which groups of instances of surveillance were most likely to cause trade reductions. Although the empirical results were imprecise and frequently did not attain usual standards of statistical significance, they showed a strong general tendency to support the predictions. Certainly, given the underlying amount of noise, they did not contradict the hypotheses advanced.

The significance of the results is that the model's predictions rely heavily on strategic behavior. Since surveillance barely affects the actual costs of or returns to trading, its effects, if any, must stem from its influence on exporters' perceptions of their environment. Specifically, if exporters believe that the imposition of surveillance increases the probability that the European Community will protect a sector, but that they can reduce that probability by exercising

voluntary restraint, then the model predicts that restraint will be more likely to occur. This is strategic behavior, albeit of a very simple kind. The results above indicate the existence of such strategic behavior.

Substantial effort has gone into building models of strategic behavior over the last decade, but virtually none has been devoted to testing their implications on real data. Thus while such models might provide persuasive parables, we have virtually no handle on their ability to explain the world as we observe it. This paper, on the other hand, does explore the positive implications of strategic behavior and, in a very simple context, finds them vindicated. I stress that my results do not prove the existence of strategic behavior of the types postulated by strategic trade policy models, but at least they suggest that it is worth looking for them. Moreover, I would argue that until we have tested the positive predictions of these models we should not recommend, even implicitly, their use in the real world.

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Comment

James E. Anderson

This paper is a pioneering empirical effort to see whether the prospect of future trade intervention influences current trade volumes. Surveillance is a way of raising the subjective probability all agents place on the event of a VER. Competitive firms should export more in the hope of claiming more export licenses in the future. Cournot duopolists (or firms in countries which cartelize exports) should export less in the hope of reducing the probability of a VER, since profits will be lower in the event of a VER. The investigation shows that they do, more or less. I have reservations about the methods used but have no doubt that the topic is worthwhile. I also suspect that the findings may hold up after a deeper investigation. I have two sorts of objections, to the theory, and to the econometrics.

Theory

There is no formal theory, but a discussion. Moreover, this structure is not adequate to bear the weight assigned to it.

1. A reduction in trade following surveillance is taken to be evidence of strategic behavior, but there is a simpler explanation. Any type of firm will dump less if surveillance is the signal that antidumping action is contemplated. Winters attempts to rule this out by noting that antidumping action is always available to a government and quicker than surveillance. Therefore, agents believe that if antidumping were intended, it would be done directly. The argument is ingenious, but not convincing. It is plausible that the enforcement of antidumping is welfare-decreasing for the importing country (a model is needed to sort this out), and if so the threat of enforcement is a useful added tool. It would be nice to find a way to disentangle the antidumping aspect from the strategic, but I concur with the author that it is hard to see how.

2. Some instances of strategic behavior are associated with increased trade. If the VER system will reduce competition among exporting rivals, depending on the level of trade, it could increase profits; hence strategic exporting will be greater in the hope of raising the probability of the VER.

Econometrics

It is always difficult to pick out one clear refrain from the clamor of many, but the usual approach is to set out a tolerably complete model which can be used to subdue the dogs in the pound of *ceteris paribus*. Rather than that, Winters compares trade growth before and after the surveillance episode. Nonparametric methods have some attraction here, especially in light of the difficulty of modeling such fine micro behavior, but is surveillance the only important shift parameter in the demand, cost, or institutional structure?

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1. One major confounding factor is the European recession of the 1980s. I was unable to determine from the presentation of table 9.1 and figure 9.1 the extent to which this might account for the low import growth after surveillance.

2. Another major confounding factor is the eclipse of the Japanese by new Asian competitors. Again, I could not determine whether this might account for slow import growth after surveillance in a number of cases.

3. A major cause of changes in absolute advantage in the 1980s was large relative movements in exchange rates. Does this account for a number of cases of slow import growth?

4. Winters attempts to control for other political-economic factors which might have shifted the subjective probability of a VER by excluding some industries and years on the basis of explicit actions taken. This is no doubt a proper step so far as it goes, but a full model of the probability of a VER is needed to control for many other possible important influences in the importing country, such as electoral or opinion poll results, domestic increases or decreases in unemployment, and so forth.