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*Some Preliminary Findings from the World Bank's Project on the Political Economy of Agricultural Pricing***

INTRODUCTION

Most developing countries' governments have adopted a number of policies which directly and indirectly affect the returns to farmers for their various products. In many instances some policy instruments raise the returns for a particular output, while others lower the returns for that same product. The result is often an array of partially-offsetting policies which, to an economist's eye, could clearly be replaced by fewer, more consistent, instruments that would achieve whatever the targets of policy are with lower economic cost and/or greater benefit.

Policies directly impacting on agricultural prices, and their effects, have been the objects of study in a number of countries. However, it has been difficult to infer general patterns of effects on the basis of individual studies. Moreover, few studies have examined the combined effect of direct pricing policies (including those affecting both inputs and outputs) and those more general economic policies that can have an important but indirect impact on agricultural returns. This latter class of policies will henceforth be referred to as 'indirect policies', meaning that they are policies which are adopted for reasons not directly and primarily related to agriculture but which nonetheless have a significant impact on producer returns in agriculture.

This latter class of policies, including especially the exchange rate and degree of protection to nonagricultural activities, has been studied in connection with the analysis of developing countries' trade and payments regimes, but has often received only passing attention in analyses of agricultural pricing policies. Yet one of the fundamental propositions of international trade theory is that protection of some economic activities discriminates against others: not all activities can be simultaneously protected.

The World Bank's Comparative Study of the Political Economy of Agriculture Pricing has been underway for the past three years in an effort towards further understanding of government policies affecting agriculture. It had several related objectives: (1) to assess the relative importance of direct and

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** This report is based on findings from the World Bank's 'Political Economy of Agricultural Pricing Project', whose co-directors are Maurice Schiff, Alberto Valdes and myself. The authors of country studies are listed in Note 1. Studies of the individual countries were completed in the first half of 1988, and analysis of the commonalities and patterns among countries is now underway. I am indebted to Maurice Schiff and Alberto Valdes, as well as those who undertook the country studies in the project, for permission to use project material from their work for this report. Thanks are also due to the World Bank for its financial support of the project.

indirect interventions affecting returns to agricultural producers; and (2) to analyse the political and economic factors affecting interventions in agricultural pricing. To accomplish the latter objective, it was necessary also to examine the effects of both direct and indirect agricultural pricing interventions. Moreover, in any particular country, it is very difficult to distinguish the causes and effects of particular policies from the results of other exogenous and endogenous events. In an effort partially to overcome this difficulty, the World Bank's Comparative Study was undertaken for eighteen countries within a common analytical framework. The countries covered in the project were: Argentina, Brazil, Chile, Colombia, Dominican Republic, Egypt, Ghana, Ivory Coast, Korea, Malaysia, Morocco, Pakistan, Philippines, Portugal, Sri Lanka, Thailand, Turkey, and Zambia.¹

For each country, the country authors provided an analytical history of both direct and indirect interventions affecting returns to agricultural producers. They then proceeded to quantify the extent to which these interventions affected the producer prices relative to what they would have been in the absence of intervention. This involved estimates of the impact of marketing boards, export taxes, input subsidies, price controls, and other policy instruments on the nominal prices received by producers.

It also required estimates of the effect on industrial prices of protection to industrial goods, and of the degree to which unrealistic exchange rates (resulting from efforts to maintain nominal rates in the presence of inflation, from quantitative restrictions supporting an unrealistic rate, and from protection to imports) affected producer prices. Authors all used a common methodology to make these estimates, although they also considered the realism of this methodology for their countries and contrasted the results with estimates obtained by other methods.²

The individual country studies are now virtually completed and some are already in press. The project co-directors are now engaged in analysing the comparative results of the project, which will constitute the subject of the synthesis volume. This paper is designed to acquaint readers with the study and to present some of our preliminary findings.³ Space constraints permit focus on two issues only: (1) the relative importance of direct and indirect policies in affecting returns to agricultural producers; and (2) some political economy findings that may partially explain that result. A final section indicates some of the issues that are analysed in the synthesis volume.

DIRECT AND INDIRECT POLICIES AND THEIR IMPACT

For pedagogical purposes, I shall assume that all agricultural commodities are tradables, and I shall regard both the border price and the unit costs of bringing goods from the border to a distribution point and of bringing them from the farmgate to that distribution point or the port as given. In practice, a great deal of time and attention was devoted in the project and in individual country studies to estimating the relevant prices, and a major contribution in many of the studies was to identify the relevant price alternatives.

With knowledge of those prices, it is in principle straightforward to estimate the international value of a unit of any particular farm output; it is also

straightforward to estimate the international value added in producing a unit of the crop as the difference between the farmgate price derived from the border price and the international value of inputs employed per unit of output. If all commodities were tradable, one could then proceed to calculate the divergence between domestic value added and international value added and quantify the degree of intervention in agricultural prices.

In reality, two considerations must be taken into account, even on the pedagogically-simplifying assumptions made above. There are typically a wide variety of nontraded goods which include some inputs into agriculture (among which is transport to and from farmgate). In a regime of free trade with a freely floating exchange rate and no tariffs or other barriers to imports or exports, one could nonetheless use the exchange rate for conversion of international prices to domestic prices, and thus contrast prices of tradables and nontradables by converting tradables' border prices into domestic at the prevailing exchange rate. In practice, however, exchange rates are often pegged at unsustainable levels, which in itself leads to higher prices of home goods relative to tradables than would prevail at a realistic exchange rate. Simultaneously tariffs and nontariff barriers restrict imports, thus raising their prices above international levels (and leading to a lower sustainable price of foreign exchange than could obtain without domestic protection).

Especially for agricultural exportables, both the higher relative price of home goods and the higher relative price of industrial goods lower the real returns to agricultural commodities. Country authors in the project therefore estimated both the impact of direct interventions on the prices of agricultural outputs and inputs, and the impact of unrealistic exchange rates and protection to domestic industry on the prices of nonagricultural commodities (this latter effect being the 'indirect' effect). The total divergence between the producer price and producer value added under prevailing policies, and that which would obtain under a no-intervention regime, was then decomposed into the portion attributable to direct pricing policies and that portion resulting from exchange rate misalignment and protection to domestic import-competing activities.⁴

Table 1 provides estimates of the direct, indirect, and total divergence between domestic prices and international prices for a variety of countries and commodities for the period 1980–84.⁵ In the individual country studies, data were gathered and presented for several major crops – usually between three and five. Generally, authors made an effort to identify a major food crop (which might be an importable, exportable, or nontradable), an export crop, and an import-competing crop. When there were significant differences between commodities, efforts were made to choose representative crops, which often led to a focus on more than three commodities. As will be seen in analysing the political economy of direct relative to indirect interventions, differentials among crops in the same category can also be important, and politically motivated.

For present purposes, one exportable and one import-competing commodity from each country was selected for inclusion in Table 1. As can be seen, there was no significant import-competing commodity in Argentina and Thailand, and no significant exportable in Korea and Morocco.

Several patterns emerge clearly from examination of these data, and even more clearly when the data for all the commodities analyzed by the country

TABLE 1 *Direct, indirect, and total protection rates for selected commodities, 1980–84.*
(per cent of international price)

Country	Exportables				Importables			
	Product (1)	Direct (2)	Indirect (3)	Total (4)	Product (5)	Direct (6)	Indirect (7)	Total (8)
Argentina	Wheat	-13	-37	-50	None	-	-	-
Brazil	Soybeans	-19	-14	-40	Wheat	-7	-14	-21
Chile	Grapes	0	-7	-7	Wheat	9	-7	2
Colombia	Coffee	-5	-34	-39	Wheat	9	-34	-25
Dominican Republic	Coffee	-32	-19	-51	Rice	26	-19	7
Egypt	Cotton	-22	-14	-36	Wheat	-21	-14	-35
Ghana	Cocoa	34	-89	-55	Rice	118	-89	29
Ivory Coast	Cocoa	-21	-26	-47	Rice	16	-26	-10
Korea	None	-	-	-	Rice	86	-12	74
Malaysia	Rubber	-18	-10	-29	Rice	68	-10	58
Morocco	None	-	-	-	Wheat	0	-8	-8
Pakistan	Cotton	-7	-35	-42	Wheat	-21	-35	-56
Philippines	Copra	-26	-28	-54	Corn	26	-28	-2
Portugal	Tomatoes	17	-13	-42	Wheat	26	-13	13
Sri Lanka	Rubber	-31	-31	-62	Rice	11	-31	-20
Thailand	Rice	-15	-19	-34	None	-	-	-
Turkey	Tobacco	-28	-35	-63	Wheat	-3	-35	-38
Zambia	Tobacco	7	-57	-50	Corn	-9	-57	-66

Source: Data from individual country studies.

authors are examined.⁶ First, if one examines direct intervention in exportable commodities, including export taxes, implicit taxes of parastatal marketing boards, and the like, there is a strong tendency to tax these commodities, and to tax them rather heavily. Exceptions to that pattern include: Ghana, where the exchange rate was so unrealistic that some incentives had to be given or the crops would not even have been picked; Zambia, in which tobacco was a crop whose production was being encouraged; and Portugal, where there were incentives for the export of tomatoes. Chile's regime was encouraging the development of agricultural exports, but through the elimination of trade barriers and the adoption of a realistic exchange rate rather than through direct subsidies.

Second, and surprisingly, direct interventions for most import-competing products confer protection to the domestic product, although often at fairly low rates. Exceptions here are Egypt, which strongly taxes domestic wheat production (in the interest of lowering the budgetary cost of consumer subsidies – note that Morocco does not protect wheat for the same reason), Pakistan, and, to a lesser degree, Zambia, Turkey and Brazil. However, relative discrimination among crops can be quite large: contrast Ghana's 34 per cent equivalent subsidy to cocoa with the 118 per cent protection to rice; likewise, Malaysia's export tax-equivalent for rubber was minus 18 per cent whereas the equivalent subsidy to rice producers was 68 per cent.

Thus, direct effects can be quite large and they can produce very significant shifts in relative prices among agricultural commodities. In so far as farm

producers are sensitive to relative returns but relatively impervious, at least in the short run, to the overall terms of trade between agriculture and industry, the changes in relative prices brought about by direct interventions have created significant incentives to alter resource allocation within agriculture.

However, perhaps the most surprising finding of all pertains to the magnitude of the indirect effects. Columns (3) and (7) are identical, as they provide the country authors' estimates of the effect of exchange rate and protectionist policies on the price of the commodity in question relative to nonagricultural prices. As can be seen, even in instances where the apparent intent (as judged by the positive sign of direct protection for import-competing crops) was to protect commodities, the negative effect of indirect protection was often large enough to provide a significant offset to it, and in many cases to lead to negative overall protection. In Colombia, for example, the apparent intent of those dealing with agricultural policies was to encourage domestic wheat production; the subsidy-equivalent to wheat was about 9 per cent of the border price of wheat. However, Garcia and Montes estimate that the negative effect of exchange rate policy and protection to industry reduced the relative price of wheat by 34 per cent. The upshot was a negative protection to wheat producers of 25 per cent for Colombia. The Ivory Coast, Philippines, and Sri Lanka were other countries which, during the 1980–84 period, had positive direct but negative indirect and overall protection to the import-competing crops reported on here.

Moreover, if one examines the magnitude of indirect protection, it is often extremely large. As already mentioned, in Ghana the exchange rate was so unrealistic that Stryker estimated its impact to be equivalent to an 89 per cent tax on cocoa and to offset more than three-quarters of the direct subsidy to rice. For other countries, as well, the magnitude of the indirect effects was also very sizeable: Zambia, Sri Lanka, Turkey, the Ivory Coast, Pakistan, Colombia and Argentina are all estimated to have had trade and exchange rate policies which discriminated against agriculture by more than 25 per cent, relative to what would have happened had producers been subject to the same direct intervention but without tariffs or other protection to industrial goods and a realistic exchange rate.

When direct and indirect protection are considered jointly, the negative impact on agriculture of direct and indirect policies is apparent. Looking first at column (4) only Chile and Portugal did not have large equivalent-taxes on the agricultural exportables during the 1980–84 period. Argentina, the Dominican Republic, Ghana, the Philippines, Sri Lanka, Turkey and Zambia all had policies which in effect taxed agricultural exports by more than 50 per cent. Stated another way, returns to rubber growers in Sri Lanka were about one-third of what they would have been in a regime reflecting relative border prices and a realistic exchange rate.

In the individual country studies, authors considered the effects of input subsidies (and also government investment programmes), and analysed whether these were sufficient to offset the negative impact of direct and indirect policies on returns to agricultural producers. While space limitations prevent presentation of the results, it was rare for any crop that input subsidies offset more than a fraction of the negative nominal protection reported in Table 1. Moreover, consideration of input subsidies indicated that there was little differential among

crops, and that divergences between estimates of nominal and effective protection rates were generally small.⁷

POLITICAL ECONOMY OF DIRECT AND INDIRECT INTERVENTIONS

In the forthcoming synthesis volume and in the individual country studies, the effects of these large tax equivalents on agriculture in the countries concerned are analysed. Here, the focus is on one of the interesting political economy puzzles that emerges from analysis of the findings. The interesting and puzzling phenomenon is: why do agricultural producers so often organize and pressure governments to alter the magnitude of direct interventions affecting their products while they are usually so silent on the macroeconomic issues, even in cases where those macroeconomic phenomena clearly affect their economic well-being far more?

Consider, for example, Colombia. Garcia and Montes regard the Coffee Producers' Federation as one of the two 'most politically powerful groups' in the country, and report that this Producers' Federation, like that for cotton, rice, tobacco and other commodities, lobbied hard and effectively for subsidies to agricultural inputs and against heavier direct taxation of outputs. As can be seen from Table 1 for coffee and wheat, and as is true for other commodities in Colombia, the effect of direct policies was usually relatively small, even if negative and was, in some cases, positive.

The pattern was similar in Turkey. There, agricultural producers organized into a Federation cutting across the various crops. It was also regarded as powerful politically. Negative direct intervention was smaller for most crops than it was for tobacco; in addition, input subsidies were fairly sizeable and the Federation used its political influence repeatedly in an effort to increase their magnitude. Despite this, Olgun *et al.* reported that the Federation's voice was 'silent' on the over-riding issues of macroeconomic policy. According to their estimates, unsustainable and overvalued exchange rates combined with high protection of domestic industry to more than offset the positive direct effects of output price support and input subsidies.⁸

To an economist, the apparent political economy puzzle is why this should be. If an association or associations of agricultural producers are so powerful, why are they silent when key macroeconomic issues of importance to them are discussed, and yet so vocal when it comes to direct interventions? And why, in particular, is so much of the apparent political capital of the producers' associations directed to urging input subsidies which, upon closer examination, are of much smaller value to agriculture in the aggregate than would be reductions in direct policies resulting in lower producer prices?

There are, of course, several hypotheses. One, voiced by Olgun *et al.* is that the producers were simply unaware of the impact of negative indirect policies upon them. Another, put forth by Bent Hansen,⁹ is that agricultural producers' associations in Turkey (but not in Egypt—see below) had enough political power to be able to influence decisions directly affecting agricultural prices but not enough to influence indirect policies. While this hypothesis may be correct, a

difficulty with it is that one would then be puzzled by the coincidence that there appears to have been no country in which agricultural producers could join a coalition in support of a more sustainable real exchange rate and reduced protection to domestic industry. Yet a third, put forth by Garcia and Montes, is that the 'modernizing elite', which was the dominant political coalition, in their view, believed in industrialization and import substitution, and could not effectively be deterred from this strategy. The legitimization of that strategy meant that it was ineffective for agricultural producers to fight exchange rate and protectionist policies, but they could put forth arguments, such as 'balance of payments improvement' which supported greater support through increased protection or reduced taxation of outputs and through larger input subsidies.

An important piece of the puzzle, however, comes through examination of the political structures of the countries with high, and with low, direct taxation of agriculture. If one takes as a first approximation that agricultural producers are politically less powerful in countries where direct taxation of agricultural produce has been greatest, then one would identify Ghana, Egypt, Zambia and Argentina as countries where agricultural producers are politically weakest, and Colombia, Brazil, the Ivory Coast, Malaysia, Portugal, Thailand and Turkey as countries where they have historically been strongest. Pakistan, Sri Lanka, Philippines, Morocco and the Dominican Republic would represent a middle group, where agricultural producers have historically been politically weaker (as defined by the degree of negative protection to agriculture) than in the 'strong' countries but stronger than in the first-listed group of countries.¹⁰

The degree of political power as suggested by this ranking accords well, albeit roughly, with two key variables. The first is the extent to which there are large rural producers who are politically powerful; the second is the relationship of those large producers to the ruling coalition. Consider, for example, Egypt. One of the first activities undertaken by Nasser's government was to redistribute land in such a way as to destroy the power of the large landowners. As Hansen analyses the situation, this left the small farmers without an effective political voice, which in turn led to relatively high direct taxation of the agricultural outputs.

In Turkey, large growers were the most influential in the producers' association: the ownership of land and the size distribution of farms was more unequal in Turkey than in Egypt, but the large landowners used their political influence to obtain better treatment for agriculture than that obtained in Egypt. Hansen attributes this difference between the Egyptian and the Turkish treatment of agriculture to the existence of the large and influential group of producers in Turkey.

Consider, by contrast, the situation in Ghana. There, the large growers opposed the coalition that came to power with independence. The Nkrumah government thereupon removed the existing producers' association and substituted for it a group dominated by urban party members. Agriculture had little, if any, voice after Nkrumah came to power. In Zambia as well, an urban coalition has governed since independence. However large growers in the Ivory Coast were part of the ruling coalition that came to power; indeed, the President came from a group whose livelihood had originated in plantation crops.¹¹

There are many more pieces of evidence, but only two will be cited here. In

Malaysia, there was mild discrimination against rubber, virtually none against palm oil, and rice planting was positively encouraged. The rubber plantations had historically been foreign-owned whereas rice was almost entirely cultivated by small Malaysian farmers who were politically part of the coalition in power. In Sri Lanka, likewise, rice was directly protected, whereas rubber and copra were taxed; the latter had been cultivated on large estates held by foreigners, who had virtually no influence after independence; the rice growers were represented in both political parties.

The next piece of the puzzle comes from evidence, often anecdotal, but nonetheless plausible. That is, in virtually every country where there was any discussion of the issue, the large growers were reported to have received far more than their share of subsidized inputs, and often much more.¹² This was especially true of credit almost everywhere, but also of fertilizer, pesticides and even water for irrigation.

It is probably true that the competing explanations for agricultural groups to focus on direct interventions and their lack of effort to influence indirect intervention are relevant and explain part of the puzzle, possibly to different degrees in different countries. In addition to the two explanations cited above – the failure of growers to appreciate the importance of indirect effects, and the influence of modernizing elites with their belief in industrialization and import substitution – there may be other hypotheses that can explain the emphasis by agricultural producers on direct effects.

However, what apparently emerges from the countries covered in the project is a reasonably systematic pattern in which large landowners may be compensated for part or all of their losses occurring through indirect taxation through their disproportionate receipt of input subsidies of various kinds. Further analysis of the country studies may modify this conclusion, but at this preliminary stage of analysis, the pattern is interesting.

If this finding withstands further scrutiny, it would suggest a political economy model in which direct intervention permits much greater ‘targeting’ of rewards from the political process (receipt of input subsidies, a higher price or lower tax on the product produced, and so on) than would be possible were reliance primarily on generalized incentives.

If the governing group needs to hold a coalition together, it needs political resources with which to reward its supporters. The more powerful are the few (the large landowners, the large industrialists, and so on) the more tempting it must be for the politicians to create direct intervention instruments which can discriminate, to a greater or lesser degree, among potential claimants and reward supporters of the system. By intervening in agriculture on a crop-specific basis, and gaining control over the allocation of valuable inputs, politicians wanting to maintain the support of large landowners can reward them in ways that would not be possible under an economic regime of uniform incentives achieved through macroeconomic policies.

Whether input subsidies are distributed in ways in which large and politically influential growers receive more than they would under a uniform incentive system with higher prices of outputs resulting from a realistic exchange rate, lower prices of industrial goods due to lowered protection, and more realistically priced inputs is an important question. Unfortunately, there is little evidence on

this question from the country studies, as it would take microeconomic observation of the implicit value of inputs received by individual producing units (which might even be dangerous information). And, once a system such as an import-substitution regime buttressed by an overvalued exchange rate is in place, it is exceptionally difficult to dismantle; perhaps agricultural producers are pessimistic about their chances or, alternatively and possibly more plausibly, they may be subject to 'bounded rationality' wherein they understand the consequences of small policy changes that might affect them, but do not fully recognize the potential results of a change in the overall economic regime. Given that economists themselves are unable to predict the consequences of large reform efforts, this degree of bounded rationality would not be surprising.

Whether the 'political favours' rationale for direct interventions is correct or not, what does seem clear is that in countries where a large land-owning group either does not exist (as in Egypt) or has supported those who are out of power (as happened in Ghana and Zambia), the total discrimination against agriculture through direct and indirect taxation is likely to be greater than in countries where those large landowners are part of the governing coalition.

TOPICS AWAITING ANALYSIS

The finding that indirect interventions in agriculture have often been relatively much more important than direct interventions seems fairly robust. While the co-directors are still analyzing the results of the project with regard to a number of issues, almost all country authors were themselves surprised and impressed by the importance of indirect interventions in their country once they had subjected them to analysis.

A number of additional topics await analysis. Among these, the income distributional effects of interventions on both producer and consumer prices and incomes is a crucial topic.

The political economy conclusions are, however, more tentative. There, considerable additional analysis remains to be done. A major question concerns the interaction between political and economic realities: one important theme being investigated is the importance of a government's budget constraint in affecting policies toward agriculture. Another is the administrative difficulty of enforcing market-thwarting policies. Yet another focuses on the role of those agencies created to carry out agricultural pricing policies as protagonists of the perpetuation and even extension of those policies.

Finally, and perhaps most important, is the question of what brings about major and thoroughgoing reforms of agricultural pricing policies. As stated at the outset, the pattern of intervention affecting agriculture often appears to an economist to be *ad hoc* and indiscriminate. One of the important questions dealt with by country authors centred upon reform efforts in the project countries, the circumstances under which they were undertaken, and the factors – both political and economic – that accounted for their evolution once initiated, including, of course, their success and failure. Analysis of that question must await the synthesis volume, however.

NOTES

¹Authors of the individual studies, which constitute major advances in the understanding of agriculture in those countries are: Argentina – Adolfo Sturzenegger and Wylían Otrera; Brazil – Jose Luiz Carvalho and Antonio Brandão; Chile – Hernan Hurtado, Eugenia Munchnik and Alberto Valdes; Colombia – Jorge Garcia and Gabriel Montes; Dominican Republic – Terry Roe and Duty Greene; Egypt – Jean Jacques Dethier; Ghana – Dirck Stryker; Ivory Coast – Achi Atsain, Thomas Eponou and Allechi M'Bet; Korea – Pal Yong Moon and Boon-Soon Kang; Malaysia – Glenn Jenkins; Morocco – Hasan Tuluy and Lynn Salinger; Pakistan, Ijaz Nabi and Naved Hamid; Philippines – Ponciano Intal and John Power; Portugal – Francisco Avillez, Timothy Finan and Timothy Josling; Sri Lanka – Surjit Bhalla; Thailand, Ammar Siamwalla and Suthad Setboonsamg; Turkey – Hasan Olgun, Ali Aslan Gurkan and Haluk Kasnaloglu; Zambia – Doris Jansen. The full studies will appear as World Bank Working Papers; three volumes, edited by the co-directors, will contain chapters on the individual countries; and a synthesis, by Maurice Schiff, Alberto Valdes and myself will provide an analysis of the comparative features of agricultural pricing policies in the eighteen countries.

²See the Chapter 1 of the country studies volumes for further particulars of the methodology. An abbreviated account may be found in Anne O. Krueger, Maurice Schiff and Alberto Valdes, *World Bank Economic Review*, September 1988.

³Further information is available in Krueger, Schiff and Valdes, 'Impact of Sector-Specific and General Economic Policies toward Agriculture', *World Bank Economic Review*, September 1988. See also Maurice Schiff, 'Sector-Specific and Economic-Wide Policies and Agricultural Incentives in LDCs', also presented at this conference.

⁴In instances where it was believed that countries might have monopoly power in particular commodity markets, authors attempted to estimate the optimal tariff or tax that would obtain, and calculated divergences from the optimum, rather than the prevailing international price. There were a number of difficulties in practice, including the pricing of sugar when part of exports went to the American market under the quota, estimating what 'realistic' marketing costs would be in the case of inefficient marketing boards, adjustment for unrealistic transport pricing, and so on. See the forthcoming synthesis volume and the individual studies for details.

⁵Surprisingly, results are little different in the aggregate if one uses estimates for the 1975–79 period. Patterns emerging from analysis of the data for the period since 1960 will be presented in the synthesis volume.

⁶The forthcoming synthesis volume will contain a much more detailed analysis. Of course, the greatest detail on any particular country will be found in the country chapter, and the Final Reports issued for that country.

⁷An exception to this statement is Brazil for the recent period in which credit subsidies became extremely large. It is not evident whether these credit subsidies were in fact tied to crop production, as Carvalho and Brandão report that subsidized credit was frequently lent on to urban activities by the large growers who received the bulk of the credit.

⁸The magnitudes of both positive direct and negative indirect intervention were both larger in the 1960s and 1970s than they were in the 1980s – the period reported upon in Table 1. Positive direct intervention in Turkey was also greater for other exportables than it was for tobacco in most years.

⁹The Political Economy of Poverty, Equity and Growth: Egypt and Turkey', mimeo for the World Bank Comparative Study on Poverty, Equity and Growth, April 1988.

¹⁰Chile and Korea are omitted from this listing. These two countries are or have been large net importers of agricultural commodities, and it is difficult to analyse the relative strength of protectionist pressures from that of the agricultural producers. Judging by Chilean numbers for the 1960s and early 1970s, however, one would have to assert that agricultural producers had little political power at that time.

¹¹This analysis follows that of Robert H. Bates. Bates points out that in Kenya, where agriculture's treatment has been relatively favourable, the coalition that came to power had the growers as a key part. See his *Essays on the Political Economy of Rural Africa*, University of California Press, Berkeley, 1983.

¹²Exceptions are Malaysia where, as noted, it was peasant paddy growers who were the group in the governing coalition. There is no evidence available on this point for Korea.

DISCUSSION OPENING – AJAY CHHIBBER*

Pricing policy is one important element of the wide array of policies through which governments affect returns to farmers for their products. These can be subdivided into direct (those relating to policies which affect agriculture directly) and indirect (those which are economy-wide such as exchange rate overvaluation and protection to nonagricultural sectors). The paper by Anne Krueger summarizes the work done on a large research project in which a common methodology was used across 18 countries to estimate the direct and indirect price effects. The paper shows that in many of the sample countries the indirect effect is often relatively much more important than the direct effect in lowering returns to farm products. The paper goes on to provide some hypotheses regarding why (a) farmer lobbies appear to be less inclined or unable to influence overall economic policies which hurt them and (b) possible political economy reasons for differences in government pricing policy towards farmers across countries. I would like to raise four sets of issues which we might focus upon in the discussion.

First, there is the question of the overall methodology or the strategy of the project. The project attempts to use common methodology across 18 countries. This has advantages in that it becomes possible to compare policies across countries but it can be dangerous if one gets into political economy issues where culture, history, nation-building and the stage of social and economic development dictate the strategy of development. Although individual country studies probably try to get into some of these issues they play no role in the synthesis presented here. I should also note that it is one thing to start with a common methodology and quite another to actually apply it given that data availability varies so much across countries. One wonders whether it might have been more useful to have studied a smaller set of countries in more depth.

Second, the distribution of the total tax on agriculture between the direct and indirect effects depends very much on how the equilibrium exchange rate is determined. The paper does not cover this critical issue on which its major conclusion rests. I am not suggesting that the methodology should have included a general equilibrium model that determined the equilibrium real exchange rate; but whatever partial methodology was used should be subjected to sensitivity tests to check the robustness of the conclusions. The indicators used in the study are also difficult to calculate for nontraded goods whose exclusion can sometimes lead to erroneous conclusions. One example that comes to mind is the cotton/berseem (fodder) crop rotation in Egypt where a taxed commodity, cotton, is grown in a crop cycle with a heavily protected commodity, berseem.

Third, the political economy implications of how much farmers are being taxed and through which instruments cannot be sensibly separated from the government's expenditure policies. How a government spends money extracted from agriculture is extremely important. If the tax revenues are used to reinvest in agriculture through public goods such as research, extension, irrigation, roads and rural electrification, as, say, in China, India, Indonesia or in Japan and Korea,

*The views expressed in this discussion note are the author's alone and should not be ascribed to the World Bank.

then farmers may not object to taxation whether it is direct or indirect. Empirical evidence shows that the returns to these expenditures can be very high.¹ To take an example from the paper about the heavy taxation of Egyptian farmers in the late 1960s, the paper mentions one hypothesis: that Nasser's land reform destroyed the large land-owning class who were an organized lobby for agrarian interests. However, if one looks at Egyptian expenditure data one finds that in this period Egypt embarked on the largest irrigation/hydro project in its history – the Aswan Dam; diverting large sums from potential nonagriculture related projects. The returns from this project to Egyptian agriculture have been immense, especially when one considers how adversely the recent drought affected other neighbouring countries. The point that I am trying to make is that hypothesizing about the political economy insights that appear to emerge from the pattern of agricultural pricing can be misleading unless one considers how government policies affect total resource flows in and out of the sector. The paper discusses the question of input subsidies but these typically form a small part of government expenditure on agriculture. The overall study (though not this paper) presents a government expenditure bias index which measures the ratio of investment in agriculture GNP in total GNP. This index, however, is misleading because agriculture can benefit from investments in the sector as well as investments in other sectors, such as power, transport and social sectors, if those investments are geared towards benefitting the farm sector. A government does not have to be directly investing in agriculture and can yet follow expenditure policies which benefits the sector.

Fourth, the question of agricultural pricing needs to be examined in a somewhat broader context of overall resource mobilization. Here administrative ease and expediency rather than political economy considerations may be as important in determining why, how and to what extent countries rely on price policy as against other instruments for resource mobilization. In Africa, the tax collection mechanisms are still rudimentary and consequently trade taxes are major source of revenue, not so much for political economy reasons but because of much lower administrative costs. In many developing countries direct taxation of agricultural income and cost-recovery may be administratively difficult.² If so, pricing policies may provide the only available alternative to mobilize resources from the sector, unless one is recommending a retraction of the role of the government in the economy. If so this should be explicitly stated as an *a priori* bias. Where governments have indiscriminately taxed agriculture and poured the resources into extravagant and poor projects, reducing the resources going to the public sector will be pareto optimal. But, where that is not true, the trade-offs inherent in the policy recommendations emerging from this project need more careful scrutiny.

Let me end my comments by discussing briefly the question of reform. Do reforms occur because of underlying changes in political coalitions brought about by changing economic interests? Does the government simply represent a coalition of economic interests, implying that reform comes about only when the economic interests of the ruling coalition or at least the dominant component of this group are no longer being met. This is the thesis implied by Anne Krueger's paper. But actual reform experiences suggest that the story is far more complex. Reforms were introduced in a number of countries without perceptible changes

in the underlying political structure, and in others more gradually. I hope the discussion from the floor and subsequent sessions will shed more light on these issues.

NOTES

¹See, for example, Chhibber, A. 1988, 'Raising Agricultural Output: Price and Non-Price Factor', *Finance and Development*, Washington, DC.

²Here one interesting line of enquiry would be to examine Japan, which, during its development phase, was able to use direct taxation of agriculture.