CLOSING THE SCISSORS GAP:
REFORM AND THE INTERFACE BETWEEN AGRICULTURE AND INDUSTRY

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ABSTRACT

The Chinese price structure contains an implicit tax on agriculture - termed the scissors gap - in the form of farm product procurement prices that are low relative to the prices of manufactured goods. This distortion has arisen despite a shifting of the sectoral terms of trade in agriculture's favor since the 1950s. In this paper we discuss the factors that have given rise to the scissors gap, evaluate its economic consequences, and describe the difficulties encountered in the 1980s as the reform program sought to eliminate it.
I. INTRODUCTION

The Chinese price structure contains an implicit tax on agriculture in the form of farm product procurement prices that are low relative to the prices of manufactured goods. Termed the "scissors gap", this price structure is typical of socialist countries which can rely on state monopolies in product markets and control over labor allocation to mitigate the adverse allocative effects of such a tax. Revenues from the tax are channeled to the government via the inflated profits of state manufacturing enterprises, especially those in the food processing, textile, and garment industries which rely on agriculture for inputs. More broadly though, low food prices permit the payment of low wages throughout urban manufacturing and thus boost state industry profits generally. The revenues made available to governments via the scissors gap have throughout the socialist world served to finance ambitious state investment programs. The effectiveness with which the mechanism has worked in China is demonstrated by national savings rates lying generally above 30% over the last two decades.

The Soviet Union established the model for the scissors gap by abruptly and conspicuously lowering the prices of farm products in the early 1920s. The action generated heated debate and only after a period of policy vacillation did proponents of the price scissors finally dominate. In China, by contrast, the general trend over time under the Communist regime was for the terms of trade between agriculture and industry to move in agriculture's favor. This made any scissors gap much more difficult to discern, and too, made critical voices more easy to ostracize and stifle. In Section II of this paper, we recount the history of policy and views related to the price scissors in China as contrasted to the Soviet Union. The absence of any distinctive action to lower agricultural prices in China prompts questions as
to how a scissors gap is recognized and against what reference point it is measured. We address such issues, comparing Chinese and Western neoclassical views, in Section III. In Section IV we examine the negative impact of the scissors gap on China's economic development and argue that rationalization of the terms of trade between agriculture and industry is critical to successful economic reform. While the 1980s reform effort saw initial progress toward raising the relative prices of agricultural goods, much of that progress had slipped away by the end of the decade. We describe this reversal in Section V and offer explanations for it in Section VI. Section VII concludes with some thoughts on the future.

II. HISTORY OF SCISSORS POLICY AND DEBATE

The earliest implementation of the scissors gap occurred in the 1920s in the Soviet Union. At that time, in order to speed capital formation in industry, Trotsky and Preobrazhensky advocated the use of the state's monopoly position in trade to artificially maintain the scissors gap as a means of extracting funds from agriculture. They believed that this approach, as opposed to directly taxing agriculture, was more effective and would not be so prone to provoke opposition. On the contrary however, confronted with the state's unfavorable prices, farmers refused to sell agricultural output or to buy industrial goods. This defiance led to economic crisis by autumn of 1923: industrial goods could not be sold, production stopped, and urban wages went unpaid. Industrial workers returned to the countryside in droves.

A debate developed at the highest level of Soviet government with Bukharin as the foremost opponent of the scissors policy. Bukharin believed that the market for Soviet industry depended fundamentally on rural demand which would be weakened by high industrial goods prices. He argued that
although the price scissors might allow industry to extract large profits over a short span of time, in the longer run economic stagnation would result (Bukharin and Bukharin's Thought, People's Publishing House, 1982, p. 406). He emphasized: "Without accumulation from the farm economy, accumulation in socialist industry will not be able to endure." "The stronger the purchasing power of the peasant class, the faster our industry will develop."

"Extraction of kopecks from the farm economy undermines the basis for accumulation of rubles in socialist industry" (p. 392–393). And more forcefully, in the mid-1920s at the time of the Leftist Program he contended, "A dictatorship of the proletariat that does battle with the peasants cannot be strong." Implementing the scissors policy would, he maintained, estrange the peasants, destroy unity, and jeopardize the regime's existence (p. 378). The debate was resolved, for a time, in Bukharin's favor. The Soviet government adopted a policy of steadily eliminating the scissors gap until in 1929, agricultural and industrial relative prices had recovered their 1913, pre-World War I level.

Then in April of 1929, Stalin began to publicly praise the scissors policy. In his speech, "On the Right Deviation within the United Communist Party," he criticized Bukharin's view of relying on the market to move toward socialism. He emphasized strengthening the class struggle and expressed unwillingness to tolerate "the market's free juggling with prices". Furthermore he claimed with pride that the Soviet Union's industrial and agricultural product prices were set by the state, that "markets with this particular and special kind of order could never be found in capitalist countries." (Stalin, Problems of Leninism, People's Publishing House, 1950, pp. 375–6)

Following Stalin's consolidation of a dominant position, a comprehensive
collectivization movement was launched in agriculture. Administrative power in the rural areas was strengthened sufficiently that farmers could be forced to sell their crops at low prices, thus allowing the scissors policy to be revived throughout the entire country. The consequence however, was a long stagnation of the agricultural sector.

China's approach differed from that of the Soviet Union. Mao Zedong in his 1956 "Ten Great Relationships" stated, "The Soviet Union has adopted measures which squeeze the peasants very hard. It takes away too much from the peasants at too low a price through its system of so-called obligatory sales and other measures. This method of capital accumulation has seriously dampened the peasants' enthusiasm for production." "Our policies towards the peasants differ from those of the Soviet Union. In the exchange of industrial and agricultural products we follow a policy of narrowing the price scissors, a policy of exchanging equal or roughly equal values." (Selected Works of Mao Zedong, Vol. 5, p. 291.) On the relationships among sectors, he expanded: "we have not made mistakes of principle. We have done better than the Soviet Union and a number of eastern European countries. We don't have the problem of the Soviet Union where grain output for a long time did not reach its pre-revolution level" (p. 268). Counter to the current trend of emphasizing only the development of heavy industry and ignoring agriculture, he said, "Is your desire to develop heavy industry genuine or feigned, strong or weak? If your desire is feigned or weak, then you will hit agriculture and light industry and invest less in them. If your desire is genuine or strong, then you will attach importance to agriculture and light industry so that there will be more grain and more raw materials for light industry and a greater accumulation of capital. And there will be more funds in the future to invest in heavy industry. There are now two possible approaches to our development of heavy
industry: one is to develop agriculture and light industry less, and the other is to develop them more. In the long run, the first approach will lead to a smaller and slower development of heavy industry, or at least will put it on a less solid foundation, and when the overall account is added up a few decades hence, it will not prove to have paid. The second approach will lead to a greater and faster development of heavy industry and since it ensures the livelihood of the people, it will lay a more solid foundation for the development of heavy industry." (p. 286)

Because during the mid- to early 1950s, China's leaders held a critical attitude toward the Soviet scissors policy, Chinese agriculture achieved rapid recovery and development. By 1958, the quantity of industrial goods for which given agricultural goods could be exchanged had already recovered its 1936 level, or the level from before the war against the Japanese broke out. People in general believed that the depressed agricultural prices caused by many years of war had in 1958 been restored to a normal level. From 1958 to 1978, the prices of industrial goods sold in rural areas showed a slight decline while agricultural goods prices rose by nearly half, as shown in Figure 1. A scissors gap is normally said to "open" when the industrial goods price index rises and the agricultural goods price index falls. Clearly a scissors gap did not open in China in the same way that one did in the Soviet Union during the early 1920s. On the contrary, relative price trends seemed to indicate a kind of "reverse scissors gap" opening against industry.

It must nevertheless be recognized that the prices represented in Figure 1 were administered by the state. With the communization of the rural areas, the government's power extended to directly control the production and working lives of the peasants. The means therefore existed to impose a tax on agriculture through the price system. A motive existed as well given the
government's commitments to rapid industrialization and national security. Price changes over time alone should not therefore be regarded as providing ultimate evidence against the existence of a price scissors.

In 1961, the celebrated economist Sun Yefang dared to speak critically against the use of a scissors policy in China in the article "On the Principle of Equal Value Exchange and Price Policy". He pointed out that in word there was respect for the law of value and the principle of equal value exchange between agriculture and industry, but in practice, a scissors gap was opening. He argued, "the principle of equal value exchange is not only for use within the collective ownership system, but should also be applied for exchange between the state economy and the collective economy." (Sun Yefang, Some Theoretical Problems of Socialist Economy, People's Publishing House, 1979, p. 153.) Contrary to the then popular argument that socialist society should mobilize peasant accumulation through the scissors, he spoke in opposition saying: Fiscal planners believe this type of capital accumulation method is the most convenient, "what they don't know is that the weakness of this form of burden is precisely its convenience, and its hidden nature. This form of burden makes it impossible for either side - state or peasants - to know just how much accumulation the state is extracting from the peasants.... Consequently, over a long period of time a misconception has formed, wherein the peasants' contribution to socialist capital accumulation has been underestimated, even so far as to think peasants take a lot from the state and the state takes little from the peasants." He said you cannot on the one hand estimate peasant awareness as too low to contribute to state construction by accepting a direct form of taxation, "while on the other hand speaking so well of them as to believe that just by adopting the hidden form of the 'scissors' lever, they can accept an excessive irrational burden." (pp. 154-5) He
suggested that his position should not be labeled revisionism, that a
discussion should take place. Unfortunately, three years later he was branded
a revisionist, and for a long time no one dared again raise the issue. Not
until 1985 did one of the authors of this article, Zhao Xinghan, broach the
subject in the journal *Price Theory and Practice*.

Since the silencing of Sun Yefang, official Chinese propaganda has
maintained that the scissors gap is a creation of capitalism, and that only
socialism will eventually reduce and eliminate it. This "theory" can be found
in dictionaries edited under the authority of economists (for example,
*Zhengzhi Jingjixue Cidian*, edited by Xu Dixin) and in most university
textbooks. But to deny that socialist society produced the price scissors is
to deny history. Stalin himself straightforwardly recognized that the price
scissors is the characteristic market order of socialist countries and that
capitalist countries simply do not adopt it. Indeed, under a capitalist
system the allocative role of prices is such as to prevent any such
distortions from being sustained. In the long run, factors of production
cannot receive widely differing rates of return across sectors. Within a
given country, artificially low prices for agricultural products would lead
capital and labor to move out of farming. As for a scissors gap being
maintained internationally, first, very few countries have the ability to
manipulate world market prices, and second, they themselves would generally be
the losers from such a practice since those countries best positioned to
manipulate the market are the exporters. Ultimately, by obfuscating the
source of the price scissors, the standard "theory", such as it is advanced,
compounds the difficulty of curing the ill.
more specifically, the differentials were 83% for wheat, 88% for corn, and 220% for paddy. Because depressed state prices coexist with market prices in China, market prices must absorb an inflated demand due to a diversion of purchasing power from artificially cheap rations to the market. With full decontrol, market prices would therefore be expected to settle between current market and state levels. If fully decontrolled market prices provided compensation to agricultural labor at its opportunity cost and embodied scarcity payments to natural resource inputs, market prices would be consistent with the "production prices" of Marx. Without meaningful prices for raw materials however, there is no way to determine complete production prices.

The low agricultural output prices set by the state have in turn caused returns to farm inputs to fall well below those in other sectors. A popular expression in China, "Without industry there is no wealth, without agriculture there is no stability, and without commerce there is no life," indicates that China’s price policies have been beneficial to industry and commerce but detrimental to farmers. Among the standard models of prosperity in rural China, for example Henan Province’s Liu Village or Tianjin Municipality’s Daqiu Village, all relied on industry to get rich. This is not simply because rural surplus labor found an outlet; Heilongjiang and Jilin Provinces have ratios of cultivated land to labor among the highest in China, but because they grow grain, these provinces have been forced into debt to cover losses. Why is it that only through industry can localities become rich? The principal reason is that the prices of manufacturing enterprises have been freed with reform. Prices for enterprise products can be determined according to market demand while, by contrast, basic agricultural products are priced by state fiat, purchased under quota obligation, and must be sold even at a loss.
III. ESTABLISHING A REFERENCE POINT FOR ASSESSING PRICE DISTORTIONS

As of the 1980s, Chinese economists have in general ceased to believe that sectoral price indexes mapped over time are indicative of the presence or absence of a price scissors. Yet an alternative method for calculating the degree of price distortion between agriculture and industry has not been agreed upon. Two different schools of thought now predominate, each with its problems. The school that argues for measuring the rational level of prices according to a labor theory of value has not been able to solve the problem of how to compensate capital, a problem which is critical when factor proportions differ across sectors. If prices were set by sector according to a labor theory of value under which intersectoral differences in capital inputs were not adequately regarded, capital-intensive sectors would be granted very low prices and would as a result fail to attract investment in the future. The school that argues for measuring the rational level of prices according to "production prices" on the other hand, has not been able to determine "production prices" because China now has no price for land. Neither school of thought thus offers an operational reference point against which price distortions may be judged.

By contrast, Western neoclassical theory incorporates a role for demand side forces in price determination that results in resource scarcity being reflected in prices along with costs of production from the supply side. Under competitive market conditions, output prices equate demand and supply in product markets, and furthermore generate returns to all factors commensurate with their opportunity costs. Against this standard of reference, China's state procurement prices for agricultural products would appear to be too low. Since the 1960s, market prices for agricultural products have remained well above state prices. Taking Henan Province in 1989 as an example, wheat, corn,
The relatively low returns paid to agricultural inputs and the excess demand at state prices in product markets together suggest that if controlled agricultural prices were freed they would immediately jump to higher levels. The higher prices would reflect resource opportunity costs and the scarcity value of food products, but would do so, in the short run, conditional on historically derived patterns of resource allocation which are less than optimal. Several decades of socialist planning have heavily emphasized investment in state industry to the neglect of agriculture. Agriculture has instead relied on a rapidly expanding rural labor force to achieve moderate rates of long-term output growth. This allocative legacy provides an opportunity for efficiency gains to be realized through labor-substituting investment in agriculture and, relative to historical standards, more labor-intensive, job-creating investment in industry. As technological advances are brought to agriculture via new investment and changing factor proportions, costs of production and hence output prices would be expected to fall. Over time then, the price increases following from decontrol would likely be less than indicated by present excess demand pressures. A more refined market-based standard that might then be considered as a reference point against which to assess price distortions would take into consideration the reallocation of factors permitted by an adjustment lag.

If China's markets were open to international trade, world prices would serve as the ultimate arbiter of how high food prices could rise and to what extent domestic resources would be drawn to agriculture. No doubt however, strategic concerns will continue to limit the degree to which China opens its doors to imports of staple food crops. Given China's comparative disadvantage in the production of such crops, trade barriers would be expected to prop domestic prices above levels prevailing on world markets. China's current
contract prices on the contrary lie well below the world price benchmark. When world prices are converted to Chinese yuan, the shortfall is ¥0.8 per kg for rice and ¥0.3 per kg for wheat. On the export side of China's foreign trade there is further indication of the presence of the scissors distortion. Exported agricultural products and those industrial exports that rely primarily on agricultural inputs show foreign exchange values relative to world market prices that are generally lower than for other industrial exports.

Ultimately, even if barriers to trade remain in place, the method used to establish a reference point for price rationality must be flexible enough to accommodate the effects of advances in technology and changes in factor proportions within China over time. Industrialized nations have seen extraordinarily rapid improvements in agricultural technology over the span of the last century or so. Rising capital/labor ratios economy-wide combined with relative ease of capital substitution for labor in farming have resulted in impressive gains in labor productivity in the agricultural sector. These productivity gains have put downward pressure on agricultural prices prompting workers to leave the sector as less labor is needed to meet income-inelastic food demands. In China by contrast, scarcity of cultivable land has inhibited gains in labor productivity from accruing in agriculture at a pace commensurate with that observed in industry. In order for labor to continue to be drawn to agriculture in sufficient magnitudes to meet growing domestic food demand therefore, there is a need for prices to be raised. Failure of the price system to respond to this need will result in an implicit price scissors opening against agriculture regardless of any observed trend in nominal prices. The rising relative price of agricultural products in China historically indicates some degree of accommodation of agriculture's slower
productivity growth, but inadequate movement in this direction still permitted a price scissors to form.

IV. ADVANTAGES AND DISADVANTAGES OF THE SCISSORS POLICY

On the surface, implementing the scissors policy seems to have a major advantage: it facilitates capital accumulation for development of industry. China has achieved extraordinarily high national savings rates by any standard over the past few decades. What must arouse concern however is the modest growth in output that has followed from such high rates of savings. Failure to translate high savings into rapid growth derives from the following problems inherent to the price scissors:

1) Implementation of the price scissors must rely on measures involving administrative coercion, for example, apportioning the quantities to be sold, preventing free market trade from subverting the state monopsony price, tightly managing the system of urban-rural residency, limiting the movement of agricultural population and labor, and imposing force in directing productive factors for use as inputs in unprofitable activities. Although in the last 10 years, control measures have been greatly relaxed, in the face of low agricultural product prices the controls cannot be entirely withdrawn. Agricultural production is closely related to land, climate, water, and other natural factors. Micro-level decisions are therefore extremely important for raising output and economic efficiency. Using macro-level administrative measures to direct such decisions impedes the rational use of resources and depresses farmers' effort.

2) When the state carries out accumulation through depressed purchasing prices for basic agricultural products, farmers cut their losses by adjusting the composition of output. For staple agricultural products with low state-
set prices, production is held to the lowest limit. Growth potential is directed to more profitable operations. The result is precisely opposite the government's wishes: the more the government believes an agricultural product is important, the slower its production develops and the tighter its supply becomes. The tighter supply becomes, the more the government strengthens its intervention and adopts controlling measures. The more the controls, the slower the development of production. The experiences of both China and the Soviet Union confirm this.

3) Agriculture is an important source of light industrial raw materials. For example, the development of food processing, canning, brewing, textiles, sugar refining, cigarettes, paper, and wood products all depends on plentiful levels of raw material supply from agriculture. At the same time, rural areas are an important market for the sale of industrial products. Good agricultural harvests raise farmers' purchasing power. A rural population of 800 million not only needs large quantities of consumer goods produced by industry, but also needs to purchase large amounts of agricultural machinery, fertilizer, and construction materials. Light industrial development can in turn stimulate heavy industry's development. So, a prosperous rural economy both provides industry with raw materials and opens up a vast market for industrial products. Development of agriculture can also generate exports that contribute importantly to the nation's foreign exchange earnings.

Some state budget administrators in China look at higher prices and growth in agriculture as causing only increased currency issue to support the state's expenditure needs. When farmers acquire currency, the state must satisfy their demands to purchase non-agricultural goods. But these concerned administrators fail to see that in the final outcome, industrial development is promoted and greater benefits are brought to the state budget through a
widened tax base. During China’s first five year plan, because relative prices were fairly rational, good harvests stimulated light industrial development. Urban and rural economies prospered in tandem and commodities were abundant in the markets. The state treasury too performed well. Conversely, when agricultural harvests were poor in the three difficult years of the second five year plan, farmers, urban residents, industry, and the state treasury all suffered.

4) The scissors policy with its high prices and large profits for industry is detrimental to state industrial enterprises’ incentives to improve business management and product quality. In recent years, some state enterprises have faced new competition from emerging rural enterprises. Although state enterprises received preferential treatment in many forms from the government, they remained clearly weak. Rural industry, under the protection of high prices for industrial products, like a fish in water, achieved swift and violent development. Among the many reasons for state manufacturing enterprises’ sluggishness, the scissors policy undoubtedly contributed. Having been pampered since childhood, state enterprises lost the ability to take initiative.

5) As a consequence of the scissors policy, other new policies were motivated in chain reaction to supplement it, adding to chaos in the economic order. When farmers did not have strength to endure the low crop procurement prices, they posted a couplet on their doors: "High priced fertilizer I don’t buy, low priced grain I don’t sell," with a header that said, "Government don’t blame me." In response, the government tried to hold down the supply prices for fertilizer and other agricultural producer goods. Fertilizer factories could not absorb the losses, so the government tried to hold down prices for coal and electricity inputs and to accord special transportation
privileges for fertilizer production. All enterprises associated with farming followed agriculture in eating losses from the scissors, unable to hold their heads up. In this way, damage was done to agriculture and all sectors related to agriculture.

In another attempt to shift the impact of the price scissors, the government proposed a policy of "industry subsidizing agriculture". Within units where accounting for industry and agriculture was unified (this situation is very rare now in China), the two could "go together". But out of concern for earnings, these units were unwilling to invest more capital or apply more labor to unprofitable or low-profit agriculture. Also, most of China's rural enterprises are now independent-accounting economic entities. Getting them to subsidize agriculture must depend on administrative power, the enforcement of which is difficult. Finally, in the majority of villages there are still no rural enterprises to which subsidy appeals can be made. All in all, the policy of "industry subsidizing agriculture" is difficult to put into effect. Even if it could be implemented in the future, rural enterprises and state enterprises would be placed on unequal footing. Such unequal treatment is not conducive to the smooth development of a commodity economy.

6) The government's low purchase prices for basic agricultural products (such as grain) and purchases in conjunction with in-kind subsidies for other products (such as eggs), provides low priced (but limited) supplies to urban residents. Since at the same time higher market prices also exist, the price differential has been exploited by speculators. In the cities, the purchase and sale prices are inverted due to the presence of substantial government subsidies, which serves to attract speculators all the more. As a result, the practice of low-priced goods bought under ration in the cities being resold in the rural areas is unavoidable. Although the situation in China has not
gotten as bizarre as in the Soviet Union where some people have bought bread to feed to pigs, the recirculation is still common enough that local governments have set up blockades to limit the flow of agricultural products into other provinces and cities. The local blockades are a method used for agricultural regions to protect themselves in the face of price distortions, but for the development of a commodity economy they are extremely harmful.

7) With low agricultural procurement prices and high industrial good retail prices, agriculture's production and operation costs cannot be accurately measured. A valid basis for national economic accounting is thus lost. Moreover, due to the proliferation of a variety of types of prices (unified purchase prices, above-quota premium prices, fixed ratio prices, contract purchase prices, negotiated prices, and market prices), as well as all kinds of special sales arrangements for industrial products intended to compensate for the low agricultural prices (the products, quantities, and prices differ by locality and by year), agricultural prices have become chaotic and multifarious, and money no longer serves as the only method for representing price. Since the state-set procurement price no longer indicates the real return to farmers for the sale of agricultural products, how to clarify the true purchasing price of agricultural products has become a difficult problem.

Finally, in judging the price scissors it must be noted that apart from all the negative efficiency effects, the scissors gap imposes an extremely unfair burden on farmers. If farmers reduce the amount of production and sales of agricultural goods at the low price, or convert sales to negotiated or market prices, or switch production to products that do not have depressed prices, then the burden is lightened or even evaded. The government, however, cannot generally hold down prices on all agricultural products and thus the
burden becomes inequitable across farmers. As a result, the tax hidden in the price scissors creates great unfairness.

As the foregoing demonstrates, the damage done by the scissors policy has been severe. The policy is the basis for distortions throughout the price system and chaos in the commodity economy. We believe that to carry out price reform, there must be reform in the scissors policy. If the deeply ingrained scissors gap is not closed, then any price reform program remains superficial and tenuous. We have carefully enumerated the harmful effects of the price scissors because there are still many people who extol it. For example, the July 17, 1990 issue of Jingji Cankao published an article by the well-known Jin Huanquan which argued that "henceforth funds for accumulation be drawn from agriculture ... basically via the industrial-agricultural price scissors, which takes a part of the value created in agriculture and transfers it to industry." We oppose this position.

V. THE REFORM EFFORT OF THE 1980s

The reform effort of the 1980s began with substantial increases in agricultural procurement prices. By the end of the decade however, the initial gains made in closing the scissors gap had been eroded.

Marking China's price reforms from 1979, 12 years have now passed. These 12 years can be divided into 3 periods. The first period extended from 1979 to May, 1984. Beginning with broad increases in agricultural procurement prices, this period was characterized by government-planned adjustment, both upward and downward, of basic commodity prices. Initial progress was made in alleviating problems resulting from irrational prices, accelerating the speed of agricultural development, standardizing rates of profit on capital across industrial sectors, eliminating sector-wide losses, reducing price subsidies,
and generally creating beneficial conditions for the operation of a commodity
economy. Overall price stability was maintained from 1979 to 1984 with the
national retail price index rising, on average, only 2.7% a year. Progress
was relatively smooth and accomplishments striking. However, reform of the
price formation system had not yet begun.

The second period lasted from May 1984 until August 1988. The former
focus on price adjustment gave way to price decontrol as part of reforming the
price management system. In May of 1984, approval was given for state
industrial enterprises to market their own output produced in excess of plan,
with the price of the self-marketed output not to exceed the state price by
more than 20%. In July, the planning system came under substantial reform so
that the scope and proportion of market activity expanded. By October, prices
for small commodities, with the exception of only a few, were entirely freed.
In January of 1985, the upper limit on price was eliminated for producer goods
marketed outside the plan. Enterprises themselves were allowed to set prices
commensurate with market forces giving rise to government-approved double-
track pricing for producer goods. This step was taken however without
adequate recognition that the economic management system must function as an
integrated unit. If the price system is reformed alone and reform of other
systems is not coordinated with it, resistance is certain to be great and
pushing forward difficult, so much so that economic activity will be disrupted
and disorder break out.

Compounding the difficulty, after 1984 the view that inflation could be
relied upon to stimulate growth held sway from the center down to the
localities. During the three year period 1985 to 1987, the retail price index
rose at an average annual rate of 7.37%, then in 1988 it leapt by 18.5% — if
year-end price levels are compared, the rate of increase reached 26.7%. The
cumulative price increase for the entire 1985-1988 period was 63.1%. For commodities with decontrolled prices, large price increases occurred as a result of demand exceeding supply while for commodities managed under the plan, prices were held in place out of concern for macroeconomic stability. As a consequence, relative prices again fell into disarray, so that inflation completely obliterated the achievements of the first period of price reform. The scissors gap that had for a time been closing once again opened.

The third period runs from September of 1988 onward. Due to the rise in inflation and disorder in the commercial realm, price reform came to a halt; there was no choice but to delay further progress as the entire national economy entered into a period of managing the macro environment and rectifying the economic order. From September 1988 through the first half of 1990, managing inflation, cutting back capital construction, tightening currency issue, controlling price increases, and stabilizing economic life became the key concerns of economic policy. After more than a year of effort, the management of inflation has had positive results. Calculated on the basis of yearly average price levels, the 1989 retail price index rose by 17.8% over the preceding year, although comparing year end prices, the rate of increase was only 6.4% (see Jiage Lilun Yu Shijian, No. 7 1990, p. 6). However, because control of price increases was an important element of the management and rectification program, product prices that needed to be raised were also held fixed. Price distortions were thus intensified and the longstanding scissors problem again became increasingly aggravated.

The official statistics of Figure 1 fail to capture the reemergence of the scissors gap. The reported indexes show that relative to 1985, 1988 agricultural procurement prices had risen 46.6% while the retail prices of industrial goods in rural areas had risen only 24.6%. In fact, because
farmers were unable to buy fertilizer and pesticides at state-set ex-factory prices, but rather had to purchase such items after resale through middlemen, costs actually borne by farmers rose relative to output prices. According to an investigation in Xinhe County, Hebei Province, since the initiation of specialized operations in 1988 (under which only the rural supply and marketing cooperatives are permitted to sell agricultural inputs), the price of fertilizer has remained high. A forty kg bag of urea that in 1986 cost ¥18 now sells for ¥46, an increase of 156%. In Kou County of Inner Mongolia, before the 1988 specialized operations, the fixed price for a 50 kg bag had been ¥35, the negotiated price ¥66; after specialized operations the overall average price rose to ¥74 (Jiage Lilun Yu Shijian, No. 7, 1990, p. 51).

According to statistics from Jilin Province (China's corn-producing region), between 1983 and 1988, the cost of corn production inclusive of taxes rose 31.62% while the purchase price rose only 15.34%. Farmers dealt with these adverse circumstances by incurring debt. In August of 1989, the accumulated debt for Jilin Province amounted to an average ¥130 per rural person. For top grain producer Gongzhuling City, the average debt per person in agriculture exceeds ¥200 (Jiage Lilun Yu Shijian, No. 6, 1990, pp. 31-31).

In regions where greater emphasis could be placed on non-staple crop production, progress in reducing the price scissors was more thorough and enduring. Between 1978 and 1989, freed prices for aquatic products rose by 300 to 400%, medicinal herb prices by 400 to 500%, and fresh fruit and vegetable prices by more than 200%. For the staples grain, oil, cotton, tobacco, and sugar, by contrast, state procurement prices rose only 100%. The drawback of these differential rates of progress is that capital, labor, and material inputs used by farmers in production are attracted to high return products; hence orchards have spread down from the hillsides and grain fields
have been turned into fish ponds. The basic agricultural products most urgently needed by the nation are not being developed and the quantities purchased have dropped. For Henan Province in 1989, cotton purchases fell by 28.8% and tobacco purchases by 28.3%. The result is that many processing enterprises have had to cease or limit production due to raw material shortages. Many people believe that the slow development or decline in basic agricultural products is not due to the low prices for these products but rather to too rapid increases for other agricultural products after prices were freed, and that the freed prices should again be brought under control to balance returns within agriculture and thus promote grain production. In our view this is not the way to solve the problem. If the general level of agricultural product prices is depressed, households possessed of the right to make their own decisions will reduce inputs to agriculture across-the-board, redirecting capital, labor, and material inputs to non-agricultural uses.

VI. OBSTACLES TO ELIMINATING THE PRICE SCISSORS

Since the scissors policy is the basis for distortions throughout the entire price system, why has it been so long present and so difficult to eliminate in socialist countries? A variety of reasons may be offered:

1) Stalin's influence on industrialization strategy. The belief that has been advanced under Stalin's influence is that if industrialization is to proceed, the scissors gap cannot be closed. In fact, the scissors policy and industrialization are two different issues. State capital accumulation need not be founded on the price scissors. Explicit agricultural taxes could be substituted for the tax implicit in the scissors gap. Some people believe that only in the price scissors' hidden form will farmers easily accept a tax, and that they will resist one that is visible. This underestimates farmers,
as if they cannot keep accounts or perceive a hidden tax. In fact, the farmer's abacus is used better and more precisely than this. If the hidden scissors tax were replaced with an explicit tax involving a reasonable burden and less distortionary tax rates, farmers would endorse it. As a consequence, a more favorable environment for economic development would take shape. Resource allocation would respond to market forces leading to more rational patterns of crop production and improved economic efficiency.

2) **Obstacles related to the economic system.** Because socialist countries make use of a high degree of centralization in economic management, management of the economy and management of the government fuse into one system giving the government great power to intervene in economic life. Every economic policy, regardless of its merits or faults, can be put into effect by drawing on administrative authority. If policy-making is restricted by the power of markets, that means a weakening of government authority. The price scissors is the result of highly concentrated authority. Therefore, reforming the high concentration of power in the economic management system is the basic channel for eliminating the price scissors.

3) **The mass propaganda obstacle.** First, there is a lack of recognition that the scissors gap is a product of socialist countries' specific policies. Second, blame has been cast on agriculture for failing to achieve more rapid productivity growth, implying that agriculture itself should take responsibility for eliminating the price scissors. On the contrary however, prices have not provided adequate incentive for capital formation in agriculture to take place and for productivity gains to thereby be stimulated. Agriculture has responded to state policies as should be expected.

4) **Obstacles of price theory.** To accurately demonstrate whether a scissors gap exists, and how large it is, it is necessary to have a rational
standard of measurement. This China now lacks.

5) **The difficulty of coordinating other reforms.** Changing the price scissors means raising agricultural product procurement prices. Manufacturing enterprises that use agricultural products as raw materials will not be able to absorb the cost increases and will ask for budget subsidies or higher output prices. After manufacturing enterprise profits are reduced, some enterprises will have to close, suspend operations, merge with others, or change their output mix. Appropriate arrangements would have to be made for bankrupt enterprises and unemployed workers: In addition, if price controls and obligatory procurements are to be relaxed, they must be replaced with well-functioning market institutions capable of ensuring adequate agricultural output at stable prices. Local governments do not have the power to decide such coordinated reform measures. The decisions depend on the central government, but it too has a lot of difficulty.

VII. CONCLUSIONS

The obstacles outlined above can surely be overcome. The scissors gap is not an objective law of economic development, but a man-made policy which as such can be altered. To further progress in this direction, we advocate the following:

1) The harm done by the price scissors must be appreciated on the basis of a sound understanding of economic development processes. The essence of these processes is as follows: (i) A majority of the Chinese labor force is employed in agriculture. When the enthusiasm of several hundred million farmers is depressed, and the relationship between farmers and the government is antagonistic, agriculture's performance suffers. (ii) As a consequence of poor agricultural development, industry's raw material sources and rural
market outlets are weakened. Industry loses its base and thus also fails to develop smoothly. (iii) The distortion between agricultural and industrial prices leads to distortions in factor markets that ramify throughout the economy. This creates chaos in economic accounting and damages overall economic efficiency.

2) Price theory must continue to develop. Price theory is an abstract summary of actual price movements and must be able to explain reality. Western neoclassical price theory offers an explanation of price movement phenomena, but the basic theory is an uneasy fit with Marxism. Marxist theory offers a penetrating understanding of the essence of prices, but it has no way to concretely explain many current price phenomena. Therefore, economists should absorb the achievements of their predecessors and continue to develop the theory of price. For example, Marx's production price theory could explain price movement in the capitalist commodity economy of the time, but his description of socialism and the actual socialism of today differ greatly. Today's socialist countries also want to develop a commodity economy. Is it possible to integrate Marxist production price theory with western neoclassical theory involving marginal cost and demand-side notions of scarcity? Effort should be made in this direction.

3) A price formation system capable of combining plan and market must be devised. As the most populous country on earth, China has strategic interests that caution against becoming overly dependent on world markets for essential food commodities. Moreover, as a low-income country, China faces special problems in assuring that adequate standards of health and nutrition are broadly met. For this objective to be met, basic dietary necessities must remain affordable. Finally, because China is a socialist country where public ownership is the mainstay, market prices for land and capital equipment will
in many cases not exist. For all of these reasons, government regulation and planning will remain important in determining agricultural prices and production. For a very small number of commodities the government may need to continue to set prices and quotas administratively. In the case of other commodities, government intervention in markets through buying and selling could play a role in stabilizing prices. In general though, most commodity prices should be determined by the market with government involvement limited to maintaining macroeconomic stability.

4) A systematic package of reform measures must be coordinated with price reform: (i) Concurrent with agricultural procurement prices increases, the agricultural tax should be raised. This will ensure adequate resources remain at the government's disposal. (ii) Following the drop in manufactured product prices and profits, some manufacturing enterprises will need to adjust their production processes and output mixes. To foster this response, it will be necessary to implement a bankruptcy law, an unemployment relief law, and a system for reallocating labor through flexible hiring and dismissal. (iii) The subordinate relationship between state enterprises and all levels of government should be abolished. Because this subordinate relationship brings about a sharing of profits, the government excessively protects the profits of state enterprises. This is a fundamental reason for difficulty in eliminating the scissors policy. (iv) Policies should be adopted to reform the system of planned allocation of materials, establish factor markets and futures markets, and strengthen market rules and regulations. Lessons can be drawn from the successful experiences of the early 1950s when multiple economic forms existed.

5) A gradual stepwise reform path must be laid out. Price reform triggers shifts in the distribution of income. Managers, workers, and
consumers must be given time to absorb and respond to these shifts. With stepwise implementation, the jolts to those who suffer losses from reform will be softened. If price movements are too violent, chaos in the economic order could easily be generated posing a danger to social stability. During reform, controlling the increase in the national retail price index at about 10% a year is probably a good indicator of reform’s stable progress.

During China’s last two years of administrative rectification, tightening of currency issue has led inevitably to a weakening of markets. However, the imbalances in the structure of production that have been exposed remain to be overcome. China’s scissors policy has created high prices and big profits in manufacturing. Local governments, to benefit their own regions, energetically develop manufacturing and make profits even with inferior products. In the current difficult straits, local governments of course want to utilize budgetary subsidies and credit, impose local blockades to limit the sale of products from other regions, and adopt any other such measures to the utmost to protect local enterprises. Therefore, whether out of consideration for long run development strategy or the immediate need to discourage rash behavior, price reform is critical. Right now favorable circumstances are in place for proceeding. We should not lose the opportunity to push ahead with price reform, turn a small victory into a big victory, and create favorable conditions for economic development.
Table 1: Comparison of Price Indexes for Agriculture and Industry

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<sup>a</sup>Agricultural product procurement price index

<sup>b</sup>Industrial good retail price index in rural areas

Source: Zhongguo Tongji Nianjian, 1989, p. 687