Journal of Comparative Economics **28,** 524–544 (2000)
doi:10.1006/jcec.2000.1671, available online at http://www.idealibrary.com on IDEAL®

The Labor Income Tax Equivalent of Price Scissors in Prereform China[1]

Hiroyuki Imai

Lingnan University, Tuen Mun, Hong Kong

E-mail: himai@ln.edu.hk

Received July 12, 1999; revised May 30, 2000

Imai, Hiroyuki—The Labor Income Tax Equivalent of Price Scissors in Prereform China

In a centrally planned economy, the government can raise investable resources through price and wage manipulation. By treating price and wage controls as an implicit labor income taxation, we assess the scale of resource transfers from households to the government in prereform China. The implicit tax revenue during the 1964 to 1978 period is estimated at 10.4% of GDP. This implicit tax led to implied reductions of 31.1 and 37.8%, respectively, in the price of agricultural goods and in the nonagricultural-sector nominal wage during the 15 years. The equivalent average labor income tax rates were 16.7 and 24.1% for agricultural and nonagricultural workers. *J. Comp. Econ.,* September 2000, **28**(3), pp. 524–544. Lingnan University, Tuen Mun, Hong Kong. © 2000 Academic Press

Key Words: price scissors; terms of trade; price and wage controls; income tax; sources of investable resources.

Journal of Economic Literature Classification Numbers: H24, O53, P22, P35.

1. INTRODUCTION

The government in a centrally planned economy, particularly during the early periods of economic development, can mobilize resources for industrial investment through price and wage or terms of trade manipulation. This view is known as the scissors problem in economic development, and the Soviet Union under Stalin's rule has been cited as an example.[2] In a number of Soviet-type econo-

[1] I am very grateful to Feihong Gong and Jingwen Li for providing statistical data, to John P. Bonin, Carsten A. Holz, Thomas G. Rawski, Masatoshi Yoshida, and two anonymous referees for helpful comments on earlier drafts, and to the late Bela Balassa for calling my attention to this subject.

[2] See Gregory and Stuart (1990, pp. 84–88, 94–98). Whether the government should lower the relative price of agricultural goods in terms of industrial goods, i.e., open the price scissors, was a central question in the Soviet industrialization debate. Preobrazhensky (translated, 1965) was the main proponent of low relative prices to promote capital accumulation.

0147-5967/00 $35.00

mies of the recent past, the government owned and managed the bulk of the nonagricultural sectors, collectivized the agricultural sector, coordinated production and distribution through state plans, and limited the scope of markets. State ownership in nonagricultural sectors alone would have provided the government with sizable proprietor's income available for reinvestment. However, under this institutional environment, the government had become a semimonopolist and monopsonist in the goods and factor markets. Hence, market power brought about another important revenue source. The government could raise revenues by selling nonagricultural goods at higher prices to households and by purchasing from them agricultural goods and labor at lower prices than the notional competitive market prices. Therefore, elaborate and pervasive price and wage controls commonly observed in Soviet-type economies may have served as an instrument to channel resources from households to the state in lieu of an explicit personal income tax system.

Price and wage manipulation appears to be at the core of Communist China's capital accumulation during the prereform period prior to 1979.[3] The objective of this study is to measure the approximate magnitude of resource transfers in China's past. A few statistics suggest that the government revenue raised through the scheme may have been substantial. First, the state industrial sector earned high profits; second, in the absence of personal income taxes, the state revenue share of GDP was high while the personal consumption share was low; and third, the income of the rural population was low and its growth was slow.[4] The conventional view of China's capital accumulation recognized the role of the rural surplus channeled to the state through the price scissors during the prereform period.[5] Empirical studies on the price scissors in China to date have

[3] Naughton (1995, p. 31) claims that the Chinese government utilized the "terms of trade between the state enterprise sector and the household sector that are favorable to state enterprises" to "maintain the large state share of national income" during the prereform period.

[4] In 1978, taxes paid and after-tax profits earned by state industrial enterprises were equivalent to 21.8% of GDP; the state revenue share of GDP was 31.2% and the personal consumption share was 48.8%; per capita net annual income of rural households was 134 yuan as against 316 yuan in urban households (SSB-b, 1997, pp. 42, 46–47, 247, 291, 439). Between 1957 and 1978, per capita cash income of rural (urban) residents in real terms grew at 2.2% (2.3%) annually; per capita real GDP grew faster, at 3.4% annually (SSB-a, 1993, pp. 180–181; SSB-b, 1993, pp. 81, 238; SSB-b 1998, pp. 55, 57).

[5] Eckstein (1977, p. 51) describes the mechanism: "by manipulating price relations between agricultural and non-agricultural goods in such a way that the farming sector was forced to sell 'cheap' and 'buy dear.' These price manipulations enabled the state trading companies to earn large monopoly profits, which were then paid into the government budget and became a source of financing investment . . . . At the same time, nationalization of the non-agricultural sectors provided a means through which all net earnings of government enterprises . . . became sources of budgetary revenue." Xue Muqiao (1979), an economist close to the Chinese government, acknowledged that farmers contributed to at least one-third of the budgetary revenue (presumably during the 1970's), mainly through the exchange of agricultural for industrial products at unfavorable terms.