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Distant Thunder: The Regional Economies of Southwest China and the Impact of the Great Depression

TIM WRIGHT

Murdoch University

Introduction[1]

A study of the impact of the 1930s World Depression on Southwest China intersects with two major controversies in modern Chinese economic history. First, there is still substantial disagreement over the severity of the impact of the Depression on China. The 'traditional' interpretation inside China has focused on the 'bankruptcy' of the economy in the 1930s (of which the Depression was one but not the only cause).[2] While many aspects of the 'bankruptcy' and 'stagnation' theses have more recently been discarded or modified by Chinese scholars, recognition is still made of the gravity of the crisis of the 1930s: China's leading historian of its modern economy, Wu Chengming, writes in the third volume of the *History of Chinese Capitalism*: 'The economic crisis of 1932–1935 was, with the exception of the wars of invasion launched by foreign countries, the single most severe blow to the Chinese economy'.[3] Most Western scholars have

[1] The research for this paper was carried out partly with the help of an Australian Research Council grant which enabled me to go to China to collect materials and discuss the issues with Chinese scholars. I would also like to thank scholars at Yunnan and Sichuan Universities and the Academies of Social Sciences in the two provinces as well as at Nankai University and the Institute of Economics at the Chinese Academy of Social Sciences in Beijing for giving me much help and enlightenment on this topic. In addition I would like to thank Beverley Hooper and Anne-Marie Medcalf for helpful suggestions and comments on earlier drafts.

[2] See, for example, Zhongguo renmin daxue zhengzhi jingji xue xi 'Zhongguo jindai jingji shi' bianxie zu, *Zhongguo jindai jingji shi* (Economic history of modern China) (Beijing: Renmin chuban she, 1978), vol. 2, pp. 34, 48–9.

[3] Xu Dixin and Wu Chengming (eds), *Xin minzhuzhuyi geming shiqi de Zhongguo zibenzhuyi* (Chinese capitalism in the period of the new democratic revolution) *Zhongguo zibenzhuyi fazhan shi* (The history of Chinese capitalism), vol. 3 (Beijing: Renmin chuban she, 1993), p. 5. Wu refers to the years 1932–35 because China

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also accepted that the 1930s saw a serious economic crisis in China: David Faure has gone so far as to argue that there was a fundamental discontinuity in the Chinese rural economy caused by the impact of the Depression.[4]

On the other hand, a revisionist interpretation is now being promoted by some scholars, of whom Loren Brandt puts the case most strongly. Brandt argues that continued growth in money supply, despite falling prices, indicates strong industrial and commercial activity, a contention which is supported by the available figures for industrial output. He concludes 'that the Chinese economy weathered the external shocks of the 1930s remarkably well and that there was no contraction in economic activity'.[5] While some of the bases of Brandt's argument, especially Rawski's estimates of money supply, have been controversial,[6] other aspects, such as the continued growth of industrial output, are widely accepted. Indeed, one of the few serious studies on cyclical movements in the Chinese economy has the whole of the early 1930s as part of an upturn.[7]

Most studies of this issue have, however, so far concentrated on the modern and coastal sectors. The aim of this paper is to examine trends in the hinterland of China, in an area less obviously linked to the world economy. This will allow the development of a more differentiated picture of what was happening in China during that period.

The other key controversy is over the degree of integration of the Chinese economy, both internally and in relation to the world economy. Was China largely a single national economy, responding to a single set of prices basically derived from the world market?[8] Or

was partially protected from the impact of the Depression up to 1931 because of the fall in the price of silver.

[4] See David Faure, 'The Plight of the Farmers: A Study of the Rural Economy of Jiangnan and the Pearl River Delta, 1870–1937', *Modern China* 11.1 (Jan. 1985): 26–31.

[5] Loren Brandt and Thomas J. Sargent, 'Interpreting New Evidence about China and U.S. Silver Purchases', *Journal of Monetary Economics* 23 (Jan. 1989): 31–4, 46–7; Brandt's arguments won over an initially skeptical Ramon Myers, see 'The World Depression and the Chinese Economy, 1930–6', pp. 253–78 in Ian Brown (ed.), *The Economies of Africa and Asia in the Inter-war Depression* (London: Routledge, 1989).

[6] Milton Friedman, 'Franklin D. Roosevelt, Silver, and China', *Journal of Political Economy* 100.1 (February 1992): 62–83; see also the reply by Thomas G. Rawski, 'Milton Friedman, Silver and China', *Journal of Political Economy* 101.4 (Aug. 1993): 755–8.

[7] Yu Jianwei, 'Zhongguo jingji fazhan zhong de zhongchangqi podong' (Long and medium term fluctuations in China's economic development), *Tianfu xinlun* (Tianfu papers) 1989.4 (1989): 30.

[8] See Loren Brandt, *Commercialization and Agricultural Development: Central and Eastern China, 1870–1937* (New York: Cambridge University Press, 1989), pp. 25–37.

was it a series of weakly linked regional markets?[9] This study focuses, in as far as is possible, on two of Skinner's macroregions, the Upper Yangzi and Yun-Gui, and some of the questions asked here will throw light on the extent to which those regions were linked with the Chinese economy as a whole. Data limitations mean that most statements can only be made relating to provinces, but in this case there was a relatively close correspondence between Sichuan and the Upper Yangzi,[10] and also between Yunnan and Guizhou and the Yun-Gui macroregion.[11]

The impact of the Great Depression on the Southwest has been relatively little studied in China. Scholars in both Kunming and Chengdu have understandably concentrated on the boost given to regional development during the anti-Japanese War. Thus there was some surprise, even puzzlement, when I raised the issue with them. Nevertheless in terms of the 'normal' operation of the pre-Communist economy this question remains important and worth addressing.

In order to establish a starting-point for the analysis, this paper begins by examining the ways in which the economies of the two macroregions were integrated with the wider Chinese or world economies in the early twentieth century. The next section examines the impact of the Depression on the region's export commodities, linkage effects from the decline of those commodities, price effects flowing through the economy from the rest of China and income effects resulting from those changes in prices. The paper finally compares the impact of the Depression with other factors, notably political upheavals involving local warlords and climatic factors such as those leading to the Sichuan famines of the mid 1930s.

[9] See G. William Skinner, 'Regional Urbanization in Nineteenth Century China', in G. William Skinner (ed.), *The City in Late Imperial China* (Stanford: Stanford University Press, 1977), p. 217; for the controversy on the 20th century economy, see Barbara Sands and Ramon H. Myers, 'The Spatial Approach to Chinese History: A Test', *Journal of Asian Studies* 45.4 (Aug. 1986): 721–43, and the two responses, Daniel Little and Joseph W. Esherick, 'Testing the Testers: A Reply to Barbara Sands and Ramon Myers's Critique of G. William Skinner's Regional Systems Approach to China', *Journal of Asian Studies* 48.1 (Feb. 1989): 90–9 and William Lavely, 'The Spatial Approach to Chinese History: Illustrations from North China and the Upper Yangzi', *Journal of Asian Studies* 48.1 (Feb. 1989): 100–13.

[10] The Upper Yangzi macroregion excluded the far west of Sichuan, and included relatively small areas of southern Gansu, northern Guizhou and northeastern Yunnan. In this paper data limitations mean that most of the statements refer to the province of Sichuan. See Skinner, 'Regional Urbanization', p. 215.

[11] The Yun-Gui macroregion included all of Yunnan except the far northwest and far northeast, and most of Guizhou except for a strip along the north and a

Economic Structure of the Southwest

Southwest China related to the rest of the country as periphery to core. Average incomes were lower than elsewhere, and the economy was even more reliant than was the rest of China on primary production rather than manufacturing or services. This was reflected in a pattern of trade whereby the region exported primary products and imported manufactured goods.

The section goes on to analyse other indications of integration with the rest of the economy, for example price movements and instances of arbitrage.

The nature of the two macroregions within the Southwest varied considerably however. The Upper Yangzi had been a major economic and cultural centre of China for two millennia.[12] It was relatively highly developed economically, and indeed Adshead argues that Sichuan was the 'best' province in China in the nineteenth century, though its position, absolute and relative, deteriorated rapidly in the last decade of the Empire and under the Republic.[13] It also was relatively commercialized, with a developed market system centred on a regional metropolis (by the twentieth century) at Chongqing:[14] a contemporary source estimates that 60% of the province's grain production was marketed, only 40% used directly for subsistence.[15] Farmers reacted flexibly to market signals, shifting plans for crop cultivation according to movements in relative prices.[16]

In contrast Yun-Gui was much more of a frontier zone. Full integration into the Chinese empire little if at all predated the eighteenth century, and the marketing system remained imperfect right up to the twentieth century. While Kunming was probably the most important single centre, it did not form the same sort of hub for the

somewhat larger area to the east. Nevertheless, much the largest part of both provinces lay within the macroregion.

[12] For the formation of the Upper Yangzi macroregion see Paul J. Smith, 'Commerce, Agriculture and Core Formation in the Upper Yangzi, 2 A.D. to 1948', *Late Imperial China* 9.1 (June 1988): 1–78.

[13] S. A. M. Adshead, *Province and Politics in Late Imperial China: Viceregal Government in Szechwan, 1898–1911* (London: Curzon Press, 1984), chs I and V.

[14] G. William Skinner, 'Cities and the Hierarchy of Local Systems', in Skinner, *The City in Late Imperial China*, pp. 288–98.

[15] *Sichuan jingji yuekan* (Sichuan economic monthly) (hereafter *SJYK*) 3.4/5 (April/May 1935): 168.

[16] Mo Zhongxie, *Sichuan sheng yancao diaocha* (Investigation of tobacco in Sichuan) (Chongqing: Sichuan sheng nongye gaijin suo, 1940), p. 5.

region as did Chongqing in the Upper Yangzi.[17] The region's poor communications made it difficult to export bulk products,[18] though this problem could be overcome if the commodity was of sufficient importance, as was copper in the Qing dynasty. Mining—mainly of copper in the Imperial period, mainly of tin in the Republican period—played a major role in the development of the region, though there is little sign from the statistics that industry contributed a greater proportion of total product there than elsewhere. In some ways Yun-Gui was an economic colony of Sichuan: when it developed its modern match industry, skilled workers were recruited from already existing enterprises in Sichuan.[19]

Economic Structure and Levels of Trade

The two Southwest macroregions had relatively backward economies, with a per capital 'national income' around two-thirds the national average. Dependence on agriculture was even greater than in the rest of the country, and the level of industrialization lower. These basic facts emerge both in the figures for the 1920s and 1930s and in the somewhat more reliable data for 1952. Estimates for the pre-war period in Table 1, which is based on pioneering work by Chris Bramall,[20] show that agriculture contributed over 65% (more than 10% of which was opium) to total product, industry (mainly salt in Sichuan, tin in Yunnan) less than 6%. If the figures are robust enough to allow such a calculation, they suggest levels of per capita product or income 74% (for Sichuan) and 57% (for Yun-Gui) of the national average.[21] Similar conclusions can be drawn from the somewhat

[17] For the formation of the Yun-Gui macroregion, see James Lee, 'Food Supply and Population Growth in Southwest China, 1250–1850', *Journal of Asian Studies* 41.4 (Aug. 1982): 711–46.

[18] Wang Fuming, 'Jindai Yunnan quyu shichang chutan (1875–1911)' (A preliminary discussion of the regional market of modern Yunnan, 1875–1911), *Zhongguo jingji shi yanjiu* (Studies in Chinese economic history) 1990.(1990): 103.

[19] Lu Fuchu, chief ed., *Kunming shi zhi changbian* (Kunming city gazetteer, full edition), 13 vols (Kunming: Kunming shi zhi bianzuan weiyuanhui, 1983–84), vol. 11, p. 44.

[20] Chris Bramall, *Living Standards in Sichuan, 1931–1978* (London: Contemporary China Institute, School of Oriental and African Studies, University of London, 1989), pp. 75–85.

[21] K. C. Yeh, 'China's National Income, 1931–36', in Chi-ming Hou and Tzong-shian Yu (eds), *Modern Chinese Economic History: Proceedings of the Conference on Modern*

TABLE 1
Economic Structure of Sichuan and Yunnan, late 1920–1930s

Sector	Sichuan		Yun-Gui	
	Million 1993 Ch$	%	Million 1933 Ch$	%
Agriculture	1588	65.8	681	70.7
Food crops	977	40.5	379	39.3
rice	554	23.0	218	22.6
Cash crops	494	20.5	210	21.8
silk cocoons	31	1.3		
tobacco	11	0.5	23	2.3
tong oil	8	0.3		
opium	260	10.8	125	13.0
Livestock	188	7.8	92	9.5
Industry	138	5.7	37	3.8
coal	2	0.1	1	0.1
salt	92	3.8	11	1.1
tin			14	1.4
reeled silk and silk cloth	3	0.1		
Others	615	25.5	246	25.5
Total	2412	100	963	100
Population (millions)	56		29	
Per capita product (*yuan*)	43.07		33.21	

For details and sources, see Appendix I.

more reliable 1952 figures shown in Table 2, although they may substantially understate the degree of backwardness of the two regions in the 1930s because of their relatively rapid development during the war as base areas for the Guomindang.

This basic economic structure was reflected in the region's pattern of external economic relations. Exports were mainly primary or semi-processed goods—most importantly, opium, silk, *tong* oil and tin—and imports predominantly manufactured goods, especially cotton yarn. Tables 3 and 4 detail the structure of legal exports through the Maritime Customs from Sichuan and Yunnan (Guizhou had no ports open to foreign trade) respectively.[22]

Chinese Economic History, Academic Sinica (Taipei: Institute of Economics, Academic Sinica, 1979), p. 104.

[22] These figures only include legal exports registered by the Maritime Customs through the ports of Wanxian and Chongqing in Sichuan, and Mengzi, Simao and Tengyue in Yunnan; they do not include the quite important exports from Sichuan

TABLE 2
The Southwest in the Chinese Economy, 1952

Province	Average per capita 'national income' (1952 *yuan*)	Share in 'national' income	
		Industry	Agriculture
National Average	102.5	19.5	57.7
Sichuan	57.3	14.2	69.7
Yunnan	62.4	11.9	68.2
Guizhou	54.8	12.6	68.9

Sources: Guojia tongji ju guomin jingji pingheng tongji si, *Guomin shouru tongji ziliao huibian, 1949–1985* (Collected statistics on national income) (Beijing: Zhongguo tongji chuban she, 1987), pp. 10–11, 341–2, 355–6, 365–6; official population figures.

TABLE 3
Major Legal Exports from and Imports to Sichuan before and during the Depression

Exports					Imports		
	late 1920s: average 1926–30		mid 1930s: average 1934–35		late 1920s: average 1926–30		
Item	Ch$ million	%	Ch$ million	%	Item	Ch$ million	%
Silk and silk goods	15.8	25.7	1.8	4.8	Cotton yarn	37.6	44.9
Tong oil	9.9	16.2	9.9	27.2	Cotton cloth	2.2	2.6
Linen	8.0	13.0	0.2	0.6	Kerosene	1.7	2.0
Medicinal herbs etc	5.6	9.1	3.2	8.8	Cigarettes	1.5	1.8
Skins and leather goods	3.5	5.7	2.4	6.7			
Pig bristles	2.9	4.7	5.7	15.7			
Tobacco	1.6	2.7	1.6	4.4			
Sugar	0.4	0.6	2.0	5.5	Others	40.8	48.7
Total	61.4		36.4		Total	83.8	100

Notes: trade values have been converted from Haiguan taels at 1.558 *yuan* per Haiguan tael; because of a change in reporting methods, import figures for the 1930s are not comparable; the 'other' category here is merely a residual.
Source: Gan Cisen, *Zuijin sishiwunian lai Sichuan sheng jinchukou maoyi tongji (Guangxu shiqinian zhi Minguo ershisinian 1891–1935)* (Statistics on Sichuan's import and export trade, 1891–1935) (Chongqing: Minsheng shiye gongsi jingji yanjiu suo, 1936), Tables 1, 6, 7.

to Northwest China and beyond and to Yunnan, nor the even more important shipments of opium, mainly down the Yangzi from Sichuan or through Guangxi to Guangzhou from Yun-Gui.

TABLE 4
Major Legal Exports from and Imports to Yunnan before the Depression (average 1926–30)

Exports			Imports		
Item	Ch$ million	%	Item	Ch$ million	%
Tin	13.50	71.6	Cotton yarn	15.33	48.1
Silk	1.89	10.0	Kerosene	1.16	3.6
Skins/leather	1.43	7.6	Raw cotton	0.87	2.7
Others	2.04	10.8	Others	14.52	45.5
Total	18.86	100	Total	31.88	100

Notes: these trade values have been converted from Haiguan taels at 1.558 *yuan* per Haiguan tael; the 'other' category here is merely a residual.
Source: Zhongyang yanjiu yuan shehui kexue yanjiu suo, *Yunnan zhi maoyi* (Trade of Yunnan) (n.p., Dec. 1939), pp. 67, 71, 89.

The Major Lines of Trade

The major trade commodities and the commercial and productive structures that supported them formed the most important links between the Southwest and the external economy. The rise (or fall) of these lines of trade was a mechanism through which the wealth of the region was increased (or decreased) through its links to the outside world. In this period, exports from the Southwest consisted heavily of raw materials, agricultural or mineral, or relatively simple handicraft manufactures.

The Upper Yangzi, with its relatively diversified economy, had a variety of major trading items, including some manufactures, with silk and *tong* oil being the most important, and 'mountain products', tobacco, sugar and linen also playing a role, especially in the overland trade.

Silk was Sichuan's major legal export for much of the early twentieth century, making up about 25% of the total throughout the 1920s. The region was a major, though not a dominant, player in the national silk industry and provided on average about 16% of the silk exported through Shanghai.[23] Much silk was consumed within the province, and some, either from west Sichuan or lower quality silk from the east of the province, exported south to Yunnan and thence Thailand or Burma; thus silk produced in the Jiading area in the

[23] Xu Xinwu *et al*., *Zhongguo jindai saosi gongye shi* (A history of the Chinese silk reeling industry) (Shanghai: Renmin chuban she, 1990), p. 247.

south of the province was less tied in to the Shanghai market than that produced further north.[24]

The silk trade and industry provided a livelihood for very large numbers of Sichuan farm households. After a long history in the province,[25] the industry expanded very considerably at the beginning of the century, going some way to easing the plight of the province following the opium suppression campaigns of the 1900s.[26] According to the *Sichuan Economic Monthly*, in the 1930s some 'tens of millions' of farmers relied directly or indirectly on silk for an important part of their income:[27] even in a minor producing centre like Qionglai, Southwest of Chengdu, the production of 1 million catties of cocoons a year benefited 100,000 households.[28] Silk was the main cash crop in most areas of the Sichuan region except for the Tuo River basin.[29] Production was spread throughout the province, particularly in the northern part centring on Santai (Tongchuan) and Nanchong (Shunqing). While Santai was formally in the Chengdu economic sphere,[30] convenient river transport meant that most of its exports went to Chongqing, and its industry was developed with a view to that market.[31]

Tong oil, which became Sichuan's—and indeed China's—major export by the 1930s, was, by contrast, largely a twentieth-century phenomenon, developing rapidly from the 1910s for Wanxian and the 1920s for Chongqing. By the 1930s Sichuan was China's major

[24] 'Sericulture in Szechwan', *Chinese Economic Journal* 15.5 (Nov. 1934); 545.

[25] In the southern Song, silk was one of the main items in the commercial expansion which began the shift in the centre of gravity of the Upper Yangzi region from the Chengdu area to Chongqing and the Yangzi valley; see Smith, 'Commerce, Agriculture and Core Formation', pp. 46, 57.

[26] Kubota Bunji, 'Shinmatsu Senhoku sanshigyô no tenkai' (Development of the silk-reeling industry in Northern Sichuan in the Late Qing), *Rekishigaku kenkyû* 331 (Dec. 1967): 31; Lillian M. Li, *China's Silk Trade: Traditional Industry in the Modern World, 1842–1937* (Cambridge, Mass: Council on East Asian Studies, Harvard University, 1981), pp. 115–16.

[27] *SJYK* 5.4 (April 1936): 21; this number should not be taken literally.

[28] *Sichuan Yuebao* (Sichuan monthly) (hereafter *SYB*) 2.6 (June 1933): 58.

[29] Hu Huanyong, *Sichuan dili* (The geography of Sichuan) (Chongqing: Zhengzhong shuju, 1940), p. 37.

[30] Skinner, 'Cities', p. 289.

[31] *Ibid*., p. 291; Wang Di, *Kuachu fengbi de shijie—changjiang shangyou quyu shehui yanjiu (1644–1911)* (Breaking out of a closed world—studies of the society of the Upper Yangzi macroregion, 1644–1911) (Beijing: Zonghua shuju, 1993), pp. 36–7; Peng Zeyi (ed.), *Zhongguo jindai shougongye shi ziliao (1840–1949)* (Materials on the history of modern China's handicraft industries, 1840–1949), 4 vols (Beijing: Zhonghua shuju, 1962), vol. 2, p. 364.

producer, and accounted for around one-third of total output.[32] Production was concentrated in the east of the province, in the highland areas along the Yangzi. Unlike in the case of silk, for which the domestic market was primary, *tong* oil production was almost all for export, mostly to the United States, and during the 1920s and 1930s a series of new financial institutions established for the trade by Chinese banks enabled a much higher level of integration between Sichuan and the Shanghai and overseas markets.[33]

Farm households moved into *tong* oil production from the early 1920s as increasing demand from the United States led to rising prices and the prospect of good profits.[34] A vivid picture of how the trade brought prosperity to many rural areas is provided by a report on Xuyong (Yongning) in the far south of the province: originally little *tong* oil was produced there, but competition at far-off Wanxian forced up prices, impelling merchants to go as far as Xuyong in search of *tong* nuts. By the late 1920s the incomes produced for farmers were so high that even good land was put down to *tong* trees, while a substantial local pressing industry also emerged, with no less than 203 establishments involved.[35]

The Upper Yangzi exported a number of other major primary products. Tobacco and sugar also figured prominently in the Maritime Customs records, but were probably even more important in the overland trade with other parts of China. Tobacco cultivation was widespread but concentrated to the north and west of Chengdu.[36] Trade flowed down the Tuo and Yangzi rivers to consumers in those areas, as well as further west along the Min River; lesser amounts went overland to Shaanxi or Xikang, or south to Yunnan.[37] Sugar production was heavily concentrated in the lower Tuo valley, with that produced in the Jianzhou trading system mostly

[32] William T. Rowe, 'Tung Oil in Central China: The Rise and Fall of a Regional Export Staple', pp. 355–84 in Yung-san Lee and Ts'ui-jung Liu (eds), *China's Market Economy in Transition* (Taipei: Academia Sinica, 1990); *SJYK* 5.6 (June 1936): 12–13.

[33] Evan Erlanson, 'Domestic Banks in Economic Development: Marketing Networks and Financial Technologies in Prewar China', *Twentieth-Century China* 24.1 (Nov. 1998): 67–118.

[34] *SJYK* 3.3 (March 1935): 59.

[35] *SYB* 7.6 (Dec. 1935): 100.

[36] Mo, *Sichuan sheng yencao*, p. 3; Jin Shanbao and Jiang Yao, 'Sichuan dama yancao kaocha baogao' (Report on the hemp and tobacco industries in Sichuan), in Xinan jingji diaocha hezuo weiyuanhui, *Sichuan jingji kaochatuan kaocha baogao: Nonglin* (Report of an economic investigation into Sichuan: Agriculture and Forestry) (Chongqing: Duli chuban she, 1940), pp. 131–2.

[37] Mo, *Sichuan sheng yencao*, pp. 27–8.

exported northwards to the Chengdu metropolis, that produced in the Neijiang system going south to Luzhou and thence to Chongqing.[38] The growing trade brought prosperity to Neijiang owner-cultivators in the early 1910s, before the warlord regimes disrupted the trade and sharpened class divisions.[39]

The major manufactured export, and that a handicraft product, was linen. Production was heavily concentrated in the Tuo River basin, particularly in Longchang and Rongchang in the Luzhou regional city trading system, where the Bank of China estimated that 200,000 households benefited from the trade. Exports were a very important component of sales: Korea was the main market, taking in the late 1920s perhaps one-third of total output. Within China, most was sold in the north, but Sichuan's lower costs allowed it to develop a market even in south China, itself a linen producing area.[40]

In contrast to Sichuan's more varied trade, legal exports of the Yun-Gui region consisted almost exclusively of tin. Indeed, tin from the Gejiu mines contributed between 80 and 90% of total exports from Yunnan through the Maritime Customs. Traditionally, Yunnan had been a much more important copper exporter (to the rest of China) than a source of tin, the trade in which basically originated in the 1890s, with its rapid expansion dating from the early 1910s.[41] Earnings from the trade were of course highly dependent on the fluctuating world tin price. While the impact of tin on the regional economy was much more localized than in the case of the Upper Yangzi handicraft products discussed above, it did make a contribution to the solution of rural unemployment by supporting 80–90,000 workers, and taxes on the metal played a key role in the provincial finances of Yunnan, contributing around 25% of total revenue in the 1930s.[42]

[38] Chongqing Zhongguo yinhang, *Sichuan sheng zhi tang* (The Sugar Industry in Szechuan Province) (Chongqing: Zhongguo yinhang zong guanli chu jingji yanjiu shi, 1934), pp. 84–5.

[39] Wang Dongwei and Huang Jiangling, 'Jiefang qian Neijiang ganzhe zhongzhi ye gaikuang' (The Neijiang sugar industry before 1949), *Sichuan wenshi ziliao xuanji* (Materials on Sichuan history) (Chengdu: Sichuan renmin chuban she), 35(1985), p. 178.

[40] Chongqing Zhongguo yinhang, *Sichuan sheng zhi xiabu* (Szechuen Linen) (Chongqing: Zhongguo yinhang zong guanli chu jingji yanjiu shi, 1936), pp. 19–20, 200, 213.

[41] Zhang Xiaomei, *Yunnan jingji* (The economy of Yunnan) (Chongqing: Zhongguo guomin jingji yanjiu suo, 1942), J19, J15.

[42] Yang Shouchuan, 'Jindai Dian xi chukou shulue' (A short account of tin exports from modern Yunnan), *Sixiang zhanxian* (Ideological front) 1990.4 (Aug. 1990): 83–8; 'Yunnan kuangwu gaikuang' (Mining in Yunnan), *Yunnan jianshe yuekan* (Yunnan

Opium was, however, almost certainly the main item of trade for both macroregions, though the trade does not appear in the statistics. The opium suppression campaigns of the 1900s and 1910s appear to have been quite successful, but there was a resurgence of opium production from the early or mid 1920s, mostly attributed by the Chinese sources to the need of warlords for a lucrative source of finance.[43] In any case by the late 1920s, the two regions had reemerged as the major opium producers in the country and the major suppliers of opium to the Chinese market.[44]

By the 1930s, opium played a major role in production and even more in trade in the two macroregions. Because it was an illegal product, information on its production and trade is scanty and estimates of the level of activity vary widely. Jerome Chen opts for an estimate of only 200,000 piculs for output in Sichuan.[45] In contrast, Bramall estimates that 25% of the cultivated acreage grew opium and that production was over 1 million piculs; thus he puts the contribution of opium to the total provincial product at a massive 15%.[46] However, a provincial total of over 1 million is perhaps questionable: most of the estimates for Fouling, the largest production area, are that 25–33% of sown acreage was committed to opium and production was in the order of 50,000 piculs.[47] It is reasonable to assume most other counties produced less. Taking also into account an estimated output for the early 1900s of around 200,000 piculs, I

Construction Monthly) 1.1 (Jan. 1937): 60; Jing-Dian gonglu zhoulan choubei hui Yunnan fen hui, *Yunnan gaikuang* (General survey of Yunnan) (1937), p. 52.

[43] See, for example, the major economic history of modern China: Xu Dixin and Wu Chengming (eds) *Jiu minzhuzhuyi geming shiqi de Zhongguo zibenzhuyi* (Chinese capitalism in the period of the old democratic revolution) (*Zhongguo zhibenzhuyi fazhan shi*, vol. 2) (Beijing: Renmin chuban she, 1990), p. 983, though this source also points out that higher prices resulting from prohibition increased profits in the trade.

[44] Wang Jinxiang, 'Er, san shi niandai guonei yapian wenti' (The problem of opium in China in the 1920s and 1930s), *Minguo dang'an* (Republican archives) 1992.2 (1992): 71. It would appear that the Northwest, the other major opium producing area, produced only perhaps as much as Yunnan or Guizhou, and substantially less than Sichuan. See British Foreign Office Archives, Public Record Office, London, FO 371 (hereafter, FO 371), F1887/8/87, League of Nations Report for 1937.

[45] Jerome Ch'en, *The Highlanders of Central China: A History 1895–1937* (Armonk, NY: M. E. Sharpe, 1992), p. 21.

[46] Bramall, *Living Standards*, p. 30.

[47] FO371, F3520/184/87, enclosure no. 2: McAmmond to Toller, 21 May 1930, and F3485/184/87: Toller to Lampson, 26 May 1930; Su Zhiliang, *Zhongguo dupin shi* (History of drugs in China) (Shanghai: Renmin chuban she, 1997), p. 343; Chen, *Highlanders*, p. 88; *SYB* 6.3 (March 1935): 142.

believe that the most likely level of production was around half a million piculs. That is the figure used in Table 1, which thus suggests opium 'contributed' about 10% to total product.

Much of the opium was exported, with Fouling being the most important trading centre:[48] estimates in the 1930s suggested that as much as 7,000 tons (116,000 piculs) was shipped down the Yangzi through Hankou.[49] As the trade was illegal, there is little information on it, but the drug was probably less central to the trade of Sichuan's bigger and more diverse economy than it was to Yun-Gui.

Yun-Gui was the main supplier of opium to the Chinese market by the 1920s. According to the estimates in Table 1, production made up a slightly higher proportion of provincial output than was the case in the Upper Yangzi. In addition, opium provided most of the region's foreign exchange and was central to the financial well-being of their governments. Yunnan, whose opium had the reputation of being the best in China,[50] produced several thousand tons a year. Opium, as British Consul-General Harding reported, was (apart from tin) 'the only considerable product of the province on the exportable supplies of which it depends for money to finance its imports and to balance its budget'.[51] One estimate was that opium exports amounted to Ch$20 million a year, more than double the C$10 million deficit on legal trade; local consumption was worth Ch$30 million.[52] Guizhou also exported opium to the value of up to Ch$50 million in return for imports of cotton yarn and goods of daily use.[53]

[48] Robert A. Kapp, 'Chungking as a Center of Warlord Power, 1926–1937', in Mark Elvin and G. William Skinner (eds), *The Chinese City Between Two Worlds* (Stanford: Stanford University Press, 1974), p. 157.

[49] J. C. S. Hall, *The Yunnan Provincial Faction, 1927–1937* (Canberra: Department of Far Eastern History, Australian National University, 1976), pp. 126–7; a 1930 estimate was 40,000 piculs, see United States State Department Central Files, China: Internal Affairs, 893.114 (hereafter, US 893.114) Narcotics/ 178, American Consul, Hankow, to Secretary of State, Confidential Report, 12 December 1930.

[50] Su, *Zhongguo dupin shi*, p. 328.

[51] FO371, F4317/87/87, Harding to Cadogan, 6 June 1934.

[52] Lu, *Kunming shi zhi*, vol. 12, p. 368; see also Zhang, *Yunnan jingji*, P1, and Hall, *The Yunnan Provincial Faction*, ch. 5.

[53] Tang Zaiyang, 'Minguo shiqi Guizhou gongshangye gaikuang' (Industry and commerce in Guizhou during the Republican period), *Guizhou wenshi congkan* (Historical materials on Guizhou) 1987.2 (1987): 27; Zhou Chunyuan, He Changfeng and Zhang Xiangguang, *Guizhou jindai shi* (Modern history of Guizhou) (Guiyang: Renmin chuban she, 1987), p. 185. This figure seems somewhat high, in the light of the Yunnan figure and the estimates for value of output presented in Table 1.

How far farm households were attracted into opium cultivation by its income-generating possibilities is not clear. Certainly most of the literature stresses the way that governments, pressed for revenue, forced farmers into cultivating opium by imposing taxes which could only be paid through its cultivation.[54] But it could also be a profitable crop. Farmers in Li xian to the northwest of Chengdu began cultivating opium in the early 1920s when they saw the profits to be made; the resources generated by the crop allowed them to import farm tools and draft animals to develop agricultural production.[55] Later, too, farmers undertook and abandoned opium cultivation in response to changes in its profitability: heavy demand for Fouling opium in 1936 induced many farmers to switch away from vegetable cultivation in the hope of making a profit.[56]

In contrast to the raw material exports, the major imports into the region were manufactured goods, most importantly cotton yarn, of which some 100,000 bales were imported into Sichuan in the mid 1930s.[57] Similarly, about half of the imports into Yunnan recorded by the Maritime Customs was accounted for by cotton yarn,[58] and up to 70% by cotton goods as a whole.[59] As in the rest of China, machine yarn, imported either from overseas or from modern Chinese mills in Shanghai, became the basis for the handicraft weaving industry, in the process commercializing the rural areas; even Chinese sources say that the 'dumping' of foreign yarn did not cause rural bankruptcy in Sichuan, but rather stimulated a boom in rural household weaving.[60]

[54] For Guizhou see FO371, F4317/87/87, Harding to Cadogan, 6 June 1934; for Sichuan see Kuang Shanji and Yang Shurong, 'Sichuan junfa yu yapian' (Opium and the Sichuan warlords), in Xinan junfa shi yanjiu hui, *Xinan junfa shi yanjiu congkan* (Studies on the Southwest warlords) (Kunming: Yunnan renmin chuban she, 1985), pp. 250–1.

[55] Sang Zihou, 'Jiefang qian Li xian zhongzhi yapian de qingkuang' (Opium cultivation in Li xian before 1949), in *Sichuan wenshi ziliao xuanji* 30 (1985), pp. 143, 153.

[56] *SJYK* 7.5/6 (May/June 1937): 84, 8.1 (July 1937): *Sichuan jingji* 30.

[57] 'Cotton-Yarn Trade of Szechwan', *Chinese Economic Bulletin* 26.1 (5 Jan. 1935): 1–8.

[58] Akamatsu Sukeyuki, *Shina kakushô keizai jijô* (Economic situation of China's provinces) 3 vols (Tokyo: Nihon kokusai kyôkai, 1935), vol. 2, p. 242.

[59] Yang Shouchuan, 'Jindai Yunnan shangpin jingji shulun' (The commodity economy in modern Yunnan), *Jingji wenti tansuo* (Economic problems) 1989.3 (March 1989): 63.

[60] Xie Fang, 'Jindai Sichuan nongcun "gengzhi jiehe" de fenli guocheng ji qi juxian' (The breakdown of the link between agriculture and weaving in rural Sichuan and its limitations), *Jindai shi yanjiu* (Studies in modern history) 1990.1

Important though these major items of trade were, their influence should not be exaggerated. Overall, external trade, although important for certain areas, accounted for only a small part of the social product of these regions. Hu Kwoh-hwa described Sichuan as an 'isolated province', with little avenue for disposing of agricultural surplus or filling gaps in production.[61] A very crude comparison between trade figures (imports plus exports) in the late 1920s (in current prices) and my estimate for average provincial output for Sichuan and Yun-Gui in the 1930s (in 1933 prices) suggests that under 6% of total product in the two regions passed through the Maritime Customs. If, however, one were to include the illegal opium trade in the calculation, and to assume that about one-third of output was exported from the provinces, the figures would be just under 10% for Sichuan and just over that figure for Yun-Gui. In contrast, for the country as a whole the proportion would be something closer to 12 or even 17%.[62]

On a trade-by-trade basis, output of all the major legal commodities discussed above amounted to only between 3 and 5% of regional product. While that excludes the earnings of commerce in those products and does not take into account multiplier effects, on the other hand a substantial proportion of those commodities was consumed within the region. Even the silk industry, Sichuan's major source of legal exports before 1929, accounted for under 2% of total product. *Tong* oil, dominant in the 1930s was an even smaller part of the provincial economy. Indeed by these figures, it was only through opium that external trade penetrated to the core of the economy.

Price Integration

Were there other avenues by which the economies were integrated into the broader Chinese economy? The *Hankou Commercial Monthly*

(Jan. 1990): 103–4; Liu Changren, 'Chongqing kaibu zhi kangzhan qian Sichuan meanfangzhiye shengshuai gaikuang (1891–1936)' (The rise and fall of the Sichuan cotton textile industry between the opening of Chongqing as a port and the Anti-Japanese War, 1891–1936), *Sichuan wenshi ziliao xuanji* 40 (1992), pp. 144–8.

[61] Hu Kwoh-hwa, 'Price Behavior of Rice in Szechwan', *Economic Facts* 15 (April 1941): 140.

[62] Robert F. Dernberger, 'The Role of the Foreigner in China's Economic Development, 1840–1949', in Dwight H. Perkins (ed.), *China's Modern Economy in Historical Perspective* (Stanford: Stanford University Press, 1975), p. 27; Chi-ming Hou, *Foreign*

certainly believed that the Upper Yangzi was integrated into the Chinese economy through that centre:

> Hankou is the centre of gravity of the interior market. The condition of the farm economy in the various provinces of the Upper Yangzi can be glimpsed through the Hankou foreign trade figures. In recent years under the growing effects of the world depression, capitalist-dominated China is already struggling desperately.[63]

Loren Brandt has argued that prices in a wide variety of centres in central and eastern China essentially fluctuated with those in Shanghai,[64] but Chinese scholars in Sichuan and Yunnan differed as to how far prices in their area reflected those in the rest of China.

Prices in Sichuan probably did broadly reflect national trends, at least from the 1920s. A study by Wang Lien indicates a high level of correlation between movements in the price of rice in Sichuan and in Wujin, Jiangsu, between 1910 and 1935; the author points out that the correlation would be even higher if Sichuan prices could be calculated in Shanghai currency.[65] Figure 1 also shows that from the mid 1910s rice prices exhibited very similar movements as between Sichuan and Shanghai. It suggests that perhaps Sichuan became increasingly integrated into the national economy from the mid 1910s, with price movements before that period tending to move in opposite directions in Changning (Sichuan) and Shanghai. This could be explained by the increasing use of steam navigation up the Yangzi,[66] and by the increasing sophistication of trading mechanisms.[67] On the other hand, it throws doubt on the degree to which warlord depradations and such factors interrupted commerce.

Concrete examples of arbitrage also suggest a degree of integration between the Upper Yangzi market and central and eastern China. Although there was a substantial trade in rice within the province,[68] the interregional trade was much smaller than in the

Investment and Economic Development in China, 1840–1937 (Cambridge: Harvard University Press, 1965), p. 189.

[63] *Hankou shangye yuekan* (Hankou commercial monthly) 1.1 (Jan. 1934): 35.

[64] Brandt, *Commercialization and Agricultural Development*, pp. 25–37; Loren Brandt, 'Chinese Agriculture and the International Economy, 1870–1930s: A Reassessment', *Explorations in Economic History* 22.2 (April 1985): 179.

[65] Wang Lien, 'Farm Prices in Szechwan, 1910–1934', *Economic Facts* 9 (April 1938): 412–19; I have not yet found the original data for this study.

[66] China, Maritime Customs, *Decennial Reports, 1922–1931* (Shanghai: Inspectorate General of Customs, 1933), vol. 1, p. 473.

[67] See Erlanson, 'Domestic banks', *passim*.

[68] Akamatsu, *Shina kakushô keizai jijô*, pp. vol. 2, 179–80.

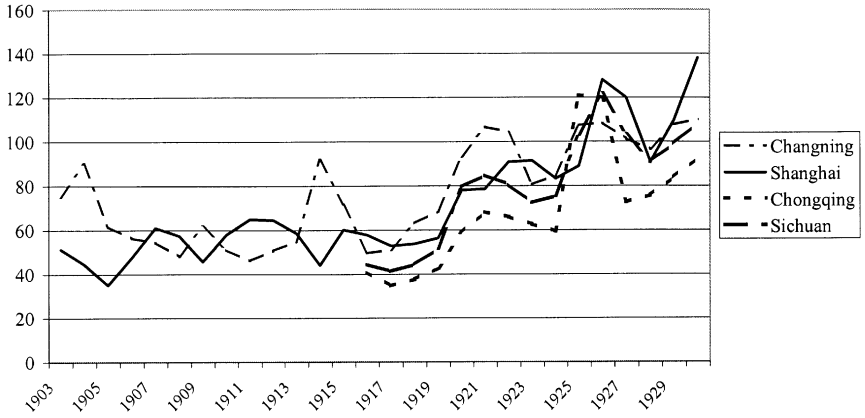

Fig. 1. Shanghai and Sichuan Rice Prices, 1903–1930 (Index, 1924–1926=100)
Sources: Shanghai: Brandt, 'Chinese Agriculture and the International Economy', pp. 191–2, using reports in *Shenbao*.
Changning: Li Zhuxi *et al*., *Jindai Sichuan wujia shiliao* (Materials on prices in modern Sichuan) (Chengdu: Sichuan kexue jishu chuban she, 1987), pp. 75–81.
Chongqing: Li Zhenghong, *Sichuan nongye jinrong yu diquan yidong zhi guanxi* (Agricultural finance in Sichuan and its link to changes in land ownership) (1938) vol. 89 in *Minguo ershi niandai Zhongguo dalu tudi wenti ziliao* (Materials on land problems in China during the 1930s) (Taibei: Chengwen chuban she, 1977), p. 47086; see also Xu Daofu, *Zhongguo jindai nongye shengchan ji maoyi tongji ziliao* (Statistical materials on agricultural production and trade in modern China) (Shanghai: Renmin chuban she, 1983), p. 95.
Sichuan: read off figure 2 in Wang, 'Farm Prices in Szechwan 1910–1934', p. 416.

eighteenth century, when around 2 million piculs were shipped down the Yangzi.[69] By the twentieth century, the *Sichuan Monthly* bemoaned the fact that the province had in face become a net importer of rice from Hunan.[70] Nevertheless, traders still took advantage of price differentials in both directions: when rice prices rose to a very high level in Chongqing, local authorities and merchants imported rice from Hubei and Hunan.[71] In the opposite direction as well, rice merchants remained conscious of prices—and possible profits—in eastern China.[72] These mechanisms acted to

[69] Han-sheng Chuan and Richard A. Kraus, *Mid-Ch'ing Rice Markets and Trade: An Essay in Price History* (Cambridge, Mass: East Asian Research Centre, Harvard University, 1975), p. 70.
[70] *SYB* 4.5 (May 1934): 12.
[71] *SYB* 4.2 (Feb. 1934): 75, 9.1 (July 1936): 131; J. Lossing Buck and Hu Kwohhwa, 'The Price of Rice and Its Determining Factors in Szechwan', *Economic Facts* 15 (April 1941): 117.
[72] *SJYK* 3.1 (Jan. 1935): 192.

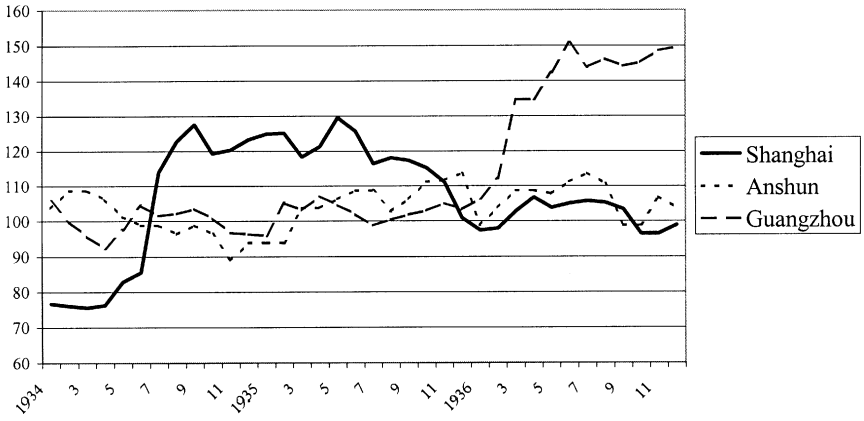

Fig. 2. Rice Prices in Shanghai, Guangzhou and Anshun, Guizhou, 1934–1936 (Index, 1934=100)
Sources: Zhongguo shehui kexue yuan Shanghai jingji yanjiu suo and Shanghai shehui kexue yuan jingji yanjiu suo (eds), *Shanghai jiefang qianhou wujia ziliao huibian (1921 nian–1957 nian)* (Materials on Shanghai prices, 1921–1957) (Shanghai Renmin chuban she, 1958), pp. 186–7, 216–7; Zhang Xiaomei, *Guizhou jingji* (The economy of Guizhou) (Shanghai: Zhongguo guomin jingji yanjiu suo, 1939), K38.

integrate prices in Sichuan with those in central China and thence Shanghai and the world.

Yun-Gui seems much less certain. Obviously the price of the main export commodity, tin, nearly the whole production of which was sold outside the province, was determined entirely by the world market.[73] But data is so lacking on other commodities that it is difficult to say anything with any confidence. One series of prices for Anshun county in Guizhou in the 1930s suggests that prices there may have reflected Guangzhou prices in 1934 and 1935, but were closer to Shanghai in 1936 (see Figure 2).

Southwest China in the Great Depression

Putting together quantitative and qualitative evidence, the overall impression is that the Great Depression caused a sharp decline in some of the major export lines outlined above (most notably silk), which caused widespread distress. Moreover a general weakness of demand affected a much wider variety of industries and trades. As in the rest of China, this was reflected in generally

[73] Zhang, *Yunnan jingji*, J23.

weak prices, and thence in a decline in incomes especially for farm households. Nevertheless this decline did not shake the foundations of the economy: many lines of production maintained output and trading levels, and others emerged to take the place of those which declined.

External forces other than the Depression also acted to reduce external demand for Southwest products in the 1930s. The Lower Yangzi floods, which are often cited as a major cause of the economic downturn in Eastern China, were not so important for the sale of Sichuan products. But the loss of the Northeastern market to Japan was an important negative factor for many handicraft industries—such as linen—in Sichuan as elsewhere.[74] In addition, as will be suggested in the next section, internal political stability and favourable climatic conditions remained in the short term more important for the well-being of most households than was the state of the outside economy.

This section uses a wide range of scattered and fragmentary materials to outline the impact of the Depression. No aggregate data exist for any major region, let alone the relatively remote Southwest, although there are a few time series for national product during the 1930s.[75] This section therefore pieces together an outline of the major trends by using indirect measures: the trends in overall trade for the region; the fate of the major commodities and trades described in the previous section; information on broad price trends; fragmentary information on changes in employment; and equally partial evidence on changes in income levels.

One problem with using disaggregated data is the overly pessimistic tone of the contemporary literature. Such a phenomenon is by

[74] You Shimin, *Sichuan jindai maoyi shiliao* (Historical materials on the trade of modern Sichuan) (Chengdu: Sichuan daxue chuban she, 1990), p. 225; *SJYK* 3.6 (June 1935): 199. However, the Bank of China (Chongqing Zhongguo yinhang, *Sichuan sheng zhi xiabu*, p. 197 and Figure 18) points out that the size of the decline in linen exports through the Maritime Customs is accounted for more by the industry's attempts to by-pass taxes in Chongqing by using the postal system.

[75] There have been four attempts to estimate national economic aggregates 1931–36, but in all cases the *primary* (though not the sole) intention has been to develop averages to compare with other periods over the longer term: see Yeh, 'China's National Income, 1931–36'; P. S. Ou, *National Income of China* (Shanghai, 1946); Sueh-Chang Yang, 'China's Depression and Subsequent Recovery, 1931–1936: An Inquiry into the Applicability of the Modern Income Determination Theory' (Ph.D. Dissertation, Harvard University, 1950); and Liu Ta-chung, *China's National Income, 1931–36: An Exploratory Study* (Washington, DC: The Brookings Institution, 1946).

no means limited to the economy of Sichuan,[76] but a particularly clear example was the strongly expressed concern over a 'crisis' of foreign competition in the *tong* oil industry in the 1930s, which seems in hindsight to have been considerably overstated.[77] Despite evidence in this paper that Yunnan was only loosely tied to the external economy, the *Yunnan Construction Weekly* likewise described the impact of the Depression as very serious, so that Yunnan was 'tossed about in this situation like a boat on the vast and raging sea'.[78] Contemporary sources also painted a picture of widespread rural distress as a result of the World Depression, though they also pointed to more fundamental factors such as the shortage of land.[79] Even remoter areas of Southwest China were, according to qualitative information, severely hit by the Depression.[80]

In aggregate terms, the trade of the Upper Yangzi declined considerably during the Depression: as Figure 3, which traces the course of the foreign trade of the two macroregions during the Depression, indicates, Sichuan's exports fell almost exactly by half from the peak in1930 to the trough in 1934; imports also fell, though that fall is exaggerated by the omission from 1932 of imports of foreign goods from other Chinese ports.[81] The Customs report directly linked the decline to the World Depression:

> The depression in foreign markets in general resulted in a lessened demand for silk, bristles, wool, skins, hides etc; while the depression in the Straits and Siam in particular affected the demand from Chinese settlers in these countries for one of the principal export staples of Szechwan, that is, medicines.[82]

There are differing opinions on the fate of Yunnan's trade in this period. A recent Chinese study of Yunnan's foreign trade agues that

[76] Tim Wright, 'Coping with the World Depression: The Nationalist Government's Relations with Chinese Industry and Commerce, 1932–1936', *Modern Asian Studies* 25.4 (Oct. 1991): 652.

[77] Rowe, 'Tung Oil', pp. 372–3.

[78] 'Yunnan nongcun jingji yu shengmin jingji zhi qubie ji qi jiuji' (The Yunnan rural economy and relief for the people's economic situation), *Yunnan jianshe zhoukan* (Yunnan construction weekly) 14 (Nov. 1935): 2.

[79] Liu Shimo, 'Sichuan nongcun zhi bingtai' (Problems of rural Sichuan), *Sichuan nongye* (Sichuan agriculture) 1.4 (April 1934): 5–6.

[80] See the report from Guizhou quoted in Lloyd E. Eastman, *The Abortive Revolution: China under Nationalist Rule, 1927–1937* (Cambridge, Mass: Harvard University Press, 1974), p. 191.

[81] Zhang Xiaomei, *Sichuan jingji cankao ziliao* (Materials on the Sichuan economy) (Shanghai: Zhongguo guomin jingji yanjiu suo, 1939), U1–2.

[82] China, Maritime Customs, *The Trade of China, Annual Report* (Shanghai: Inspectorate General of Customs, annual), 1932, p. 13.

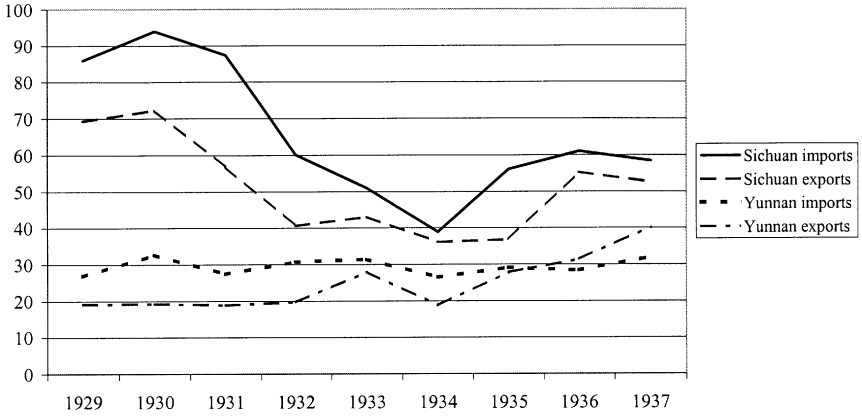

Fig. 3. Foreign Trade of Sichuan and Yunnan During the Depression (million yuan)
Sources: Sichuan: Zhang, *Sichuan jingji*, U1–2; Yunnan: Jing-Dian gonglu zhoulan choubei hui Yunnan ten hui, *Yunnan gaikuang* (General survey of Yunnan) (1937), p. 101, Guo Yuan, *Yunnan sheng jingji wenti* (Yunnan's economic problems) (Chongqing: Zhengzhong shuju, 1940), pp. 287–8 and Zhongyang yanjiu yuan, *Yunnan zhi maoyi*, pp. 71–2.

the whole period between 1921 and 1932 was one of stagnation and decline, and 'especially from 1929 to 1932 under the influence of the world economic crisis there was a steep decline in both imports and exports'.[83] A contemporary source likewise argues that, a fall in Yunnan's exports to other ports in China in 1934 was 'due to the stagnation of demand in the various Chinese ports as a result of the influence of the World Depression', while exports recovered in 1935 as the world economic situation improved.[84] Other factors were also at work, and an observer in the 1930s attributed the decline early in that decade to financial turbulence and the prevalence of bandits.[85] On the other hand, the Customs statistics (see Figure 3) in fact suggest that Yunnan's trade stagnated in the early 1930s, but hardly that it declined steeply.[86]

A complicating factor in trade relations was the fact that in practice both Sichuan and Yunnan had their own currencies, with chang-

[83] Chen Xi, 'Yunnan duiwai maoyi de lishi gaishu' (An historical account of Yunnan's foreign trade), in Yunnan sheng shehui kexue yuan lishi yanjiu suo, (ed), *Yunnan difang minzu shi luncong* (Essays on nationalities history in Yunnan) (Kunming: Renmin chuban she, 1986), p. 441.
[84] Zhang, *Yunnan jingji*, P2.
[85] Lu, *Kunming shi zhi*, vol. 11, p. 350.
[86] Other sources do, however, give different figures.

ing exchange rates with the national currency and thence of course with other world currencies.[87] This affected trade both through uncertainty, leading to a speculative orientation,[88] and through movements in currency values which were adverse to particular kinds of trade. In particular the year 1934 saw a sharp devaluation in Sichuan's currency relative to Shanghai's, which disadvantaged imports and favoured exports, leading to an improvement in the overall trade balance and to a resurgence of shipping on the upper Yangzi.[89] On the other hand, of course, lines of business that involved the sale of imported goods, such as Nanjing silks, went into a sharp decline.[90] After central government intervention stabilized the Sichuan dollar more or less at parity with Shanghai, however, imports from the rest of China became cheaper, and this was blamed for the success of Shantou sugar in undermining the market of the local Neijiang producers.[91] More broadly, the general increase in the value of silver—both national and local currencies—in 1934–35 depressed the exports of medicinal products.[92]

Yunnan's currency situation was even more chaotic, particularly up to the mid 1930s when it fluctuated wildly against the national currency, though the overall trend was clearly one of decline: from around 7:1 at the beginning of the 1930s to around 9:1 in 1934–35. From about the time of the currency reform, however, the provincial authorities used the revenue from expanding sales of tin to stabilize the currency at 10 old Yunnan dollars or 2 new Yunnan dollars to one national dollar.[93] The instability injected uncertainty into trade,[94] and the Customs report cited the depreciation of the local paper currency as one of the reasons for the decline in trade in 1932.[95]

[87] For Sichuan see Zhang, *Sichuan jingji*, E22–4 and *SJYK* 1.4 (April 1934); *zhuanlun* 5–10.

[88] For medicines see Chongqing Zhongguo yinhang, *Sichuan sheng zhi yaocai* ('The Medicinal Produce in Szechuen Province') (Chongqing: Zhongguo yinhang zong guanli chu jingji yanjiu shi, 1934), pp. 163–4.

[89] China, The Maritime Customs, *Trade of China, 1934*, p. 17; *SJYK* 3.1 (Jan. 1935): *zhuanlun* 74; *SYB* 7.5 (Nov. 1935): 159.

[90] *SJYK* 3.2 (Feb. 1935): *shengnei jingji* 93.

[91] *SYB* 9.2 (Aug. 1936): 231.

[92] *SYB* 6.3 (March 1935): 87.

[93] Zhang, *Yunnan jingji*, J18, T14.

[94] For the 1920s see, China, Maritime Customs, *Decennial Reports, 1922–31*, vol. 2, p. 345.

[95] China, Maritime Customs, *Trade of China, 1932*, vol. 1, p. 36.

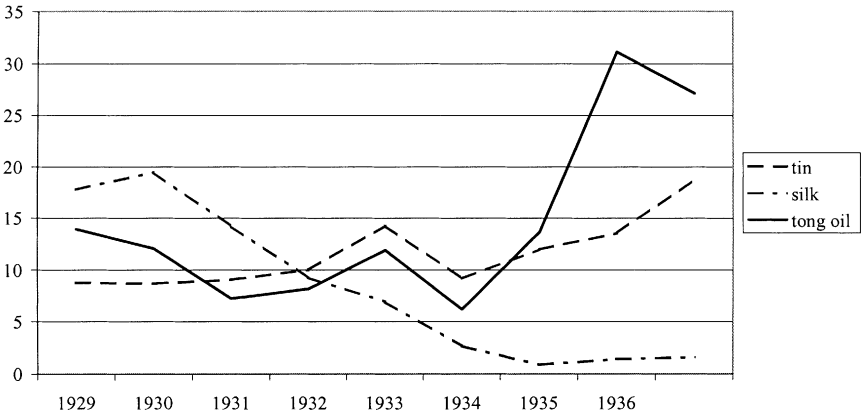

Fig. 4. Major Export Commodities During the Depression (Export values in Ch$ million)
Souces: tin: *Zhang Yunnan jingji*, J19; silk and tong oil: Gan, *Sichuan sheng jinchukou maoyi tongji*, Tables 6, 7; Xu, *Zhongguo jindai nongye shengchan ji maoyi tongji ziliao*, p. 285; Hu, *Sichuan dili*, p. 48; China, Maritime Customs, *Trade of China, 1937*.

The Fate of the Major Traded Commodities

Among specific trades (see Table 3 for the major commodities in Sichuan), the silk trade was the most seriously affected in the Southwest as in the country as a whole. The essential pattern was that demand in the United States and in the world market fell sharply soon after the onset of the Depression; this both sharply forced down the price of Chinese reeled silk (though local prices were protected to some extent by the devaluation of silver) and reduced the volume of sales through the main export ports (Chongqing in the case of Sichuan) even at the lower prices. This fall in exports naturally led to falling prices for cocoons and reeled silk in the major producing areas and declining shipments out of them. This in turn led to falling production and sharply lower incomes for the producers.

The value of silk exports from Sichuan declined sharply and catastrophically from just under Ch$20 million in 1930 to less than one-tenth that level in 1935–37, while volume fell from 13,500 piculs in 1930 to somewhat under 2000 in 1935 (see Figure 4, which covers exports of the three major Southwest commodities—silk, *tong* oil and tin). While exports to Shanghai and thence the overseas markets were hardest hit, other trade routes also declined. Exports through

Yunnan to Thailand fell by some 40%, though those to Burma remained stronger than those through Shanghai.[96] Overall, silk fell from around 25% of total provincial exports in the late 1920s to only between 2 and 3% in the mid-1930s.[97]

Weakness of external markets was transmitted to the main producing areas, first of all through the price mechanism. The history of silk prices in this period is not totally clear. The aggregate trade figures for Sichuan and for China, as well as the Shanghai local price series, all show that prices declined moderately until 1932, but steeply thereafter;[98] this was no doubt because the devaluation of silver acted as a buffer (and in fact most prices in China rose substantially around 1930). On the other hand, more fragmentary local figures show an earlier and steeper decline: the price of factory reeled silk in Sichuan fell from Ch$1000 per picul in 1929 to only around Ch$600 in 1932.[99] Prices for Nanchong silk fell from around Ch$1500 to Ch$500 over the same period, while those of Santai silk fell less drastically from around Ch$900–1000 per box to Ch$550.[100] Jiading, which relied more on the overland market to India and Southeast Asia, was less hard hit, but even there cocoon prices fell, and only low prices for mulberry leaves saved many households from bankruptcy.[101]

Declining markets meant declining production, and output of cocoons in 1933 was 40% down on the level of the 1920s, according to Sichuan's local authorities.[102] The decline continued with the output of reeled silk falling from 30,000 piculs to only around 8000 piculs in the mid 1930s.[103] On a local level, in the late 1920s in Nanchong, there had been more than 30 workshops producing 1300–1400 piculs of reeled silk per year; the number of shops and output declined sharply in the early 1930s with the decline of sales in Shanghai.[104] Further to the south, production of reeled silk in Jiading fell from around 5–6000

[96] 'Sericulture in Szechwan', p. 545; *SJYK* 7.4 (April 1937): 26.
[97] Zhong Chongmin and Zhu Shouren (eds), *Sichuan cansi chanxiao diaocha baogao* (Report of an investigation into the production and sale of Sichuan silk) (Chongqing: Zhongguo nongmin yinhang jingji yanjiu chu, 1944), p. 8.
[98] Shanghai jingji yanjiu suo, *Shanghai jiefang qianhou wujia*, pp. 239–41; Gan, Sichuan sheng jinchukou maoyi tongji, p. 76.
[99] 'Sericulture in Szechwan', p. 545.
[100] *SYB* 1.3 (Sept. 1932): 27, 1.4 (Oct. 1932): 41, 6.1 (June 1935): 71–2.
[101] *SJYK* 3.6 (June 1935): 183.
[102] 'Sericulture in Szechwan', pp. 539–41.
[103] Hu, *Sichuan dili*, p. 38.
[104] *SYB* 7.1 (July 1935): 112.

piculs in the 1920s to 2–3000 in the 1930s.[105] Modern filatures also suffered: in Chongqing, the Dahua Silk Company was formed as a conglomerate of eleven filatures to try to overcome the effects of the Depression, but was unsuccessful in doing so.[106] Several new filatures were, however, established in the early 1930s.[107]

Falling production and prices meant falling incomes, disruption and poverty in the silk producing areas of Sichuan. In Nanchong and Xichong farmers relied on silk to earn money to buy grain from neighbouring areas; the collapse of demand forced losses on many households, deepened the bankruptcy of the rural economy and greatly increased unemployment.[108] The decline flowed through to minor centres such as Hechuan to the north of Chongqing where the loss of export markets bankrupted silk reelers and agricultural households chopped down their mulberry trees for firewood.[109]

Nevertheless, such a picture has to be qualified in two major ways. First, despite the falls in income and the suffering caused, the economic structure outlined in Table 1 showed that less than 1.5% of provincial product was contributed by the silk industry. While the qualitative evidence of crisis, in the form of the continual return by local periodicals to the problems of the industry, suggests a greater importance, the estimate would have to be very far out indeed to validate any claim that the decline of the industry shook the foundations of the economy.

Second, the decline of silk production was at least partly balanced by a shift to other lines of production, what we know as economic restructuring. In Longchang (which was not one of the most important producing districts), farmers who had depended on silk reacted to the decline in world prices by ripping up their mulberry trees and planting grain; in the slack season they switched from the silk industry to weaving linen cloth, though the increased numbers of weaving households forced down the price of cloth.[110] There was a similar story in Bishan to the west of Chongqing.[111]

[105] *SJYK* 7.4 (April 1937): 26.

[106] *Sichuan nongye* 1.2 (Feb. 1934): 49; Qiyeshi ziliao yanjiu zhongxin, Shanghai shehui kexue yuan jingji yanjiu suo: 'Report of the National Bureau of Economic Research: The Raw Silk Industry of Sichuan', p. 5. I would like to thank Professor Huang Hanmin for his help in giving me access to these archives.

[107] Zhang Xuejun and Zhang Lihong, *Sichuan jindai gongye shi* (History of modern industry in Sichuan) (Chengdu: Sichuan renmin chuban she, 1990), pp. 215–17.

[108] *SJYK* 3.4/5 (April/May 1935): 147, 3.6 (June 1935): 181.

[109] *SJYK* 3.6 (June 1935): 179.

[110] *SJYK* 4.1 (July 1935): 147.

[111] *SYB* 6.5 (May 1935).

In contrast to silk, tin exports from Yun-Gui on the whole did relatively well through the 1930s, both in quantity and in price. Quantity was stimulated by the modernization of operations by the provincial government, reaching almost to a record level in 1933.[112] Exports in 1934 fell by 30%, but this was because of problems with supply due to bad weather and an epidemic among the workers,[113] not a fall in demand, and they still remained at a level higher than the late 1920s (though not the early 1920s). World tin prices fell sharply in the early 1930s,[114] but the devaluation of the Chinese currency meant local prices fell much more moderately, reaching a trough in 1934, but at a level only some 7% below the late 1920s; after 1934 prices recovered very rapidly to record levels from 1936.[115]

Other export lines maintained volumes (less often values) throughout the 1930s, while still others actually grew, to some extent taking up the slack left by silk and other products in decline. Many articles in the Chinese economic press bemoaned the 'crisis' in the *tong* oil trade,[116] and prices fell sharply up to 1933 as a result of declining demand from American industry during the Depression.[117] Because *tong* oil was produced on the whole in the less highly commercialized areas of Sichuan, there is less information on any disruption caused, but it is likely to have been substantially less than in the case of silk. In any case, quantities traded remained large and relatively strong throughout the period and Sichuan sources make clear that it was the source of continuing prosperity.[118] In Nanchong, the economic centre of the north of the province, it replaced silk as the mainstay of trade.[119]

Despite complaints about the dumping of foreign sugar, sugar production and exports in Neijiang were growing up to 1933, before the drought reversed the trend. Prices, too, do not seem to have been affected by any dumping, though the *Sichuan Economy Monthly*

[112] China, Maritime Customs, *Trade of China, 1933*, p. 31.
[113] China, Maritime Customs, *Trade of China, 1934*, p. 38.
[114] William Robertson, *Tin: Its Production and Marketing* (London: Croom Helm, 1982), p. 134.
[115] Zhang, *Yunnan jingji*, J19, J24–5.
[116] See Rowe, 'Tung oil', pp. 371–2.
[117] *SJYK* 3.3 (March 1935): 59.
[118] See e.g. *SYB* 9.3 (Sept. 1936): 217.
[119] *SYB* 10.3 (March 1937): 146.

reported declining incomes and employment in the early 1930s.[120] Tobacco exports declined, though contemporaries, citing the growth in imports of cigarettes, attributed this more to quality problems than to the Depression.[121] Linen prices and output fell in the early 1930s, though the Bank of China blamed high taxes—both within Sichuan and by the Japanese in Korea—and bad organization rather than the Depression. By 1934, both measures were again improving, and the Bank even allowed itself a degree of optimism.[122]

Opium again is difficult to analyse along conventional lines. To some extent, the trade responded to economic determinants but even more than with other products, political and social factors also remained important. There is some evidence that there was a fall in demand for opium: the *Central China Daily News* reported that 'in recent years opium smokers in Kweichow [Guizhou] have decreased considerably as a result of economic depression and the poor people cannot afford to take opium'.[123] Although one might have expected demand for such a luxury product to drop in a period of economic decline, in the West depressions generally see sales of alcohol holding up well; a survey of trade in Wanxian said that leisure industries were an exception to the general picture of decline,[124] and a mid-1930s estimate said that Chengdu consumed annually Ch$3.5 million-worth of tobacco, Ch$3 million of opium, Ch$1.2 million of cosmetics and Ch$0.5 million of wine.[125] It may have been that opium detracted from the pain of economic decline.

Other sources attributed any decline in demand to high taxes, the New Life Movement, or campaigns to ban opium.[126] The opium suppression in Yunnan led to trade deficits in 1934 and 1935, after many years of surplus; increases in other exports, however, brought trade back into surplus from 1936. It also led to an increase in cigarette imports into the province.[127]

[120] Fang Binsheng, 'Sichuan zhetang diaocha baogao' (Report on the sugar industry in Sichuan), in Xinan jingji diaocha hezuo weiyuanhui, *Sichuan jingji kaochatuan*, pp. 257, 262–3; *SJYK* 3.6 (June 1935): 201.
[121] Hu, *Sichuan dili*, p. 29.
[122] Chongqing Zhongguo yinhang, *Sichuan sheng zhi xiabu*, pp. 214–17.
[123] FO371, F6095/87/87, translation from *Central China Daily News*, 23 Aug. 1934.
[124] *SJYK* 2.5 (Nov. 1934): 2.
[125] *SJYK* 7.4 (April 1937): 18.
[126] *SJYK* 3.1 (Jan. 1935): 192.
[127] Zhang, *Yunnan jingji*, P1.

Opium prices fluctuated in response to the Depression and a variety of other forces. Prices for the best Yunnan opium fell from about Ch$7–800/picul around 1930 to only around Ch$300 in 1934,[128] and American consular officials reported an even steeper decline in prices expressed in local Yunnan currency.[129] Whether this was because of lower demand or generally good harvests, in some areas the farmers were barely able to recoup the costs of production. On the other hand, lower prices increased the attractiveness of smoking opium as against tobacco, so may have increased total demand.[130]

Nevertheless, lower opium prices, and possibly lower output because of prohibition, did adversely affect both rural and urban incomes. British reports spoke of the difficulties cultivators faced when merchants, seeing a decline in demand, whether for economic or for political reasons, refused to buy the crop. The *Yunnan Construction Weekly* described the government ban on opium in the 1930s as a blow to rural incomes,[131] and American diplomats and the Chinese economist Zhang Xiaomei identified a decline of opium cultivation as the cause of falling farm purchasing power and business depression, and hence falling demand for foreign imports.[132]

Other Price and Income Effects

In the eastern part of China, the Depression had a much greater impact on prices and incomes than on output. Sharp falls in the prices of most goods, with agricultural products falling the most, caused a sharp deterioration in the terms of trade of farmers, and led to a serious decline in farm incomes, especially in the more commercialized areas.[133]

There is evidence for some fall in prices in the Upper Yangzi region, though not as severe as in the east. In addition to the fall in

[128] FO371, F6095/87/87, translation from *Central China Daily News*, 23 Aug. 1934.
[129] US 893.114, Narcotics/ 858: American Consulate, Yunnanfu, to Secretary of State, 8 September 1934.
[130] FO371, F4317/87/87, Harding to Cadogan, 6 June 1934.
[131] FO371, F5112/116/87, Harding to Cadogan, 13 June 1935; 'Yunnan nongcun jingji', p. 4.
[132] US 893.114, Narcotics/ 858: American Consulate, Yunnanfu, to Secretary of State, 8 September 1934; Zhang, *Yunnan jingji*, P2.
[133] Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989), pp. 178–9.

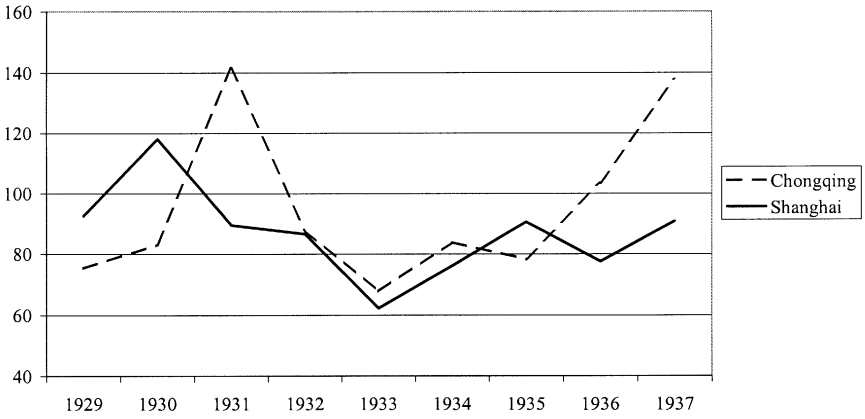

Fig. 5. Rice Prices in Shanghai and Chongqing During the Depression (Index, 1929–31=100)
Sources: Shanghai: Shanghai jingji yanjiu suo, *Shanghai jiefang qianhou wujia*, p. 213; Chongqing: Li, *Sichuan nongye jinrong*, p. 47086.

the prices of export commodities outlined above, Figure 5 plots Sichuan against Shanghai rice prices. Rice prices in Sichuan fell sharply between 1931 and 1933, though the magnitude of the fall reflects an abnormally high 1931 price.[134] The *Sichuan Economic Monthly* saw the fall in grain prices as one of the major factors leading to the immiseration of the farm population, with income losses due to price falls and fluctuations in production amounting to Ch$106 million in 1932 and Ch$177 million in 1933.[135] Whatever the precise picture was, there is no evidence that rice farmers in Southwest China were as devastated by the impact of depression as were their fellows over the border in Vietnam.[136] Sharply higher rice prices in 1936 (at least as much the result of drought as of any recovery from the Depression) induced workers to return to agriculture in place of, for example, the linen weaving industry to which they had earlier been attracted.[137]

Falls in price reduced profits and hence employment in a wide variety of trades and urban handicrafts in the Southwest. The *Sichuan Economic Monthly* reported that urban commerce in Chong-

[134] *SJYK* 3.4/5 (April/May 1935): 166–7.
[135] *SJYK* 3.4/5 (April/May 1935): 169.
[136] Pierre Brocheux, *The Mekong Delta: Ecology, Economy and Revolution, 1860–1960* (Madison, WI: University of Wisconsin-Madison, Center for South-east Asian Studies, 1995), pp. 153–4.
[137] *SYB* 8.5 (May 1936): 129.

qing and Wanxian was in difficulty and all lines of business in Chengdu in 1933 in a state of depression as a result firstly of the world economic crisis, but also of wars, bandit activities and taxes.[138] Many firms throughout the province were forced to close: one report claimed that in Hechuan 62 firms, the largest of which were in silk cloth, salt and grain but with others covering the whole span of local economic activity, went bankrupt because of the economic and rural depression.[139]

Even in Yunnan, where there is less evidence of any general fall in prices, some industries experienced declining profits and employment as a result of falling prices. Some handicraft products, such as Yuxi cotton cloth, lost their markets in 1934–35,[140] and local match factory managers complained about 'unbearable' losses because of excessive competition.[141] As a result, in 1934 local factories joined the national trend to set up a cooperative sales plan.[142]

On the other hand, as shown above in the case of silk, focusing entirely on industries in decline leads to exaggeration of the net effect, as some industries grew as the economy restructured. In Sichuan, the growth of the leather goods industry provided many jobs in a generally depressed Chengdu labour market,[143] and the dried vegetable trade expanded rapidly in Chongqing in 1934–35.[144] In shipping, many small and poorly capitalized firms were forced out of business by fierce competition in a declining market, but this has to be balanced against the success of the growing Minsheng company, the employment that it provided and the savings it generated for customers through more efficient transport.[145] Minsheng certainly posted rapidly growing profits throughout the 1930s.[146]

Similarly in Yunnan, employment and incomes (though perhaps at declining real wages[147]) in at least some urban industries

[138] *SJYK* 1.5 (May 1934): *diaocha* 7, 2.5 (Nov. 1934): *diaocha* 1, 3.1 (Jan. 1935): 191.
[139] *SYB* 8.4 (April 1936): 92.
[140] Lu, *Kunming shi zhi changbian*, vol. 12, p. 287.
[141] Second Historical Archives, 422(3)/127, Kunming factory reports; see also Lu, *Kunming shi zhi changbian*, vol. 11, p. 45.
[142] Lu, *Kunming shi zhi changbian*, vol. 12, p. 277.
[143] *SYB* 8.3 (March 1936): 103.
[144] *SYB* 8.4 (April 1936): 79.
[145] *SYB* 6.5 (May 1935): 140.
[146] *Xin shijie* 10.5/6 (1 April 1937): 80.
[147] Food prices for the working class seem to have risen throughout the 1930s, at least in terms of the local currency, see Lu, *Kunming shi zhi changbian*, vol. 11, pp. 82–3, 94.

increased as a result of the first steps towards industrialization in the 1930s. A reminiscence of Kunming spoke, albeit disparagingly as evidence of rural decline, of the rapid growth of the industrial labour force between 1934 and 1937.[148] New industries, such as soap, emerged in a local import-substituting industrialization drive,[149] and the local warlord government had plans for industrial development, for example establishing a cotton spinning enterprise from 1934, which began operations in 1937.[150]

Contemporary observers cited a fall in rural incomes as the cause of a decline in yarn imports into Sichuan,[151] and falling match sales as people were saving on items of daily consumption in a situation of general economic collapse.[152] The next section will deal with other major influences on the level of rural incomes, but there were three ways in which the Depression might have reduced them. First the decline of the export trades and handicraft industries reduced incomes and employment. The *Sichuan Economic Monthly* argued that in just one county, Rong xian, the number of unemployed rural residents increased by over 120,000 between the 1920s and 1930s.[153]

Second, in most areas of the world, the terms of trade turned against rural producers during the Depression. Studies of prices in Sichuan suggest that farmers' terms of trade declined somewhat between 1931 and 1934, but then recovered; nor was the decline in those years any sharper than fluctuations in the 1910s or 1920s.[154] However, in Yunnan, farmers' terms of trade actually improved during the 1930s because of natural disasters throughout the province.[155]

Finally, in some areas of the world, deflation reduced farm incomes through higher real rates of taxation when taxes levied were in cash.[156] Such a mechanism had certainly operated in China in earlier

[148] Lu, *Kunming shi zhi changbian*, vol. 11, p. 43.
[149] Lu, *Kunming shi zhi changbian*, vol. 12, p. 280.
[150] *Ibid*., p. 164; China, The Maritime Customs, *The Trade of China, 1937*, vol. 1, p. 48.
[151] 'Cotton-Yarn Trade of Szechwan', p. 1; see also *Sichuan nongye* 1.4 (April 1934): 34.
[152] Second Historical Archives, 422(3)/127, Kunming factory reports.
[153] *SJYK* 3.6 (June 1935): 200.
[154] Hu, 'Price Behavior of Rice', p. 140; Buck and Hu, 'The Price of Rice', p. 119.
[155] Lu, *Kunming shi zhi changpian*, vol. 12, p. 206.
[156] Dietmar Rothermund, *The Global Impact of the Great Depression, 1929–1939* (London: Routledge, 1996), pp. 16–17, 76; Neil Charlesworth, 'The Peasant and the Depression: The Case of the Bombay Presidency, India', in Brown (ed.), *The Economics of Africa and Asia*, pp. 63–64.

periods, as for instance in the early nineteenth-century deflation.[157] There was a great deal of controversy over tax rates in Sichuan in the 1930s, but mainly over the collection of the land tax many years or even decades in advance.[158] I have not, however, found any references to problems resulting from deflation.

On balance, it is likely that the Depression led to somewhat lower rural incomes, but there is little evidence of the sort of disastrous decline that took place in Vietnam or India.[159]

Other Influences on the Regional Economy

In general other influences—particularly political stability, and the weather—affected the regional economy more than did the Depression. Unlike the Depression, they penetrated to the heart of the agricultural economy, and influenced the production and distribution of the key food crops which constituted the bulk of total output. Perhaps most importantly, the level of political and military disruption was a crucial determinant of economic health in both macroregions. Most observers saw the continuous wars between different factions in Sichuan right up to 1934 as the major barrier to the province's development, both through interruption to normal commerce and through excessive taxation reducing purchasing power and bankrupting merchants.[160]

As successive Customs Reports pointed out, the internecine wars between the garrison areas seriously disrupted trade and commerce in Sichuan.[161] In the course of the Two Lius War of 1932–34 the medicine trade became depressed because of the difficulty of shipping the produce down river to the lower Yangzi area.[162] Overland trade routes to Shaanxi in the northwest and Yunnan and Guizhou to the south were even more vulnerable, and the lucrative linen trade suffered grievously in the course of the fighting in 1934–35.[163]

[157] Kathryn Bernhardt, *Rents, Taxes, and Peasant Resistance: The Lower Yangzi region, 1840–1950* (Stanford: Stanford University Press, 1992), pp. 48–9.

[158] Jerome Chen, *The Military–Gentry Coalition: China Under the Warlords* (Toronto: University of Toronto–York University Joint Centre on Modern East Asia, 1979), pp. 134, 141.

[159] Brocheux, *Mekong Delta*, pp. 153–4; Dietmar Rothermund, *India in the Great Depression, 1929–1939* (New Delhi: Manohar, 1992), ch. 4.

[160] Zhang and Zhang, *Sichuan jindai gongye shi*, pp. 298–301.

[161] See for example China, Maritime Customs, *Trade of China, 1933*, vol. 1, p. 10.

[162] *SYB* 5.5 (Nov. 1934): 101.

[163] *SJYK* 4.1 (July 1935): 147.

Another source of instability was the passage of the Communist armies through the region in the course of the Long March. Thus *Sichuan Agriculture* reported a panic in rice prices in 1934 because the Red Armies were taking all the rice in certain counties.[164] On the other hand, the same reason was cited both for a sharp fall in the price of sugar and for a rise in the price of silk.[165] After the 'suppression' (or rather departure) of the 'bandits', trade revived, with medicinal herbs being a particular beneficiary.[166] Similarly both the depradations of the Communists and the interruption to transport were major impediments to the trade of Yunnan in April–May 1935, although overall trends were upward.[167] Industrial enterprises in both Guizhou and Yunnan complained about the effects of the fighting on their sales, with one mill in Guizhou forced to close.[168]

Finally, local bandits preyed on the rural economy, blocking trade and reducing farmers' purchasing power. In 1934 the transfer of most of the regular army to ward off the Communist threat created a vacuum into which emerged increased numbers of local bandits. For example, in Xiyang, an estimated 3000 bandits, armed with more than a thousand guns, struck terror into villages, so that the old died, the able-bodied absconded while the villages fell deserted.[169] But in turn banditry itself was caused by rural bankruptcy.[170] Bandits also blocked trade routes, especially the over-land ones to the Northwest: in mid 1937 trade routes between Sichuan and Gansu were being reopened with the passing of the major bandit threat—small-scale bandits were said to be unable to interrupt the large trade caravans.[171]

High and excessive taxes, partly to fund this military activity, were perhaps the problem most commonly focused on by contemporary observers. Villages in Xingwen county became impoverished in 1934 partly because of an increase in the militia tax from Ch$10 to Ch$18.[172] In Neijiang, repeated wars over control of the Tuo river

[164] *Sichuan nongye* 1.1 (Jan. 1934): 41.
[165] *SJYK* 4.4 (Oct. 1935): 3, 5.4 (April 1936): 22.
[166] *SYB* 9.5 (Nov. 1936): 100.
[167] Tôkyô shôkô kaigisho, *Shina keizai nempô* (Annual economic report for China, 1936) (Tokyo: Kaizôsha, 1936), p. 618.
[168] Second Historical Archives 422(3)/127, report by Xingminsan Match Factory in Kunming; 422(3)/110, report of Fuguo Weaving Mill, Chishui xian Guizhou.
[169] *SJYK* 3.6 (June 1935): 202.
[170] Cai Shaoqing, *Minguo shiqi de tufei* (Bandits in the Republican period) (Beijing: Zhongguo renmin daxue chuban she, 1993), p. 226.
[171] *SJYK* 8.1 (July 1937): 30–1.
[172] *SYB* 4.2 (Feb. 1934): 79.

and the heavy taxes levied to pay for those wars forced 5% of peasants under each year and led to a long-term decline of the sugar industry to a level in the 1930s only half that of the early 1910s.[173] As Kapp points out,[174] in addition to taxes for the main provincial armies were levies to support local militias, whose function was often protection against the armies: thus in the context of province-wide wars in 1933–34 taxes to support the militia in the silk-producing centre of Santai trebled from Ch$50,000 to Ch$150,000.[175]

Commerce was undoubtedly faced with a multitude of local taxes, and contemporary sources often attributed the decline of a line of trade to high taxes, as for example was the case with the trade in Chinese medicines through Chongqing.[176] Similarly silk was taxed both at the Cuqiao market near Chengdu and then again when it was shipped elsewhere; the taxes joined with wars, agricultural bankruptcy and contracting markets as explanations for the industry's decline.[177] The salt industry, the largest industrial employer in Sichuan, was also vulnerable. It was little affected by the Depression: production in the 1930s fluctuated between some seven and seven and a half million *dan*, slightly down from the eight million of the late 1920s.[178] Contemporary sources did, however, talk about a crisis caused by high taxes, which undermined the competitiveness of Sichuan salt in its major markets.[179]

Despite a large amount of qualitative and even quantitative evidence on the damage done to the Sichuan economy by the various manifestations of militarization, it is important not to exaggerate that impact. Thomas Rawski in particular has argued against excessive emphasis on military disruption as an impediment to economic growth in China as a whole. He uses both qualitative and quantitative arguments. First, he argues essentially that it was not in the

[173] Neijiang diqu dang'an guan, *Minguo shiqi Neijiang shutang dang'an ziliao xuanbian* (Collected archival materials on the sugar industry in Neijiang during the Republican period) (Neijiang, 1984), pp. 7–8.

[174] Robert A. Kapp, *Szechwan and the Chinese Republic: Provincial Militarism and Central Power, 1911–1938* (New Haven: Yale University Press, 1973), p. 45.

[175] *Santai xian xianzheng yuekan* (Administrative monthly of Santai xian) 1 July 1935, p. 86.

[176] *SYB* 4.4 (April 1934): 82.

[177] *SYB* 5.3 (Sept. 1934): 66.

[178] Ding Changqing *et al*., *Minguo yanwu shi gao* (History of the salt industry under the Republic) (Beijing: Renmin chuban she, 1990), p. 148.

[179] Zhongguo gongcheng shi xuehui, *Zhongguo gongcheng shi xuehui Sichuan koacha tuan baogao* (Report of the Sichuan investigation group) (Zhongguo gongcheng shi xuehui, 1935), 14:7.

interests of the warlords to kill the goose that lay the golden egg: they could not afford to be so punitive in their taxation of commerce that commerce would cease. Second, he makes rough calculations, including some for Sichuan, that suggest that government revenue accounted for under 3% of agricultural output, and for only 2% of total provincial product (but Bramall's estimate is over 9% of provincial product[180]), and that for the country as a whole spending by all levels of government accounted for only between 4 and 7.2% of Gross Domestic Product.[181] He also argues that wars tended to be of low intensity, with at most a highly localized impact.[182]

Moreover, as the *Sichuan Economic Monthly* admitted, the presence of an army led to increased expenditure in the local economy as well as increased taxation. So when, in the wake of the integration of Sichuan into the national government, armed forces were transferred from the garrison areas of northern Sichuan to the west of the province to fight the Communists, the economy of the former area, particularly Nanchong, went into decline.[183] Bramall generalizes such reports to argue that the rise in military expenditure represented a major injection into the economy, which balanced declines in the silk and *tong* oil industries (thus the rise in military expenditure was greater than the decline in the exports through the Customs).[184]

The converse of disruption in times of war was that, when peace reigned, the economy was seen as progressing smoothly: the restoration of at least relative peace in Sichuan from 1934 (and its incipient integration into the national political system) gave the province's economy a powerful boost, at a time when the rest of the country was coming to the depth of the Depression. Thus the Customs reported 'the greater political stability and more satisfactory financial conditions [in Chongqing] prevailing throughout the year [1936] had a favourable effect upon trade in general'.[185] Similarly in Yunnan the relative stability of the province under Long Yun, whose government even made some initial attempts to foster economic develop-

[180] Chris Bramall, *In Praise of Maoist Economic Planning: Living Standards and Economic Development in Sichuan since 1931* (Oxford: Clarendon Press, 1993), p. 234.
[181] Rawski, *Economic Growth in Prewar China*, pp. 20, 23.
[182] *ibid*., p. 38.
[183] *SJYK* 6.4 (Oct. 1936): 54.
[184] Bramall, *In Praise of Maoist Economic Planning*, pp. 250–1.
[185] China, Maritime Customs, *Trade of China, 1936*, p. 20; also China, Maritime Customs, *Trade of China, 1935*, p. 17.

ment, even more clearly outweighed movements in the world economy.[186]

Because of the predominance of agriculture in the economy of the Southwest, the weather had a greater effect than fluctuations in the world economy. In normal times, observers saw the weather as the main determinant of food prices through its effect on supply,[187] and so were puzzled by the apparent contradiction in the 1930s of falling production and at the same time falling prices, while theory told them that prices should have risen in that situation.[188]

In many areas of the province, there is no doubt that the most serious crisis of the early and mid 1930s was caused not by movements in the world economy or even, directly, by warfare, but by the droughts and ensuing famines that struck Sichuan in 1934 and 1936–37, just as China as a whole was coming out of the Depression and enjoying a few months of brief prosperity on the eve of the Japanese invasion. Drought in 1934 affected a range of economic activities, including *tong* oil production,[189] and it was drought not depression that reversed the growth of Neijiang sugar exports from 1934.[190] The 1934 famine, caused by both floods and droughts, reportedly involved over eighty counties, with 70 to 80% of the population of Hechuan, for example, reduced to eating bark.[191]

Inadequate rainfall in 1936 and early 1937, as well as by the passage of the Communist armies of Zhang Guotao, were the main causes of the disaster of 1936–37. Bramall estimated a 30% decline in average food consumption in that year, while infant mortality rose from 250 per 1000 to 400.[192] A secret report for the National Government estimated that 80% of the province was affected, and a potential 30 million people.[193] The situation was already becoming serious from mid 1936, with reports talking of widespread cannibal-

[186] 'Yunnan jindai shi' bianxie zu, *Yunnan jindai shi* (The modern history of Yunnan) (Kunming: Renmin chuban she, 1993), p. 430; see also China, Maritime Customs, *Trade of China, 1937*, p. 47, etc.

[187] Hu, 'Price behavior of rice', p. 141.

[188] *SJYK* 6.3 (Sept. 1936): 51.

[189] *SJYK* 2.5 (Nov. 1934): *diaocha* 1.

[190] Fang, 'Sichuan zhetang', p. 257.

[191] Gan Diankui, 'Yijiusansi nian he yijiusanliu nian liangnian Sichuan zaiqing shuyao' (The disasters in Sichuan in 1934 and 1936), *Sichuan wenshi ziliao xuanji* 3 (1962), pp. 138–42; Kuang Shanji *et al*., *Sichuan junfa shi* (History of the Sichuan warlords) (Chengdu: Sichuan renmin chuban she, 1991), p. 429.

[192] Bramall, *Living Standards*, pp. 22–3.

[193] Second Historical Archives 422(2)/1072: secret report, Administrative Yuan, 25 April 1937.

ism, for instance in the Wan xian area where refugees fleeing into the county were being killed for their flesh. In Wanyuan soup made from human flesh was openly sold,[194] and the press reported that the population of that county had declined by one-third, either through flight or through death.[195]

Again, it is not easy to calculate the overall effect of the famine. Perhaps surprisingly, this event does not feature in either of the two major recent studies of Sichuan's population history.[196] All in all, however, there is little doubt that it had a greater impact than did declining export markets.

Conclusion

In conclusion, therefore, this study advocates a position in between the extremes outlined in the introduction. The World Depression certainly did not induce major economic dislocation in the Upper Yangzi or Yun-Gui macroregions. Only relatively small sectors of those economies were integrated into the national or international economies, and of those only some suffered serious disruption. On the other hand, at least in the Upper Yangzi, there was substantial restructuring, as the province joined other areas in China and Japan in having to reduce its income from and its dependence on sericulture.

Of the two macroregions, it is clear that the Upper Yangzi was both more closely tied into the national economy than Yun-Gui and more affected by the Depression. Prices in Sichuan moved very roughly in concert with those in the Lower Yangzi and Shanghai; but what very little information is available for Yun-Gui suggests that prices there did not follow trends in the rest of China. Moreover, while Sichuan was linked to other areas of China by a whole series of trades, from silks and linen to medicines and hides, Yunnan had only one major export, tin, nearly all of which was exported directly

[194] *Zhenwu xunkan* (Relief weekly) 34 (1 July 1936), 35 (21 July 1936).
[195] Gan, 'Sichuan zaiqing shuyao', p. 145.
[196] Liu Hongkang *et al*., *Zhongguo renkou (Sichuan fence)* (The population of China: Sichuan) (Beijing: Zhongguo caizheng jingji chuban she, 1988), pp. 245–9 gives the age structure of Sichuan's population in 1982, which shows very clearly the effect of the 1959–61 famine, but shows no real trace of that in the 1930s; Li Shiping *et al*., *Jindai Sichuan renkou* (The population of modern Sichuan) (Chengdu: Chengdu chuban she, 1993), p. 96, shows steady population growth throughout the period.

abroad. Of course, this conclusion would have to be modified if one took into account opium, but if anything that seems to have been the exception that proves the rule with Yun-Gui.

In neither case, however, was the level of integration very high, and the bulk of the economy (agricultural food crops) mostly operated according to local forces. Thus the outside world, through the Depression, affected pockets, but only pockets of the regional economies. The effect was greater in the Upper Yangzi, both because of its higher level of general integration and because of the collapse of its major export commodity, silk. Yun-Gui escaped more lightly: its level of integration was lower, and its main export product, tin, did relatively well in the 1930s.

While the crisis, such as it was, was passing by 1935 and 1936, with the recovery of some trade lines and the growth of others, the Upper Yangzi's economy was shaken far more fundamentally by the drought and famine of 1936–37, before the two macroregions, along with the rest of the country, were overwhelmed by the Japanese invasion.

Appendix I: Derivation of Data in Table 1

Table 1 is not supposed to represent any particular year. Thus, while most of the output figures are, for data reasons, from the early 1930s, that for silk is from the late 1920s, as the aim is to give an idea of the economic structure of the region before the Depression.

The conception and basic methodology are taken from Chris Bramall, *Living Standards in Sichuan, 1931–1978* (London: Contemporary China Institute, School of Oriental and African Studies, University of London, 1989), pp. 75–85.

The sources for the population figures are Bramall, *Living Standards*, p. 60; Pan Zhifu *et al*., *Zhongguo renkou: Guizhou fence* (The population of China: Guizhou) (Beijing: Zhongguo caizheng jingji chuban she, 1988), pp. 66–7, 83; and Zou Qiyu *et al*., *Zhongguo renkou: Yunnan fence* (The population of China: Yunnan) (Beijing: Zhongguo caizheng jingji chuban she, 1989), pp. 84–5, 116; note that in the last two cases the 1930s estimates have been adjusted upwards to ensure consistency with the more reliable 1952 figures.

I have reworked Bramall's figures for Sichuan in 1933 (rather than 1952) prices, which seemed more appropriate for this project. While for this purpose 1926–28 prices would be ideal, *in general* 1933 prices were similar; where that was not the case (in particular for silk), prices from the late 1920s are used instead. The prices used, however, are mostly *national* not local prices, taken from Ta-chung Liu and Kung-chia Yeh, *The Economy of the Chinese Mainland: National Income and Economic Development 1933–1959* (Princeton: Princeton University Press, 1965), *passim*.

I have accepted Bramall's estimates for output in Sichuan except for two products—opium and tobacco—and for the share of services. I have also made adjustments for *tong* oil, silk and matches.

Opium

As explained in the text, this table uses an estimate of 500,000 piculs for opium production, rather than Bramall's 1.4 million. Sichuan reports (US 893.114 American Consul, Hankow, to Secretary of State, Confidential Report, 23 December 1930), Narcotics/178 suggest that a figure of about Ch$800/picul was an approximate farm-gate price for opium in the early 1930s.

Tobacco

Most of the reputable sources support Bramall's figure for tobacco production, which is based on National Agricultural Research Bureau figures. Nevertheless I find the figure hard to believe. It suggests that tobacco was by far the most important cash crop except for opium: Bramall's figures suggest it was more than five times as important than silk. Sichuan was certainly a major tobacco producer and exported tobacco to Northwest as well as Southwest China. The bulk of the qualitative sources suggest, however, that silk was the most important cash crop: that is the case whether one looks at reports of cultivation or at reports of trade. In neither case do periodicals such as *Sichuan Monthly* or *Sichuan Economic Monthly*, or indeed the decennial or annual customs reports, make more than passing reference to tobacco. There appear to have been no cigarette factories in Sichuan, while there were many small factories making, for example, matches or soap, never mind silk or cotton textiles (Zhang and Zhang, *Sichuan jindai gongye shi*, pp. 213–94). Moreover in a bibliography of articles on the Sichuan economy (*Sichuan kanwu Sichuan chanye jingji ziliao suoyin* [Index of articles in Sichuan periodicals on the Sichuan economy] [rep, Chengdu: guji shuju, 1983]), there are only nine articles on tobacco, of which only six are exclusively on that topic; this compares with 86 on silk. None of this is conclusive, but it induces me to choose a substantially lower estimate for output, which is also based in documentary materials (See Shanghai shangye chuxu yinhang diaocha bu, *Yan yu yanye* (Tobacco and the tobacco trade) (Shanghai: Shanghai shangye chuxu yinhang diaocha bu, 1934), p. 30; broadly consistent figures are given in Akamatsu, *Shina kakushô keizai jijô*, vol. 2, p. 181: 867,10 *dan* [1934]; Hu, *Sichuan dili*, p. 27: 600,000 *dan* [1936], Mo, *Sichuan sheng yancao diaocha*, p. 7: 866,160 *dan* [1936]). I would not claim that the provenance of my estimate is superior to that of Bramall's, however.

Silk

Bramall's estimates for the silk industry did not include reeled silk, which I have included, but that was a relatively small part of net value added, and his low estimate for silk, which allows the whole industry under 1% of provincial product, is more importantly a result of an output estimate which may already have reflected the begin-

ning of the Depression (Yin Liangyin, *Sichuan canye gaijin shi* [History of silk improvement in Sichuan] [Shanghai: Shangwu yinshu guan, 1947], p. 35), and a low 1952 price. With somewhat different aims to Bramall, I have adopted a somewhat higher output estimate, and also a price from the 1920s (see Chen Ciyu, *Jindai Zhongguo de jixie saosi gongye (1860–1945)* [China's modern silk reeling industry, 1860–1945] [Taibei: Zhongyang yanjiu yuan jindaishi yanjiu suo, 1989], p. 200). As a result, my table gives a substantially larger role to silk in the total economy than does Bramall.

Tong oil

It seems to me that Bramall used an output figure for *tong oil* but a price figure for *tong nuts*. This leads to an understating of the importance of the trade for the economy as a whole. (Again we note that for Bramall, *tong* oil, which was Sichuan's—and China's—major legal export in the 1930s accounted for under 0.1 per cent of provincial product.)

Matches

I have preferred the National Economic Commission's estimate (see Quanguo jingi weiyuanhui, *Huochai gongye baogao* (Report on the match industry) [Shanghai: Quanguo jingji weiyuanhui, 1935], p. 29) for production in the 1930s to the 1942 figure used by Bramall. This gives a production of 40,000 cases, rather than 48,000, but that is not an important difference. While the same source gives a Chongqing cost of production, I use the Shanghai price, which is more likely to be consistent with the Liu-Yeh prices (where there is no price for matches); see Shanghai jingji yanjiu suo, *Shanghai jiefang qianhou wujia*, p. 285.

Services

Bramall uses a national proportion (31.7%) from Liu and Yeh for this item, but admits it is too high. I rather choose Yeh's later calculation (also national) of a 25.5% share for services, transport and

communications and construction; see Yeh, 'China's National Income, 1931–36', p. 107.

I have used Bramall's methodology to develop similar figures for Yun-Gui. It should be stressed that the output figures are even more incomplete and questionable than those for Sichuan. Output figures come from the following sources: Zhang, *Yunnan jingji*, K30–42; Xu, *Zhongguo jindai nongye shengchan ji maoyi, passim; Chinese Economic Bulletin*, April 1934; Tôkyô shôkô kaigijo, *Shina keizai nempô*, pp. 611–12; Xingzheng yuan nongcun fuxing weiyuanhuui, *Yunnan sheng nongcun diaocha* (Investigation of rural villages in Yunnan) (Shanghai: Shangwu shuju, 1935), p. 68; Akamatsu *Shina kakushô keizai jijô*, vol. 2, *passim*; China, Maritíme Customs, *Decennial Reports 1922–1931* (Shanghai: Inspectorate General of Customs, 1933), vol. 2, pp. 348–9; Jiang Dexue, *Guizhou jindai jingji shi ziliao xuanji* (Selection of materials on the modern economic history of Guizhou) (Chengdu: Sichuan shehui kexue yuan chuban she, 1987), pp. 173–6, 243; Second Historical Archives, 422(2)/1495: Guizhou crop estimates, 1934.

I have used the same prices as for Sichuan.