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Okinawa and Japan: Some Economic  
Comparisons

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Okinawa and Japan: Some Economic Comparisons

How has Okinawa fared economically under the American occupation? This is a question that was frequently discussed in Okinawa and Japan during the debate over the desirability of having the Ryukyus, of which Okinawa is the most important island, returned to Japanese control. That question has now been settled, with the agreement between the U.S. and Japan that the Ryukyus will revert to Japanese control by the end of 1972. With the political issues out of the way, it is possible to examine more dispassionately the question of whether or not Okinawa has been economically disadvantaged as a result of having been subject to American rather than Japanese administration for the past twenty-five years.

The wartime devastation of Okinawa was more severe than in any prefecture on the mainland, since the southern part of the island, where the population was mainly concentrated, was the scene of a bitterly contested battle. As late as 1957, recovery from the effects of the war was still not very far advanced, and economic activity was still at a relatively low level. The U.S. military bases, however, provided substantial employment and income, and per capita (national) income was estimated at \$169, compared with \$275 for Japan. In 1957, the level of per capita income in Okinawa was 61 per cent of the Japanese average, but was higher than the per capita income in Japan's poorest prefectures, Miyazaki and Kagoshima.

Okinawa enjoyed rapid economic growth in the late 1950's, followed by a sharp acceleration in the growth rate beginning in 1960. From 1958 through 1968, the annual rate of growth in real terms has probably averaged over 12 per cent, one of the highest in the world. On a per capita basis, the rate of growth averaged about 10 per cent. This compares favorably with Japan, where the rate of growth of real national income averaged about 10.3 per cent over the same period. On a per capita basis, the Japanese growth rate was about 9.3 per cent. 1/

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1/ Published national accounts for Okinawa are for fiscal years beginning in July. To make the data comparable to Japanese calendar year data, the average of the two fiscal years overlapping the calendar year were averaged. The Okinawan national income data are deflated by the consumer price index and the Japanese national income data by the implicit deflator for Gross National Expenditure.

SOURCES: Facts Book, USCAR, FY1968, Economic Statistics of Japan, Bank of Japan, and The National Income Report, 1968, the Government of the Ryukyus.

These estimates indicate that Okinawa has had a higher growth rate than Japan over the last decade in real terms. Most of the published data from both Okinawan and Japanese sources give a misleading impression of the relative rates of economic growth of Okinawa and Japan because the growth rates are shown only in current prices rather than in terms of constant prices. The published figures, unadjusted for price changes, show Okinawa's position deteriorating relative to the poorest prefectures in Japan.

If account is taken of the lower rate of inflation in Okinawa, it appears that between 1958 and 1965 (the last year for which a prefectural breakdown is available) Okinawa's per capita income rose more rapidly than the average for Japan and more rapidly than that of all of the five poorest prefectures in Japan--except Miyazaki. 2/

Table 1 shows a rough estimate of the change in income in real terms in five Japanese prefectures and Okinawa between 1958 and 1965.

The real rate of growth per capita in Okinawa in the 1965-68 period rose to an estimated annual rate of 10.5 per cent, while the Japanese rate rose to 11.6 per cent. Real per capita income in Okinawa has probably remained above Tottori and Kagoshima, and it may have passed Shimane in the last three years.

The national accounts data suggest that in spite of the disadvantages suffered by Okinawa--severe wartime devastation, extremely limited natural resources, and an isolated geographical location--living standards in Okinawa are now higher than in some of the poorer Japanese prefectures. This is a notable change from pre-World War II days, when Okinawa lagged far behind the mainland. Moreover, the difference in living standards between Okinawa and the Japanese average is probably less than the national income figures suggest. Wage data indicate that in 1966 the average wage in Okinawa was about 76 per cent of the Japanese average, and the cost of the necessities of life was lower in Okinawa than in Japan. In December 1966, the average monthly wage in Okinawa would buy 405 kgs. of good quality rice, but the average Japanese wage would buy only 267 kgs. of rice in Tokyo. The Okinawan monthly wage was equal to 41 kgs. of good quality beef, but the Japanese wage would buy only half as much beef of comparable quality in Tokyo. In terms of clothing, the Okinawan wage was equal to 2.5 average quality men's suits, while the Japanese wage was equal to only 2 such suits. The resident of Naha earning the average wage could buy over 40 per cent more bus fares with his earnings than could the resident of Tokyo. Housing was

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2/ This assumes that the income deflator for each prefecture was the same as the national average, which may not be true.

Table 1  
Per Capita Prefectural Income  
(in 1958 dollars)

	<u>1 9 5 8</u>		<u>1 9 6 5</u>		<u>Average Annual Increase</u> %
	<u>\$</u>	<u>% of Japanese Average</u>	<u>\$</u>	<u>% of Japanese Average</u>	
Kagoshima	162	57	292	55	8.8
Miyazaki	174	61	340	64	10.0
Tottori	200	71	339	64	7.9
Kochi	204	72	380	71	9.3
Shimane	210	74	353	66	7.7
All Japan	283	100	532	100	9.4
Okinawa	177	63	344	65	9.9

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SOURCE: GRI, National Income Report, 1968, for raw data. Adjustment for price changes based on CPI for Okinawa and implicit deflator for Gross National Expenditure for Japan.

also far more expensive in Tokyo than in Naha. Luxury items, such as consumer durables, tended to be more expensive relative to income in Okinawa than in Japan. For example, a Datsun sedan in Naha was priced at the equivalent of 17 months' labor compared to 16 months in Japan, but taxes on automobiles were far higher in Japan than in Okinawa. In spite of the slightly higher original cost relative to earnings, maintenance of an automobile was more feasible for the average Okinawan than for the average Japanese. In 1966 the average Okinawan could have paid the annual tax on a passenger car by working about 25 days, while his Japanese counterpart would have had to work over two months to pay the tax on a comparable car. 3/

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3/ Report of the Taxation System Study Commission, March 1, 1969. The current annual tax in Okinawa is \$70. The commission proposes increasing this to \$200 for automobiles with a wheelbase in excess of 3.048 meters. This would still be 20 per cent below the comparable Japanese tax.

These indicators that Okinawan levels of living are not far below the average for Japan are borne out by the Engels coefficient, which is the percentage of household income spent on food and drink. A lower ratio is indicative of generally higher standards of living, since it means that more of a family's income is available for things other than the bare essentials. From 1958 through 1965, the Engels coefficient fell 18 per cent in Japan and 17 per cent in the Ryukyus. From 1965 through 1968 the decline in the Ryukyus was 11 per cent compared with a 7 per cent decline in Japan. The 1968 Engels coefficient for the Ryukyus was 42.9 compared with 35.5 for Japan. The average percentage of family expenditures devoted to non-food items was only 11.5 per cent below the Japanese average.

### Population

Before World War II it would have been considered inconceivable that Okinawa could support a population of nearly one million people. Prior to the war, the population was stabilized at about 575,000. Population growth was held down by migration to Japan proper and to other countries. Since the war there has been relatively little emigration. Population had risen to 965,000 in 1968. The population growth has been in excess of 1.4 per cent per annum for the past decade. In the same period, population in Japan grew at less than 1 per cent per annum, and the population in most Japanese prefectures, including all of the poorer ones, has been declining. This is an additional indication that economic growth has been more vigorous in Okinawa than in the poorer Japanese prefectures.

The death rate in Okinawa is one of the lowest in the world-- 5.8 per thousand in 1965. Life expectancy at birth is one of the highest in the world--68.91 years for men and 75.64 years for women in 1965. The comparable figures for Japan are: 7.2 deaths per thousand, and male life expectancy of 68.35 years and female life expectancy of 73.61 years (1966 data). This is additional evidence that the gap in levels of living between Okinawa and Japan is not great at the present time.

### Financial Assistance and Taxation

There is no question but that Okinawa has prospered economically under the American occupation. However, some critics have suggested that Okinawa has been placed at a disadvantage relative to prefectures in Japan with a comparable level of income because it has not benefited from the tax revenue sharing system in effect in Japan.

Japan has a system under which tax revenues collected by the central government are in part redistributed among the prefectures to help

them finance essential services. This is designed to subsidize public administration in the less prosperous parts of the country at the expense of the more prosperous areas. There is an elaborate formula for calculating the amount of central government revenue that is redistributed to the prefectures, towns and villages.

First, the government computes what is known as the "basic fiscal demand," the amount of financing required for such items as road maintenance, education, welfare payments, etc., for each administrative unit. An estimate is made of the average reasonable cost of each of these services on a per capita basis. This is multiplied by the population and then adjusted by various "adjustment coefficients." These allow for higher unit costs where population is more dense or urbanized and also higher costs where the area covered is relatively large or relatively underdeveloped.

The "basic fiscal revenue" for each administrative unit is then computed. This is essentially 80 per cent of the tax receipts of prefectures or metropolitan units and 70 per cent of the tax receipts of cities, towns and villages plus, in each case, certain other revenues. Certain minor taxes are excluded from this calculation.

Any excess of "basic fiscal demand" over "basic fiscal revenue" is theoretically supposed to be made up by the central government. However, there is always a limit on the amount of revenue that the central government budgets for distribution to the local governments. If the combined basic fiscal deficits of all the local units exceed the amount available for distribution, the amount of each deficit covered is reduced proportionately.

In addition to sharing part of its tax revenues with the local governments, the Japanese Treasury makes direct expenditures in the prefectures to maintain services that are the responsibility of the central government. This includes such things as central government expenditures on education, police, social security, etc.

The shared taxes and the Treasury expenditures are, of course, paid for from taxes collected from the residents of all the prefectures of Japan. Some prefectures pay more to the central government than they get back, while others obtain more from the central government than they pay in taxes. The poorer prefectures have received substantial net payments from the central government in recent years.

The following table shows the shared taxes, Treasury disbursements and taxes paid to the Treasury for the five prefectures in Japan with the lowest level of per capita income.

Table 2

Shared Taxes, Treasury Disbursements and Treasury Tax Collections  
Five Prefectures and Their Subdivisions

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	<u>Shared Taxes</u> Mil. ¥	<u>Treas. Disb.</u> Mil. ¥	<u>Total</u> Mil. ¥	<u>Per Capita</u> ¥	<u>Taxes Paid</u> Mil. ¥	<u>Per Capita</u> ¥	<u>Net Receipts Per Capita</u> ¥
<b>Kagoshima</b>							
FY1960	11,769	10,744	22,513	11,468	5,863	2,987	8,481
FY 1967	33,621	36,073	69,694	38,463	16,227	8,955	29,508
<b>Miyazaki</b>							
FY1960	6,430	6,335	12,765	12,000	3,449	3,039	8,961
FY1967	19,651	23,038	42,689	40,310	9,977	9,421	30,889
<b>Tottori</b>							
FY1960	4,451	5,164	9,615	12,625	2,194	3,663	8,962
FY1967	11,919	11,219	23,138	40,451	7,131	12,467	27,984
<b>Kochi</b>							
FY1960	6,496	6,351	12,847	13,949	3,544	4,145	9,804
FY1967	17,236	19,642	36,878	46,270	10,099	12,671	33,599
<b>Shimane</b>							
FY1960	6,453	5,424	11,877	13,360	3,000	3,375	9,985
FY1967	17,048	19,469	36,517	45,875	7,567	9,506	36,369

As the following table shows, the average net receipts by the poorer prefectures from the Japanese Treasury have risen sharply since FY1960.

Table 3  
Net Funds Received from National Government  
Per Capita, by Prefectures <sup>1/</sup>  
(In yen and US dollars; by Japanese fiscal years)

<u>Prefecture</u>		<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
Kagoshima:	Yen	8,481	11,599	15,011	18,329	n.a.	24,528	24,019	29,508
	\$	23.56	32.22	41.70	50.91		68.13	66.72	81.97
Miyazaki:	Yen	8,961	11,898	15,942	19,272	n.a.	25,212	23,236	30,889
	\$	24.89	33.05	44.28	53.53		70.03	64.54	85.80
Tottori:	Yen	8,962	14,450	18,041	20,169	n.a.	25,432	21,887	27,984
	\$	24.89	40.14	50.11	56.03		70.64	60.80	77.73
Kochi:	Yen	9,804	14,442	18,329	22,796	n.a.	30,725	27,322	33,599
	\$	27.23	40.12	50.91	63.32		85.35	75.89	93.33
Shimane:	Yen	9,985	13,824	17,005	20,283	n.a.	34,095	31,926	36,369
	\$	27.74	38.40	47.23	56.34		94.71	88.68	101.03
Average:	Yen	9,239	13,243	16,866	20,170	n.a.	27,998	25,678	31,670
	\$	25.66	36.79	46.85	56.03		77.77	71.33	87.97

<sup>1/</sup> Figure is equal to: (1) per capita shared taxes plus (2) per capita Treasury disbursement minus (3) national taxes paid to Treasury per capita.

Average net per capita receipts for the five poorest prefectures were \$25.66 in FY1960. This rose to \$87.97 in FY1967, the last year for which complete figures are available.

However, Okinawa was also receiving substantial payments from the U.S. Government of a comparable nature. These payments included grant budgetary support for the Ryukyuan Government, payments from USCAR's general



fund to support development and maintenance of several essential public services, long-term, low interest rate loans to finance the purchase of U.S. surplus agricultural commodities under PL 480, and certain other loans and grants for specific purposes, such as construction of power plants and settlement of certain claims. In addition, Japan voluntarily began to make grants to the Ryukyus beginning in JFY1959. These were very small at first, but they have grown to substantial size in recent years. Table 4 summarizes both U.S. and Japanese assistance to the Ryukyus.

It is probable that net Japanese Treasury payments to the Ryukyus would have been approximately the same as the payments to the poorest prefectures in Japan had the Ryukyus been a part of the Japanese fiscal system in recent years. This is probably a fair basis for estimating net Okinawan receipts from the Treasury after reversion. In 1967-68, additional assistance of about \$8.5 million would have been required to bring per capita Okinawan receipts from external sources up to the level of the lowest Japanese prefecture, Tottori. An additional \$18 million would have been required to bring such receipts for Okinawa up to the average of the five poorest Japanese prefectures. 4/

This indicates that there has been merit in the contention that from a fiscal point of view Okinawa would have gained if the level of fiscal assistance from outside had been determined on a basis comparable to the treatment of the Japanese prefectures by the central government.

However, external assistance to Okinawa has risen sharply in the last two years, and in FY1970 it may be higher than the net payments by the Treasury to the poorer prefectures in Japan. If we assume that Okinawa would have been entitled to net payments from Tokyo of \$80 per capita in JFY1967 (compared with \$77.73 for Tottori) we might project a comparable level of payments of \$90 per capita in the current fiscal year. This projection is based on the growth rate of net per capita payments to the poorer prefectures in 1965-67. Actually, Okinawa is slated to receive per capita payments from the U.S. and Japan totaling \$106.19 in 1969-70. Net receipts from Tokyo are less than they would probably be if Okinawa were treated on a par with Tottori Prefecture, but this is probably more than made up by the \$41 million in receipts from the U.S.

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4/ This is based on the Ryukyuan fiscal year extending from July 1967 to July 1968 and the Japanese fiscal year extending from April 1967 to April 1968.

Table 4

U. S. and Japanese Financial Assistance to the Ryukyu Islands  
(In thousands of U. S. dollars)

	U. S. and Japanese Financial Assistance to the Ryukyu Islands										
	FY1960	FY1961	FY1962	FY1963	FY1964	FY1965	FY1966	FY1967	FY1968	FY1969	FY1970
<b>A. U. S. Assistance</b>											
1. Appropriated Aid: ARIA	3,418	4,313	5,365	6,925	7,859	11,900	11,997	11,992	11,975	15,653 <sup>F</sup>	17,500
2. PL 480 Program	7,544	2,341	3,021	3,551	5,864	6,136	2,602	2,741	2,965	1,900	1,500
3. USCAR: General Fund	6,724	7,962	8,445	10,100	9,458	12,118	13,367	11,062	13,877	15,426	18,905
4. Loans to Ryukyu Electric Power Co. (PL 86-383)	--	--	--	--	5,907	3,297	408	635	--	--	--
5. Ryukyuan Pretreaty Claims	--	--	--	--	--	--	--	9,100	8,644	--	--
6. Administrative Activities	1,631	1,719	1,717	2,002	2,137	2,367	2,770	2,938	3,070	3,270	3,151
<b>Total</b>	19,316	16,335	18,548	22,578	31,225	35,818	31,144	38,468	40,530	36,249	41,056
<b>B. Estimated Population: Middle of U. S. FY (in 1,000's)</b>	870	882	894	906	918	927	937	950	961	972	983
<b>C. U. S. Financial Assistance Per Capita</b>	\$22.20	\$18.52	\$20.75	\$24.92	\$34.01	\$38.64	\$33.24	\$40.49	\$42.17	\$37.29	\$41.77
<b>D. Government of Japan Assistance</b>	125	172	570	2,774	5,027	5,208	7,964	16,114	25,839	42,700	63,200
<b>E. Estimated Population: Middle of JFY (in 1,000's)</b>	868	880	892	904	916	925	935	948	959	970	981
<b>F. Japanese Financial Assistance Per Capita</b>	\$ .14	\$ .20	\$ .64	\$ 3.07	\$ 5.49	\$ 5.63	\$ 8.52	\$17.00	\$26.94	\$44.02	\$64.42
<b>G. Total U. S. and Japanese Assistance, Per Capita</b>	\$22.34	\$18.72	\$21.39	\$27.99	\$39.50	\$44.26	\$41.76	\$57.49	\$69.11	\$81.31	\$106.19

### Ryukyuan Taxes

The fact that the Ryukyus have received less external assistance than the poorer Japanese prefectures in past years has not led to taxation in the Ryukyus that is far more burdensome than taxation in Japan. Table 5 shows that the tax payments in Okinawa are lower, as a percentage of national income, than tax payments in Japan.

No comparable series on the tax burden is available for individual Japanese prefectures, since the last year for which a breakdown on national income by prefecture is available is 1965. Data for that year suggest that national and local tax collections in the poorer prefectures were lower as a percentage of total prefectural income than was the case in Okinawa. The ratio was 10.6 per cent in Tottori, 8.7 per cent in Kagoshima and 6.1 per cent in Miyazaki. However, these figures may not be entirely comparable with the Okinawan data because in Japan the incidence of a tax may fall on a prefecture without the collection being recorded for that prefecture. This is clear for the gasoline tax, which is recorded as being nil or negligible for many prefectures. It may be true of some other taxes as well. Corporate income tax collections are heavily concentrated in the Tokyo and Osaka tax districts, but it is probable that some of the income on which these taxes are paid is generated by manufacturing or marketing operations in other prefectures.

The March 1969 report of the Ryukyuan Tax System Study Commission indicates that the adoption of Japanese tax rates in Okinawa will result in a decline in income tax collections and increases in most other types of taxes. The net decrease, in the first year of the changes they propose to bring Okinawan taxes close to Japanese rates, would amount to \$3.7 million. This is less than .6 of a per cent of the estimated national income for Okinawa of \$639 million in FY1969. Okinawans have clearly not been suffering from a tax burden very different from what they would have experienced had Japanese tax rates been applied under the occupation.

Table 5  
 Taxes as a Percentage of National Income  
 in Okinawa and Japan

<u>Fiscal Years</u>	<u>Okinawa</u>			<u>Japan</u>		
	<u>National Taxes</u>	<u>Local Taxes</u>	<u>Total</u>	<u>National Taxes</u>	<u>Local Taxes</u>	<u>Total</u>
1960	10.6	1.3	11.9	12.8	5.6	18.4
1961	9.6	1.2	10.9	13.8	5.8	19.6
1962	10.6	1.4	12.0	14.5	5.8	20.3
1963	10.8	1.4	12.2	13.9	6.1	20.0
1964	11.7	1.4	13.2	13.7	6.0	19.7
1965	11.4	1.5	12.9	14.0	6.2	20.2
1966	12.0	1.6	13.6	13.1	6.2	19.3
1967	12.4	1.3	13.7	12.5	5.1	18.6
1968	12.8	1.4	14.2	12.9	6.1	19.0

SOURCE: Tax System Reference Material, September 1968, Tax Office (Ryukyus), pp. 1-2.

### Conclusion

Reversion and the incorporation of the Ryukyus into the Japanese fiscal system would result in some benefits for Okinawa. Overall tax payments would decline slightly--by \$3.5 million to \$4.5 million at present levels of income. This gain would be somewhat offset by the disadvantage of a shift to a more regressive tax structure. Under the Japanese system the ratio of indirect taxes to national income is about double the ratio prevailing in Okinawa.

A substantial part of the taxes collected in Okinawa would go into the national treasury, but Okinawa could expect to obtain payments from the national treasury well in excess of the amounts paid in national taxes. If reversion were in effect this year, Japan's net payments to Okinawa would have to be increased nearly 50 per cent. However, this would amount to only a relatively slight addition to the Japanese budget. In FY1968, the Japanese fund allocated for tax sharing with the local governments was in excess of \$3 billion, in addition to the \$32 million allocated for aid to Okinawa. The additional amount required to subsidize Okinawa can easily be taken from the annual increase in this fund that results from the growth of Japanese budget receipts. The fund increased by \$300 million between FY1967 and FY1968.

The U.S. would be relieved of aid to Okinawa, which in recent years has amounted to around \$40 million per year. However, a substantial part of this derived from the profits on the sale of petroleum products in Okinawa, which has been monopolized by USCAR. This will amount to nearly \$19 million in FY1970. In addition, \$1.5 million consists of PL 480 credits. The amount appropriated by Congress for true budget support for Okinawa of the type that Japan has provided is \$17.5 million in FY1970. The relief to the U.S. budget that could be expected as a result of transferring the burden of fiscal support to Japan would be a little less than the additional liability for annual payments that Japan would assume.

Okinawa has fared very well economically under American stewardship, better than the Okinawans themselves realize. They are fond of citing statistics which show Okinawa losing ground relative to comparable prefectures in Japan, but these data do not allow for greater price stability that has prevailed in Okinawa. While the data on income in real terms are rather crude, they suggest that Okinawa has probably surpassed several of the poorer Japanese prefectures economically.

During several past years Okinawa would probably have received larger budgetary support from Tokyo than it received from Japan and the U.S. combined if it had been incorporated into the Japanese fiscal system. However, this does not appear to be true this year, thanks to stepped up aid from Japan. Under the present system, Okinawa has the best of both worlds--ample external aid and autonomous control over its revenue system.

Japan also benefits under the present system. Its net payments to Okinawa are substantially less than they would be if Okinawa were part of the Japanese fiscal system and received treatment comparable to that given the poorer prefectures on the mainland.

However, it appears clear that a change in Okinawa's status, assuming no change in the level of income generated by U.S. military bases, would not have anything but a marginal fiscal impact on Okinawa, Japan, or the United States. We would be relieved of a burden that is very small in proportion to our total budget, and Japan would pick up the burden. It would be very small in relation to the total Japanese budget. The difference in income to Okinawa would also be small, and given the probable margin of error in the data used to make the estimates in this paper, it could be either slightly advantageous or slightly disadvantageous to Okinawa.

What Okinawa would clearly gain would be a definite legal commitment that the aid receipts would be regularly available. This would be better psychologically than the present system under which both Japan and the U.S. make annual voluntary contributions. This lacks the certainty of the Japanese tax-sharing arrangement. What Okinawa would lose would be considerable autonomy in determining how revenue was to be raised and how spent. This is likely to evoke considerable complaint from those who have benefited from the lower indirect taxes and the distinctive customs duties now levied by the Ryukyus.