

GLOBALISATION, SERVICE SECTOR EXPANSION AND INCOME INEQUALITY IN SRI LANKA*

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Introduction

Globalisation can be defined as the progressive integration of different nations in terms of trade in commodities, raw materials, labour, capital, and exchange of information. Tremendous growth and significant structural changes in world trade, global capital movement, international migration and rapid expansion in information technology indicate the important role played by globalisation during the past two decades. For example, world output expanded by 4.8 per cent in 2000 compared with 3.5 per cent in 1999. But, the volume of world trade increased from 5.1 per cent in the previous year to 12.4 per cent in 2000. World trade has grown faster than the world output throughout the past four decades. The number of tourists more than doubled during the 1980-1994 period. Further, massive rural-urban as well as international labour migration was one of the indicators of growing interdependencies among different nations. The world urban population share grew from 34 per cent to 47 per cent during the 1960-2000 period. Some 145 million legally registered migrants live outside their countries and migrant workers' remittances reached 58 billion US dollars in 1996. Furthermore, the value of the world foreign direct investment increased by 220 per cent during the 1990-1998 period. All these statistics reflect the importance of globalisation and its present level of growing. However, globalisation has resulted in widening the income disparity between countries as well as different groups of people living in these countries.

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The pace of integration of the Sri Lankan economy with the global economy was not so fast, but escalated after the introduction of the liberalised economic policies in 1978. The value of our exports and imports in US Dollars increased by 553 per cent and 613 per cent respectively, during the 1978-2000 period. Sri Lankans working overseas and their remittances also grew considerably during this period. However, the attraction of foreign direct investment was not sufficient due to the internal political crisis in Sri Lanka. The number of hotel rooms increased from 5,347 to 11,600 while tourist arrivals grew from 193,000 to 302,000 during this period. Domestic fixed access (land) telephones increased from 59 thousand to 254 thousand during the same period. All these statistics indicate the growing importance of globalisation for Sri Lanka. This is because Sri Lanka is a natural resource poor, small country having a high level of human development. Making use of its human resources while integrating with globalisation is the best way to achieve sustainable development in Sri Lanka.

Sri Lanka has undergone a considerable structural transformation during the past two decades. One of the most salient phenomena of the structural changes of the economy of Sri Lanka was the expansion of the service sector at the expense of the agricultural sector. The service sector share in terms of GDP was 44.4 per cent in 1978 and 54.6 per cent in 2000. Wholesale and retail trade, banking, insurance and real estate, public administration and defence, were the mostly expanded subsidiary services during this period. In terms of employment, the service sector share was 29.3 per cent in 1978 and 41.3 per cent in 2000. Of the newly created employment opportunities 74.2 per cent concentrated on the service sector during this period. However, the manufacturing sector showed very slow expansion, while the agricultural sector showed considerable decline during the 1978-2000 period.

Globalisation vitally impacts on various macroeconomic variables in developing countries like Sri Lanka. In particular, it has a direct influence on economic growth, employment creation, price level, imports, exports, balance of payment, exchange rate, debt, government budget, economic and social infrastructure, income distribution and poverty, as well as on socio-political variables. Among these, the impact on economic

growth, structural changes and distribution of income are most important variables for a small open economy. This is because, the main objectives of a liberalised economic policy are, to maintain rapid economic growth and to have appropriate structural changes to sustain it. However, empirical studies on globalisation, service sector expansion and their influence on the above macroeconomic variables are not readily available in Sri Lanka.

The main purpose of this paper is to analyse the effects of globalisation and service sector expansion on income inequality trends in Sri Lanka during the 1978-2000 period.

Methodology, Data and Limitations

This paper follows empirical as well as descriptive methods in explaining the influences of globalisation and service sector expansion on income inequality trends in Sri Lanka. The impact of globalisation on the Sri Lankan economy and its influence on the service sector are explained in the next section. The advantages and disadvantages of service sector expansion are also summarized in that section. Income inequality trends in Sri Lanka using both macro and micro level data, are analysed for the 1978-2000 period in the section dealing with income inequality trends in Sri Lanka. Sectoral shares of GDP and employment as well as average wage in each sector are used to explain macro level income inequality in the economy. This data was obtained from various publications of the Central Bank of Sri Lanka, which are given in the list of references. However, this paper does not analyse real income distribution due to difficulties in finding appropriate industry-wise price indices. Therefore, all macro -level variables considered in this paper are in nominal terms.

In order to provide clear micro level analyses on income inequality trends in Sri Lanka, consumer finance survey data was used in the section titled income inequality trends in Sri Lanka. This data was obtained from the various reports published by the Central Bank of Sri Lanka in various years.¹ There are two significant problems associated with consumer finance survey data published by the Central Bank of Sri Lanka and the Department of Census and Statistics in Sri Lanka.

First, there is no constant time gap among the surveys. The Central Bank of Sri Lanka has conducted surveys in 1953, 1963, 1973, 1978/79, 1981/82, 1986/87 and 1996/97. The Department of Census and Statistics has conducted surveys in 1981, 1985/86, 1990/1991, 1993 and 1997. Furthermore, conceptual differences between surveys conducted by these two institutions do not permit us to compare income inequality data between these two types of surveys. Second, there is no consumer finance survey conducted after 1997. Therefore, it is impossible to present micro level data based on income inequality measures for the past three years. However, this paper utilizes data published by the Central Bank of Sri Lanka to estimate income inequality trends for Sri Lanka as well as for subsidiary services for the 1978-1997 period.

Apart from the output employment ratio and average wage rate of the subsidiary industries, the Gini coefficient, a widely used micro-level income inequality measure, was estimated to analyse inequality trends. Finally, the Gini coefficient was desegregated to identify high-income inequality services to propose policy implications.²

Growing Importance of the Service Sector of Sri Lanka

The average annual real GDP grew by 5.2 per cent, while the service sector output increased by 5.6 per cent in Sri Lanka during the 1978-2000 period. The service sector represented 36 per cent of the GDP growth during this entire period. This is the highest performance recorded by a single sector in Sri Lanka. In particular, during the 1997-2000 period, 38 per cent of the GDP growth, was contributed by the service sector. In 2000, the GDP grew by 6 percent and 61 percent of that growth was contributed by the service sector. These statistics present evidence on how the service sector is emerging as a source of economic growth in Sri Lanka, after the introduction of liberalised economic policies. Its importance has gradually accelerated during the past two decades. In terms of output growth and structural changes, the importance of services can be illustrated by analysing data given in Table 1.

In order to clearly understand the well performing subsidiary services, the service sector is classified into seven categories. The highest

Table 1: Sectoral Share and Average Annual Growth of GDP and Employment in Sri Lanka, 1978-2000

Item	GDP Share - %				Average Real GDP Growth - %			
	1978	1987	1997	2000	1978-86	1987-96	1997-2000	1978-2000
1 Agriculture, Forestry & Fishing	30.3	23.6	21.1	19.4	4.0	1.1	2.9	2.5
2 Mining and Quarrying	2.2	2.7	2.0	1.9	6.1	5.7	1.8	5.2
3 Manufacturing	18.4	16.2	16.6	16.8	5.6	7.6	7.3	6.7
4 Construction	4.7	7.2	6.9	7.3	6.5	3.9	5.5	5.2
5 Services	44.4	50.3	52.7	54.6	6.5	4.6	5.8	5.6
i Electricity, Gas Water & Sanitary	0.4	1.2	1.3	1.2	11.0	6.1	8.1	8.4
ii Transport, Storage & Communication	10.7	11.7	11.1	11.7	6.4	4.2	8.1	5.7
iii Wholesale and retail trade	19.7	21.1	22.0	22.6	6.3	4.7	5.1	5.4
iv Banking, insurance & Real Estate	2.2	4.7	7.4	8.1	10.5	7.5	6.9	8.6
v Ownership of dwellings	3.7	3.1	1.9	1.8	3.7	1.3	1.4	2.3
vi Public admini. & defence	3.6	4.7	5.0	5.2	11.2	3.7	4.2	6.7
vii Other services	4.1	3.8	4.0	4.0	3.1	4.4	5.5	4.1
Gross Domestic Production	100	100	100	100	6.0	4.4	5.5	5.2
	Employment Share - %				Employment Growth - %			
1 Agriculture, Forestry & Fishing	51.9	47.7	36.2	35.7	4.1	-19.2	11.6	-1.2
2 Mining and Quarrying	1.2	1.9	1.6	1.0	21.3	30.2	13.7	21.7
3 Manufacturing	12.5	13.4	16.4	16.5	78.6	-8.0	-33.7	12.3
4 Construction	5.0	5.7	5.7	5.5	28.2	4.0	11.9	14.7
5 Services	29.3	31.3	40.2	41.3	21.3	36.5	16.3	24.7
Total Employment	100	100	100	100	31.0	9.0	3.9	14.6

Source: (i) Central Bank Annual Report, 1977-2000

(ii) Central Bank of Sri Lanka (2000) Economic and Social Statistics of Sri Lanka

contributor to the GDP growth in the recent past was the wholesale and retail trade sector, the largest sub sector in the economy in terms of value addition.

Both in terms of the GDP share and real GDP growth, the banking, insurance and real estate subsidiary sector performed well during the 1978-2000 period. This sub-sector represented 2.2 and 8.1 per cent of GDP in 1978 and 2000 respectively. Its output grew by 8.6 per cent during this period. Deposit mobilization, growing foreign currency deposits, expanding banking facilities, the growing use of commercial papers, upliftment of rural income and expansion of credit facilities are the main advantages of expanding the banking sector. In particular, several policy measures have been taken during the past two-decades to increase the income generating activities in the rural sector. Promotion of people-based micro finance organizations, encouragement to the private sector to set up development banks and savings banks, establishment of new credit schemes, and provision of interest rate subsidies, can be identified as rural income upliftment oriented policies introduced in the recent past.

Subsidiary services such as electricity, gas, water and sanitation grew by 8.4 per cent of GDP during the 1978-2000 period. Infrastructure development through foreign aid, privatization of these services, growing demand for durable consumer goods, housing and transportation, were some of the main reasons behind this rapid expansion of the above mentioned utilities in Sri Lanka. Reducing government subsidies on utilities, privatisation of supplying institutions, World Bank and International Monetary Fund agreements, and greater demand for these services have led to increases in the prices of electricity, gas, water and sanitation during the past two decades. Payments for utilities have become a significant item in the household budget in rural areas during the past few years. Transport, storage and telecommunications have also grown by more than seven per cent during the past few years. Within this, the telecommunications sector, which profited from the world information technology boom, liberalised economic environments, deregulation, privatisation, and foreign direct investment, continued to grow in the recent past.

Public administration and defence services also performed, registering more than a 6.7 per cent growth rate during this period. Employment in the public sector expanded at a significant rate, notably in provincial administration, defence personnel, teachers and “*samurdhi*” workers. The public sector employment share declined from 22 per cent to 13 per cent of the total employment during the 1990-2000 period. This is because private sector shares in total employment increased from 33.7 per cent to 44 per cent during this decade. Government employees’ salaries were also increased several times during the 1978-2000 period. However, a growing public sector is not the expected outcome under the liberalised economic policies.

In order to understand regional differences in the expansion of the service sector, the employment structure by provinces is presented in Figure 1. The highest contribution to total employment by the service sector was recorded in the Western Province. The service sector represented 50 per cent of total employment in the Western Province. Relatively less developed provinces, such as North Central, Uva and Sabaragamuwa, represented a relatively low service sector share in total employment. Figure 2 summarizes the contribution of subsidiary services to the service sector employment by provinces. The employment share in the transportation, storage and telecommunication industries was more or less equal in all provinces. The wholesale and retail trade services employment share was also somewhat similar in all provinces. The electricity, gas, water and other services employment share was different across provinces. This is due to infrastructural development differences among the various provinces.

The advantages of the service sector expansion in Sri Lanka, have been concentrated on youth and the educated business class in urban (or relatively developed) areas while keeping the rural, elderly and traditionally educated people away from the development path. Lack of capital to expand infrastructural facilities to rural areas, large government contribution to the service sector in terms of public administration, defence and infrastructural development, and problems in the traditional education system were important reasons behind the above mentioned phenomena. Educational reforms, productivity growth

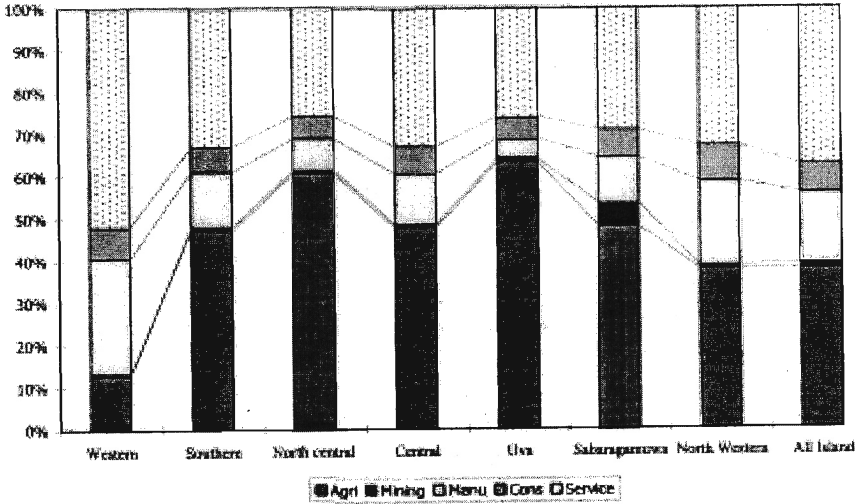


Figure 1: Employment Structure by Province and Sri Lanka, 1996/97

Source: Central Bank of Sri Lanka (2000) *Economic and Social Statistics of Sri Lanka*

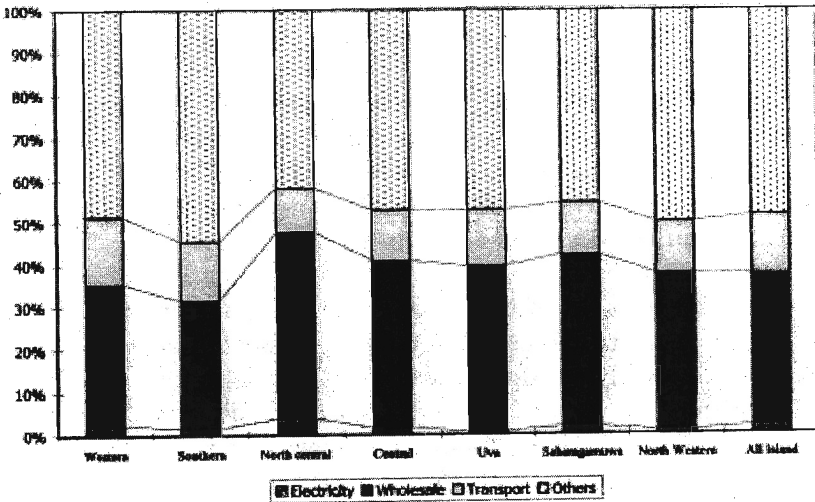


Figure 2: Service Sector Employment Structure by Province and Sri Lanka, 1996/98

Source: Central Bank of Sri Lanka (2000) *Economic and Social Statistics of Sri Lanka*

in the service sector, diversification of the service sector, export promotion, and expansion of information technology to the rural sector are necessary to increase service sector output growth, generate employment and reduce regional differences.

Income Inequality Trends in Sri Lanka

Income inequality trends in Sri Lanka can be explained in several ways. Firstly, it is possible to compare the per capita income level with the number of poor people in the country. There are two contradictory findings in this method. After analysing historical data from developed countries, Kuznets (1955), suggests an inverted-U shape trend of income inequality over a long period of time. According to this hypothesis, the number of poor people will increase in the initial level of income growth. On the contrary, having conducted many empirical studies in East Asian countries, the World Bank (1993)³, found a positive correlation between income growth and declining income inequality trends. In order to understand whether the Kuznets type or East Asian type inequality trend is present in Sri Lanka, let us compare annual per capita income data with the level of absolute poverty. In 1985, the nominal per capita income was Rs. 9151, while 40 per cent of people were below the national poverty line. In 1991, when the per capita income recorded Rs.19136, thirty five per cent of people were below the national poverty line. Even, if we use an international poverty line such as one US \$ per day, the absolute poverty level has declined from 22 per cent to 6.6 per cent during the 1990-1995 period.⁴ Therefore, it is possible to identify a positive relationship between per capita income growth and decline in absolute poverty in Sri Lanka during the last two decades.

Secondly, changes in sectoral shares of GDP and employment can also be used to identify the nature and trends in income inequality. For example, the agricultural sector GDP share was 30 per cent in 1978 and 19 per cent in 2000. Its employment share also declined from 52 per cent to 36 per cent during this period. Similarly, the service sector share in GDP was 44 and 55 in 1978 and 2000 respectively. Its employment share grew from 29 to 41 during this period. GDP share and employment share changes in these two cases imply growing income

inequality in the service sector and decline in income inequality in the agricultural sector in Sri Lanka.

Thirdly, improvement in social indicators such as increase in literacy rate and longevity, school attendance and decrease in birth rate, death rate and infant mortality rate imply a decline in income inequality in any society. As shown in Table 2, Sri Lanka's social development achievements were remarkable before the introduction of the liberalised economic policies in 1978. However, achievements in social development in Sri Lanka are not comparable with those of the East Asian countries, particularly during the past two decades. For example, when the under 5 (years) infant mortality rate decreased from 48 to 18 per 1000 people in Sri Lanka, Malaysia recorded a remarkable decline from 42 per cent to 12 per cent during the 1980-1998 period. In Singapore, it declined from 13 per cent to 6 per cent. Prevalence of child malnutrition as a percentage for children under age five is 20 per cent in Malaysia, while it was 38 per cent in Sri Lanka in 1998. In particular, high malnutrition among children in Sri Lanka indicates the low purchasing power of the poor people in rural areas. For example, a survey of primary school children in 1991 revealed that nearly 93 per cent of children in Sri Lanka are affected by a mild, moderate or severe degree of malnutrition.

The final and most important way of illustrating income inequality trends is the use of household or individual based micro data. As explained in the section dealing with methodology, data and limitations, although there are various problems in the consumer finance survey data published by the two institutions, the Central Bank of Sri Lanka's consumer finances and socio-economic data is widely used in Sri Lanka. Table 3 presents the overall income inequality measures estimated from consumer finances and socio-economic data.⁵ According to measures given in Table 3, two income inequality phases can be identified for the 1978-1997 period in Sri Lanka;

1. income inequality increased during the 1978-1987 period and
2. income inequality decreased during the 1987-1997 period.

Table 2: Trends in Social Welfare Development in Sri Lanka, 1973-1997

Index	1973	1978/79	1981/82	1986/87	1996/97
1 Educational Attainment					
1.1 Literacy Rate	78.5	86.2	85.4	88.6	91.8
1.2 No Schooling	22.9	14.9	15.1	11.8	8.6
1.3 Primary	43.2	43.8	42.9	41.1	35.2
1.4 Secondary	27.3	29.8	29.2	32.1	35.5
1.5 Tertiary	6.6	11.5	12.8	15.0	20.7
1.6 Pupil/Teacher ratio	26.3	25.0	25.6	24.0	22.9
2 Utilities and Sanitation					
2.1 Electricity	8.0	13.1	15.8	26.5	56.8
2.2 Housing Conditions					
2.2.1 Wattle and Daub Walls	44.2	38.9	43.4	39.7	24.3
2.2.2 Brick Walls	25.0	25.2	26.2	35.0	54.0
2.2.3 Clay Floors	44.9	45.4	41.9	39.3	25.9
2.2.4 Cement Floors	45.0	54.4	52.5	58.5	73.2
2.2.5 Thatched Roof	35.1	31.7	36.3	25.0	10.2
2.2.6 Tiled Roof	33.6	42.9	39.1	45.4	58.3
2.3 Water Supply and Sanitation					
2.3.1 Pipe Borne Water	21.0	21.8	18.4	22.6	31.0
2.3.2 Separate Toilets	-	56.5	60.5	76.5	88.3
2.3.3 Common Toilets	-	14.9	9.6	6.6	5.2
2.3.4 Without Toilets	41.3	28.6	29.9	16.9	6.5
3 Household Equipment					
3.1 Radio	25.4	49.9	60.7	67.1	73.6
3.2 Sewing Machine	26.2	31.3	30.7	37.2	41.5
3.3 Refrigerator	1.3	2.3	2.9	8.1	16.8
3.4 Telephone	0.3	0.7	0.9	1.4	3.8
3.5 Bicycle	-	21.5	31.5	34.0	40.5
3.6 Motor Cycle/Scooter	-	0.9	2.4	5.3	2.0

Continued

Table 2 Continued

Index	1973	1978/79	1981/82	1986/87	1996/97
3.7 Motor Car/Van	-	1.9	2.3	3.0	3.4
3.8 Television	-	-	3.8	19.6	50.6
3.9 Washing Machine	-	-	-	0.8	2.9
3.10 Air Conditioner	-	-	-	-	0.3
3.11 Personal Computer	-	-	-	-	0.4
4 Per capita Consumption					
		Expenditure Shares (%)			
4.1 Food	55.4	56.7	56.5	52.2	48.4
4.2 Clothing and Apparel	7.6	10.6	7.7	7.6	6.3
4.3 Housing	6.8	5.8	5.9	7.8	10.8
4.4 Medical	1.6	1.7	1.6	2.2	2.4
4.5 Education	2.2	1.6	1.6	2.1	2.3
4.6 Transport and Communication	3.4	4.5	3.9	4.9	5.3
4.7 Fuel and Light	4.2	3.9	5.2	4.6	3.9
4.8 Other	12.5	10.2	10.5	12.5	11.8
4.9 Consumer Durables	6.0	4.6	6.4	5.2	6.7
4.10 Interest on Debt	0.1	0.4	0.5	0.9	2.1

Source: Central Bank of Sri Lanka, *RCFSES Part I 1996/97*

In the first phase of income inequality, increase in capital income share, increase in urban income share, growing elderly share in the total population, differences in educational qualifications etc. played a crucial role. Income inequality decreased in the second phase due to growth of off-farm income in the rural sector.⁶ Since no consumer finance survey was done after 1997, it is impossible to present an analysis on recent income inequality trends in Sri Lanka. However, according to the above two ways of analysing income inequality, it is difficult to identify a clear trend in income inequality in Sri Lanka, during the 1978-2000 period. But a micro-data based analysis indicates two phases of income inequality with background factors for that period. Therefore, the micro data based approach is more useful to analyse income inequality in Sri Lanka.

Table 3: Major Income Inequality Measurements for Sri Lanka, 1978-1997

Inequality Measure	Income Receivers					Spending Units						
	1978/79	1981/82	1986/87	1996/97	1978/79	1981/82	1986/87	1996/97	1978/79	1981/82	1986/87	1996/97
1 Decile Income Shares												
1st Decile	1.19	1.17	1.09	1.30	2.61	2.19	1.93	2.13				
2nd Decile	2.57	2.45	2.45	2.77	3.65	3.53	3.13	3.60				
3rd Decile	3.57	3.41	3.40	3.85	4.68	4.31	4.09	4.54				
4th Decile	4.8	4.53	4.39	4.91	5.70	5.22	4.99	5.46				
5th Decile	5.93	5.53	5.69	6.02	6.62	6.32	6.01	6.44				
6th Decile	7.37	6.86	6.79	7.33	7.17	7.03	7.37	7.68				
7th Decile	9.1	8.54	8.37	9.05	9.12	8.66	8.69	9.23				
8th Decile	11.36	10.68	11.08	11.50	11.37	10.74	11.40	11.54				
9th Decile	15.36	14.87	15.37	15.65	14.31	14.61	14.90	15.46				
10th Decile	38.73	41.73	41.93	37.63	34.77	37.39	37.49	33.92				
Quintile 5/ Quintile 1	14.39	15.64	16.19	13.09	7.84	9.09	10.35	8.62				
2 Mean Income*	606	1108	1817	5779	921	1652	2728	8578				
3 Gini Coefficient	0.5	0.52	0.52	0.48	0.43	0.45	0.46	0.43				
4 Theil T index	0.23	0.25	0.24	0.18	0.17	0.18	0.18	0.15				
5 Theil L index	0.20	0.22	0.23	0.17	0.14	0.15	0.16	0.14				
6 Variance of Log Income	0.21	0.22	0.36	0.24	0.24	0.30	0.34	0.30				
7 Coefficient of Variation	0.86	0.90	1.01	0.81	0.83	0.91	1.2	0.86				

* in Sri Lankan Rupees

Source: (1) Decile Income Shares and Mean Income are Reproduced from RCFSES, Part I, 1978/79, 1981/82, 1986/87, 1996/97

(2) Inequality Indices (3) to (7) are Author's computations based on data from RCFSES parts I & II

Impact of Service Sector Expansion on Income Inequality Trends in Sri Lanka

Using consumer finances and socio-economic survey data, this section presents overall trends in income inequality in the service sector and attempts to identify service sector contribution to overall income inequality in Sri Lanka during the 1978-2000 period. Micro-data based empirical results are presented in Tables 4, 5 and 6. Calculated Gini coefficients for six industries are given in the latter part of Table 4. In order to understand the long-term relation between each industry, the Gini coefficient and the total Gini coefficient, and simple correlation coefficients are estimated by sector. For the 1978/79, 1981/82, 1986/87 and 1996/97 periods, these coefficients were 0.86, 0.62, 0.88, 0.88, 0.89, and 0.86 for agriculture, mining, manufacturing, construction, services and "not defined" industries respectively. The highest correlation coefficient was observed between the service industry Gini coefficient and the total income-based Gini coefficient. Therefore, it is important to conduct source decomposition analysis to identify to what extent the subsidiary service sector contributed to the total income based Gini coefficient at rural-urban and national levels. Empirical results are given in Table 5.

Four types of information are given in Table 5. The first type of information is the percentage income share in the total service sector income. The second type of information is the concentration coefficient for each subsidiary service income receiver at national level. The concentration coefficient measures inequality attached to each industry of income when each industry income is ranked in the order of total income. Therefore, unlike the Gini coefficient, the concentration coefficient can have either negative or positive signs. The economic meaning of the negative concentration coefficient is that of extraordinary concentration of income into low-income holders.

The third type of information given in Table 5 indicates the percentage contribution to the total service sector Gini coefficient of each subsidiary service. Statistically, these values have been obtained by multiplying the income share of each subsidiary service by the

concentration coefficient of the relevant subsidiary service and dividing by the total Gini coefficient. These results can be used to compare the importance of different subsidiary services in terms of the total income inequality in the service sector.

Table 4: Income Inequality Measures for All Industries, 1978-1997

	1978/79	1981/82	1986/87	1996/97
Share of Income Receivers (Population) by Industry				
1 Agriculture	0.4526	0.4529	0.4036	0.2907
2 Mining	0.0122	0.0157	0.0176	0.0125
3 Manufacturing	0.1288	0.1166	0.1280	0.1600
4 Construction	0.0497	0.0515	0.0579	0.0678
5 Services	0.2845	0.2809	0.2923	0.3333
6 Not defined	0.0722	0.0824	0.1006	0.1357
7 All Industries	1.0000	1.0000	1.0000	1.0000
Relative Income Share of Each Industry (Wk)				
1 Agriculture	0.3762	0.3781	0.3041	0.2154
2 Mining	0.0098	0.0150	0.0113	0.0092
3 Manufacturing	0.1296	0.1048	0.1202	0.1370
4 Construction	0.0414	0.0439	0.0512	0.0571
5 Services	0.3697	0.3697	0.3998	0.4167
6 Not defined	0.0734	0.0884	0.1134	0.1646
7 All Industries	1.0000	1.0000	1.0000	1.0000
Income Receivers Gini Coefficient by Industry (G)				
1 Agriculture	0.5144	0.5398	0.5190	0.4461
2 Mining	0.5134	0.5990	0.5396	0.5123
3 Manufacturing	0.5238	0.4823	0.5320	0.5007
4 Construction	0.4286	0.4146	0.4794	0.3809
5 Services	0.4329	0.4703	0.4773	0.4527
6 Not defined	0.5069	0.5350	0.5031	0.5189
7 All Industries	0.4985	0.5185	0.5218	0.4790

Source: Author's computations from the *RCFSES* Part II, 1978/79, 1981/82, 1986/87, 1996/97

Table 5: Desegregation of the Service Sector Gini Coefficient by Subsidiary Services, 1978-1997

Subsidiary Service		1978/79	1981/82	1986/87	1996/97
Percentage Share in Total Services					
1	Electricity Gas & Water	0.0202	0.0095	0.0202	0.0226
2	Transport, Storage and Communication	0.1734	0.1352	0.1596	0.1689
3	Wholesale & Retail Trade	0.3290	0.3946	0.3867	0.3265
4	Banking, Insurance & Real Estate	0.0274	0.0724	0.0718	0.1051
5	Public Administration	0.1027	0.1307	0.0734	0.0987
6	Other Services	0.3474	0.2577	0.2884	0.2782
7	All Service Industries	1.0000	1.0000	1.0000	1.0000
Concentration Coefficient (Ck)					
1	Electricity, Gas & Water	0.4433	0.3208	0.4784	0.5905
2	Transport, Storage and Communication	0.4148	0.4057	0.4656	0.4584
3	Wholesale & Retail Trade	0.4606	0.5509	0.5179	0.4636
4	Banking, Insurance & Real Estate	0.6360	0.6234	0.6027	0.7120
5	Public Administration	0.4276	0.4753	0.4772	0.4061
6	Other Services	0.4002	0.3402	0.3992	0.3436
7	All Service Industries	0.4329	0.4703	0.4776	0.4527
Percentage Share in Gini Coefficient					
1	Electricity, Gas & Water	2.1	0.6	2.0	3.0
2	Transport, Storage and Communication	16.6	11.7	15.6	17.1
3	Wholesale & Retail Trade	35.0	46.2	41.9	33.4
4	Banking, Insurance & Real Estate	4.0	9.6	9.1	16.5
5	Public Administration	10.2	13.2	7.3	8.9
6	Other Services	32.1	18.6	24.1	21.1
7	All Service Industries	100.0	100.0	100.0	100.0

Continued

Table 5 Continued

Subsidiary Service	1978/79	1981/82	1986/87	1996/97
	Elasticity of Gini Coefficient (hk)			
1 Electricity, Gas & Water	0.0005	-0.0030	0.0003	0.0069
2 Transport, Storage and Communication	0.0073	-0.0186	-0.0040	0.0021
3 Wholesale & Retail Trade	0.0211	0.0677	0.0326	0.0079
4 Banking, Insurance & Real Estate	0.0128	0.0236	0.0188	0.0602
5 Public Administration	-0.0013	-0.0014	-0.0001	-0.0101
6 Other Services	-0.0263	-0.0713	-0.0474	-0.0670

Source: Author's computation from the *RCFSES* Part II, 1978/79, 1981/82, 1986/87, 1996/97

Several features of the income inequality structure can be identified by studying the behaviour of subsidiary shares in total income inequality. First, the highest share of service sector Gini coefficient was represented by the wholesale and retail trade during the 1978-1997 period. In the national economy, the public administration's share in the total income inequality declined during the 1981/82-1997 period. This decrease was accompanied by an increase in the banking insurance and real estate share.

The last (fourth) type of information given in Table 5 is the estimated elasticity of the Gini coefficient with respect to the income of each subsidiary service, which provides an indication of the future direction and magnitude of each subsidiary service income on the total income inequality in Sri Lanka. By using this data, it is possible to predict the future value of the Gini coefficient, assuming fixed concentration coefficients. A negative value of an elasticity figure implies the ability to reduce inequality when the share of the relevant subsidiary service income increases, and *vice versa*. For example, elasticity figures for other services showed negative signs during the whole period. Therefore, an increase in the share of 'other services' income in the total income inequality can be reduced in Sri Lanka. For example, according to the estimated elasticity for 1996/97, under the assumption of fixed

concentration coefficient, a 10 per cent increase in the 'other services' income in the service sector income will reduce the service sector Gini coefficient by 0.067. However, the elasticity figure for the service industry at the urban and rural sector levels, showed positive signs during the entire period. A positive trend could be seen in the estate service industry, even though its absolute contribution to the total income inequality was negligible.

The Gini coefficient for subsidiary services at the sectoral level is presented in Table 6. The Gini coefficient for income receivers in urban services was higher than that for the rural services. On the other hand, estate services showed the lowest Gini coefficient in comparison with other industries. Within the various services, banking, insurance and real estate, wholesale and retail trade represented high Gini coefficients in comparison to public administration and electricity, gas and water. This is because wages among public sector employees do not vary as much as among private sector employees. Electricity, gas and water industries were government owned monopolies until the late 1980s. Therefore, the Gini coefficient for income receivers in those industries was also low in comparison to other industries.

Summary and Policy Implications

Globalisation is the process of integration of countries and their people, bringing them closer and increasing their interdependence through economic, technological, and political links. During the past few decades, globalisation continued at its utmost speed with the help of multinational corporations, WTO, IMF and the World Bank. Its new look can be seen in areas such as the growing importance of foreign exchange, capital markets, information technology, language skills etc. However, service sector expansion has been accelerated by the new face of globalisation. One main outcome of the expansion of the service sector is the widening income disparity between countries as well as within countries. The rich have grown richer and the poor have become poorer in recent decades.

Table 6: Gini Coefficient for Income Receivers in Major Service Industries at Sectoral Level in Sri Lanka, 1963-97

Industry	1963	1973	1978	1982	1987	1997
	Urban Sector					
1 Electricity, Gas & Water	0.3612	0.3945	0.2374	0.2403	0.3720	0.3856
2 Transport, Storage and Communication	0.4008	0.2408	0.3584	0.3776	0.4018	-
3 Wholesale & Retail Trade	0.5900	0.3707	0.4232	0.6107	0.5377	0.5299
4 Banking, Insurance & Real Estate	-	0.2646	0.3438	0.5044	0.4311	0.5355
5 Public Administration	-	0.4223	-	0.4238	0.4023	0.3481
6 Other Services	0.5238	0.2676	0.4728	0.4479	0.5450	0.5400
7 All Urban Service Industries	0.5320	0.3926	0.4782	0.5225	0.5125	0.5216
	Rural Sector					
1 Electricity, Gas & Water	0.2937	0.3710	0.2767	0.2752	0.3643	0.4135
2 Transport, Storage and Communication	0.3017	0.2757	0.3557	0.3937	0.4112	0.3781
3 Wholesale & Retail Trade	0.5040	0.4379	0.3931	0.4939	0.4859	0.4088
4 Banking, Insurance & Real Estate	-	0.2182	0.2520	0.3384	0.3965	0.4636
5 Public Administration	-	0.3807	-	0.3452	0.3407	0.3551
6 Other Services	0.4146	0.3515	0.3917	0.3942	0.4192	0.4105
7 All Rural Service Industries	0.4264	0.3869	0.3958	0.4255	0.4403	0.4083

Continued

Table 6 Continued

Industry	1963	1973	1978	1982	1987	1997
	Estate Sector					
1 Electricity, Gas & Water	-	-	-	-	-	-
2 Transport, Storage and Communication	0.2613	0.2031	0.1262	0.3738	-	-
3 Wholesale & Retail Trade	0.3023	0.3172	0.3091	0.5202	0.3676	0.4683
4 Banking, Insurance & Real Estate	-	-	-	-	-	-
5 Public Administration	-	-	-	-	-	-
6 Other Services	0.2333	-	0.5671	0.3274	0.0657	0.3017
7 All Urban Service Industries	0.2942	0.3954	0.4666	0.4675	0.2777	0.3955
	All Island					
1 Electricity, Gas & Water	0.3306	0.4041	0.2620	0.2677	0.3781	0.4248
2 Transport, Storage and Communication	0.3415	0.2665	0.3586	0.3902	0.4099	0.4003
3 Wholesale & Retail Trade	0.5573	0.4118	0.4099	0.5524	0.5211	0.4654
4 Banking, Insurance & Real Estate	-	0.2592	0.3281	0.4585	0.4205	0.5079
5 Public Administration	-	0.4043	-	0.3816	0.3738	0.3575
6 Other Services	0.4842	0.3169	0.4327	0.4185	0.4816	0.4516
7 All Island Service Industries	0.4882	0.3934	0.4329	0.4703	0.4776	0.4527

Source: Author's computation from the RCFSES Part II, 1978/79, 1981/82, 1986/87, 1996/97

Service sector expansion is one of the important features in Sri Lanka after the introduction of liberalised economic policies in 1978. The service sector share increased from 44 per cent to 55 per cent and 29 per cent to 41 per cent in terms of GDP and employment during the 1978-2000 period. Within the service sector, wholesale and retail trade, banking, insurance and real estate, public administration and defence, transportation, and telecommunications subsidiary sectors were the most important services in Sri Lanka during the 1978-2000 period.

The main objective of this paper was to analyse the effects of globalisation and service sector expansion on income inequality trends in Sri Lanka during the 1978-2000 period. There are several ways to explain income inequality trends. One is to compare growth of per capita income with the number of people below the poverty line. Another is to analyse performance in the social development indicators such as malnutrition, infant mortality rate etc. The use of micro level data to analyse individual or household level income equality is yet another method. Apart from these, in order to analyse income inequality by industries the industrial GDP share can be compared with the relevant employment share. This paper applied all these ways to analyse income inequality in Sri Lanka. Only a decline in absolute poverty, and the micro-data based measures indicated clear trends of income inequality during the 1978-2000 period. Absolute poverty has continuously declined during the entire period, while micro data based findings indicated growing income inequality trends during the 1978-87 period and declining inequality trend for the 1987-97 period. In the first period, income receivers' Gini coefficient increased by 5 per cent and service sector expansion could be identified as one of the main reasons behind this situation. In the second period, the Gini coefficient declined by 8 percent indicating expansion of off-farm income growth in the rural sector. However, the growing rural income share along-side the expansion of services is not a predictable factor.

There are several problems associated with the service sector expansion in Sri Lanka, which positively as well as negatively affect income inequality trends. First, the growing speed of the service sector in Sri Lanka is lower than the world trend, which has a positive effect

on income distribution. Concentration on public finance and defence activities, urban bias, use of foreign direct investment for local services, less employment creation, are some of the negative factors that affected income distribution in Sri Lanka. While promoting high growth in the service sector, other sectors of the economy should undergo structural changes to increase output and reduce income inequality. Introduction of human resource development programmes, education reforms, expansion of language training, productivity growth in the service sector, export promotion, expansion of information technology to the rural sectors, can be suggested as the main solutions to the growing income inequality problem in Sri Lanka.

Notes

- 1 Those who need more details on these data, read CBC 2000, Karunatilake (1975), Karunaratne (1999).
- 2 For mathematical explanation for the Gini coefficient and its desegregation see Karunaratne (1998a)
- 3 World Bank (1993), *The East Asian Miracle*, Oxford University Press
- 4 See World Development Report 2000/2001, p 281.
- 5 By using these data, Karunaratne (2000b) presents an analysis on long-run income inequality trends in Sri Lanka
- 6 For a more detailed analysis on these phases and factors see Karunaratne (1999a)

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