# STAGNATION AND REVIVAL OF KERALA ECONOMY
## An Open Economy Perspective

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**Working Paper No. 305**

August 2000

# STAGNATION AND REVIVAL OF KERALA ECONOMY
## An Open Economy Perspective

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August 2000

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Earlier version of this paper was presented in seminars at the Centre for Development Studies and the School of International Relations, Mahatma Gandhi University. We are thankful to all the participants of these seminars for their helpful comments. We have also benefited from discussions with Prof K. K. Subrahmanian, Prof Pulapre Balakrishnan and Dr. Achin Chakraborty. The usual disclaimers follow.

## ABSTRACT

One debilitating feature of the existing literature on the development dynamics of Kerala economy is the undue emphasis on endogenous factors. The making of the 'Kerala model' as well as its crisis are sought to be understood in a closed economy framework. While the emphasis on endogenous factors, particularly on the redistributive policies, is eminently justifiable, what is conspicuously missing in the literature is an effort to unravel the mystery of the general backwardness of the goods producing sectors. This is particularly true of the studies on the crisis of the regional economy since the mid seventies. Given the closed economy perspective, neither the migration nor the remittance has figured in the analytics of development of the region. The mainstream approach has been one of treating the boom in remittance as a boon, with no bearing on the crisis except that it helped moderate the adverse impact of the same. Given the extreme dependence of the regional economy on rest of the world, the present study approaches the problem in an open economy perspective and bring the question of migration and remittance to its rightful place within the structure of the regional economy. Drawing insights from the Dutch disease economics, the present paper argues that the crisis of the commodity producing sectors witnessed during the period since mid seventies could be attributed to the resource movement and spending effect associated with remittance boom. The study also highlights a revival in the growth of the regional economy since the mid eighties and makes an attempt to account for the same in terms of different factors including the adaptation of the regional economy to the Dutch disease environment.

**JEL Classification:** F22, O18, O19.

**Introduction**

The initial wave of enthusiasm on Kerala studies, as is now widely known, had its origin in the mid 1970s, when some important studies highlighting certain key development achievements of Kerala, especially in health and education, were published (CDS 1975). What engaged scholars, however, was not so much the achievements as the underlying development paradox. That a poor third world region like Kerala, which shares almost all signs of chronic underdevelopment, particularly in its goods producing sectors, should achieve such high physical quality of life for its people, appeared a big riddle to most students of development. The studies on Kerala since then, therefore, were dominated by attempts to resolve the riddle, as also to draw useful lessons, if any, from the region's development experience. In the process Kerala even came to be hailed as a relatively inexpensive model of development (The Kerala Model), a model for ensuring reasonably high quality of life for people in poor countries without having to wait for reaching higher stages of economic growth and development.

However, certain signs of vulnerability were visible even as the initial statements on Kerala model were being made. The development crisis of the state, manifested as it is in the long drawn out stagnation of agricultural and industrial sectors of the economy, had set in well back in the mid 1970s. It is not that the states economy was doing significantly

better before. As noted earlier, it was the general background of underdevelopment of the state that made the attainment of high physical quality of life and, therefore, the Kerala experience so unique to exercise the minds of many development thinkers. What the development crisis has done is to further weaken the already weak base of domestic production on which the edifice of 'Kerala model' has been built. As the crisis started gripping the economy the focus of research also shifted, from the gains of development to the question of sustainability of the 'Kerala model' and its past gains (George 1993, Tharamangalam 1998).

Notwithstanding the valuable insights they provide, the existing studies on the 'Kerala model' of development leave certain important gaps in our understanding of the region's development dynamics. One debilitating feature of the existing literature is the undue emphasis that it places on Kerala-specific (endogenous) factors. The making of the 'Kerala model' as well as its crisis are sought to be understood in what may be referred to as a closed economy framework[1]. While the emphasis on endogenous factors, particularly on the redistributive policies, is eminently justifiable, what is conspicuously missing in the literature is an effort to unravel the mystery of the general backwardness of the regional economy, especially of the goods producing sectors. The enquiry seldom digress into the question of the plausible structural links between the specific modes of incorporation of the region in the world-economy, the underdevelopment of the goods producing sectors and the disproportionate growth of the service providing sectors.

This limitation of the mainstream approach stands more exposed when it comes to the treatment of the crisis since the mid-seventies. Ironic, though it may sound, the dominant tendency appears to have been one of blaming the once celebrated re-distributive policies. Thus, for instance, labour militancy, high wages, trade union opposition to

labour saving technologies, public provision of social overheads, etc., figure prominently in the attempts to account for the crisis (Kannan 1998). Here again the enquiry hardly crosses the limits of the region's boundaries and the endogenous factors. What is the role that the region has come to play in the national and the international division of labour? Has the specialisation of the region got anything to do with its development dynamics in general and the crisis in particular? The 'closed economy' framework leaves hardly any space for raising such unavoidable questions. The above approach, however, appears far removed from reality, for the regional economy in question has for long been and continues to be closely integrated with rest of the world[2]. The latest episode in the process of deepening of the region's external integration is the large-scale export of labour power from the state to the rest of the country and abroad. Incidentally, it is the crisis faced by the earlier externally integrated sectors that paved way for the conversion of the state into a net out-migrating region (Isaac et.al. 1992).

Given the above backdrop of the region's extreme dependence on external trade we consider it critical that the evolution of the Kerala economy be viewed from the perspective of the region's embeddedness within the national and the international division of labour. Nowhere does the limitation of the 'closed economy' framework becomes more evident than with respect to the treatment of the phenomenon of migration and the consequent remittances boom[3]. In spite of the overwhelming magnitudes, neither the migration nor the remittances figure in the analytics of development of the region. The approach has been one of treating the boom in remittances as a boon, which did not have anything to do with the crisis except that it helped moderate the adverse impact of the same. While the development crisis is located within the structure of the regional economy, the migration-remittances phenomenon is taken as something 'structurally external'.

The present paper is an attempt to break the above tradition by bringing in the question of migration and remittances to its rightful place within the structure of the regional economy. Following the insights of Dutch disease economics, this is sought to be done with the help of a small open economy model. Balakrishnan (1999) has already used a Dutch disease model to account for the decline in food production in Kerala since mid-1970s. However, as we shall illustrate, the impact of Dutch disease, given the underlying model, would be structural in nature and, therefore, would not be confined to any particular sector. On our part, we find the Dutch disease economics eminently suitable to explain the crisis of the goods producing sectors as well as the boom in the service producing sectors. The remittance boom from the Middle East that followed the quadrupling of oil prices in 1973 appears to have induced almost the same kind of structural changes as envisaged by the core Dutch disease models in Kerala. Thus viewed, and as the present paper would conclude, the crisis of the state, especially of the goods producing sectors could be seen as an outcome of the process of structural adaptation of the regional economy to the migration-remittances boom.

## Section I

## The Analytical Framework

Windfall booms of external income can cause problems. It might even lead to the most unexpected outcome of de-industrialisation of the economy. That the windfall gains could turn out to be a development curse is now well recognised in the literature, especially in the context of primary commodity booms. The literature on 'Dutch disease' and the 'resource curse thesis' underline such backwash effects of a primary commodity boom (Corden 1984 and Van Wijnberjen 1984). Dutch disease economics is named so after the experience of Netherlands in the 1960s,

when the country experienced the boon of natural gas discoveries. The more the Netherlands developed its natural gas production, the more depressed its manufacturers of traded goods became (Lindert 1986). The Dutch disease models were later found to have general applicability in the context of oil exporters, and countries experiencing primary export boom in general (Kamas 1986, Fardmanesh 1991, Norio Usui 1996). Further, more recent studies show that the economics of Dutch disease could be applied to explain the adverse effects of windfall inflow of external income form other sources as well (Thimothy 1998). The literature on Dutch disease economics presents a variety of models which could be effectively employed to study the effects of booms arising from exogenous shocks in a small open economy (Corden 1984, Neary and Van Wijnberjen, 1986). While there are different variants of this model all of them have their theoretical moorings in the specific factors model[4]. In what follows we shall try to employ the Dutch disease model of Corden and Neary (1982) in the context of the regional economy and come out with certain empirically verifiable hypotheses.

The Dutch disease syndrome is explained in terms of two symptomatic effects of an export boom, viz. the 'resource movement effect' and the 'spending effect' (Corden and Neary, 1982 Fardmanesh, 1991). The expansion and increased profitability of the booming sector would draw the mobile factor out of other sectors and bid up its price. The resulting contraction of non-booming tradable sectors due to the heightened competition for factors of production is referred to as the 'resource movement effect'. The spending of the extra income from the export boom would tend to bid up the prices of non-tradable goods vis-à-vis tradable goods leading to a real appreciation and erosion of competitiveness of the tradable sector. The spending effect refers to the contraction of non-booming tradable sectors on account of the real appreciation. The tendency for the prices of factors of production and

non-tradables to increase cannot but adversely affect non-booming tradable sectors which are exposed to external competition.

For a formal presentation of the model we shall assume a small open economy producing three goods using two factors. The first two goods are tradable at exogenously given world prices and the third good is a non-traded product and its price moves flexibly to clear the domestic demand and supply. Let the traded goods be represented by tradable services (Xs) and tradable commodities (Xc) and the non-traded goods by non-tradable services (Xn). Here Xs mainly refers to labour services, which Kerala exports like that of construction workers, nurses, etc. Xc refers to all the traded commodities, which includes mainly agricultural and industrial products. Xn refers to construction, medical services, education, etc, which are non tradable. What we are interested essentially is the implications of a boom in one of the tradable sectors (here Xs) on other sectors of the economy.

In this two factor three-commodity model, the only mobile factor is labour (L), which is used in all the three sectors. Capital (or factors used in production other than labour) is assumed to be specific to each of the sector (denoted by M, R and K respectively) and are not mobile. Let Ps, Pc and Pn represent the respective output prices and rs, rc and rn be the returns to the specific factors and w the common wage rate. The production functions of all the sectors are assumed to be linearly homogenous in their respective inputs and have the standard neo-classical properties of differentiability and positive and declining marginal physical products for each of the inputs; that is

$$Xs = Fs(Ls, Ms) \quad .... 1$$

$$Xc = Fc(Lc, Rc) \quad .... 2$$

$$Xn = Fn(Ln, Kn) \quad .... 3$$

The total labour employed in the production of three goods is equal to the fixed aggregate supply; that is;

$$Ls + Lc + Ln = L \quad .... 4$$

and

$$Ms = M \quad .... 5$$

$$Rc = R \quad .... 6$$

$$Kn = K \quad .... 7$$

The above assumptions essentially imply full employment and it is necessary to have wage equalisation across different sectors. We shall also impose Inada conditions on the production functions. It states that labour is indispensable for the production of all three goods and that the marginal productivity of labour in each sector is infinite if the ratio of labour to sector's other specific factor is zero.

Following Jones (1965) the input used (i.e. labour and specific factor) per unit of Xs may be denoted by aLs and aMs and that of Xc by aLc and aRc and that of Xn by aLn and aKn. With the constant returns to scale the total output is the product of input required and the levels of factor use. That is

$$aLs\ (Ls) + aMs\ (Ms) = Xs \quad .... 8$$

$$aLc\ (Lc) + aRc\ (Rc) = Xc \quad .... 9$$

$$aLn\ (Ln) + aKn\ (Kn) = Xn \quad ....10$$

and

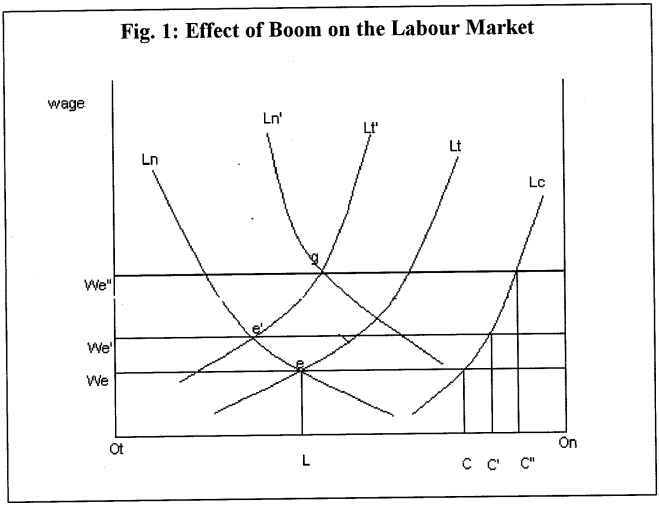
$$aLs(w) + aMs(rs) = Ps \quad ....11$$

$$aLc(w) + aRc(rc) = Pc \quad ....12$$

$$aLn(w) + aKn(rn) = Pn \quad ....13$$

These formulations serve to emphasise the dual relationship between factor endowments and commodity outputs on the one hand (equations 8, 9 and 10) and the commodity prices and factor prices on the other (equations 11, 12 and 13). Given this system of equations one could derive the demand functions for the factors and equilibrium in the factor market. Instead of deriving these systems of equations, we shall, following Corden and Neary (1982), work with figure 1. Given the initial capital endowment, the distribution of labour force, the wage rate of each product is determined with the help of Fig.1. Though the figure essentially depicts the labour market, using equations 8, 9 and 10 we can effectively reflect on impact of changes in employment on output. The length of the horizontal axis is equal to the total supply of labour in the economy. The vertical axis passing through the left-hand side measures the wage rate (in terms of commodities) in the production of non-tradable services. Labour input into the production of non-tradable services (Xn) is measured by the distance from Ot while the distance from On measures the labour input into the production of two tradable sectors (Xs & Xc).

**Fig. 1: Effect of Boom on the Labour Market**



The curves Ln, Lc and Lt show the value of the marginal product labour in the non-traded service sector, traded-commodity producing sector and that of total tradable goods producing sector. By assumption these are also the labour demand curve in the three sectors. The curves Lc and Lt are drawn in such a way that Lc is the labour demand in the commodity producing sector. By laterally adding the labour demand in the traded service sector we get the Lt. The intersection of Ln and Lt provides the pre boom equilibrium at e. At this point, OnC gives employment in the tradable commodities, tradable labour service employs CL and OtL represents employment in the non-tradable services.

Now let us examine the effect of a boom in one of the tradable sectors (i.e. traded services). Let us begin with the resource movement effect[5]. The traded service sector's labour demand curve shifts upwards on account of the export boom leading to a rise in the profitability and the demand for labour in that sector. This in turn shifts the composite labour demand schedule to Lt' resulting in a new equilibrium at point e'. This effect which results in an increase in the wage rate from We to We' induces the labour to move out of both the traded commodity producing and non-traded service sectors. The impact of such a labour movement however, will be different in the commodity producing sector and the non-tradable services. In the case of commodity producing sectors, a decline in employment (from c to c') will lead to reduction in out put (see equation 9). Thus the resource movement effect has an unambiguous effect of depressing the output of tradable commodity producing sectors. As the prices in this sector are determined exogenously, there will not be any effect on their prices.

In the case of non-traded services, movement of labour out of the sector indeed will lead to a reduction in output (see equation 8). However, this could lead to an excess demand for services, which in turn will have

an upward pressure on their prices (remember that the price of non tradable are determined domestically by supply and demand). Since the employment in the production of non-tradable services falls, one could infer that the resource movement effect has an output depressing effect. The boom in the service sector also has an income effect, which in turn leads to an increase in the demand. The extent of output reduction in the non tradable services sector would depend on the extent to which the adverse effect on account of resource movement effect is offset by the positive effect on account of the spending effect.

The spending effect will influence the output of all the sectors including the non-tradable. But its nature and the direction would be different across sectors. With additional income from remittances, (export of labour services) the demand for non-tradables increases (assuming a positive income elasticity of demand). This results in a shift in that sector's demand for labour (to Ln') leading to the final equilibrium at g, wherein the wage rate rises further to We" accompanied by an increase in their output. But as already noted the resource movement effect will have an output depressing effect. The net effect on the non-tradable sector would depend on the relative strengths of the spending effect and the resource movement effect.

With spending effect, employment and hence output of the non booming tradable sector, (i.e., the commodity producing sector) however, has further declined. There are two forces in operation: with a rise in wage rate there occurs a reduction in the profitability and employment in the commodity producing sectors from OnC' to OnC". This is further reinforced by a real appreciation (on account of rise in the price of non-tradable) which in turn erodes the competitiveness of the commodity producing sectors. Thus, the boom gives rise to a reduction in the output of commodity producing sectors on account of resource movement effect (OnC to OnC') as well as spending effect (OnC' to OnC").

The forces discussed in the core model are all at work in the regional economy of Kerala. The predictions of the core model, therefore, could be expected to hold well in the context of the present study. However, before proceeding further it is important that we add certain caveats. The Dutch disease models are built on a number of strong assumptions. Most of these assumptions, as later studies have shown, can be relaxed without endangering the basic premises of the Dutch disease economics. Nevertheless, serious difficulties can arise while applying them to the labour surplus economies. Incidentally, the predictions of the core model are critically dependent upon the full employment assumption. What prompts us to stick on to the framework of the Dutch disease economics is the unique nature of the labour markets in Kerala (Krishnan 1991), which, as we shall explain in more detail in the forthcoming sections, tend to generate almost the same effects as predicted by the Dutch disease models.

In the light of the above discussion following hypotheses may be put forth for empirical verification. The boom in the sector exporting labour services would alter the output composition of the regional economy by increasing the remittances income on the one hand and by generating the spending and the resource movement effects on the other. The non-booming tradable sector would tend to contract vis-à-vis rest of the economy. The consequence would not be limited to the de-industrialisation of the economy, because the non-booming tradable in the present context would include non- industrial products as well. As a matter of definition, the tradables would include all those products, which are exposed to competition from sources outside the regional economy. The non-tradable sector would be adversely affected by the likely movement of its resources into the booming sector. But, this could be compensated by the spending effect and the consequent real appreciation. Further, the likely movement of labour from the lagging tradable sector

would tend to expand the production of non-tradable. We would, however, tentatively hold that the net effect on the non-tradables would be positive.

Before concluding this section it is important to note that there are many policy measures, which can be effectively employed by the governments to moderate the Dutch disease. The government policy response may consist of measures to affect the real exchange rate, the level of absorption, or relative prices of the three sectors. The policy choice and the mix of tools to be employed, however, would depend on the goals desired[6] .

## Section II

## Empirical Verification

The story of the macro economic changes of the regional economy since 1970 is well known to be discussed at length here (Subrahmanian and Pillai 1987, Subrahmanian 1990, Kannan and Pushpangadan 1990). We just need to present a summary picture, as has been done in Tables 1 and 2 to show how the pattern of structural changes has been strikingly in conformity with the predictions of the Dutch disease model. As noted by many studies, the period following the mid seventies has been marked by a general decline in industry and agriculture. As is clear from Table 1, the trend growth rates of Net State Domestic Product (NSDP) as well as of primary and secondary sectors during 1975-87 were either negligible or negative.

**Table 1: Trend Growth Rates of Different Sectors in Kerala Economy**

| Sector | Period I (1965-75) | Period II (1975-87) | Period III (1987-97) |
|---|---|---|---|
| GDP | 3.21 | 1.99 | 6.00 |
| Primary | 2.23 | -0.86 | 4.57 |
| Secondary | 4.71 | 1.65 | 6.31 |
| Tertiary | 4.24 | 4.06 | 6.96 |

Source: Period I (Kannan and Pushpangadan 1990). Period II & III are our own estimates. (Growth rates significant at 1 per cent level)

Table 2, which presents data on sectoral composition of the NSDP is also revealing. While the share of agricultural sector declined sharply, that of manufacturing tended to stagnate. In sharp contrast has been the behaviour of the non-tradables (construction and services), that registered higher growth to claim higher shares in the NSDP than ever before.

**Table 2: Sectoral Composition of Net State Domestic Product**

| Year | Primary Sector | Agricu-lture | Secondary Sector | Manufa cturing | Constru-ction | Tertiary Sector |
|---|---|---|---|---|---|---|
| 1960 | 55.98 | 53.42 | 15.24 | 12.45 | 2.27 | 28.78 |
| 1965 | 55.91 | 53.94 | 14.47 | 10.87 | 2.92 | 29.61 |
| 1970 | 49.44 | 46.44 | 16.32 | 12.46 | 2.92 | 34.24 |
| 1975 | 45.55 | 41.07 | 17.57 | 13.30 | 3.23 | 36.88 |
| 1980 | 39.23 | 33.85 | 24.37 | 13.90 | 9.02 | 36.40 |
| 1985 | 34.64 | 31.27 | 25.55 | 13.28 | 11.91 | 39.82 |
| 1990 | 32.91 | 28.90 | 26.35 | 15.72 | 9.67 | 40.74 |
| 1995 | 36.72 | 32.92 | 23.91 | 13.52 | 9.30 | 39.38 |

Source: Government of Kerala, *Economic Review*, Different Years

Even though, there are competing estimates, all the available studies trace the beginning of the remittance boom to roughly around 1973-74. The fact that the above pattern of structural transformation of the regional economy was set in roughly around 1973-74, when remittances boom commenced following the quadrupling of the international prices of oil, it must be clear by now, has not been incidental. However, before trying to establish the Dutch disease connection between the remittances boom on the one hand and the process of structural changes in the economy on the other, we may note another important point that emanates from the data already presented. The regional economy appears to have started showing signs of a plausible revival since 1987. A turnaround in the growth rates is visible in agriculture, industry, and in the economy as a whole. We shall take up the question of the observed signs of revival later.

As an initial step in the verification of the hypothesised relationship between the remittance boom and the structural changes in the economy, we have estimated the following equation:

$$T = a + bR_{t-1} + e \qquad \ldots 14$$

Where, T is the share of non-booming tradables in NSDP in the current year, and $R_{t-1}$ is the ratio remittances to NSDP in the previous year.

The data on NSDP and its components used for the estimation are taken from the publications of the Directorate of Economics and Statistics, Government of Kerala. However, there exists no firm database on the inflow of remittances to the regional economy. For the present study we have made an estimate based on a set of assumptions. Remittances from the Middle East account for bulk of the remittances to Kerala (ESCAP 1987). The remittances from the Non Sterling area, following Nayyar

(1994), is taken to represent the remittances from the Middle East. Further, since Keralites account for more than 50 per cent of the migrant workers, Kerala's share in the above is taken as 45 per cent.

The estimated equation is given below.

$$T = 57.98 - 0.42\ R_{t-1} \quad R^2 = 0.43$$
$$(-4.52)$$

The statistically significant and negative sign of the estimated coefficient may be considered as a preliminary support to our hypothesis regarding the adverse impact of remittances on tradable sector output.

**Spending Effect and Real Appreciation**

It is one thing to describe the structural shifts in the economy and quite another to attribute the same to a set of causative factors. However, we have fairly reliable evidence to prove the Dutch disease connection: The line of causation wherein the remittances boom leading to 'resource movement' and 'spending' effects and through them the structural changes in the economy is fairly clear.

The labour/wage factor has been on the centre stage of the development dialogue in the state, particularly in the attempts to explain the crisis since mid-seventies. In comparison, the implications of real appreciation caused by the spending effect of the windfall gain in external income remains unexplored. There are many studies to be relied upon, especially at the micro level, to get an idea on the spending pattern of the migrant households. Similarly, there are some important surveys conducted by the national agencies, which provide useful insights on the impact of the remittance boom on consumer expenditure and asset holding pattern at the aggregate level. The impacts of the spending boom on the relative prices and hence on the structure of domestic production,

which would have thrown more light on the region's development crisis, however, appear to have escaped the attention of scholars.

Our estimate of the remittances income is likely to be an under estimate due to two important reasons. First, since it is based on the official statistics it does not take into account the flow of remittances through illegal channels. Second, it does not include remittances from other states in India. By employing an indirect method, which uses the difference between the per capita consumer expenditure and the per capita state domestic product as the basic indicator, Krishnan (1991) has overcome this problem. The proportion of remittances to income produced in the state, as estimated by the study for 1986-87, is as high as 28 per cent.

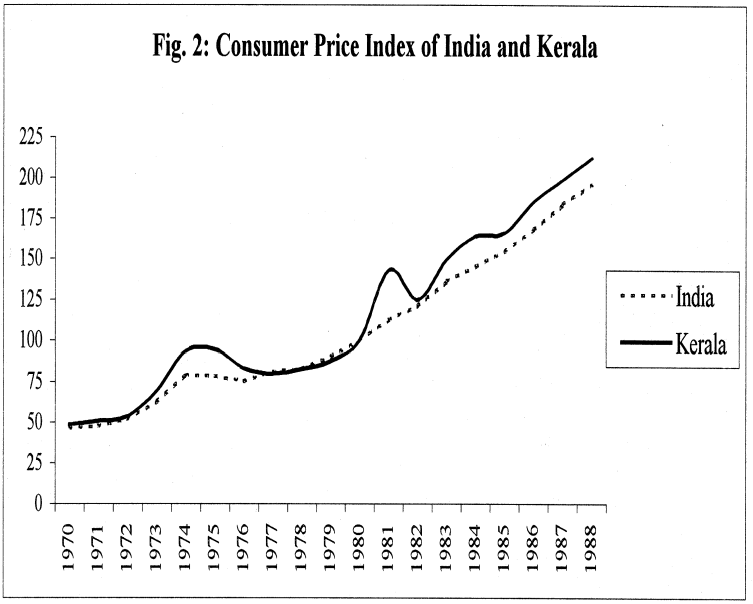
The impact of the remittances boom on consumption and saving behaviour of the households, to say the least, has been quite dramatic[7] . The rank order of Kerala among the major states in India in terms of per capita expenditure improved from 10 in 1970-71 to 4 in 1980s. Another important development has been the escalation of the import content of the consumer expenditure in the state (Isaac et.al. 1992). The increase in the import intensity is also reported to have resulted in the ballooning of the trade deficit of the region (Isaac et.al. 1992). There is also evidence to indicate marked increase in the physical and financial savings [8].

The remittances of such magnitudes and its spending within the regional economy must have had its deep felt effects on the relative prices. Going by the predictions of the core Dutch disease model, the prices of non-tradables must have risen vis-à-vis those of the tradables. This, as mentioned earlier, is an instance of real appreciation, with obvious adverse implications for the competitiveness of the tradable sector. A comparison of the prices of non-tradables and tradables over the period would give an idea regarding the magnitude of real appreciation. Now,

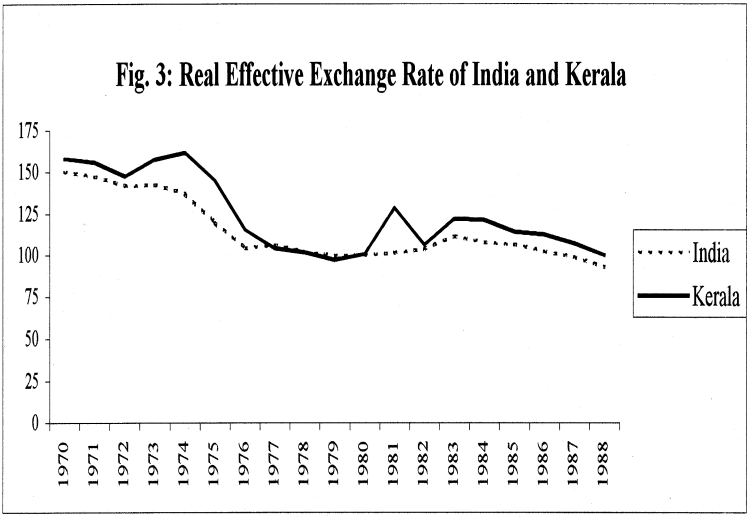
in order to analyse the effect of real appreciation on the competitiveness of tradables originating in the region, one should have an idea on the price movements in competing regions as well. If interregional differences in the prices of tradables can be assumed to be insignificant, the analysis of prices to measure competitiveness of different regions would boil down to a comparative analysis of the prices of non-tradables in competing regions.

The comparison of the trends in the prices of non-tradables would do if the idea is to judge the competitiveness of the region vis-à-vis other regions in the country, whether it is in the national market or at the international level. But, when it comes to the question of competition with producers outside the country, the movements in the nominal exchange rate of India as well as the rate of inflation in the foreign countries concerned would also become important.

One difficulty that the above line of enquiry would face is related to the choice of price indices to represent the trends in the prices of non-tradables. None of the available price/cost indices can be considered to fully represent the non-tradables. However, a close substitute, since they include non-tradables and services, would be the consumer price indices.[9] Since the CPI is influenced to a significant extend by the prices of tradables as well, it cannot be expected to capture the widely felt increases in the prices of non-tradables in Kerala during the remittances boom. Yet, the data presented in Fig.2, clearly show that the trends in prices had tended to erode systematically the competitiveness of tradables produced in the region. Except for a few years in between, the CPI of Kerala has been significantly higher than the same index at the national level. This observation is found to be true with respect to the consumer prices indices of industrial as well as agricultural workers.




Many studies on India's export performance have noted the unfavourable impact that the exchange rate movements have had on India's exports during 1976-77 to 1985-86 (Nayyar 1987). Even though the nominal effective exchange rate has been depreciating, the real effective exchange rate of the rupee has tended firm up over the period. The reason, as it is obvious, has been the higher rate of inflation within the country. We have already seen that the inflation rate in Kerala, measured in terms of the consumer price index, has been generally higher than the national average. Therefore, the adverse impact of the movements in the real effective exchange rate would have been more severe on the international exports of Kerala. The comparison of real effective exchange rates for the country as a whole and for the state taken separately, as presented in Fig.3, would help us prove the point.




**The Resource Movement Effect and Wages**

In the Dutch disease literature there are many studies which rule out or assume away the 'resource movement' effect. If the booming sector does not participate in the domestic factor markets, the resource movement effect would be non-existent[10]. Since the remittances boom is the direct result of migration of labour from the state, it would be unrealistic to rule out the 'resource movement effect'. But, as noted earlier, the labour surplus nature of the regional economy makes the question of the 'resource movement effect' more complex. In an economy characterised by very high unemployment rates, given the received wisdom in this regard, migration of labour need not result in labour scarcity or higher wages. However, the prevalence of high unemployment rates in Kerala, as we shall try to show, does not appear to have precluded the outflow of migrants to have its effects felt on the supply of labour and wages in the regional economy. Krishnan (1991) lists several reasons to explain why in spite of rising unemployment the labourers in Kerala

refuse to work at wage rates lower than the prevailing one. The list of reasons cited include the perceived notions regarding the standard of living, social stigma on those who work for wages lower than the prevailing rates, unionisation, minimum wage legislation, and the constraints that the nature of work and the labour market institutions put on employers.

The period from 1973-74 to 1987-88, when the remittances to the state peaked, has been one of phenomenal increase in the wages rates. The money wages of almost all categories of workers, for which we have reliable time series data, have registered four to five fold increase during the period. The real wages got almost doubled across all the categories (Krishnan 1991, Baby 1996). The upward trend in the wages during the period is of special significance, because it has been marked by a long drawn out crisis in domestic production. In contrast, the rise in wages that the previous decade witnessed may be attributed to the relatively rapid expansion of domestic production in Kerala.

Apparently, the source of growth in wages was not the pressure of any expansion in domestic production. But, can we attribute the same to the large-scale migration of workers from the state? The available evidence provides some ground to establish the critical role played by the migration of labourers. The impact of migration on the domestic supply of labour was felt the most in the construction sector. This was so because, as many studies on migration had shown, the skilled construction workers constituted a substantial share of the migrant labourers from Kerala. The consequent scarcity of construction labour was further accentuated by the remittances induced construction boom (Harilal 1986). As a result the construction wages started moving up systematically. The tendency of wages to increase, however, was not confined to the construction sector. It soon spread to all the interrelated labour markets,

regardless of whether the factors that caused the original impulse in the construction sector were present or not in the other (interrelated) labour markets.

An analysis of the factors that define the wage relativity or the interdependence of the labour markets is beyond the scope of the present paper. Krishnan (1991), which observed remarkable stability in the wage relativity, offers a detailed analysis of and an explanation for the observed phenomenon. The following conclusions of the above study, which clearly bring out the line of causation that we wish to emphasise, are worth reproducing. "When the demand for labour rises in the construction sector due to an autonomous increase in investment in this sector it initiates an increase in the wage rates of construction labour. This increase begins with a rise in the wages of carpenters and masons. This is precisely what happened in Kerala when the construction boom was initiated by the remittance of earnings from the workers of Kerala origin in West Asia. This internal shift in demand for construction labour was further reinforced by the migration of construction labour, especially carpenters and masons, to West Asia. The initial rise in the wages of carpenters and masons was soon transmitted to the wage rates of unskilled labour in construction and in other interrelated labour markets through the operation of the parity norm".

The existing literature on the region's development cannot be blamed to have overlooked the adverse impact that the steep rise in wages had on domestic production. That the failure of productivity to keep pace with wages had adversely affected the growth of agricultural production in the state is well documented (Kannan and Pushpangadan 1990). Although the attempts to account for the industrial stagnation are more controversial, the high wage hypotheses continue to command respect (Albin 1990, Kannan 1998). A more clinching evidence in this

regard would be the widely noted migration of traditional industries to the neighbouring states (Oommen 1979). Incidentally, the overwhelming impact of the general increase in wages appears to have also given birth to what may be referred to as a labour/ wage centred hypothesis of the development crisis of the state (Kannan 1998). While the labour centred explanation of the development crisis, as we shall try to illustrate later, is fraught with difficulties, it serves to highlight the impact of the increase in wages.

The rise in wages must have adversely affected the competitiveness of the tradable sector more than the non-tradable, which by definition, are insulated from the threat of external competition. The adverse implications of the rise in wages for domestic producers of tradables could be made more clear by undertaking a comparison of the trends in wages of Kerala with her competitors. Keeping this objective in mind we have calculated a measure of wage relative (wage difference between the states as a proportion of wage in Tamil Nadu) between Kerala and Tamil Nadu. As the trends in the estimated indicator presented in Fig.3 show, the period since 1974 witnessed a worsening of the wage situation in Kerala vis-à-vis Tamil Nadu. This shows as to how the boom in the external sector, by raising the prices of factors of production, had drained the competitiveness of the tradable commodity producing sectors. With a view to subject the above proposition to further scrutiny we have estimated the following equation,

$$T = a + b\,W + e$$

Where T is the share of the tradable sector in the NSDP, W the measure of wage relative between Kerala and Tami Nadu, and e the error term. The estimated equation is presented below.

$$T = 59.98 - 0.05\ W \qquad R^2 = 0.47$$
$$(-4.14)$$

We find statistically significant negative relation between the wage relative and the share of tradable sector output in the NSDP.

As our discussion on the resource movement effect shows the consequent rise in wages would have adversely affected the sectors producing tradable commodities. But, the impact of the spending effect needs to be highlighted because it appears to throw light on one critical, but hitherto ignored factor that had definite adverse impact on the domestic production of tradable commodities, viz., the relative increase in the prices of non-tradables. It also serves to expose the limitations of the labour/wage centred explanations of the development crisis of the region. The adverse movements in prices were not limited to the wage rates. The prices of non-tradables in general had tended to move up vis-à-vis the tradables. The remittances boom is also known to have raised the land prices in Kerala (Prakash 1998) The labour/wage centred theories do not take into account the adverse consequences of the real appreciation, nor do they consider the effects of the rise in land prices. Another limitation of the labour/wage centred theories is their failure to make the crucial analytical distinction between tradables and non-tradable sectors. Incidentally, as the data show, the sectors producing non-tradables were not affected by the crisis that the regional economy witnessed since mid-1970s. The tendency to attribute the wage increases to labour militancy and trade unions is also questionable. The rise in wages was not confined to sectors characterised by high unionisation of workers. The construction industry, where the wage spiral is supposed to have begun, for instance, was one of the least unionised industries in 1970s. Even though, the role that the trade unions played in the determination of wages has been

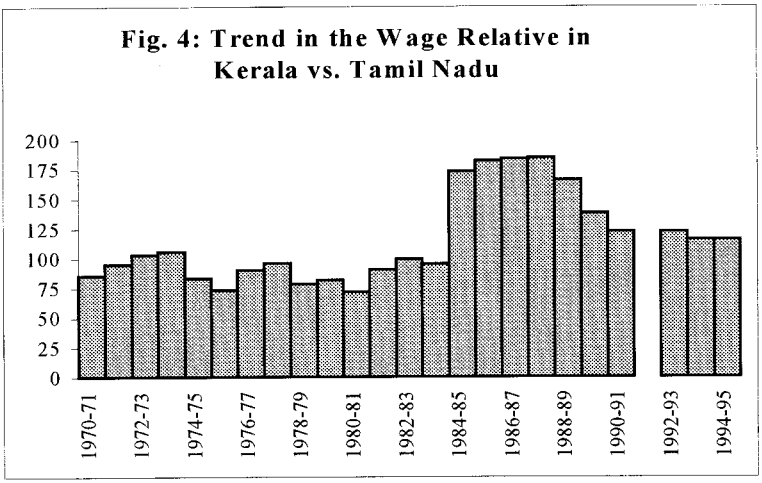
important, of no less significance has been the influence of migration and remittances.

**Signs of Revival**

We may now take up the signs of a possible revival in growth, which has generally been overlooked in the literature[11]. The trend growth rate in NSDP during 1987-97 is found to be more than three times that recorded during 1975-87. More importantly, the commodity producing sectors, especially, agriculture (Santhakumar and Nair 1999) and industry, which were under the grip of stagnation, have also revived significantly. Regarding the manufacturing sector we may quote from the Economic Review (1990)

> "The expansion in the number of small scale industrial units during the seventh five year plan period (1985-90), especially during the triennium ended 1989-90 was substantial. Out of the total number of 63,698 small scale units registered till the end of the seventh plan, 32,199 units constituting more than 50 per cent of the total number of units were registered during the seventh plan. Of these 23,356 (36.7%) units were registered during 1987-90 which is an all time record" (p.62).

The revival, which began in 1987, continued in the 1990s. According to the Economic Review (1998) the total number of small-scale industrial units registered in 1997-98 is as high as 19,000 as compared to 6000 in 1987-88. The signs of revival is further evident from the CMIE data on investment proposals. It may be noted that the recorded growth rate in the investment proposals during 1996-99 in Kerala was the highest among the states. More importantly, during 1996-99 Kerala accounted for as much as 10 per cent of total investment in the country (Joseph and Harilal 1999).




How to account for this revival? While the diagnostics on stagnation in the existing literature would not be of much help in explaining this revival, it is very well understood in the framework proposed in the present study. What appears to be happening is the beginning of a reversal of the process which was set in motion in the mid seventies. An attempt to account for the revival is beyond the scope of the present paper. Nevertheless, we would make the following tentative observations. There appears to have been a reversal, though weak, of the process of Dutch disease by around 1987. With a clear slow down in the inflow of remittances since the mid 1980's, there might have been a weakening of the resource movement effect. This is evident from Fig.4, wherein the wage disadvantage that the Kerala economy encountered vis-à-vis its immediate competitors have tended to slowly disappear. Moreover, the adverse impact of the spending effect and associated real appreciation would have been weakened by the national policy of continuous nominal and real depreciation of the rupee. However, a more important reason, that we wish to underline is the immunity that the regional economy had apparently developed to the Dutch disease

syndrome. The long drawn out crisis, it is only natural to expect, would have led to a process of natural selection, which favoured firms and industries that are capable of surviving the Dutch disease environment. It would have either eliminated or sidelined such firms and industries, which are more vulnerable to the problem of higher wages and higher prices of non-tradables. The above process of change has been facilitated interalia by certain institutional innovations in the labour market[12]. While an analysis of the above process of change in specialisation is yet to be undertaken, the direction of change is more or less clear. The traditional industries are slowly being phased out. Even in the surviving components of the traditional industries, the accent is on technological modernisation and product diversification. Modern industries and non-traditional economic activities are slowly gaining ground.

**Concluding Observations**

The study emphasises the importance of approaching the question of development (underdevelopment) of the region in the light of the role that the region has come to play in the national and the international division of labour. The existing literature treats the migration-remittances phenomenon as something, which has tended to moderate the influence of the crisis since mid-1970s. In sharp contrast, the present study attributes the crisis of the regional economy, especially of the goods producing sectors, to the migration-remittances boom. The effects of the boom identified in the Dutch disease literature, viz., the 'resource movement' and the 'spending' effects were found to have been triggered in the state by the migration -remittances boom. Our empirical analysis reveals the dampening effects that the 'resource movement' and the 'spending effects' have had on the goods producing sectors of the regional economy.

However, the framework of the Dutch disease model would not allow us to make any judgement on the net welfare implications of the migration-remittances boom. It is true that the boom had tended to drain the competitiveness of the tradable goods producing sectors. But, if anything, the non-tradable sectors appear to have only benefited from the boom. Further, it is quite possible that the growth in remittances income had more than compensated for the loss in income on account of the decline in domestic production. The data on consumer expenditure and savings, and the trends in the indicators of the standard of living, in fact, would suggest that the overall impact of the migration-remittances boom on the regional economy has been generally favourable. But, this does not belittle the importance of the conclusion of the present study that the boom has had a clear dampening effect on the goods producing sectors of the regional economy. The conclusion assumes special significance in the context of the question of sustainability of the development process.

The regional economy might have to continue to depend on migration and remittances for many years to come. But, it is important then that a search is on for policy alternatives that would help moderate the adverse effects of migration and remittances on the domestic goods producing sectors. Here, it may be reiterated that there are tested policy tools, which can be employed to counteract the adverse effects of the boom and also to compensate the tradable sectors for the losses they suffer. However, most of the policy tools widely employed to mitigate the Dutch disease syndrome, like the exchange rate policy, lie outside the purview of the state government.

The fact that the space for intervention at the state level is limited makes the question of policy choices at the state level more challenging. The widely prevalent attitude in the state of taking the Gulf boom as a

boon cannot at all be justified in the context of the findings of the present study. Even though it may sound tautological, one policy option for the state government would be to promote production of such tradables that are immune to the Dutch disease environment prevailing in the region. By industries immune to the environment of the Dutch disease we mean such industries, which can sustain their competitiveness in spite of the higher wages and relatively higher cost of non-tradables. Lower wages in traditional industries and lower cost of non-tradables cannot any more be the source of comparative advantage on which the state can hope to develop its domestic production sectors. The regional economy would have to search out and cultivate new and emerging sources of comparative advantage, which would not be weakened by the Dutch disease environment. We may wind up on a positive note that such an effort to re-define the region's role in the national and the international division of labour is already on. The turnaround in growth, which we have noted, in fact, can be attributed to such an effort to reorient the region's pattern of specialisation. The state policy, in our opinion, therefore, should aim at strengthening the above process of structural transformation of the regional economy.

**Notes**

1 Sen and Dreze, for instance, would attribute the gains of Kerala's unique pattern of development to what they refer to as public action. Interestingly, 'action', as used by them, is a catch-all concept, defined to encompass not only the action of mass organisations and mass movements against social, political and economic oppression but also the policy actions of governments (Ramachandran 1996). Thus, the Sen-Dreze description of the region's development experience would accommodate the findings of the most earlier studies on the region's development achievements.

2 As the cliché goes, the Malabar Coast was in the thick of long distance trade from time immemorial (Das Gupta 1967). Even though there is an extensive body of literature on the Indian Ocean trade, its influence on the regional economy in its various dimensions is yet to be studied in any detail. The colonial period witnessed a major process of structural change in the regional economy to orient itself to the requirements of production for the world market. The underdeveloped structures of production that figures prominently in the literature on Kerala model could be seen as a legacy of the incorporation of the region to the world-economy.

3 The stock of migrants from the state to the Gulf region is estimated to constitute around 5 to 8 per cent of the total workforce of the region (Isaac 1999). Measured as a proportion of organised sector employment in Kerala, the share of migrant workers in the Gulf countries alone would come to around 50 per cent. Further, the remittances from the migrant accounts for about 15 to 20 per cent of the state's income.

4 In its simplest form the specific factors model has the same structure as the HO model except that each sector has a specific factor. In a dynamic framework, specific factors can be allowed to be mobile thereby leading to an equilibrium tantamount to HO equilibrium in the long run (Neary 1978 and Mussa 1974). It is also shown that the specific-factors model may be a useful framework of analysis of the short-term phenomena as compared to the HO model. One of the attractive features of the model is that all its properties generalize straightforwardly to the case where the number of sectors is arbitrarily large, each one using a specific factor and drawing on the common pool of labour.

5 In actual world the resource movement effect and the spending effect operate simultaneously and hence it may be simplistic to consider the two effects separately.

6 For instance, the Indonesian government is known to have successfully used the policy of exchange rate devaluation and accumulation of budget surpluses for avoiding the Dutch disease that Indonesia otherwise might have suffered because of its oil bonanza (Usui Norio 1996).

7 The per capita consumer expenditure in Kerala was lower than the national average till the early seventies. As the data for 1983-84, 1986-87, and 1988-89 show, Kerala's position improved significantly since then to reach levels well above the national average (Isaac 1992).

8 According to the All India Debt and Investment Surveys, the average assets of rural households in Kerala in 1960-61 and 1970-71 were only around the national average. But, in 1980-81 the average assets of rural households in Kerala were more than

double than that of the national average. The rank order of Kerala in this regard had improved from 8 in 1970-71 to 2 in 1980-81. The rapid increase in the per capita bank deposits in Kerala may be cited to prove the growth in financial savings.

9 For a fairly detailed discussion on arguments for and against using CPI as a proxy of prices of non-tradables, see Pradhan 1992: 28-29

10 This is the case of many Dutch disease models of oil boom economies, which abstract from the resource movement effect, by considering the boom as an increase in transfers received from abroad (McKinnon 1976 and Van Wijnbergen 1984)

11 The revival of Kerala economy has been noted by a recent study by Ahluwalia (2000). According to the above study growth rate of Kerala's SDP (3.57 %), which was the lowest among the 14 major states selected for the analysis, has increased to 5.8 per cent during the 1990's and was found to be almost equal to average for all states.

12 For a detailed discussion of the changes in the strategies of mass organizations and trade unions see Patrick Heller (1996).

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