INFLATION IN INDIA

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"Free Enterprise was born with man and shall survive as long as man survives."

—A. D. Shroff
1899-1965
Founder-President,
Forum of Free Enterprise.

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Inflation has become a world phenomenon since the end of the Second World War. Even the communist countries are not free from it. Inflation has thus created a persistent danger to economic stability everywhere.

What is inflation? Most people understand by inflation a rapid and substantial increase in prices. This is *generally* correct, but not *always*. Thus, when the economy, after being in depression for a very long time, is moving towards revival, prices may be rising continuously. This is not inflation. Again there might be inflation but, due to controls and rationing, there may not be a rise in prices. Prices may be held down by force. If the forces of supply and demand are allowed to function, in an unfettered way, the prices will show a substantial increase. Thus, there may be inflation without any manifest price rise. This is "suppressed" inflation.

According to Mr. A. P. Lerner ("Essays in Economic Analysis"-1953 Edition, Page 329), a price rise must be unforeseen and uncorrected. Then alone can it be called "inflationary". If a price rise is anticipated then it can be counterbalanced by suitable changes in the rate of interest. Thus, if prices are expected to rise by two per cent *per annum*, then, if the rate of interest is raised by a little more than two per cent, there is no loss to anyone. Suppose, a creditor lends Rs. 100 for one year. With a constant price level, suppose further, that he charges interest at three per cent. Thus, at the end of the year, he will get Rs. 103 at

* This essay was awarded the first prize in the all-India competition for the public sponsored by the Forum of Free Enterprise. The author is a Professor of Economics in a College in Sholapur, and a frequent contributor of articles to the Indian Press.

constant prices. Now, with prices rising at two per cent, he should get not only Rs. 103 but two per cent more, that is a little over Rs. 105. If the rate of interest is raised in the meantime to a little over five per cent, there is no loss to him and no distortions in the economy.

So inflation means an unanticipated, unprovided, rapid and substantial increase in prices above their normal level, where there are no controls. When there are controls, inflation reveals itself in long queues, black markets, hoarding, etc.

Why does inflation occur? It occurs because the total demand for goods and services is in excess of their total supply. As imports are required to be ultimately paid with equivalent exports, it can be said that we as a nation can consume only what we produce. When we *attempt* to consume *more* than what we produce, there is inflation. It has to be noted here that we cannot in reality consume more than what we produce, as stated above. It cannot be, therefore, the *actual* consumption of services and goods in excess of their production, which causes inflation. It is our *attempt* to do so which is the villain of the piece. Thus, many developed countries with memories of the Great World Depression of 1929 fresh in their minds and under the influence of Keynes's theory of employment, attempted to implement policies of full employment. They tried to spend in excess of their resources. Welfare programmes were also chalked out and implemented, which added further to the already heavy spending. On the other hand, the underdeveloped countries, newly freed from the yoke of slavery, attempted to catch up with those with an early start in the economic sphere. They prepared blueprints of ambitious economic plans, in their efforts to do in five years what was done over many generations by the developed countries. They, therefore, tried to invest more than what they could afford and landed themselves in "Inflation". Thus, the malady soon captured practically the whole world, after the end of the Second World War.

How does inflation work itself out? Classical economists discussed this problem from a purely monetary point of view. According to them, the supply of money is the only cause of inflation. Thus, Prof. Fisher in his Quantity Theory of Money argued that if the quantity of money doubled, prices will also double. The latter economists admitted that the relation between the quantity of money and prices is not so exact. Critics of this theory point out that the experience of Germany after the First World War belies this theory. In Germany then, prices rose millions of times and supply of money actually lagged behind. At that time, German economy was shattered by the ravages of War. The Germans in particular had lost faith in their currency. They, therefore spent the money as soon as they earned it. The loss of faith in the Mark was so complete that workers demanded and got wages daily.

They spent it on their way home. Nobody took any money home. Hence, the velocity of money increased enormously. Fisher had specifically pointed out that, while calculating the supply of money, not only is the quantity of currency issued by the Government to be considered but its velocity too. The *effective* supply of money is, therefore, equal to the quantity of currency *multiplied* by its velocity. Thus, when the enormous increase in the velocity of the German Mark is considered along with the quantity of Marks issued by the German Government, it would *probably* explain the phenomenal rise in prices in Germany. One says *probably* because there is no way to measure this velocity of money *ex-ante*. It can be measured *ex-post*, by dividing the quantity of money by the index of price level, at the end of the year. But this would be a circular reasoning. Hence, "velocity of money" is generally neglected in such discussions.

Increase in the supply of money might be a major cause of inflation, but certainly it is not *the only* cause, as the classical theorists seemed to believe. When prices rise due to increased supply of money, it raises the cost of production of various goods all-round. First, the workers demand a higher wage as they find the maintenance of their usual standard

of living difficult due to a rise in the prices of consumer goods. So also the price of raw materials goes up. When the cost of production goes up, to maintain their usual margin of profit, entrepreneurs raise prices. In fact, entrepreneurs cannot now be satisfied with the usual margin of profit. A price rise hits them also. To maintain their standard of living, they need now higher money profits. Hence, the price rise is more than in proportion to the increase in the cost of production.

This means there is a fresh rise in prices, which leads to a fresh demand for rise in wages and the vicious circle moves all over again. Thus, a price rise in one sector affects prices in other sectors, which react again on the former and lead to a further price rise there, and the process becomes cumulative. Thus, when supply of money increases, it increases total demand and hence prices. This is known as demand-pull inflation. When cost of production rises and leads to a rise in prices, it is called cost-push inflation. There is a third type of inflation. It is known as administrative inflation. In oligopolistic economic units, prices are administered, that is, fixed independently of the factors of supply and demand, in a discretionary way. Here, the price rise takes place even though the supply of money and the cost of production remain unchanged.

Charles Schultze has supplied another theory of inflation. He assumes that prices and wages are flexible only upwards. In sectors where demand increases, prices increase. But prices do not fall in the sectors where demand falls, for prices are not flexible downwards, according to his assumption. This means that the general price level always tends to rise. It never falls. These are essentially purely monetary explanations. Economist Hayek pointed out that inflation is a symptom of disequilibrium in the economy. This disequilibrium is due to the disappointment of expectations. They result in *real* changes in production and consumption which are not anticipated and hence are not intended by the people who undergo them. Thus, workers are attracted by higher wages and they prefer to work hard to enjoying their leisure, in the hope of raising their standard of living.

If they would have been fully aware of the falling purchasing power of their wages, they would have perhaps behaved otherwise. Thus, in the words of Mr. Lerner, *people are induced to do things other than what they really intend.* (emphasis in original). These real changes constitute inflation according to Mr. Lerner.

In the light of the above theoretical discussion, let us consider the causes of inflation in India. As pointed out by Prof. Fisher, in his book "Inflation", "Supply and demand dictate each individual price relative to the price level; but money dictates the price level itself." As such, let us consider the supply of money in relation to the national income and its effects on the price level. This is done in Table I.

In a statistical study covering the period 1950-51 to 1960-61, Mr. K. N. C. Pillai of the Central Statistical Organisation has tried to establish the relationship between the variations in the quantity of money and the variations in prices, after adjusting the former to the increases in real national product. He found that the correlation coefficient of the proportion of money supply to real national income in a year to the wholesale price index of the succeeding year is as high as 0.92 (*vide*, "Money Supply as a Percentage of National Income in India" published in the *Monthly Abstract of Statistics*, *September*, 1960). It means that if increase in money supply is greater than the increase in real income, the prices will rise in the *following* year. The effect in the *same* year is also large. The concerned coefficient of correlation found out by Mr. Pillai is 0.70.

Let us now find out how the relationship between the money supply, real national income and prices has worked out in India in recent years. As pointed out by Mr. Pillai, prices in a given year are largely influenced by the changes in money supply and national income in the *previous* year. In 1965-66, money supply increased by 11 per cent, whereas the national income declined by 5.6 per cent. As a result of this, the wholesale prices should have increased by a maximum of 16.6 per cent. in 1966-67. Actually they went up by 13.9 per cent. This gives us a coefficient of correlation

Table I

Money Supply, National Income and Prices

Year	Money supply with public (Rs. crores)	%age rise over preceding year	National income at constant prices (Rs. crores)	%age rise over preceding year	Index of wholesale prices	%age rise over preceding year
1	2	3	4	5	6	7
		At 1948-49 prices			1939=100	
1951-52	1,804	—	9,100	—	378·2	—
1952-53	1,765	—2·2	9,460	4·0	385·0	18·0
1953-54	1,794	1·7	10,030	6·8	396·8 1952-53=100 101·2	3·1
1954-55	1,921	7·1	10,280	2·5	89·6	—11·5
1955-56	2,220	15·5	10,480	2·0	99·2	10·7
1956-57	2,345	5·6	11,000	4·9	105·1	6·0
1957-58	2,417	3·1	10,890	—1·0	106·1	1·0
1958-59	2,530	4·7	11,650	6·9	112·1	5·7
1959-60	2,725	7·7	11,860	1·8	118·7	5·9
1960-61	2,869	5·5	12,750 At 1960-61 prices 13,308	7·5	127·5	7·4

Year	Money supply with public (Rs. crores)	%age rise over preceding year	National income at constant prices (Rs. crores)	%age rise over preceding year	Index of wholesale prices	%age rise over preceding year
1	2	3	4	5	6	7
1961-62	3,046	6·1	13,795	3·7	122·9	—3·6
1962-63	3,310	8·7	14,067	2·0	127·3 (1961-62=100 103·8)	3·6
1963-64	3,752	13·3	14,889	5·8	110·2	6·1
1964-65	4,080	8·9	15,945	7·1	122·3	11·0
1965-66	4,529	11·0	15,045	—5·6	131·6	7·6
1966-67	4,950	9·3	15,173	0·9	149·9	13·9
1967-68	5,350	8·1	16,586	9·7	167·3	11·5
1968-69	5,777	8·0	16,943	2·2	165·4	—1·1
1969-70	6,387	10·6	17,840+	5·3	171·6	3·7
1970-71	6,987+	9·4	18,482+	3·6	181·9	6·0

Note: + means provisional

Source: Annual Reports on "Currency and Finance" published by the Reserve Bank of India.

of 0.84, as against 0.92 as worked out by him. Probably, there was not sufficient time for the *full* impact of divergence between the money supply and national income to be felt by the prices. Hence, during the next year, the prices have seemingly risen by more than the *maximum* limit, which is equal to the difference between the increase in money supply and that in the national income.

Thus, in 1966-67, money supply increased by 9.3 per cent whereas the national income augmented by 0.9 per cent. The prices should have increased by a maximum of 8.4 per cent. Actually they have increased by 11.5 per cent, in 1967-68. As explained above, perhaps the backlog of impact of very wide divergence between the money supply and the national income (which was not fully revealed in 1966-67 prices for want of sufficient time) was felt in 1967-68 prices. In 1967-68, there was a reversal of the general trend. In that year, the increase in money supply (8.1 per cent) lagged behind that in the national income (9.7 per cent). On the basis of 1966-67 coefficient of correlation (0.84), the prices should have fallen by 1.3 per cent. Actually, they have declined by 1.1 per cent. This clearly establishes a *very close* relationship between the prices on the one hand and the divergence between the increase in money supply and that in national income, on the other. This does not mean that other factors could be overlooked. The extraordinary increase in population during the last two decades has increased the *real* demand—as against the *money* demand—in the economy and has contributed to the inflation. So also, velocity of money must have increased.

The data available to this author in respect of the income velocity of money in India are rather old. Still, it is worth noting. According to the International Financial Statistics, 1954, index of income velocity of money in India went up from 100 in 1945-46 to 180 in 1953-54. Since then, it must have gone up still further, contributing to the inflationary forces thereby. A very rapid increase in this index indicates distrust in money, which is a sure sign of inflation. Changes in the demand elasticities of different goods, and food pro-

duction and its availability are other factors which help the upward movement of the price level.

Still, in the theoretical discussion of inflation attention is generally concentrated on the money supply. This is because it is the most important single cause of inflation. Further, from the point of view of fiscal policy, it is the easiest weapon to handle. Government, through its budgetary operations, can manipulate the money supply to any extent desirable. In India, through deficit financing, the Government has increased the money supply enormously in the recent past. A balanced budget would go a long way to stabilise the price level and a surplus budget may actually help to bring it down. Theoretically, it is possible to argue that the inflationary gap between the increase in money supply and that in national income can be closed by a *sufficient* increase in production of *all* goods and services. However, this is found to be impossible in practice, even in highly developed countries. It is possible to increase production of *one* commodity or a *few* ones to the extent required. But it is not possible to increase production of all goods and services to the extent desired. In underdeveloped countries like India, it is impossible even to increase production of a few important commodities like foodgrains to the targeted extent, and that too *year after year*. Of course, there is nothing wrong in trying to close the inflationary gap by maximising production of all goods and services. But it is more practical, easy and hence a sensible policy to close the gap by allowing only a sufficient increase in money supply, sufficient to neutralise the expected and likely increase in the national income. Hence, the repeated emphasis on the strict control of money supply by the government.

Generally, it is believed—and correctly so—that the supply of money in an economy is increased by a government only through its budgetary operations. But in India, another subtle weapon—the public debt—is being used for the purpose. Table II below gives the details of the purchases of the Government of India Rupee Loan by the Reserve Bank:

Table II

Purchases of Rupee Loans by the Reserve Bank

(Rs. crores)

Details	1951	1963	1966	1968
1. Total Rupee Loans	1,438	2,841	3,116	3,417
2. Purchased by RBI	466	1,233	1,214	1,324
3. Proportion of 2 to 1 (Per cent)	32	43	39	39

Source: "Reserve Bank of India Bulletin": July 1969: P. 1 000

Thus, nearly one-third of the rupee loan is purchased by the Reserve Bank on its own account. How this procedure leads to an increase in money supply is clearly pointed out by the National Council of Applied Economic Research, New Delhi, in its publication, "Management of Public Debt in India" (p. 27) as under: "Taking the banking sector in isolation, an increase in money supply is caused by increases in monetary assets minus increases in non-monetary assets ..... In terms of monetary analysis deficit financing, as officially defined, causes an increase in money supply because through the issuance of *ad hoc* treasury bills, the monetary (or financial) assets of the RBI go up while reduction in the cash balances of the Government causes a decline in the non-monetary liabilities."

"For the same reason, when the Reserve Bank pays dated rupee securities of the Government, its assets go up. If the same amount is credited to the cash balances of the Government, the non-monetary liabilities of the Bank will rise by the same amount and the immediate effect on the money supply will be nil. But when the Government spends the money, the cash balances go down, causing reductions in the non-monetary liabilities of the Reserve Bank. Thus, the money supply will increase by the amount of government securities purchased by the Reserve Bank."

Further we find that as soon as the commercial banks and co-operative banks purchase government securities, their indebtedness to the Reserve Bank also goes up. Thus, the state co-operative banks held government securities of Rs. 35 crores in 1965-66, against Rs. 14 crores in 1955-56. Dnring the same period, their borrowing from the Reserve

Bank against these securities increased from Rs. 13 crores to Rs. 34 crores. It seems they obtain loans on old securities for buying new ones. The same is the case with commercial banks to some extent. This means that a certain proportion of these securities held by these banks is indirectly purchased by the Reserve Bank itself. This must also increase the money supply as stated above. However, exact information in this respect is not available.

Increase in national product does not *necessarily* mean that the *actual* supply of goods increases to the *same* extent. In the case of manufactured goods, this may be assumed to happen, as they are produced mainly for sale. But in poor countries like India, the people spend most of their income on food articles. Hence, the supply of foodgrains is more important. Here, it is noticed that the marketed surplus (i.e. the difference between production and consumption by the farmer himself) is not rising in proportion to the increase in production. Table III below shows the arrivals of two important food articles, rice and wheat, in certain selected markets in major producing States:

Table III

Arrivals of Rice and Wheat in Certain Selected Markets

Rice: (In million tonnes) Wheat: (In lakh tonnes)

Year	Rice			Wheat		
	Production	Arrival	%age of 3 to 2	Production	Arrival	%age of 6 to 5
1	2	3	4	5	6	7
					309 markets	
1963-64	36·4	19·6	54	97	9·9	12
1964-65	38·1	17·7	47	119	7·7	7
1965-66	30·7	12·9	42	104	9·4	9
1966-67	30·4	13·7	45	114	7·7	7
1967-68	37·6	16·1	43	165	8·6	5
					317 markets	
1968-69	39·7	17·3	44	186	18·2	10
1969-70	41·0+	19·3+	47	195+	18·1+	10

Note: + means provisional
Source: Various issues of the "Agricultural Situation in India"

Thus, even though the production of rice and wheat is increasing, the marketed surplus is not increasing, indeed, it is slowly falling, rising and again falling, (*vide* col. 4 and 7). It sems that with the rising prices of foodgrains, the purchasing power in the hands of the farmer is increasing, inducing him to consume more foodgrains. When this income effect is taken into account, we shall have to conclude that the *actual* inflationary gap must be wider than what it appears on the basis of the data presented in table I above. The farmer must be induced to spend more of his income on manufactured goods. For this, in Latin American countries, the governments have started new fancy shops in villages. Factory goods in attractive packings are displayed there. Farmers are induced to sell more foodgrains in order to find funds to buy these goods, thereby augmenting the marketed surplus and narrowing down the inflationary gap. It is, in this sense, said that the future of the industry in under-developed countries is in the rural areas, where vast untapped markets are awaiting to be exploited.

Does taxation lead to inflation? *Theoretically*, it does not and it cannot. Impact of direct and indirect taxes on the price level is different. Hence, let us consider them separately. Direct taxes like income-tax, super tax reduce the income available to the individual for spending and saving. Individual will make good this loss by reducing some of his consumption expenditure and some of his saving. To the extent to which consumption expenditure is reduced, direct taxes would be disinflationary. That is why during the boom period of the trade cycle, a steep increase in direct taxes is recommended by the economists. On the other hand, during the depressionary phase, a reduction in direct taxes is suggested, in order to increase the consumption expenditure in the economy to facilitate recovery from depression.

What would be the effects of some reduction in private savings? To this extent, the total private investment in the economy would decline, leading to a fall in production of the private sector. This would feed the forces of inflation. But some of the tax-revenue would be invested by the

government. This would increase the supply of goods and services emanating from the Public Sector. In India, the Government has invested Rs. 3,033 crores in the public sector during the last two decades. Further, an amount of Rs. 200 crores has been supplied to the government and semi-government financial institutions for assisting large, medium and small-scale industries in the private sector. Some of the investment must have come from direct taxes. Hence, the fall in production in the private sector would be cancelled out by a rise in Public Sector production, leaving only a marginal effect on the general price level. Had the Public Sector utilised this huge investment efficiently and shown good profits, the above argument would have been invested with much greater force.

We may assume that that part of the above investment which was obtained through the direct taxes, would have been used with greater efficiency by the private sector. Even then, the increase in total production which would have followed it, would have formed only a very small percentage of our national income. Hence, the inefficiency of the Public Sector might have helped the general price level to rise by only a small margin as a result of a slight fall in total production. Thus, the effect of fall in consumption expenditure is certainly to lower prices. That of a fall in savings is doubtful. On the whole the direct taxes in India must have caused a fall in prices.

If there would have been no indirect taxes, various goods and services would have been sold at their factor cost. As a result of indirect taxes, their market prices would rise by the amount of such taxes. In 1967-68, net national product at factor cost was Rs. 27,922 crores. Total indirect taxes levied by the Central and the State Governments amounted to Rs. 2,763 crores. Hence, the net national product *at market price* stood at Rs. 30,685 crores. It means that as a result of indirect taxes, market prices are higher by 10 per cent than what they would have been. It must

be remembered that this 10 per cent increase in prices is the result of indirect taxes levied during many generations of public finance. During the *last two decades alone* (1951-52 to 1970-71), the general price level has risen by over 700 per cent, as will be seen from table I. Compared to it, this 10 per cent increase in prices owing to the indirect taxes must be said to be negligible, particularly when we remember that this 10 per cent increase has taken place during the *last few decades* of indirect taxation. Further, as a result of an indirect tax, the price of the commodity should rise only *once*. There is no need for a *cumulative* rise in prices, as implied by the term "Inflation."

According to Prof. Colin Clark, taxation has to exceed 25 per cent of the national income (or 20 per cent or less in certain countries), in order that it should prove inflationary. Let us apply this text to India. I have chosen the year 1967-68 above, as well as for this test deliberately. A recent year could have been chosen, but the data pertaining to any recent year would essentially be *provisional*. It may be subjected to large changes when the final accounts are prepared. In order that such changes should not vitiate our conclusion, an earlier year is chosen.

In 1967-68, the total amount of taxation was as under: 1. Direct taxes levied by the Centre and the States: Rs. 668.11 crores. 2. Indirect taxes levied by the Centre and the States: Rs. 2,763.39 crores. 3. Deficit financing, which is an indirect taxation, by the Centre and the States: Rs. 244.49 crores. 4. Rupee loan purchased by the R.B.I. on its *own account*: Rs. 1,258.1 crores. As seen above, it increases the total money supply and is back-door deficit financing. 5. Overdrafts by the States: Rs. 295 crores. These overdrafts also amount to backdoor deficit financing. Total: Rs. 5,229.09 crores. In 1967-68, the national income was Rs. 27,972 crores. So taxation amounts to 18.7 per cent of the national income. We have neglected 1. taxation by local bodies, 2. Rupee loan purchased by the commercial

banks and co-operative banks with R.B.I. money indirectly, 3. deficit financing by the centrally administered regions. They are neglected as information thereon is not readily available.

Thus, total taxation in India in 1967-68 was *below* the *minimum* limit (20 per cent) set out by Colin Clark. Since then some additional taxes have been levied. But along with them, the national income has also gone up. So the present situation need not be radically different from that in 1967-68. Hence, the *present* level of taxation in India cannot be said to be inflationary. However, it must be remembered that the scope for further increase in taxation is quite *limited.*

When wages rise faster than the increase in productivity, there is cost-push inflation. However, data regarding the improvement in productivity are not readily available. Still, from December, 1970 issue of the "Indian Labour Journal", it is seen that the general productivity of workers in coal mines increased by 33 per cent from 0.48 tonne's output per mansnift in 1961 to 0.64 tonne in 1968. During the same period, the *per capita* annual earnings rose by 61.5 per cent from Rs. 1,540 to Rs. 2,499. This data refer to all manufacturing industries. In coal mines, the earnings were the highest at Rs. 3,100 in 1968. Hence, in coal mines at least, the wages have risen much faster than the increase in the productivity. More or less the same must be the case with the workers in other industries. In fairness to the workers, we should remember that this increase in money wages has been *more than neutralised* by the rise in prices, with the result, their real earnings have *fallen* by about eight per cent during this period. All the same, *money* cost of production has increased and led to cost-push inflation.

There is not much of monopoly in any real sense in India at present. Hence, administrative inflation of the type found in the U.S.A., must be said to be absent in India.

These causes of inflation in India suggest their own remedies. In brief they are 1. a *surplus* budget, 2. a public debt policy which mobilises the *true* savings in the society, 3. steps to induce a larger marketed surplus, 4. check on any further increase in taxation, and 5. steps to improve rapidly the general productivity of workers. A concerted attack along these lines would destroy the demon of inflation.

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—Eugene Black

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