Enhancing Industrial Policy Effectiveness: A Supply-side Approach

*Virupaksham Kumaraswamy

ABSTRACT

Governments in Indian , both at the Centre and States, have been pursuing various industrial promotion policies sincerely 1950s, with the avowed objectives of balanced regional development, enhanced domestic production for conservation of foreign exchange, promotion of employment etc. Incentives of various kinds, like tax rebates, development of infrastructure, interest rebates, besides cash subsidies and pay outs have been deployed towards these ends. The effect of many of these have been less than optimal and the contribution of Industries to the country's Gross Domestic Product (GDP) has plateaued at 15 percent - way less than what other developing economies have been able to achieve. This paper looks at ways to improve the efficacy of these policies and target them better for enhanced results.

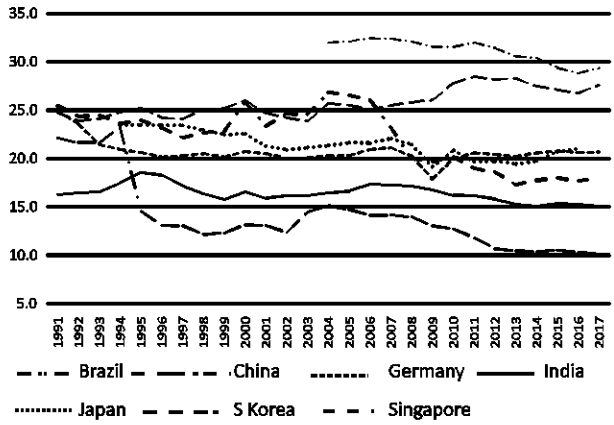
Key words: Industrial Policies, Manufacturing GDP, Cost Competitiveness, MSME promotion, Mega Projects.

1. Introduction

Indian reforms have been a relative failure where it concerns creation of employment, and, if things continue as they have been in the last three decades since reforms, it is bound to increase the inequality and which will result in its inevitable adverse consequences.

India badly needs to create jobs in the manufacturing sector to absorb the ever increasing output of its tertiary and professional education. Most advanced economies today graduated from Agriculture to Manufacturing before growing their services sector. The share of manufacturing in GDP grew to about 25-30 percent before it yield edits place to the services sector and started declining over time. However, Indian manufacturing reached a maximum of 18.6% in 1995-96 before declining to about 15 percent over the last few years. From Graph 1 it is clear that India has prematurely aged and peaked far earlier than the other countries.

Graph 1: Share of Manufacturing in GDP (%)



Part of this can be attributed to the spectacular growth of service sector especially in IT and Telecom sectors in India. However, with these sectors showing fatigue and slowing down, we need to rev up our manufacturing sector to be a more robust source of both growth and employment. India's premature trade openness, high real interest rates - as compared to other emerging economies, poor manufacturing terms of trade, -lack of robust infrastructure, unreasonable forex rates - as measured by its real effective exchange rates (REER) are some of the oft-repeated reasons. One lesser examined but by no means insignificant reason is its choice of industrial policies and its effectiveness.

Typically, as income grows, people start consuming mostly manufactured goods and real estate products before graduating to services like travel, transport, accounting, higher healthcare and education. It is better to use this natural order of things to set up related industries for generation of employment. Employment in the Manufacturing sector, especially at the lower end involves repetitive physical work for which the labour force can be trained with comparatively lesser training than services which are more interactive and dynamic. Thus from both demand and supply side, manufacturing is the more natural extension to agricultural stage than services. The rare exception from demand side is communication as exemplified by the quick spread of telecom services in India.

This paper presents a framework for design of industrial incentives and offers suggestions for enhancing the effectiveness of various schemes under operation in the various states of India.

*CFO, Head Strategy, JK Paper, India

2. Objectives and Types of Incentives

Subsidies can be aimed at (i) promoting employment, (ii) enhancing Gross Value Added (GVA), investments and achieving higher market share for the state in each product or segment, or (iii) more regionally balanced development, (iv) clean/green development, etc. Each State or Government should decide what their central aim of the giveaway is and tailor their package accordingly.

Industrial incentives and subsidies can be classified into one of the following three major categories:

Type 1: Incentives to improve cost competitiveness.

Usually these should result in reduction of variable costs of units. Reduction of power tariff, water charges, electricity duty, input or output taxes linked to output would come under this category.

These should ideally be continuous in nature and not discontinued. Withdrawal of any incentive of this nature will dilute the competitiveness and lead to potential sickness of the units, unless the supply price of these inputs come down sharply by themselves.

An alternative is to impose tariffs for those goods which are coming into the country or territory under reference. This would create disadvantages for them and hence place the 'domestic[1]' units at an advantage.

Type 2:Incentives to increase Returns of Capital Employed (ROCEs) or Reduce Cost of Capital.

Investment allowances, interest subsidies, 'Collect, Keep and Pay' type of sales tax incentives, belong to this category. Incentives for employing labour or any items of fixed capital, reimbursement of initial establishment costs, accelerated write offs and weighted deductions in tax for specified expenditures will also largely fall under this category

These do enhance the cost competitiveness. If these are offered, the logic should be clear - like backward region development, industry which has high employment potential, or industries which the incentive giver wants to develop in precedence to others (like waste treatment, Swatch Bharat programmes, pollution control, etc.).

It should be borne in mind that if the unit's variable cost is high (percentage wise and in relation to others) and is not addressed, the unit will sooner or later become sick, whatever the investment subsidies given.

Governments should also focus on bringing down the project overrun times caused by its lengthy and bureaucratic procedures which increase initial capital (interest during construction). Currently, project cost overruns alone dilute the ROCEs by about 2-2.5% in India - a horrendous waste for a country starved of capital.

Type 3: Reduction of Probable Costs of Entry and Exit (PCE)

The cost of probable entry/exit weighs heavily on the minds of every budding entrepreneur (more so the first timers and MSMEs) while starting any enterprise. This will include the loss on sale of unit, labour retrenchment, various pre-operative costs incurred to set up the unit, etc.

Due to poor infrastructure and lack of a developed market for re-sale of assets, irrational bankruptcy and sick unit revival laws, PCE is likely to be the highest in India.

Besides development of infrastructure, government should work on reducing 'probable exit costs' in the following areas -

i. Duties levied on transfer of land; such duties should be exempted for at least ten years from start up.

ii. Retrenchment compensation payable, especially by MSMEs.

iii. Development of operating lease industry (which will enable MSMEs to hire the assets till the business stabilizes and buy later if the business succeeds). Waiver of taxes on lease charges for start-up MSMEs should be waived for the initial five years.

Type 1 incentives affect the short run supply position whereas Type 2 incentives play on the long run marginal cost curves. Type 3 incentives work more on the psychological factors and risk perceptions besides hard infrastructure. It is aimed more at first time entrepreneurs, new entrants into the market / territory or overseas investors who may have their own fears in an unknown market, or MSMEs who may not want to spread their resources thin and risk their livelihood.

To summarise, Type 1 incentives reduce Input costs for the eligible units (or increase it for the excluded or non-eligible units), Type 2 incentives deal with Investments and Type 3 incentives deal with Infrastructure (both soft and hard).

3. Design of Industrial Incentives - A Conceptual Framework.

Industrial incentives are by nature supply side interventions unlike fertiliser subsidies, PDS subsidies, food security

subsidies, low cost medical services, etc. which are aimed at boosting demand. It is therefore necessary to understand the construction of the supply curve and which of the suppliers gets to serve the market to survive and which enterprises are likely to fail. Such an understanding is essential for effective design of policies and structures so that the intended objectives are achieved.

The Typical Supply Curve and 'Demand-Supply' balance

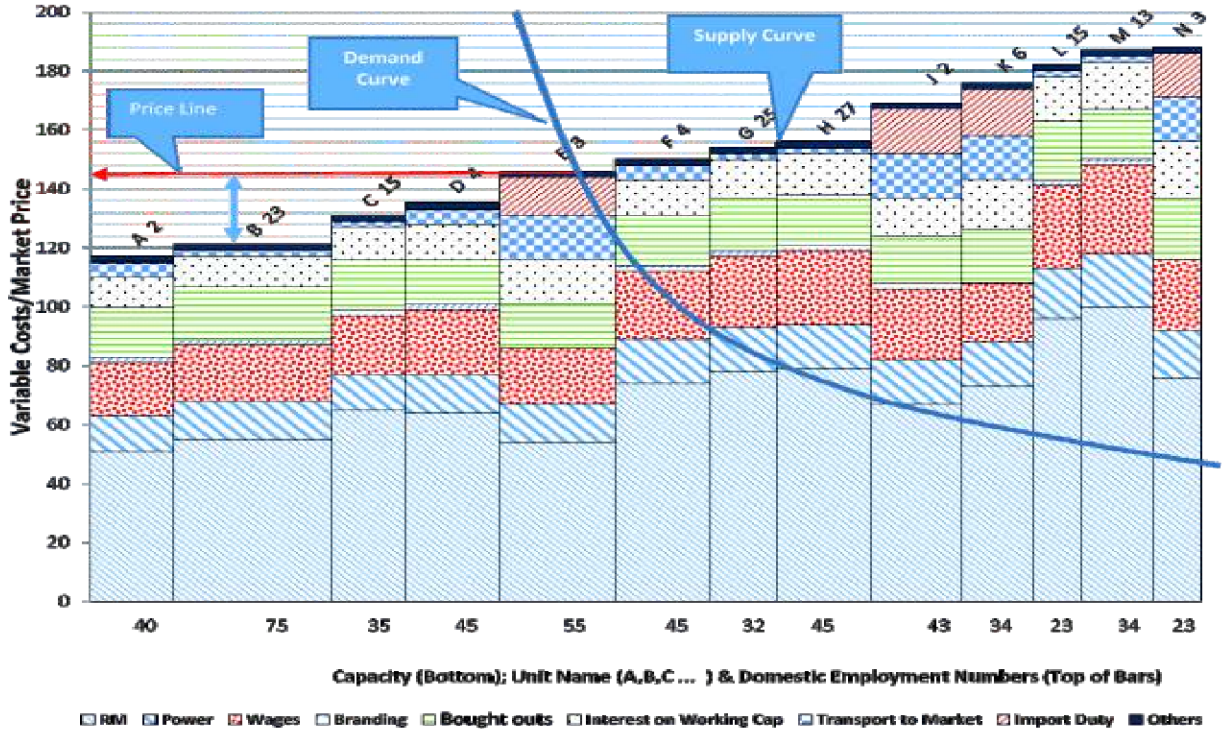
Graph 2 illustrates the Supply Curve of a commodity product which can be freely moved across the country or imported by paying import duties. The various vertical bars refer to various units operating in the industry. Units are named 'A, B, C…' for convenience of reference at the top of the bar with their 'domestic' employment.

Units named 'B, C, G, H, L & M' are 'domestic' units and exhibit a higher domestic employment. Units 'E, J, K& N' are overseas units and hence exhibit low domestic employment. Units 'A, D & F are units within the country but outside the geographical or reference area for which the incentives are designed.

The various items of costs are stacked to arrive at the total variable cost (TVC) shown on the Y axis. The Units are arranged from left to right in increasing order of variable cost. The Unit on the leftmost has the least variable cost in the industry (ignoring fixed capital interest, depreciation and fixed costs) and is the most cost competitive in the short run. It will be the last one to die should the industry get into trouble or is on the decline or faces some temporary disturbance. The Units on the extreme right are the least efficient and perhaps do not participate in the market.

The width of bars represents the capacity of the individual units (e.g. Unit A has 40 units of capacity). The domestic employment potential is indicated on top of bars with the Unit names. Please note 'domestic#' means the state or area (like SEZ) under reference or country for which the policy is being framed. It is to be noted that the employment potential is not in proportion to the capacities mentioned along the X axis. Even those which are import into the territory employ some people in packing, redistribution, collection and liaison but the total of such value addition and employment will in no case be equal if the item were to be manufactured within the domestic area. Import duties are shown only for those units located outside the country (i.e Units E, J, K & N).

Graph 2: Supply Curve and Determination of Competitive Units.



 # Domestic Units refer to those units located within the geographical area for which the industrial policies apply. Those outside may be overseas units or external units which are located outside the geographical area or not entitled to subsidies and incentives due to non fulfilment of designated criteria even if located within.

The thick black ridge line at the top of bars constitute the Supply curve of the commodity in the market. It indicates the competitiveness of who can supply the market and who will get left out. It will be decided on "demand" for the product concerned. The demand line has been superimposed on the supply curve. The interplay of 'demand-supply' curves for this product has the following data points at equilibrium:

Likely supply Price: Rs 145.

Quantities Sold and Bought: 231

Units that managed to sell: B & C (Domestic Units) and 'External' Units A, D & E (partially).

Employment by 'Domestic' Units + employment in 'domestic' area by 'External' units for distribution: 47 (i.e. 38 by Units B & C and 9 by Units A, D & E)

Units F to N are non-competitive in this market and may have to seek better options or close down or if they are overseas suppliers seek better markets elsewhere. The vertical distance between a unit's total variable cost and the price line (as illustrated by the arrow line (over Unit B) represents the margin available for covering fixed costs like Depreciation, fixed capital interest and fixed costs. If this is sufficient, the Unit will survive in the long term; otherwise it might slowly trudge towards closure, even if they are competitive in the short term. To elaborate, while Units A to E are currently competitive, their fixed cost structure will determine whether they will survive in the long term and the order in which they may fold up in a free market will depend on the total costs including the fixed costs and debt service costs.

3.1 Designing and Targeting better Type 1 and 2 Incentives.

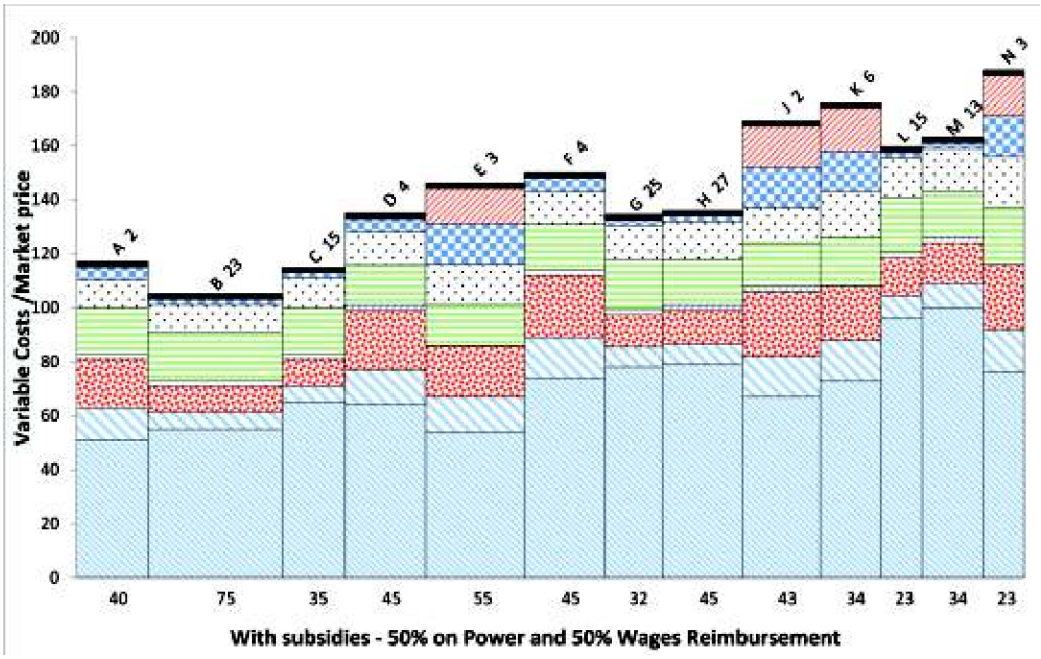
How do Type 1 and 2 incentives work - An Illustration

Every incentive is designed to create an impact on employment, greater market shares or higher Gross Value Added for 'domestic' units, export promotion and higher tax revenues etc. Some measures can also affect in conflicting ways - a measure that offers better prices may adversely impact environment or domestic employment, a measure which promotes employment may affect governments revenues steeply and thus put limitations on its ability to support such an initiative, lesser consumer prices quite often lead to loss of tax revenues, etc. There can be several such combinations.

Both Type 1 and 2 incentives alter the cost structure of eligible units and the rank order of competitiveness of various units in the industry. Units in 'domestic' area will become more competitive and hence garner a greater market share in the target market - exports (if the incentives are export oriented) or domestic.

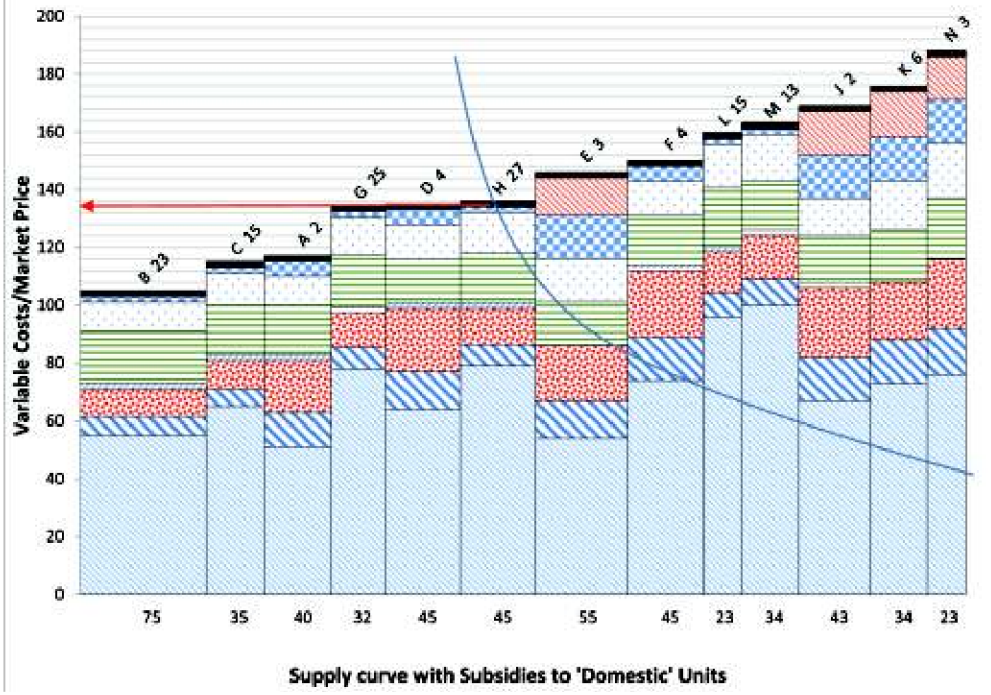
Graph 3 and 4 illustrate the effect of a 50% reduction in power tariffs and a 50% reimbursement of wages to units in the 'domestic' area (where subsidies are targeted) - both being examples of Type 1 incentive. Recall that Units B, C, G, H, L and M are the units situated within the state or SEZ which is designing the incentive (domestic area). Both the graphs are based on the same notations and demand curve as in Graph 2.

Graph 3: Effect of Subsidies on Cost structure of 'Domestic' Units



The incentives (50% reduction and reimbursement) bring down the cost of these elements (power and wages) and thus bring down the total variable cost of 'domestic' units. This disturbs the order of cost competitiveness as can be seen from units B &C, G & H, L & M, which have lower costs than units to their left.

Graph 4: Supply Curve with Subsidies



The interplay between Demand Supply curves have the following data points before (as in Graph 2) and after (as in Graph 4).

Table 1: Interplay between Demand and Supply Curves Before and After

Metrics	Before (Graph 2)	After (Graph 4)
Market price (Rs/Qty)	145	135
Quantities bought and sold	231	239
Domestic Employment	47	70
Units that will be competitive	A to E	B,C,A,G,D &H Unit E making way for Units G & H ahead of Unit F.
Import Duty income to Govt.	468 (duty paid by Unit E on its limited supplies)	Nil (since no imports are taking place)
Expenses on Subsidies on power & wages	Nil	Rs 58
Cost of Intervention	The price reduction 6.9%, Quantity increase is 3.5% but the employment increase is 48.9% - a significant increase. This increase has come at the expense of loss of import duties collected and cost of incentives of Rs 526 for 23 jobs. The Government has to weigh if this is the most effective way to incentivise.	

Targeting Type 1 and 2 incentives better.

Most incentives of the Union and State Government are general purpose tax incentives, direct tax incentives like higher depreciation, lower taxes in the initial years, export /infra sector exemption of profits, sales tax remissions (collect, keep and pay) or lower VAT, etc. Sometimes it is for backward areas or regions. These are sector agnostic, product agnostic, and are neither linked to competitiveness or employment creation potential.

Graph 5 builds on the supply curve examined in Graph 2 (all notations remaining same) and explores some ground rules for success of specific policies under various circumstances. For ease of reference the units are placed in three zones. Let's see the effectiveness of various policies in each of these zones.

Industrial incentives should focus on moving 'domestic' Units to the left of where they are in the graph and become more competitive in the relevant markets. If it is export incentives, the domestic units should become more competitive and should have variable cost structures which are less than the market price. *Unless incentives are sufficient to move the incentivised units to move left far enough and be left of where demand line meets supply line, the incentive policies may not achieve the end purpose for which they are announced or offered.*

As a rule, industrial incentive would be most effective if targeted on units that are in Zone 2. Zone 1 units are already competitive and incentives to them will be like awarding grace marks to people who are already scoring 100%. Zone 3 candidates may not become competitive even after availing themselves of the incentives much of which will go waste. Incentives should largely focus on Zone 2 units, as will be explained in the following paragraphs.

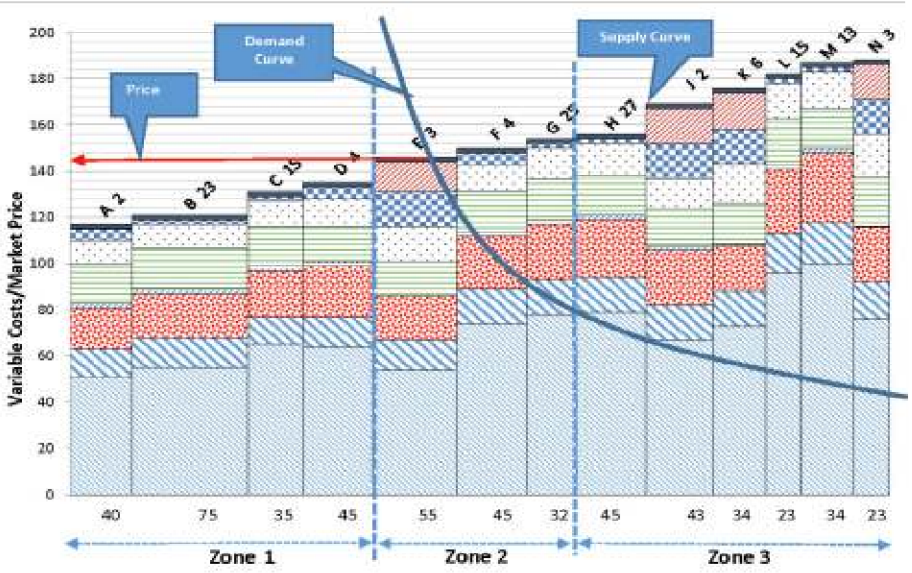
Effectiveness of Incentives to Zone 1 Units.

Any incentives in the nature of reduction of costs (Type 1 as described earlier), will only make Units in zones 1 more profitable. They are likely to be operating at 100% capacity utilization already and is unlikely to create any additional employment or GVA within the state or SEZ or country which is offering incentive. It will just be transfer of money from Government to private players. This would be one of the most wasteful of Type 1 incentives.

However, Zone 1 units must be competitive due to some unique technology, nearness to markets, availability of some cheap raw material, location advantages, etc. If these are sustainable, they can perhaps expand their activities by setting up new capacities. If any Type 1 incentives are offered to these units, it must purely be with conditions like pre-specified percentage increase in additional capacities, or increase in exports, increase in employment, etc.

Type 2 incentives for Zone 1 units: Type 2 incentives work in almost similar ways to Type 1 incentives. The main difference is they work on long run cost curves instead of Type 1 incentives which work through items of costs which are part of variable costs. Type 2 should be offered after a careful analysis of various elements of fixed costs and capital-output ratio and the total cost structures which is

Graph 5: Potential of incentives on units in various levels of cost competitiveness



Capacity (Bottom); Unit Name (A,B,C ...) & Domestic Employment Numbers (Top of Bars)

inclusive of these. If the units consume high amount of capital, then either reducing the cost of capital by reduction of interest rates or subsidies or giving tax offsets and holidays may be required so that their net after tax returns are sufficient to prod them to expand. But in most state and central industrial subsidies, the rate of subsidy on interest is too miniscule as to be not of much relevance. Again they come with caps like Rs 1 cr or Rs 50 lacs, even if proposed investments are Rs 500 or Rs 1000 crores. These caps and quantum become completely meaningless and irrelevant.

Effectiveness of Incentives to Zone 2 Units.

Zone 2 units are the most likely to make a significant difference to the success of the industrial policy interventions. Since they are within a striking distance to match their costs with market prices, any incentive will make a difference and make them move left especially if there is a lot of supply from external sources (imports or from other regions). If all the units around the equilibrium point where demand meets supply are 'domestic' the industrial policy proposal may not achieve any significant purpose like creation of employment, additional GVAs or revenues for the government.

Zone 2 units will generally have the lowest cost of intervention and yield the maximum benefits for a given level of government spend on Type 1 incentives. The host government would also need to work on Type 2 incentives to make such units make an acceptable Return on Capital Employed (ROCE), without which Type 1 incentives may sometimes fail.

Caveat: As argued earlier, the quantum of incentives should be carefully calibrated. If excessive (for political reasons or otherwise), Type 1 incentives will increase supplies so much that the market prices will fall down putting at risk even those units which were profitable before incentives and subsidies. This phenomenon is being observed in agricultural commodities where an excessive dosage of incentives and free supplies like electricity and water have increased production so much that the market prices have crashed and without government support, most produce sell at un-remunerative distress prices. This is one of the main reasons for the current agrarian crisis.

Incentives to Zone 3 Units

Incentives to Zone 3 units would be largely ineffective and the cost of intervention would be the highest without any corresponding impact. The Government should rather not waste its precious resources in supporting units in this zone. They might lock up scarce capital and crowd out units in other industries which are in Zone 2. The Government should ideally re-allocate resources to Zone 2 units in other industries within the geographical area. Alternatively, if employment creation is the objective, it might transfer resources as unemployment allowance or pension or such direct transfers to the intended beneficiaries.

From balanced regional development to derive comparative advantage

One of the key objectives of our policies over the last seven decades has been balanced regional development. While balanced regional development is a desirable objective, every region has its strengths and handicaps - they differ in soil fertility, rainfall, natural resource endowments, and current population density. All these have a bearing on their cost competitiveness.

Increasingly as trade opens up, the only principle that will hold is 'the least cost to supply to the customer at his doorstep' would win the game. This cost - competitiveness and comparative - advantage should be the theme around which development strategy at all levels (be it district, SEZ, country) should be built, de-bunking the current balanced regional development objectives. Backward areas would also have their comparative advantage which they need to find and concentrate with or without subsidies and incentives. Without some relative advantage after subsidies and incentives, most regions will fail to stay competitive.

It would require that the states conduct periodic review of the competitiveness of each cluster, district, product, together with initiatives on strategies to improve the competitiveness. The better the competitiveness, the greater the chances of survival, the higher the returns to capital employed, and the higher the market share. Skewed regional growth is thus inevitable for the reasons cited above and best left as it is. Correction of these may be an economically unproductive exercise.

3.2 Steps to make Type 3 Incentives work better.

Type 3 incentives require a different approach than Type 1 and 2. It is more focused at soft and hard infrastructure that lie outside the control of the players in the industry yet affecting them and involves capacity building, dealing with psychological factors all aimed at reducing risks and costs of exits or reducing entry barriers. Generally, an established business house or a large player will need them a lot less. Some measures which are aimed in the direction are discussed in the subsequent sections.

3.2.1 From 'Invest and use' to 'pay and use'.

One of the impediments in investing and in capital productivity is the locking up of fungible resources in specific uses resulting in rigidity and attendant risks. Many components of the capital investments are capable of being used across sectors, industries and units. Examples are land, buildings (with suitable modifications), labour of various grades involved in construction, maintenance,

operations, and vehicles, information processing equipment, etc. If one need not invest in such resources, but shift to a 'pay and use' model it would bring down the size of the investment considerably, although the running costs would go up. This would alter the opex and capex costs. Ideally a start-up would be looking for more of opex and less of capex. It is only when the enterprises succeed that firms would be more comfortable to convert opex into capex.

If the leasing industry had developed and contract enforcement had been effective, a thriving market would have developed for opex over capex choices. However, till such time Government should step into to play this role.

The Government can take out the burden by investing in land, buildings, vehicles, computers, effluent and water treatment plants (ETP and WTP), power plants, facility roads, warehouses, cold storages, electrical sub stations, etc. These can be leased out to starting enterprises with a minimum use /tenure clause and penalty for premature termination of contracts which should cover cost of restoration/modification agreed to, at the start - say ten to fifteen percent, if contract is cancelled within the first three years. This would fix the maximum risk faced by the industry and enable better planning and quantify the risks for the entrepreneur. The Government could also get third parties industrial infrastructure operators like IDFC, road developers, etc. to do it on a third party basis.

3.2.2 Better Ease of Doing Business (EODB) thorough continuous procedural improvement

Several states have already initiated measures towards easing conduct of business with some positive results. It can have some effect when compared to other states within India. But at the international regional level, India as a country is very much behind. Besides the state, the central procedures have also to be contended with, which come in the way of attaining EODB ranking at the global level.

Towards this end, the state and the centre should continuously work on further improving its procedures.

i. It requires a change in mind-set from controls, approvals and audit to action and from policing to facilitation.

ii. The Government at all levels needs to work on its systems (which are focussed on controls than on responding quickly to emerging opportunities) and procedures. A onetime re-training on cutting down on lead times, optimising procedures, re-examination of end use of various forms, approvals and procedures should be mandatory.

iii. Each department should be made to cut down on its forms (number and size) to half each successive year, cut down on its steps involved in any approvals to half, and depend upon information already submitted to any other department for at least half the information.

iv. Each officer should be made to submit a report at the time of annual appraisal suggestion regarding easing procedures which should be studied and implemented.

The Governments should move from approvals to policy based administration. Any project or venture should be made to file on line all the required information and periodically update them. Independent empanelled agencies can visit the site for onsite inspection, audit and agree on remedial plans which shall also be updated in the site for further monitoring.

Information technology alone is not the solution, if one does not work on the procedural bottlenecks and mind-set. Most of the policies need to be reviewed and control elements embedded therein should be eliminated or studied to improve its effectiveness and ease of implementation.

3.2.3 Taming high logistics cost

In India, the logistics cost constitutes 25% when compared to a global average of 15% for manufactured goods, if one reckons the logistics cost incurred on all inputs and outputs on each component of cost at successive stages. Logistics has emerged as a source of comparative advantage in the last half a century, with Japan being a shining example. A ten percent cost disadvantage that India has on top of low scales is far too much in international markets.

Within logistics costs, inventory holding costs account for 25%. Most of our inventory is related to uncertainties in supplies, long lead times in most processes, high variability in most stages of manufacturing, transportation time, etc. Training of MSMEs, industry staff on cutting down on lead times and inventory reduction systems like JITS, TQM, TPM, and others used in Japan, Korea, Taiwan, etc. may significantly bring down inventories. The levels of personal organisation, time discipline and delivering on obligations are poor amongst Indian students due to high tolerance levels amongst them due to uncertainties in their daily life. All technical courses like ITIs, Polytechniques, and Engineering should have courses on the above subjects on a compulsory basis.

Approximately 26 percent of cost is stated to be spent on warehousing and storage. Much of the inefficiencies arise due to the approach towards packing. The approach is not 'end to end' considering the next levels (till it reaches the end consumers), the ease of handling including benefits of mechanisation, intermediate storages and preservation in between. Handling in most intermediate stages is by hand using the basic and primitive tools.

Forty percent of the spending is in transportation. Just teaching and enforcing trucks and cars to drive on the right lanes on highways, proper ways to park, proper queuing at check posts and wherever jams build up by not crowding at the head, change of drivers at intervals of eight hours, removal of impediments on the highways by protruding objects from push cart vendors, local village markets, etc can alone improve the speeds on our highways by 50km/day from the current 250/300 per day.

The net incremental Gross Value Added (GVA) generated by trained staff is sure to yield enough indirect tax revenues for the government to cover the cost. In any case, such costs could be covered up with minimal changes in tax rates.

3.2.4 Developing Entrepreneurism

Entrepreneurship is at one basic level the psychic ability (say guts) of the entrepreneur to take risks. But a potential entrepreneur may be held back for lack of information at several levels, lack of knowledge about the various government procedures and risks of punishment for non-compliance, lack of information about markets, structural rigidities imposed especially relating to labour, experience, fear of loss if the venture fails, shutdown costs, aspiration traps, demonstration effect from others who have succeeded in their ventures, etc. Most of these are at the logical and commercial level which should also be addressed for at least one or two cycles or generations, before switching back to 'fiscal incentives and financial facilitation' based investment promotion.

A model of such analysis is largely contained in suggestions regarding MSMEs in section 5.1.

4. Evaluation of select Industrial Incentives of State Governments.

The state governments offer different incentives for promoting industries within their state. Many of them are directionless or too minor and incapable of bringing about any significant change in the competitiveness of industries. Most of them will likely benefit Zone 1 industries already in operation and unlikely to be of much help for units in Zone 2 or 3 of cost competitiveness. In the table below are listed some select incentives offered by specific states (Maharashtra, Punjab and Tamil Nadu) and evaluation of their likely impact.

Table 2: Evaluation of a few select incentives of state governments

Sl. No.	Incentives Offered	Evaluation
1	Reimbursement of 100% stamp duty and transfer duty paid by the industry on purchase of land meant for industrial use. Stamp duty will be reimbursed only one time on the land.	This is almost a standard text in most state policies for most categories of units. This is a Type 2 policy and is likely to bring down the cost of setting up the unit and hence increase ROCE. However, the rider of one time does not address the concern of exit costs, if the venture fails. For failing units, this should be done away with.
2	Fixed power cost reimbursement @ Re 1.00 per unit for a period of three/five years from the date of commencement of commercial production. In some states, it is Rs 0.50. Similarly, most states offer exemption from electricity duty which is Rs 0.25 to 0.50/Kwh.	If the power costs are a significant expenditure item, this Type 1 incentive can create an impact. But given that in most states the power tariff is Rs six per kilo watt hour (kwh), this would translate to 16 percent of power costs. If the power costs are five percent, it would mean 0.8 percent. By itself this quantum would achieve nothing. Again most such incentives come with three to five year time caps. How would the units retain cost competitiveness after the time cap is a crucial question not addressed by such incentives.
3	Reimbursement of 75 percent net VAT/CST/SGST for a period of five to seven years from the date of commencement of commercial production,capped at up to realization of 100% fixed capital investment	This Type 1 incentive has been offered in most states at 75% for medium and 50% for large units,limited to a specified percentage of capital invested or in some cases upto 100%. If the Value addition (Sales value less bought out raw material) is 40% and the SGST is 9% this will translate to a 3.6% incentive at 100% reimbursement level. This can prove adequate against competition from within the country, but may prove inadequate against imports from overseas.

4	Ten percent subsidy on cost of plant and machinery for specific cleaner production measures, limited to - 35lakhs for large industries, subject to certification by designated agency.	This Type 2 incentive has been offered to large units. While the objective is cleaner production, the monetary ceiling and ten percent is unlikely to have a behaviour changing investment inducing effect.
5	25% subsidy for sustainable green measures on total fixed capital investment of the project (excluding cost of land, land development, preliminary and pre-operative expenses and consultancy fees)	This Type 2 incentive is offered to large units by AP state. While the objective is green development, the monetary ceiling and ten percent is unlikely to have a behaviour changing effect.
6	Reimbursement of 75 percent of energy and water audit expenses subject to a ceiling of Rs one lakh and two lakh for large units.	For large units who will be able to bear such expenses it should rather be made mandatory than incentivized.
7	Additional support for Performance and Credit Rating Scheme of Ministry of MSME. Reimbursement of 25 percent of the fee, subject to maximum of Rs ten thousand.	The cost of administration, verification, approval and payment will be several times more than the incentive. The cost of claiming for the claimant unit will also be far more than the incentive limit.
8	General	Incentives in most states for stamp duty, power subsidy, electricity duty exemption, interest subsidy, etc. are across the board for all industries. Such Type 1 incentives will have negligible impact on most industries. These should be focused on industries which are in Zone 2 and hence likely to be impactful. Otherwise, it will only be a drain on states resources.
9	General	Most incentives have become copycat in nature. Incentives should be differentiated to have an impact. Undifferentiated incentives hardly create any competitive advantage whether they are Type 1 or Type 2 incentives.

5. The Special case of Micro, Small and Medium Enterprises (MSMEs) and Mega Projects.

China's economic story is, as one author put it 'the conquest by a billion paupers'[2]. Already the share of MSMEs in the GVA /GDP has gone up significantly in the last five years and they hold the right answers to many development issues. They make for lesser concentration of resources or wealth, defuse employment better over geographies, have higher employment/capital ratio, and serve to achieve a more socialistic pattern in society.

5.1 MSME Sector

Given below are some impediments to MSMEs and entrepreneurship and suggested remedies:

[2]*Old China's New Economy – The Conquest by a Billion Paupers* by T.K.Bhaumik., Sage Publications (2009)

Impeding forces	Suggestions
Lack of Knowledge about Government procedures	Government should publish its procedures in a comprehensive software form. It should be user friendly and if needed Government can licence individuals. Budding entrepreneurs should be able to follow the software or take authorised advice and be able to follow the procedures.
Lack of Knowledge of rules and regulations - risks of punishment for non-compliance	Government can bring out a software which will provide a check list of all compliance requirements (Many private companies have such lists now). A common list, the compliance of which will be deemed sufficient should be published by the Government.
Aspiration traps	Demonstration effect. Government should provide a platform for sharing of experiences periodically for sharing success stories. It should also have Government authorities or experts, who can offer remedial measures for those difficult cases or those who seek help. A website of success or failure stories should also be published with free access.
Labour rigidities	Enterprises of upto say 50 people should be exempt from labour laws for the first five years or so. No retrenchment compensation should be insisted upon. It can be an all cash (and nothing else) deal for the workers for the first specified number of years.
Shut down costs	Government can provide many of the infrastructure, office space, administration, connectivity, hardware and software, testing equipment and tool rooms, quality testing equipment, waste treatment facilities on plug and play method. It should also provide for training of staff.
Lack of Information about markets	If the enterprise fails, the individual should be able to pay a fixed penalty (say if the contract is cancelled within three years) and limit his losses. The recovered equipment can be re-used for other enterprises. Periodic surveys should be conducted by government and shared with budding entrepreneurs.
Market access	An Alibaba kind of market place should be sponsored by the state governments.
Long lead time to start business	Pay and use or plug and play model for infrastructure services so that the entrepreneur can concentrate on his core interests and quickly establish his production and delivery of service, rather than be bogged down by allied services and activities which may not be his core competence and not affordable.
Funding	India perhaps has shut down (Unit Trust of India) UTI and development banks prematurely. For its stage of development, there is a definite need for both. Commercial banks have become extremely short term oriented due to asset liability matching issues, have succumbed to quarterly earning pressures and rigid (west influenced) provisioning norms. Development bank/s which offer long term funds matching cash flow cycle and quick adjustments therein arising out of business exigencies should be operated at the state level.
Equity	There should be a UTI like institution for MSMEs at the state level. An (Over The Counter) OTC stock exchanges may also be in order.
Optimisation of common costs	Bulk purchases like Tally software, (Employees Health Scheme) EHS consultants, feasibility consultants, civil and construction contractors, (Engineering, Procurement and Construction) EPC contractors, basic and detailed engineering services and other such services so that the costs are brought down.

MSMEs location dependent

MSMEs are largely individual enterprises even if they are incorporated. The success depends largely on the sponsor's abilities, time and finances. So, whatever locational immobility is attached to individuals are also attached to MSMEs. The chances of attracting someone from outside the state, district (or even town) to come and invest in a location is very remote. So MSME incentives need not compete with other states. They have to be sharply focussed on whatever will overcome the local disadvantages.

5.2 Mega Projects - How useful are they and where to pursue ?

Mega projects are normally much more capital intensive than MSMEs and even large projects. A large part of their value addition goes towards servicing loan interest and repayments (depreciation and something more), and dividends to shareholders and even internal accruals which are re-invested in business elsewhere.

Most of these payments are made to banks and financial Institutions and investors outside the state or even country and gets spent in those states/economies or countries. The money so spent outside fails to create the secondary cycle of investments and employment within the state or 'domestic' area. Some of these projects are substitutions of existing products and suck up the purchasing power of people. These may have been spent by people for purchase of goods /services otherwise produced by MSMEs and hence make the affected MSMEs less competitive. It can often reduce employment in MSMEs and have a net negative impact on employment.

In view of this risk, the reason for any mega project should be clear. They can be encouraged if (i) they buy a high proportion of their inputs from within the state, and (ii) where there is no existing industry or where technology of lower scales are simply not available (like petroleum, nuclear energy, ports, etc.) or (iii) import substitutive.

Hence a clear assessment of "net" employment and investment benefits (within the state) should be made and targets and penalties for not achieving them clearly agreed upon.

Conclusion

Indian industrial policies have not been much effective as can be seen by the weak manufacturing share to GDP which has started declining even before reaching its potential as demonstrated elsewhere in the world. It has to be realized by the state governments that copying or repeating incentives similar to other states does not create any comparative advantage - it only leads to similar advantages and results in competitive populism and a drain on the Government's finances without any tangible end result. General purpose incentives spread across all industries are a huge drain. So are incentives which are given to all the units within each industry. The effort should be to create 'comparative advantage' for specific industries and make them more competitive and gain a greater share in the market, both domestic and international. This requires a careful selection of industries, say around ten and focusing efforts and incentives only on them. This requires extensive and continuous understanding of the cost structure and supply curves of the various units within the country and potential sources of products or destinations for our products. Such an effort could save a huge amount of spillage due to ineffectiveness and achieve much better results.

References

1. CII (2014). 'Ease of doing Business in India' URL: www.ciiblog.in/ improving-ease-business/ Karnataka Industrial Policy 2014-19. 'Incentives and Concessions to the Industries/Service limits in Karnataka' URL: http://www.investkarnataka.co.in /policies
2. Deloi He (2014). "Survey on Business Regulatory Environment for Manufacturing Volume I: State Level Assessment", Planning Commission, Government of India, March 2014

   URL: planning commission.gov.in>rep_enf0705
3. Volume II: State Specific Findings, Planning Commission, Government of India, March 2014
4. Department of Industries, Government of Andhra Pradesh, 'Industrial Incentives'

   URL: https://www.apindustries.gov.in/incentives/
5. Ernest & Young 'Tax Credits and Incentives'

   URL: http://www.ey.com>Publication>vwLUAssets/EY-tax-incentives-in-india
6. FICCI (2012). 'Empowering India' Report
7. Government of Gujarat (2016). Schemefor Incentives to Industries (General) 2016-2021

   URL:http://www.simaatnh.org/news/scheme-for-incentives-to-industries-general-2016-2021-by-government-of-gujarat.html
8. Industries Commissionerate, Government of Gujarat, New Scheme for Incentives to Industries (General) 2016-21

   URL: https://ic.gujarat.gov.in/new-scheme-for-incentive-to-industries-general-2016-21
9. Lee, J W (1996). "Government interventions and productivity growth", Journal of Economic Growth 1(3), 391-411
10. Survey, Stanby S (1970). "Tax incentives as a device for implementing government policy: a comparison with direct government expenditures", Harvard Law Review, 705-738