

Does Export-led Growth Strategy Sustain? An Aggregate Demand Dimension: China's Experience; India's Lessons

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Abstract

Starting in the early 1990s China's growth model began to shift towards reliance on external demand, a shift that intensified after 1999. Since then China grew at double digit. Economists and researchers raise questions about the sustainability of this growth model. This paper is an attempt in addressing this question. The study is undertaken based on the theoretical framework of aggregate demand model developed by J.M. Keynes. The paper measures the relative influence of domestic demand and export demand for national goods on economic growth in China and compared with India. The impact of domestic demand and export demand on the GDP growth rate is ascertained by employing linear regression model. The results show that China's economic growth is driven mainly by its export demand, while Indian growth is driven by domestic demand. Later, to address the question whether that growth in China which is sensitive to global economic fluctuations is sustainable, export multiplier tool is used. The results indicate that such export demand-led growth of China is not sustainable. This is mainly due to very low household consumption spending among nationals of China. Hence, China's domestic market cannot absorb the glut of national goods in the event of low export demand. This is visible from the on-going sluggish growth in China which is affected by European economic crisis. Though India also contributes same proportion of income to the GDP as that of China, our growth is domestic demand driven. Since the propensity to consume of Indian households is double to that of China ensures sustainable growth of India. Thus, Government policies must target towards protecting and enhancing domestic consumer spending. Only that growth which is driven by domestic consumption/demand is sustainable.

Key words: *export-led growth, domestic demand, growth sustainability, Keynes, aggregate demand*

JEL Classification: F14, F43, D33, E1

1. Introduction

Economic Growth is perhaps the foremost goal of policymakers across the world. In pursuing this objective, strategies have varied across and within countries across time. One such strategy—export-led growth—has been most directly associated with East Asian countries in recent decades. Critics, however, have pointed out that the existence of a fallacy of composition or adding-up constraint undermines the sustainability of such a strategy. For one country to export more, at least one other country has to import more. A simultaneous pursuit of export-led growth by all developing countries, especially if concentrated in a similar range of manufactured products, could only be successful if demand from developed countries grows at a corresponding pace and/or if the terms of trade move against the growing countries, thus increasing competitiveness in an imperfect substitutes framework. The recent global financial crisis has served to highlight the adding-up constraint. This constraint becomes even more relevant if, as is widely expected, developed countries grow at a slower pace or are less willing to run trade deficits following the recent global financial crisis (Razmi, 2011). The fact that over the last three decades China, one of the key players of Asia has grown at an average annual rate exceeding nine percent is widely known and admired.

Following the adoption of its policy of “market reform” and opening to the world market in 1978, China experienced rapid growth. China's rapid growth was initially based on its domestic market, specifically rising consumption by households and government. However, starting in the 1990s China's growth model began to shift towards reliance on external demand, a shift that intensified after 1999. Economists and researchers raise questions about the sustainability of this growth model, one which is historically unprecedented for a large, rapidly developing country. This paper is an attempt in addressing the question whether China's export demand-driven growth is sustainable.

The theoretical approach in this paper regards aggregate demand as an important determinant of long-term sustainable economic growth. Conventional neoclassical analysis and Say's Law, which lead to the conclusion that long-run growth depends entirely on supply side factors, are rejected since they are contrary to the actual situation normally faced by market economies (Zhu et.al, 2010). Rapid growth requires rapidly growing aggregate demand, which can derive from various sources. Rising consumer demand can be an active source of economic growth, if, for example, household spending increases due to a change in the distribution of income in favour of households with a high spending propensity, or due to a rise in the propensity to consume resulting from policy or institutional changes. Private investment, driven by profit expectations, can propel economic growth, which has the effect of increasing productive capacity as well as providing demand stimulus. Public investment,

driven by policy considerations, can equally well drive economic growth. Government current consumption can also drive growth (McCrombie.et.al, 2004).

It is significant which component of growing aggregate demand is mainly driving economic growth. There is no single best composition of aggregate demand growth for all countries and all times. However, for a particular country, facing a particular domestic and international context, one composition of growing aggregate demand may be favourable for long-run growth while another poses problems (Zhu et.al, 2010). This paper develops an analysis, and an assessment, of China's particular growth model, in light of components of aggregate demand as key factors of sustainable growth. The central concern is the share of external versus domestic demand in China's growth model.

2. Review of Literature

Awokuse (2002) re-examines the export-led growth (ELG) hypothesis for Canada by testing for Granger causality from exports to national output growth using vector error correction models (VECM) and the augmented vector autoregressive (VAR) methodology. Application of recent developments in time series modeling and the inclusion of relevant variables omitted in previous studies help clarify the contradictory results from prior studies on the Canadian economy. The empirical results suggest that a long-run steady state exists among the model's six variables and that Granger causal flow is unidirectional from real exports to real GDP.

Palley (2003) expresses concern over the fact that export-led model may risk turning global growth into a zero-sum game. This can happen if one country's export growth comes by poaching of domestic demand elsewhere or by displacing exports of other countries. This paper tests the export displacement hypothesis by analysing the changing pattern of U.S. imports. The evidence shows that there is significant cross-country crowding out, with exports to the U.S. from the four East Asian tiger economies (Taiwan, South Korea, Hong Kong, Singapore) being subject to a large crowding out effect from China. Japanese exports to the U.S. have also become subject to a large crowding out effect from Mexico.

Konya (2004) investigates the possibility of export-led growth and growth-driven export by testing for Granger causality between the logarithms of real exports and real GDP in twenty-five OECD countries. The results indicate that there is no causality between exports and growth (NC) in Luxembourg and in the Netherlands, exports cause growth (ECG) in Iceland, growth causes exports (GCE) in Canada, Japan and Korea, and there is two way causality between exports and growth (TWC) in Sweden and in the UK. Although with less certainty, it is concluded that there is NC in Denmark, France, Greece, Hungary and Norway, ECG in Australia, Austria and Ireland, and GCE in Finland, Portugal and the USA. However, in the case of Belgium, Italy, Mexico, New Zealand, Spain and Switzerland the results are too controversial to make a simple choice.

Palley (2006) believes that China's development model faces an external constraint that could cause an economic hard landing. China has become a global manufacturing powerhouse, and its size now renders its export-led growth strategy unsustainable. China relies on the U.S. market, but the scale of its exports is contributing to the massive U.S. trade deficit, creating financial fragility and undermining the U.S. manufacturing sector. These developments could stall the U.S. economy's expansion, in turn triggering a global recession that will embrace China. This is the external constraint. These considerations suggest China should make transition from export-led growth to domestic demand-led growth. This requires growing the economy's demand side as well as its supply-side. To avoid stalling the U.S. economic expansion, which is critical to China's growth, China should significantly revalue its currency as part of a generalized East Asian upward currency revaluation. Longer term, China should raise wages and improve income distribution. Under export-led growth, higher wages undermine employment. Under domestic demand-led growth, they support it. The challenge is to raise wages in an efficient decentralized manner. History shows that this requires independent democratic trade unions. However, such unions are currently unacceptable to Chinese political leadership. Creating a domestic demand-led growth regime therefore requires solving this political roadblock.

Razmi (2008) discusses China's investment and export-led growth strategy along with the problems that are focused in pursuit of such a strategy. The study uses a simple framework with a Kaleckian flavour to analyse structural developments in the Chinese economy, and to understand some of the distributional consequences. Some of the possible sources of these distributional developments are then further analysed using a trade-theoretic approach. This empirical study concludes that China's investment and export-led growth model have outlived its utility, both on economic and socio-political grounds.

Guo et.al (2009) assess the sustainability of China's export-oriented growth over the medium to longer term. It shows that maintaining the current export-oriented growth would require significant gains in market share through lower prices in a range of industries. This, in turn, could be achieved through a combination of increases in productivity, lower profits, and higher implicit or explicit subsidies to industry. However, the evidence suggests that it will prove difficult to accommodate such price reductions within existing profit margins or through productivity gains. Moving up the value-added chain, shifting the composition of exports, diversifying the export base, and increasing domestic value added of exports could give room to further export expansion. However, experiences from Asian economies that had similar export-oriented growth suggest there are limits to the global market share a country can occupy. The paper emphasizes that rebalancing growth toward private consumption would

provide a large impetus to output growth and reduce the need for gaining further market share.

Robertson (2010) evaluates the impact of the rise in India's investment rate on its economic growth, using the neoclassical growth model. It finds that the increases in the investment rate have been a secondary source of growth, contributing less than 1 percentage point to India's overall growth rate of GDP per worker of 2.7 percent. It also shows that the current investment boom will have a very small effect on future growth rates and that the benefits from further increases in the investment rate are also likely to be small.

Zhu, et.al (2010) analyse the growing role played by exports and investment in China's rapid economic growth since 1978. The paper examines the reasons for the shift over time in China's growth model, which occurred in stages, and it questions the sustainability of the recent dependence on exports and investment. It proposes structural changes in China's growth model and considers the obstacles to such changes.

Akyuz (2011) examines the contribution of exports to growth in China since the early years of the decade. It is estimated that, despite a high import content ranging between 40 and 50 percent, approximately one-third of Chinese growth before the global crisis was a result of exports, due to their phenomenal growth of some 25 percent per annum. This figure increases to 50 percent if spillovers to consumption and investment are allowed for. The main reason for excessive dependence on foreign markets is under-consumption. This is due not so much to a high share of household savings in GDP as to a low share of household income and a high share of profits. It is argued that China can no longer maintain such high growth rates for its exports, and, therefore, needs to turn to consumption-led growth by expanding the share of wages and household income in GDP and accelerating public spending in social infrastructure.

Palley (2011) traces the rise of export-led growth as a development paradigm and argues that it is exhausted owing to changed conditions in emerging market (EM) and developed economies. The global economy needs a recalibration that facilitates a new paradigm of domestic demand-led growth. Globalization has so diversified global economic activity that no country or region can act as the lone locomotive of global growth. Political reasoning suggests that EM countries are not likely to abandon export-led growth, nor will the international community implement the international arrangements needed for successful domestic demand-led growth. Consequently, the global economy likely faces asymmetric stagnation.

Razmi et.al (2011) using panel data for Asian countries investigates whether export led growth model be sustained. This paper contributes to addressing this question by distinguishing between different kinds of export- and tradable-led growth in order to more

precisely identify the nature of growth in the pre-crisis decades. The results reveal that the proportion of a country's manufactured exports that is destined for industrialized countries is the one most robustly associated with output growth.

Sahni.et.al, (2012), in their paper attempted to test the mechanisms of Export - Led Growth in India by taking a time- series data from 1980-81 to 2008-09. The empirical study applies Ordinary Least square (OLS) method to investigate the relationship between Gross National Product, Total Exports, Manufactured Exports and Investment. The results of the study support the Export - Led growth Hypothesis (ELGH) in India.

Lee, et.al (2013), proposes a possible framework for identifying excessive investment. Based on this method, it finds evidence that some types of investment are becoming excessive in China, particularly in inland provinces. In these regions, private consumption has on average become more dependent on investment (rather than vice versa) and the impact is relatively short-lived, necessitating ever higher levels of investment to maintain economic activity. By contrast, private consumption has become more self-sustaining in coastal provinces, in large part because investment here tends to benefit household incomes more than corporates. If existing trends continue, valuable resources could be wasted at a time when China's ability to finance investment is facing increasing constraints due to dwindling land, labor, and government resources and becoming more reliant on liquidity expansion, with attendant risks of financial instability and asset bubbles. Thus, investment should not be indiscriminately directed toward urbanization or industrialization of Western regions but shifted toward sectors with greater and more lasting spillovers to household income and consumption. In this context, investment in agriculture and services is found to be superior to that in manufacturing and real estate. The paper suggests that financial reform would facilitate such a reorientation, helping China to enhance capital efficiency and keep growth buoyant even as aggregate investment is lowered to sustainable levels.

Saraswati (2013) believes that dissipating investor confidence in the Indian economy suggests that now more than ever before the government needs an interventionist industrial policy centred on export promotion. However, a profound mistrust in the Indian state's developmental capacity continues to hinder any progress in this area. The country's software industry—an outcome of state-led export promotion—not only provides an example of successful state intervention but also proffers several wider points for an effective export-led growth plan.

Shahid (2013) analyses the various export promotion schemes of India and studies their effectiveness in raising the growth level. The results reveal that contribution of export sector to the Indian economic growth was significantly growing at rapid phase and gradually India has adopted export-led growth strategy as tool for economic development. However, despite

the good performance of India's exports over the past two decades, there are some weaknesses in its export promotional scheme and suggested to address them.

Subrahmanya (2014) opines that the Indian economy strives to achieve a structural transformation of (manufacturing) industry by building up the capital goods industry base and acquiring the technological competence to lead to a growing share of high-tech goods in the composition of exports. In the long run, this can be the most sustainable way to achieve a trade surplus and thereby a current account surplus. This alone will lend strength and stability to our currency in the international market. Unless and until we achieve this, our economy will continue to experience a trade deficit leading to a current account deficit and remain vulnerable to even "minor external vibrations" turning into "shocks" more often than we can afford.

Research Gap: Several studies are conducted in the last two decades in the area of export-led growth in emerging Asian and other economies. These studies are analytical, empirical and case studies. A few of the very prominent among such literary works are reviewed and presented in the previous section. Results of the most of these studies exhibit that exports play crucial role in the economic growth of emerging economies. From the overview of the available literature, however, it can be noticed that hardly any study focussed on segregating the aggregate demand into domestic demand and foreign demand and test the relative influence of each of these on the domestic economic growth. Further, most of the existing works check the sustainability of growth through the simple trend analysis of exports and GDP growth. Hence a vacuum is created and it demands the application of more reliable empirical methodology. Thus, the present study aims to fill this gap by testing the sustainability of China's growth through more scientific methodology.

3. Objectives

The main objective of the paper is to study how far China's growth will be sustainable. While, the specific objectives are:

- To examine empirically the degree of impact of export demand on economic growth of China.
- To study whether China's export demand-driven growth is sustainable.
- To compare Indian growth strategy with that of China.
- Analyse the policy measures India should adopt based on China's experience.

4. Analytical Framework: Keynesian Model

One of the outstanding contributions of J.M. Keynes (1936) to the macro econometric domain is national income accounting model. According to Keynes, balanced growth of the economy is highly essential to achieve macroeconomic stability. Macroeconomic balance

requires the aggregate income to be equal to aggregate demand. This equilibrium position of the economy can be presented in the form of an identity.

$$C + T + S = Y = C + I + G + (X - M) \text{ ----- (1)}$$

In the equation (1), the left hand side represents components of national income and the right hand side represents components of aggregate demand. The households use part of their income in consumption, other parts to pay taxes or to save. Aggregation of these three components at the national level leads to aggregate income and in turn they form aggregate supply of goods in the economy. The identity of national income or aggregate supply, thus, assumes the form of:

$$C + T + S = Y \text{ ----- (2)}$$

Where, C = consumption of the households; T = taxes paid by them; S = savings of the households and Y = national income

The right hand side of the equation (1) represents aggregate demand. According to Keynes, GDP is generated from the sum of all domestic and foreign demand for national goods. Domestic demand comprises government expenditure (G), household expenditure (C), and domestic investment (I). While, foreign demand for national goods emerges from foreign buyers and will be registered in exports account (E). Domestic demand envelopes not only national goods but also foreign goods and this forms imports (M). The aggregate demand is the aggregation of elements of C, I, G and net exports (X-M). These four elements of aggregate demand interact to determine the GDP. The Keynesian GDP identity, thus, takes the form of:

$$GDP = C + I + G + (X - M) \text{ ----- (3)}$$

Exogenous factors such as poor infrastructure, power shortage, inadequate supply of inputs or natural disasters will negatively affect the equation (2) i.e. supply side. In this case, firms are compelled to increase prices, which will have adverse impact on equation (3), fading the effective demand with inflation. To fulfil domestic demand, imports have to be stimulated which will have a negative impact on the net exports. On the other hand, the distribution of technological and organizational innovation can affect productivity in terms of quality, quantity and costs. This in turn will stimulate aggregate demand, consequently GDP will rise.

5. Model Building

Since the present investigation is to measure the relative influence of domestic demand for national goods and export demand for national goods on economic growth, a new growth model has been developed by modifying Keynesian national income accounting model. The present study assumes that the aggregate supply is constant in the short run and the economic growth is determined by the demand side of the economy. Since imports represent demand for

foreign goods, this component (M) is removed from the Keynesian model. Hence, the aggregate demand national goods is rewritten as;

$$AD = C + I + G + X \text{ ----- (4)}$$

The rise and fall in consumption expenditure, investment expenditure, government spending and exports affect the country's GDP by affecting the aggregate demand for national goods. The aggregate demand for national goods is the sum of domestic demand for national goods and export demand for national goods. Household consumption expenditure, private investment expenditure and government spending form domestic demand for national goods.

$$Dd = C + I + G \text{ ----- (5)}$$

Where, Dd= domestic demand for national goods, C= household consumption expenditure, I=private investment expenditure and G=Government spending.

While, export represents the export demand for national goods.

$$Ed = X \text{ ----- (6)}$$

Where, Ed= export demand for national goods, X= exports of national goods
Aggregation of equation (5) and equation (6) indicates the economic growth

$$GDP = Dd + Ed \text{ ----- (7)}$$

Therefore, from this it can be derived that domestic economic growth is the function of rise or fall in domestic and export demand for national goods.

$$GDP = f(Dd, Ed) \text{ ----- (8)}$$

6. Methodology

6.1 Functional Variables

The Keynesian national income accounting methodology with modification being employed in the study, GDP growth rate is the dependent variable and domestic demand and export demand for national goods are the predictors of GDP growth rate. The components of domestic demand are private consumption expenditure (C), private investment expenditure (I), Government expenditure (G). The value of exports is treated as export demand for national goods. The annual growth rate of all these variables in terms of percentage is taken into account in the study.

6.2 Period of Study and Sources of Data

The impact of export demand on the economic growth of China is examined for the annual data starting from 1981 to 2013 which involves 33 annual observations. While, the case of India, the study focuses on the reform period- from 1991 to 2013, which involves 23 annual observations.

All necessary data pertaining to the variables under study for the sample period are obtained from China Statistical Year Book, 2014, the Handbook of Statistics on Indian

Economy, published by the reserve Bank of India, and also web portal of Ivan Kushnir's Centre.

6.3 Tools Used for Analysis

This paper estimates the modified Keynesian model specified in equation (8). To investigate whether domestic demand or export demand has more impact on the GDP growth rate, linear multiple regressions technique has been applied by using SPSS. The regression model for predicting the GDP growth rate is:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + e \text{ ----- (9)}$$

Where,

Y = GDP growth rate

a = Intercept of Y which is constant

β_1 & β_2 = Beta coefficients of X_1 & X_2 respectively

X_1 = Domestic demand

X_2 = Export demand

e = error term

The regression model as presented in equation (9) indicates the expected impact of each independent variable (keeping the other independent variable constant) on dependent variable. The Keynesian theory predicts that the GDP growth is positively related to domestic demand and export demand.

An analysis of export multiplier is applied in the study to illustrate and identify whether the economic growth is sustainable. Ignoring the effect of taxes, the conventional Keynesian export multiplier is:

$$m = \frac{1}{1 - MPC + MPM} \text{ ----- (10)}$$

Where, m is the export multiplier, MPC is the marginal propensity to consume and MPM is the marginal propensity to import relative to GDP.

To estimate the multiplier impact on China's GDP growth rate from a given percentage change in its exports, the percentage change export multiplier m^* can be defined as

$$m^* = m \frac{X}{Y} \text{ ----- (11)}$$

The percentage change export multiplier estimates the percentage change in GDP that would result from a given percentage change in exports.

7. Hypotheses

H₁: Export demand has no significant impact on economic growth of China.

H₂: Domestic demand has no significant impact on economic growth of China.

H₃: Export demand has no significant impact on economic growth of India.

H₄: Domestic demand has no significant impact on economic growth of India.

8. Results and Analysis

8.1 Is China Export Demand-Driven Economy?

The impact of demand factors on the economic growth of China has been captured statistically by the linear regression model. From the model summary presented in Table-1, it can be noticed that Durbin-Watson d statistic value (1.92) is greater than the table value (1.577), indicating that the model is free from autocorrelation and hence, statistically fit for further testing. The results reveal that the combined influence of independent variables on the GDP appears to be strong. As shown in Table-1, the adjusted $r^2=0.72$, which endorses that 72 per cent variation in GDP growth rate is explained by the two components of aggregate demand i.e. domestic demand and foreign demand. It could also be interpreted that 28 percent change in China's GDP growth are is caused by the factors outside the model. Thus, GDP in China is highly sensitive to the variations in aggregate demand. These results are reliable since the output of analysis of variance (ANOVA) as presented in Table-2 signals the goodness of fit of the model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.859 ^a	0.738	0.72	1.4568	1.92
a. Predictors: (Constant), Ed, Dd					
b. Dependent Variable: GDP					

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	179	2	89.499	42.171	.000 ^b
	Residual	63.668	30	2.122		
	Total	242.67	32			
a. Dependent Variable: GDP						
b. Predictors: (Constant), Ed, Dd						

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	2.88	0.809		3.562	0.001	1.229	4.532		
	Dd	0.38	0.14	0.482	4.645	0.013	0.009	0.067	0.996	1.004
	Ed	0.657	0.073	0.838	8.942	0	0.507	0.807	0.996	1.004
a. Dependent Variable: GDP										

The estimated regression coefficients for predicting the GDP growth rate can be derived from Table-3 and is presented in a regression model as follows:

$$GDP = 2.880 + (0.380)Dd + (0.657)Ed$$

The signs of coefficients of both the independent variables are positive as per theoretical predictions, indicating that domestic demand and export demand have positive impact GDP growth rate. Among the two independent demand variables, export demand for China's national goods appears to have larger influence on its GDP than the domestic demand. This is evident from the higher coefficient value of export demand over domestic demand. This is the reflection of weak consumption expenditure in China. The reliability of influence of coefficients on GDP is checked by VIF test and results show that the actual outcome of the GDP is not affected by the problem of multi-collinearity.

8.1.1 Testing of Hypotheses 1 & 2

The values of t-statistic for coefficient of independent variables of this model are presented in Table-3. From the results, it appears that significance value to t-statistic of coefficient of Ed is less than 0.01. This implies that demand for China made products in the global market has significant impact on its economic growth. This leads to the rejection of the null hypothesis H₁ (Export demand has no significant impact on economic growth of China.) at 99 percent level of confidence. An examination of significance value to t-statistic of coefficient of Dd reveals that even domestic demand for national goods also has significant impact on the economic growth of China. Hence, null hypothesis H₂ (Domestic demand has no significant impact on economic growth of China.) is also rejected and alternative hypothesis is accepted. Thus, both domestic demand and export demand for China's national goods have significant impact on the GDP growth rate. Since the coefficient value of export demand is relatively bigger than domestic demand, it can be interpreted that China's economic growth is predominantly export-led.

8.2 Is China's Export Demand-Driven Growth Sustainable?

Following the statistical confirmation of the dependency of China's economic growth on export demand for its national goods, emerges the major research question of the present study i.e., whether such growth driven by foreign consumers sustain in the long-run? This question gains prominence in the post-recession period .

It is widely agreed that China's very large export represents a serious sustainability problem. China's high export demand dependency arose in the mid-1990s and has increased steeply since 2001. Such a high and growing degree of economic integration poses both short-run and long-run problems for China (Zhu et.al, 2010). A severe recession in the U.S, Europe and other major export markets affected China's exports to a great extent. When U.S is recovering and stabilising from the recessionary contractions, of late, Europe is in deep

economic slowdown and Japan is affected by recession. Such unhealthy fluctuations of macroeconomic indicators across China's export markets have negative impact on export demand for China's national goods.

The change in export demand for the national goods of China owing to economic crisis among the buying community is pushing China towards recession and all time low GDP growth in the last two decades. China's high export demand dependency makes its growth highly vulnerable to a recession in its export markets. This is a change from the early period of China's rapid post -1978-growth, when growth was mainly dependent on growing domestic demand. During that period the Chinese authorities were able to maintain rapid growth through control over the main elements of demand that were leading its economic growth. However, the Chinese authorities were not able to maintain export growth when a serious recession occurred in its major markets.

Table 4. Percentage Change Export Multiplier-China

m/y	MPM	C/Y	MPC	m	X/Y	m*
0.23	0.11	0.36	0.3	1.59	0.26	0.41

An analysis of export multiplier illustrates the problem of sustainability in China's economic growth. Table-4 illustrates China's current situation, based on the composition of China's GDP in 2013 over 2012. In the case of China, the percentage change export multiplier (m^*) = 0.41. This means that, if a recession in China's export markets caused its exports to decline by 10 percent, the impact on China's GDP would be to subtract 4.1 percent points from its growth rate. China's problems compound when such excess capacity emerging due to fall in exports would not be absorbed in the domestic market since the marginal propensity for consumption (MPC) among households in China is very low (0.30). Factors like ageing population, social security, high corporate retaining, etc. have weakened domestic demand. Since the domestic market lacks the ability to absorb more flow of national goods, China's economic growth will be brought to a halt when its export market is hit by economic downturn. The glut of goods created by low export demand would affect domestic manufacturing at the first instance and trigger national recession thereafter. Hence, being vulnerable to the global economic trends, China's economic growth cannot be sustainable.

8.3 Is India's Growth Different to China?

Since the inception of the economic reforms in 1991, Indian economy is generating robust growth. With new economic policies in place since 1991, India's GDP is growing at the phenomenal rate of 6.5 percent on an average annually. With India entering into global market to tap global demand, the share of exports to the GDP has risen from 8.5 percent in 1991 to 24.8 percent in 2013. To put it explicitly, the percentage contribution of export sector to the GDP of India is very much similar to that of China. The cause of concern is that when

China's exports contribute 25.5 percent share to the GDP and face serious threat to its growth sustainability due to instable foreign demand, would Indian economy not be affected by the fluctuations in export market?

A linear regression model has been developed and tested to find suitable answer. In this model domestic demand and export demand have been employed as predictors of GDP. The study is conducted for the data covering the period 1991- 2013. The regression model summary is presented in Table-5. The Durbin-Watson test ensures the absence of autocorrelation, the VIF test results (Table 7) indicate that the model is free from multicollinearity among independent variables and ANOVA test results (Table-6) approve the statistical reliability of the regression outcome. Thereby the model is a good fit for statistical

Table 5: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.773 ^a	0.597	0.557	1.61757	2.205

a. Predictors: (Constant), Dd, Ed
 b. Dependent Variable: GDP

Table 6: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.483	2	38.742	14.806	.000 ^b
	Residual	52.331	20	2.617		
	Total	129.814	22			

a. Dependent Variable: GDP
 b. Predictors: (Constant), Dd, Ed

Table 7: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.757	.837		4.487	.000	2.010	5.503		
	Ed	-.002	.044	-.006	-.039	.969	-.093	.090	.996	1.004
	Dd	.410	.075	.772	5.430	.000	.252	.567	.996	1.004

a. Dependent Variable: GDP

From the results presented in Table-7, it appears that the coefficient value of domestic demand is greater than the coefficient value of foreign demand. This implies that domestic demand for national goods in India has much larger impact than foreign demand on GDP

growth. This is a very significant outcome of this model. In spite of robust export promotion, Indian growth is domestic demand driven, unlike the case of China.

8.3.1 Testing of Hypothesis 3 & 4

From the results presented in Table-7, it appears that the t-statistic of coefficient of export demand is not significant either at 1 percent or 5 percent level of significance. This leads to the acceptance of null hypothesis H₃: Export demand has no significant impact on economic growth of India. While the t-statistic of coefficient of domestic demand is statistically significant at 99 percent level of confidence, leading to the rejection of hypothesis H₄: Domestic demand has no significant impact on economic growth of India. In other words, domestic demand has significant impact on India's economic growth.

The export multiplier results presented in Table-8 strengthens the results derived from regression model. With C/Y and MPC = 58 percent, the multiplier results make a strong case for domestic demand driven growth of Indian economy. It is important to observe that m* = 0.41 which is exactly equal to China's case. It reflects that in the event of a 10 percent decline in India's exports would cause a reduction in India's growth rate by 4.1 percent points. Change in export demand has equal impact on growth prospects of China and India. However, unlike China, domestic demand in India is much stronger as reflected in high marginal propensity to consume (MPC = 0.58), while it is only 0.30 in China. In the event of a sudden decline in exports, the excess capacity generated in export sector will be absorbed by the domestic market. This is how India differs from China.

Table 8: Percentage Change Export Multiplier-India

m/y	MPM	C/Y	MPC	m	X/Y	m*
0.28	-0.18	0.58	0.58	1.67	0.25	0.41

India's growth being led by domestic demand, it could offset export shocks during and after 2008 recession. Despite deep economic slowdown among India's principle export markets like Europe, Japan, Russia, China, Brazil etc. in 2014 and situations continues to be stagnant, the growth rate of GDP of India is least affected. Very high proportion of youth population has been viewed as the factor driving household consumption expenditure upwards constantly, leading to generation of adequate domestic demand and effectively absorbs foreign demand shocks. Thus, it can be said that, unlike China, India's growth is more sustainable and less vulnerable to export demand shocks.

8.4 Lessons for India: Policy Implications

Based on the experience of China's reliance on export demand and consequently, non-sustained GDP growth, Indian policy makers have a few takeaways. From the results, there is no denial that the export plays a significant role in Indian economic growth. From China's downturn, India must also learn that relying heavily on export sector for domestic growth is

dangerous to the sustainability. The present share of export to GDP (i.e. 25%) appears to be the balanced proportion and ruthless export promotion has to be curtailed. Alternatively, more domestic markets should be explored penetrated for national goods. This is because reliance on domestic demand generates more sustained value addition than exports. To make this happen, the solution is to raise domestic consumption much faster than has been the case so far. Only by expanding domestic household consumption, growth rate can be kept unchanged, even in the event of decline in export growth. The way out for India to sustain the household consumption and raise the level of domestic demand is by raising the share of household income in GDP through adequate public provision of some basic needs, including health care, housing and education. Labour market requires immediate attention for reforms. Real wages should be changed in tandem with productivity growth. To protect and maintain domestic demand/consumption led growth, India needs significant industrial restructuring. Unlike in the mainstream (neoclassical) theory of production where “factors of production” can be shifted freely among different lines of production to produce different goods and services, in reality, skills, capital equipment and organisational structures and often industry specific and even product specific. This means that adjustment in the production structure would depend primarily on reallocation of new investment and skills towards areas that need to expand to meet higher domestic consumption (Akyuz, 2011). Effective social security measures will reduce precautionary household savings and guide more consumption. Taxation is another area which deserves immediate reforms in rationalisation of tax structure, raising the exemption limit, doing away with multiplicity of taxes etc. By doing so, we can expect households to spend more on consumption. In view of bleak export prospects, sustaining the growth trend India has achieved in the past decade depends heavily on spur in domestic demand. In this process, the government could no doubt play an important role.

9. Summary and Conclusion

From this study it is evident that China’s robust economic growth in the last two decades is mainly export-driven. This makes China’s growth prospects vulnerable to recession and sluggish growth in her export markets. Hence, the question addressed in the study is that whether that growth which is sensitive to global economic fluctuations is sustainable. The answer derived empirically is that such growth is not sustainable for China. This is mainly due to very low household consumption spending among nationals of China. Hence, China’s domestic market cannot absorb the glut of national goods in the event of low export demand. This is visible from the on-going sluggish growth in China which is affected by European economic crisis. Though India also contributes same proportion of income to the GDP as that of China, our growth is domestic demand driven. Since the propensity to consume of Indian households is double to that of China ensures sustainable growth of India. Thus, Government

policies must target towards protecting and enhancing domestic consumer spending. Only that growth which is driven by domestic consumption/demand is sustainable. This makes a strong case for RBI Governor, Dr.Raghuram Rajan's emphasis on 'Make for India'.

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