

CHAPTER-IV

*EXPORT GROWTH AND INSTABILITY:
COUNTRY GROUP WISE AND COUNTRY
WISE*

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EXPORT GROWTH AND INSTABILITY: COUNTRY GROUP AND COUNTRY WISE

4.1 INTRODUCTION

Exports have assumed a place of great importance in the development process of developing economies. This is so, because it provides the necessary foreign exchange for development process of these countries. In fact economic literature is replete with evidence of an intimate relationship between a country's exports, its investment and national income.⁴⁸ However, the sudden fluctuations in the volume and revenues from exports may have serious repercussions on a country's development programme. It is felt that export instability may generate fluctuation in domestic activities, which in turn make the planned development uncertain. Further, unstable export receipts may also lead to situation where a country may have to hold a very large foreign exchange reserve, the opportunity cost of which may be substantial. Export instability may also have its impact on the internal and external policies of many countries. It is in this context that the issue of export instability has gained prominence in different international forum such as UNCTAD under the heading of commodity prices.⁴⁹ The continuous 'North-South' dialogues also highlight the importance of this issue.⁵⁰

Over the years, several studies have been conducted in India and abroad which have examined the issue of export instability. Macbean (1966) conducted one of the first studies.⁵¹ His study was under taken to examine the index of instability of exports earnings of developing countries and developed nations for a period from 1946-1958. He found that index of instability of export earning was 23 for 45 developing nations and 18 for a group of 18 developed countries. This indicated that export instability

⁴⁸ See, Rangarajan & Sundarajan (1974) and Aggarwal (1982)

⁴⁹ An elaboration of this can be seen in United Nations, A system of National Accounts... Studies in methods, No.2, 1988.

⁵⁰ See, Sule.O & James.H (1988)

⁵¹ He measure instability as the average annual percentage deviation in the dollar value of exports from a five-year moving value average of export values.

was greater for developing economies. Another study by Erb and Schieavo-compo (1969) also found that the average LDC instability was 117% above the advanced nations for the period between 1954 and 1966.

Similarly, Massell found 50% higher instability for developing countries as compared to the developed countries for the period between 1950 to 1966. Thus, these studies have concluded that export instability is a serious problem of less developed countries. A major cause for instability is dependence on the exports of few commodities and geographical concentration of their exports. Other studies have examined the cost of instability in terms of its effects on growth.

Rangarajan and Sundarajan (1974) in their study concluded that in general countries with higher instability in exports have on the average a lower growth rate. Gehrels (1991) suggests that higher volatility of export earnings implies higher volatility of profits of those sectors producing exportable. This will have negative effect on the productivity growth of the economy, since historically productive growth has been reported to be higher in trade goods sector. Moran (1983) opined that export instability should lower efficiency and the level of investment and hence affect the growth trend.

Some studies have been conducted in India which have dealt with instability in export earnings. Notable among them are Aggrawal (1982), Sharan (1984), Kaur and Singhal (1986) and Kaur (1995). These studies concluded that export instability exists in India. However, very few studies have been conducted in India at the backdrop of reform process undertaken since 1991. In this chapter, the export growth and instability are analysed in terms of group and country wise.

This study is therefore, attempted to fill in this lacuna. The pertinent question to be answered is whether the reforms process has brought stabilization in India's export earnings? This is attempted on basis of methodology described in the next section. Section two provides brief outline of the methodology. The results are presented in section three and finally section five concludes chapter.

4.2 METHODOLOGY

In this chapter, the methodology is the same as explained in the introductory chapter. That is semi-log model and Coppock's instability index. As this deals with the Indian exports to different group of countries therefore country group and country wise average percentage share are also calculated.

4.3 ANALYSIS

The findings are divided into three parts, Firstly, the findings regarding export growth are provided. In the second part, the result pertaining to exports instability is presented. In the last part the link between the export growth and instability have been examined. All these finding are as per group and country wise.

4.3. a. Export Growth:

Among different groups of country, the major share of India's export is to OECD group of countries. During the period under study, the OECD group of countries constitutes almost 52% of Indian exports.

It is in this context that the analysis of Indian exports begins. It is evident from table 4.1 that this group has recorded 19.25% growth between 1980-81 to 2006-07. This is also significant at one percent level. It is also indicated by this table that there has been an increase in the percentage share of this group from 50.64% in pre-reform to 52.75% during post-reform period. The trend, therefore gives an indications that reforms have increased the share of Indian exports to this group. However, in terms of absolute value, reforms failed to provide a satisfactory result. This is because the growth rate of exports fell by 5.9% i.e. from 20.22% during pre-reform period to 14.32% during post-reform period. Similarly, growth during the post-adjustment period fell from 23.22% in adjustment period to 13.12% (i.e. by 10.1%). As far as the growth rate of exports in terms of percentage share is concerned, it also shows deterioration from 3.52% in pre-reform period to -2.22% during post-reform period. Similarly, deterioration in export growth has been witnessed in post-adjustment period both in absolute value as well as in percentage share. It is also negative at 0.02% if the entire study period is considered. From the above it can be concluded that growth rate of Indian

exports in terms of absolute value and percentage share is not showing healthy development. The question that arises here is which country/s has played a role in this regard. As mentioned earlier the OECD group consists of European Union (EU), North America and Asia Oceania. Of this European Union (E.U), constitute nearly 23.18% of Indian exports within this group. It includes countries such as Belgium (3.14%), Germany (5.28%), and U.K (5.55%). The E.U registered a growth rate of 20.06% during study period. But, the analysis of pre and post reforms indicates deterioration in exports growth from 20.95% in pre-reform period to 14.51% in absolute terms and from 4.14% to -2.11% in percentage share. This fall can be attributed to the fall in the export growth of Indian exports to all the countries within this group, mainly Belgium (26% to 14.5%), France (19.2% to 15.0%), Germany (22.2% to 10.15%), Italy (22.5% to 15.38%) and U.K (18.17% to 13.71%) in absolute value. The result of export growth in terms of percentage share not only indicates low growth but also shows negative growth rate during post-reform period. The largest decline has been registered in the growth rate of exports to Germany from 5.28% in pre-reform to -5.84% in post-reform, followed by U.K (1.75% to -2.79%). The data of growth rate of Indian exports to E.U during adjustment period and post-adjustment period also reveals a picture of deterioration. The above analysis leads one to conclude that the demand for Indian goods in this group of countries has fallen.

North America is the second largest destination for India's exports after E.U within the OECD group of countries, as it constitutes 18% of Indian exports. The performance of this group in terms of its average share has shown positive trend, as the share has increase from 16.26% in pre-reform to 19.98% during post-reform period. If we compare the trend in the adjustment and post-adjustment period similar, result is revealed. However, the growth in terms of absolute value as well as in percentage share shows deterioration.⁵² Just as Germany within the EU, so also USA is the leading destination for Indian

⁵² Growth rate declined from 21.31% in pre-reform period to 16.57% during post-reform period (i.e. by 4.74%) and from 25.9% in adjustment period to 13.6% (i.e. by 12.3%) during post-adjustment period in terms of absolute value. Similarly, it fell from 4.45% in pre-reform period to -0.34% during post-reform and from 1.1% in adjustment period to -2.85% during post-adjustment period (Table 4.1).

exports.⁵³ Export growth declined from 21.56% in pre-reform period to 16.45% (i.e. by 5.11%) during post-reform period and further, from 26.12% in adjustment period A1 to 13.59% (i.e. by 12.53%) during post-adjustment period. Similar, outcome has been recorded in terms of percentage share. The growth rate has become negative both during post-reform as well as during post-adjustment period. This trend is a matter of grave concern for India because USA is the largest trade partner of India. The fall in the exports revenue will have a chain effect, ultimately affecting India's growth prospects.

The Asia and Oceania contributes about 8% to Indian exports. This has also registered a decline from 17.31% in pre-reform period to 7.71% (i.e. by 9.6%) during post-reform and from 19.0% in adjustment period to 7.34% (i.e. by 11.66%) during post-adjustment period in absolute terms. Growth in percentage share also has fallen. In this group Japan is the main country, it like other countries has registered deterioration in the export growth both in absolute value as well as in percentage share during post-reform period and post-adjustment period.⁵⁴

On the basis of above it can be stated that India's exports in terms of absolute value to OECD group recorded a low growth during post-reform as well as post-adjustment periods. Growth rate of Indian exports to this group also deteriorated when measured in terms of percentage share during both these periods. Germany, U.S.A and Japan, are the main countries responsible for this dismal performance. Considering this, an adoption of a policy to expand the exports to these countries is required, to improve the situation. However, this may not be easy to achieve considering the weakened global economic activities.

⁵³ Individually India's export to U.S.A constitutes nearly 18%, which is the highest among all countries of the world.

⁵⁴ In case of Japan, export growth in terms of absolute value fell from 17.85% in pre-reform period to 6.00% in post-reform period (i.e. by 11.58%) and in percentage share from 1.48% in pre-reform period to -9.39% in post-reform period. Growth also declined during post-adjustment period as compare to adjustment period, i.e. from 17.62% to 5.45% in adjustment period in absolute value and -5.56% to -9.88% in adjustment period in percentage share.

The next group to be considered is O.P.E.C. It constitutes nearly 10% of India's exports.⁵⁵ It has also registered a significant growth rate of 22.21% during the period 1980-2007. Table 4.1, reveals, that OPEC has increased the percentage share of Indian exports from 7.97% in pre-reform to 11.67% during post-reform and from 9.60% in adjustment period to 12.61% during post-adjustment period. Growth in terms of absolute value also registered acceleration during post-reform period. But, it fell during post-adjustment period.⁵⁶ However, growth in terms of percentage share shows an improved from -7.16% in pre-reform period to 4.04% during post-reform period and from 1.72% in adjustment period to 5.44% during post-adjustment period. This is mainly due to the contribution of countries like U.A.E, Iran and Iraq. Thus, it can be concluded that countries belonging to OPEC have performed positively as compared to OECD.

Like OPEC, the Eastern Europe group also constitutes 10% of Indian exports. But exports to this group in terms of absolute value have recorded a decline from 12.86% in pre-reform period to 8.13% (i.e. by 4.73%) in post-reform period. A major reason for this decline was due to the reason that the Indian exports to Russia fell from 13.06% to 2.4% (i.e. by 10.66%) during same period. This was caused by disintegration of the U.S.S.R. into C.I.S.⁵⁷ In case of Romania, which is the other main country; Indian export has registered a growth of 18.75%. However, as the average percentage share of this country was only 0.37% during the entire period, it has not prevented a decline in the share of this group as far as Indian exports are concerned.

⁵⁵ OPEC: Current 11 members of the OPEC are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela. Ecuador and Gabon withdrew from OPEC membership at the end of 1992 and 1994, respectively. Data on OPEC totals, therefore, relate to the 13 countries for the period from 1987-88 to 1992-93, 12 countries for the period 1993-94 to 1994-95 and the 11 countries for the subsequent period.

⁵⁶ This is because of deterioration in the growth of exports to Indonesia by 32.9% (i.e. from 55.28% to 22.33%) and Kuwait by 14.9% (i.e. from 32.38% to 17.48%) during post-adjustment period.

⁵⁷ Data for Russia prior to 1993-94 relate to erstwhile USSR with the exception of 1992-93, wherein the data relate to the Commonwealth of Independent States (C.I.S.) representing a group of following fifteen countries, viz., Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

The last group consider for analysis is Developing countries. Within the developing countries, Asia, Africa, Latin America consist the three sub-groups. As a group, it constitutes the second largest destination for India's export. It accounted for 24% of exports. This group, in absolute value recorded growth rate of 21.42% during the post-reform period, which was 5.0% higher than the growth of pre-reform period.⁵⁸ This rise in exports to developing countries was largely a result of increased export to Nepal, Sri Lanka, China, Benin and Sudan. Similarly, growth in terms of percentage share also witnessed an improvement during post-reform period from 0.29% in pre-reform to 3.8% in post-reform period, this mainly due to the increased share of export to African Countries.⁵⁹ However, the export growth of developing countries as a whole registered a decline during the post-adjustment period in both absolute value and percentage share. This indicates that with the passage of time, export growth failed to improve.

Due to proximity of the region and familiarity, Asia accounts for the largest share (80%) from amongst the developing countries. Asian countries shares nearly 20% of exports of which SAARC region constitutes 4.0%. As far as SAARC was concerned, a rising trend has been witnessed in the export growth during post-reform period from 15.53% in pre-reform period to 19.37% in post-reform period. This is due mainly to the buoyancy of exports to Nepal in absolute value and percentage share. But, still deterioration in the growth of exports to Asian countries is revealed in table-4.1 indicating that exports have failed to keep the pace during post- adjustment period. Similar, results are visible if we consider the exports growth as measured in terms of percentage share.

It is Africa and Latin America that has played a major role in export growth trend. It does not have much role to play as far as India's export is considered because the total share of these two groups accounted for less than

⁵⁸ Group of Developing countries have experienced positive export growth in post-reform period both in absolute and percentage share, this is because of better performance of exports to sub-group Africa both in absolute value and percentage share.

⁵⁹ Growth in percentage share Benin (7.8%), Sudan (12.25%) and Kenya (3.82%) during post-reform. (See, Appendix: A.3).

5% of India's exports during the entire study period. Further, the changes in average percentage share as well as absolute growth do not have much impact on Indian exports.

If one looks at the entire trend in the total export growth during the post-reform period as compare to pre-reform period a marginal increase is evident. Although there has been a fall in the India's exports to O.E.C.D and Eastern Europe, it has been more than compensated by the rise in export to O.P.E.C and developing countries. Further, the analysis of exports during the adjustment period and post-adjustment period presents deterioration in the export growth. This is because all the regions have registered a decline in export growth. Thus, it can be asserted that the external sector reforms have failed to achieve the objective of improving the position as far as Indian exports are concerned.

The question, which arises here, is what has caused this trend. Further, it is also necessary to identify country/s to which the exports are unstable. It is in this context that one needs to find out export instability. This is taken up in the foregoing section.

4.3. b. Export Instability:

As mentioned earlier export instability measures the short-term fluctuations in export receipts corrected for trend. In this study, the Coppock's log-variation method has been adopted for measuring the instability. Instability index for different groups of country to which Indian exports is estimated both in absolute as well as percentage share.

Table 4.2 shows that export instability index for OECD has declined during post reform period from 8.80 in pre-reform period to 7.37 in post-reform period in absolute value and from 7.05 in pre-reform period to 4.62 in post reform period in terms of percentage share. However, during the post-adjustment period the index has declined only in percentage share. In terms of absolute value, it has registered a relatively higher instability during the same period.

Further, all the major countries of this group has recorded a decline in the instability index during the post reform period in both absolute value as well as in percentage share.⁶⁰

However, in absolute value exports to all the countries of this group has shown relatively higher instability in the post-adjustment period as compared to adjustment period with the exception of Australia where export instability has fallen from 22.24 in adjustment period to 6.36 in post-adjustment period. Thus, the export instability has increased during the latter part of reforms as far as this group as whole is concerned.

However, in terms of percentage share the instability index of exports to OECD group of countries indicates a relatively lower instability during post-adjustment period as compared to adjustment period.⁶¹ This shows that exports are more stable in terms of percentage share than the absolute value during the entire study period and during two sub-periods, in case of all the sub-group of countries of OECD.

The table moreover also shows that within the OECD the export to EU group are more stable as compared to N.America, Asia and Oceania in both absolute value and percentage share. This is evident from the fact that this has recorded lower instability index than others. Further, within the EU, export instability index of UK is lowest in percentage share during post-reform and post- adjustment period. It thereby indicates a stable export towards U.K. But, if measured in absolute value than it is Germany that has recorded lowest instability index during post-reform period and post-adjustment period. Since U.K and Germany also has highest share in exports i.e. 5.54% and 5.15% respectively during post-reform period and 5.17% and 4.35% in post-adjustment period. It can be argued here that, for stability in export earnings more stress should be given for increasing exports to these two countries. Similarly, within North America, between Canada and USA more emphasis

⁶⁰ Except Japan, where instability has increased in absolute value during the post-reform period

⁶¹ This is because of the more stable exports to Germany, Italy, USA, Australia and Switzerland in percentage share in post-adjustment period.

should be given to the USA, since it constitutes nearly 18% share of exports and it has registered relatively lower instability index during the post-adjustment period indicating stable trend.

As far as exports to OPEC countries are concerned, it indicates a relatively lower instability index during post-reform period i.e. 19.06 in pre-reform period to 10.81 in post-reform period in absolute value and from 12.16 in pre-reform period to 7.49 in post-reform period in percentage share. This is mainly due to exports to Indonesia (422.39 in pre-reform period to 46.40 in post-reform period), Kuwait (44.92 in pre-reform period to 22.92 in post-reform period) and UAE (17.57 in pre-reform period to 12.57 in post-reform period) have recorded a decline in the instability index in absolute value. Similar results have been found when instability index is measured in percentage share. Here, the main country, which is UAE that constitute nearly 6% of Indian exports, has registered lower instability index in both absolute value and percentage share. Moreover, it is declining especially during the post-adjustment period as compared to adjustment period. Thus, in the era of liberalisation, export to UAE has been relatively stable.

If we look at India's exports to Eastern Europe, than it shows a relatively higher instability in the post-reform period (i.e. from 27.08 in pre-reform period to 30.89 in post-reform period and from 17.10 in pre-reform period to 28.46 in post-reform period in absolute value and percentage share respectively). As mentioned in earlier section on export growth, the exports to Eastern Europe has shown a declining trend in post-reform and post-adjustment period. And it was asserted that the cause of this trend was the disintegration of U.S.S.R. The same reason may have caused a relatively higher instability to this region especially in post-reform period. However, an improvement during the post-adjustment period is visible. Export instability index declined both in terms of absolute value and percentage share during post-adjustment period.⁶² From this it can be concluded, that although this

⁶² Export instability declined from 51.15 in adjustment period to 19.53 in post-adjustment period and from 48.18 in adjustment period to 15.23 in post-adjustment period in absolute value and percentage share respectively.

group has the highest instability index among all the groups. The declining trend of instability index reveals stable exports to Eastern Europe, and if this trend continues in the future than Indian, exports would perform better with respect to stability.

As compared to Eastern Europe, the Developing countries has recorded relatively lower instability during the post-reform period in absolute value it declined from 20.59 in pre-reform period to 11.38 in post-reform period and in percentage share it fell from 19.51 in pre-reform period to 5.26 in post-reform period. This is mainly due to lower export instability index of Asian countries in both absolute value and percentage share, as compared to Latin American countries and African countries during post-reform period.⁶³ Further, Asian countries registered lower instability index because of the lower export instability index of Sri-lanka, Hong Kong and Thailand. Thus, it can be said that exports are more stable to Asian countries than the other developing countries of Africa and Latin America. However, if we analyse the post-adjustment period, it reveals a different trend altogether. It shows that with the passage of reforms the stability of exports has shifted from Asian countries to African countries.⁶⁴ In short, a continuation of this trend would make the Indian exports to Africa more stable in times to come.

The result presented in table 4.2 on the whole indicate that the export to OECD group of countries are more stable as compared to other groups both in absolute value as well as in percentage share during the entire study period.

The table also reveals that exports to OECD were stable not only during the post-reform period but also in the post-adjustment period in terms of absolute value and percentage share.⁶⁵ Further, in section two of this chapter it was concluded that export to OECD was lowers both in terms of

⁶³ With in the Developing countries the Asia countries have shown relatively lower instability i.e. 17.22 and 12.81 in post-reform period in both absolute value and percentage share.

⁶⁴ Here the export instability index of African countries have shown relatively lower instability i.e. 14.94 in absolute value and 13.06 in percentage share during adjustment period this is lower than the instability index of Asian countries (i.e. 18.92 in absolute value and 14.87 in percentage share).

⁶⁵ Developing countries have marginally registered lower exports instability in percentage share in post-adjustment period as compare to OECD.

absolute value and percentage share in post-reform period and post-adjustment period. It is the Developing countries, which are the best performer in terms of the trend in their export growth during the study. Thus, if the objective is to have stability in exports than Indian exports should be diverted towards the OECD group of countries. However, if the aim is to have higher export growth than developing countries will be the best destination for Indian exports (See, Table 4.1). But the ideal situation would be to have higher growth with decreasing instability in exports. To achieve a sustain growth in exports for a long period to come. This calls for an analysis of the export growth and instability relationship. This is attempted in the next section.

4.3. c. Growth and Instability:

An examination of the relationship between the export growth and instability will indicate four different possibilities:

1. A declining export growth with a decreasing instability in exports.
2. A declining export growth with an increasing instability in exports.
3. Increasing export growth with an increasing instability in exports.
4. Increasing export growth with a decreasing instability in exports.

Which of these four possibilities pertains to India, needs to be examined. This is attempted in this section.

The country group wise percentage share of export growth and instability is presented in table 4.3. As mentioned earlier that OECD group constitutes the highest percentage share in Indian exports. It has registered a low instability during the entire period under consideration. In fact, the instability index for this group is lowest among all groups of countries (See, Table 4.2). Thus, the group, which is the largest destination of Indian exports, has the lowest instability. It can be regarded as a favorable situation. But, what is disturbing is that the export growth is negative. In other words, lower instability is associated with negative growth. During post-reform and post-adjustment period, also the OECD group has indicated lower instability with

negative export growth. Thus, this group indicates the first possibility mentioned above.

The OPEC group of countries shows an increase in export growth at the same-time instability index has recorded a decline both during post-reform and post-adjustment period. Thus, OPEC group shows a favorable situation as far as export growth and instability index are concerned (possibility-4). Among different countries in this group exports to U.A.E is more advantageous. This is because exports recorded highest growth (7.68%) along with low instability index during post-adjustment period.

In case of Eastern Europe the export growth has become negative during post-reform period and at the same time it has high instability. This indicates that Eastern Europe is not a favorable destination of Indian exports (possibility-2), even though in the post-adjustment period the instability index has declined.

As far as Developing countries are concerned, it has registered a higher export growth with lower export instability during the post-reform period. But exports have failed to keep pace during the post-adjustment period, as export to all the countries of this group has shown a decline (possibility-1). Some countries such as Nepal, Pakistan, Singapore, Benin and Sudan have shown higher export growth but with high instability, so India cannot rely on these countries for her exports. Because high volatility makes, planning difficult.⁶⁶ Instability in export earnings adds to the uncertainties of planning and crisis that arises often calls for drastic action that adversely affects important development.

From the above observations, it can be asserted that if the aim is to have high export growth with low instability than exports should be diverted towards OPEC and Developing countries. But to know the real impact of external sector reforms it is necessary to take into account the post-adjustment period. Here, OPEC continues to be favorable destination but only two

⁶⁶ See, D.N.Gujarati, (2004).

countries UAE and Romania are favorable destination. What is more important also, UAE constitute one of the highest shares in Indian exports.

From the table 4.3 it is observed that the total export growth has increased during post-reform period with the lower instability index. But during post-adjustment period export growth has deteriorated and at the same-time instability has gone up.

4.4 CONCLUSION

This chapter highlights the behaviour of Indian exports with different group of countries during the period under consideration. The behaviour of exports has been judge on the basis of growth and instability.

4.4. a. Growth analysis shows that:

1. The total export registered a growth of 19.27% during study period. A comparative study of pre and post-reform shows a marginal increase in the growth rate of exports during post-reform period i.e. from 16.14% in pre-reform period to 16.98% during post-reform period. From the above it can be said that, overall exports have increased because the fall in the Indian exports to OECD and Eastern Europe region were more than compensated by the higher exports to OPEC and Developing countries. But, analysis of export growth during adjustment and post adjustment period presents deterioration in the export growth. As, all the regions have registered a decline in the export growth.
2. India's exports to OECD group recorded a deterioration during post-reform and post-adjustment periods in terms of absolute value and percentage share.
3. India's exports to Developing group has recorded the highest growth rate in absolute value and percentage share during the period under study, compared to OPEC and OECD. In the post-reform period, also developing countries has recorded a higher export growth compared to OPEC and OECD.

4. The results of the post-adjustment period show the export growth to OPEC has exceeded the export growth to Developing countries indicating a change in the direction of exports. This trend is due to more exports to Iran, Iraq and S.Arabia. At the same time, export to Developing countries has declined because of the fall in the export to China, Bhutan, Maldives, Singapore, Nepal and Kenya in absolute values and Bangladesh, Bhutan, Maldives, China, Hong Kong, Kenya in Percentage share.

4.4. b. Instability analysis shows that:

The total exports recorded a decline in the instability from 10.44 in pre-reform period to 7.29 in post-reform period. This is because all the groups except Eastern Europe have registered a decline in the instability during the same period. But during the post-adjustment period, the total exports have shown more instability as compared to adjustment period this is because of higher instability exhibit by OECD and Developing countries during the same period.

1. Exports to OECD group were more stable as compare to other group of countries during the entire study period both in absolute value and in percentage share.
2. During, the post-reform period also the exports to OECD were more stable as compared to any other group in both absolute value and percentage share.
3. Exports to OECD group registered lower instability during post-adjustment period in absolute value, but in percentage share, the group of Developing countries registered relatively lower export instability. This indicates that if this trend continues than exports would be more stable with the Developing group of countries.

4. Exports to Belgium, Germany, Japan, France, Australia and U.S.A were more stable in percentage share during post-reform period. Similarly, exports were more stable to U.K, Germany, Australia, Belgium, Japan, France and U.S.A in percentage share in post-adjustment period.

5. Exports to countries such as U.K, Belgium, Japan and France have shown low instability index as compared to other countries of the same group, but the fact is these countries have recorded higher instability in post-adjustment period as compared to adjustment period indicating rising tendency of the instability in future. Therefore, India should concentrate on the countries such as Germany, Australia, USA and Italy, since these have low instability in post-adjustment period indicating falling tendency with the passage of time both in absolute value as well as on percentage share.

6. In case of OPEC group of countries, exports would be more stable with Kuwait, S.Arabia and U.A.E, since all have registered a falling trend in instability index in percentage share during post-adjustment period.

7. In case of Eastern Europe, exports would be more stable with Russia as compared to Romania because instability has declined during post-reform period in both absolute value and percentage share.

8. In case of developing countries, exports to countries like Sri Lanka, Hong Kong, South Korea and China have shown declining trend during post-adjustment period, indicating thereby that if continued in future than exports would be more stable with these countries.

4.4. c. Growth and instability relationship shows that:

1. Exports to OECD failed to prove fruitful on the basis of growth and stability, because instability has fallen during the post-adjustment but is associated with negative growth.
2. It is only OPEC group that has shown increase in export growth along with falling instability during the post-adjustment period in percentage share. This indicates a positive impact of reforms, and shows, that if the trend continues than India would be receiving comparatively stable export earnings in future also.
3. Eastern Europe group have also shown improvement in export growth but still is negative, along with low instability. However, in the long run this trend may prove to be beneficial.

India's export to Developing countries has shown better result, though, export growth has fallen but it is positive along with declining instability, compare to OECD. The different possibility for different groups are summarized in the below table (During 1995-96 to 2006-07)

Group	Possibilities	Situation
O.E.C.D	First	Unfavorable
O.P.E.C	Fourth	Favorable
Eastern Europe	Second	Unfavorable
Developing Countries	First	Unfavorable

Source: Compiled from Table 4.3

In terms of policy implication, the above analysis points to increasing export to OPEC group of countries in general and U.A.E in particular, not only for having higher exports growth but also for stability in export earnings. In fact this is one of the main objectives of undertaking external sector reforms in India. After having examined the group and country wise growth and instability, it is now pertinent to analyse group and commodity wise export growth and instability. This is attempted in chapter five.

TABLE 4.1

**INDIAN EXPORTS: AVERAGE PERCENT SHARE AND GROWTH RATE
(GROUP AND COUNTRY WISE)**

	Group and Country wise	1980-81 to 1990-91	1991-92 to 2006-07		Overall	1980-81 to 2006-07
			1991-92 to 1995-96	1996-97 to 2006-07		
I.	OECD					
	Avg % share	50.64	57.91	50.40	52.75	51.89
	CGR absolute value	20.22*	23.22*	13.12*	14.32*	19.25*
	CGR % share	3.52*	-1.07	-3.32**	-2.27*	-0.02
A.	European.U					
	Avg % share	21.21	27.07	23.39	24.54	23.18
	CGR absolute value	20.95*	24.0*	13.78*	14.51*	20.06*
	CGR % share	4.14*	-0.40	-2.77**	-2.11*	0.67**
B.	North America					
	Avg % share	16.26	18.96	20.45	19.98	18.47
	CGR absolute value	21.31*	25.90*	13.68*	16.57*	20.95*
	CGR % share	4.45*	1.1	-2.85	-0.34*	1.41*
C.	Asia & Oceania					
	Avg % share	11.00	9.26	4.96	6.31	8.22
	CGR absolute value	17.31*	19.00*	7.34*	7.71*	13.45*
	CGR % share	1.01	-4.40*	-8.27**	-7.92*	-4.88*
II.	O.P.E.C					
	Avg % share	7.97	9.58	12.83	11.81	10.25
	CGR absolute value	7.82*	26.55*	23.82	21.77*	22.21*
	CGR % share	-7.16*	1.72	5.44**	4.10*	2.54*
III.	Eastern Europe					
	Avg % share	19.78	5.61	2.84	3.71	10.26
	CGR absolute value	12.86*	2.01	9.28	8.13**	6.53*
	CGR % share	-2.82	-18.10*	-6.61**	-7.56*	-10.68*

Continue...

TABLE 4.2

**INDIAN EXPORTS: INSTABILITY INDEX
(GROUP AND COUNTRY WISE)**

	Group and Country wise	1980-81 to 1990-91	1991-92 to 2006-07		Overall	1980- 81 to 2006- 07
			1991-92 to 1995-96	1996-97 to 2006-07		
I.	OECD					
	Absolute value	8.80	1.83	7.55	7.37	8.64
	Percentage Share	7.05	4.88	4.57	4.62	6.01
A	European.U					
	Absolute value	15.36	3.79	6.99	7.72	11.47
	Percentage Share	11.23	5.12	4.21	4.57	8.01
B.	North America					
	Absolute value	12.27	6.66	8.84	9.49	11.63
	Percentage Share	14.88	9.48	8.41	9.33	11.90
C.	Asia & Oceania					
	Absolute value	8.75	7.51	11.84	11.55	11.46
	Percentage Share	37.17	6.73	6.78	76.10	63.47
II.	O.P.E.C					
	Absolute value	19.06	14.24	8.83	10.81	20.15
	Percentage Share	12.16	10.90	5.74	7.49	14.41
III.	Eastern Europe					
	Absolute value	21.08	51.14	19.53	30.89	27.81
	Percentage Share	17.10	48.18	15.23	28.46	26.19

Continue...

TABLE 4.2

**INDIAN EXPORTS: INSTABILITY INDEX
(GROUP AND COUNTRY WISE)**

	Group and Country wise	1980-81 to 1990-91	1991-92 to 2006-07		Overall	1980- 81 to 2006- 07
			1991-92 to 1995-96	1996-97 to 2006-07		
IV.	Developing Co					
	Absolute value	20.59	8.02	10.52	11.38	16.80
	Percentage Share	19.51	4.83	4.50	5.26	13.13
A.	ASIA					
	Absolute value	21.36	9.86	18.92	17.22	19.64
	Percentage Share	20.96	6.56	14.87	12.81	16.45
B.	AFRICA					
	Absolute value	18.50	15.52	14.94	18.44	21.15
	Percentage Share	15.12	15.05	13.06	15.24	17.37
C.	Latin American Countries					
	Absolute value	71.11	20.36	22.88	21.98	45.92
	Percentage Share	68.53	23.77	17.47	18.99	42.87

Source: Compiled from Appendix Table A.2 and A.3

TABLE 4.3

**INSTABILITY INDEX, GROWTH RATE AND AVERAGE (% SHARE)
(GROUP AND COUNTRY WISE)**

	Group and Country wise	1980-81 to 1990-91	1991-92 to 2006-07			1980-81 to 2006-07
			1991-92 to 1995-96	1996-97 to 2006-07	Overall	
I.	OECD					
	Instability.I % share	7.05	4.88	4.57	4.62	6.01
	CGR % share	3.52*	-1.07	-3.32**	-2.27*	-0.02
	Avg % share	50.64	57.91	50.40	52.75	51.89
A.	European.U					
	Instability.I % share	11.23	5.12	4.21	4.57	8.01
	CGR % share	4.14*	-0.40	-2.77**	-2.11*	0.67**
	Avg % share	21.21	27.07	23.39	24.54	23.18
B.	North America					
	Instability.I % share	14.88	9.48	8.41	9.33	11.90
	CGR % share	4.45*	1.1	-2.85	-0.34*	1.41*
	Avg % share	16.26	18.96	20.45	19.98	18.47
C.	Asia & Oceania					
	Instability.I % share	37.17	6.73	6.78	76.10	63.47
	CGR % share	1.01	-4.40*	-8.27**	-7.92*	-4.88*
	Avg % share	11.00	9.26	4.96	6.31	8.22
II.	O.P.E.C					
	Instability.I % share	12.16	10.90	5.74	7.49	14.41
	CGR % share	-7.16*	1.72	5.44**	4.10*	2.54*
	Avg % share	7.97	9.58	12.83	11.81	10.25
III.	Eastern Europe					
	Instability.I % share	17.10	48.18	15.23	28.46	26.19
	CGR % share	-2.82	-18.10*	-6.61**	-7.56*	-10.68*
	Avg % share	19.78	5.61	2.84	3.71	10.26

Continue...

TABLE 4.3

**INSTABILITY INDEX, GROWTH RATE AND AVERAGE (% SHARE)
(GROUP AND COUNTRY WISE)**

	Group and Country wise	1980-81 to 1990-91	1991-92 to 2006-07			1980-81 to 2006-07
			1991-92 to 1995-96	1996-97 to 2006-07	Overall	
			IV. Developing Co	Instability.I % share	19.51	
	CGR % share	0.29	9.17*	3.79*	3.80*	4.58*
	Avg % share	15.22	24.88	32.96	30.44	24.24
A. ASIA	Instability.I % share	20.96	6.56	14.87	12.81	16.45
	CGR % share	2.42**	7.89**	3.87	3.48	4.77*
	Avg % share	12.00	20.47	26.27	24.46	19.38
B. AFRICA	Instability.I % share	15.12	15.05	13.06	15.24	17.37
	CGR % share	-8.85*	14.97*	3.32*	5.12*	3.02*
	Avg % share	2.87	3.32	5.06	4.51	3.85
C. Latin American Countries	Instability.I % share	68.53	23.77	17.47	18.99	42.87
	CGR % share	6.87**	14.49*	6.57	8.70	12.60*
	Avg % share	0.34	1.10	2.27	1.91	1.27

Source: Compiled from Appendix Table A.1, A.3 and A.5.

(*): Significant at the 1% level, (**): Significant at the 5% level.