4.1 INTRODUCTION

The household durable items have been there ever since households have been there whereas the evolution of consumer durables into a sector has been a recent phenomenon, compared with other sectors of the economy. This phenomenon can be attributed both to the paucity of "durables" which would stimulate the interest of the people, as well as to the absence of the "consumer" who would be both able and willing to pay for them. Home appliances have been technological marvels, invented and developed upon in the more affluent developed societies, and it has taken a lot of time for their adoption in the less developed countries like India. The greatest barrier in the Indian case was an ideological one, with the post-independence Government following an import substitution strategy and placing either quantitative or tariff barriers in the way of imports of these goods.

4.2 DEFINITION

A "consumer durable "is defined as a consumer good that is not immediately consumed, but renders a stream of services, usually over a period of years. However, there is no inclusion of the continuing benefits of consumer durable ownership in national income accounts and no allowance
for their depreciation. Thus, although consumer durables resemble the fixed capital used by firms, they are classified as part of consumption.

By definition, the term 'consumer durables' would mean all consumer goods that are not for one-time. Therefore, the term consumer durables would seek to include all consumption items the than those meant for immediate consumption. To that extent, the list of durable items considered in this report is, by no means, exhaustive. However, they do constitute a reasonably large part of the sector, in terms of both size and significance. Moreover, as the study bases itself on information (both qualitative and quantitative) available only in the public domain, the report hazards no inference on product segments that are either not well document or about which the information available is, at best, obscure.

4.3 DEMOGRAPHICS OF INDIAN SUB-CONTINENT

The fundamental demographic trends in the country have been population growth, rapid and concentrated urbanization and speedy household formation (at a rate greater than population growth rate) and an increase in the proportions of the higher income groups. Besides, growth has also led to and expansion of the consuming classes, and hence the total consumer market. However, income growth and the ownership of durable assets have been skewed towards urban household against rural households. The factors restraining growth of the rural markets for consumer durables include infrastructure bottlenecks, low growth in agrarian income and continuance of traditional lifestyle in rural household. In future, the number of household in the higher income groups is expected to grow faster.
4.4 HISTORICAL EVOLUTION

The more prominent reason for the delay in the evolution of the consumer durables sector would be the delay in the evolution of the "consumer" as a class. Till the 1970s, most household assets were regarded as "luxury" items. While the major reason for this was the low affordability level of household, the conservative outlook of the people was also a contributing factor. After Independence, the Gandhi ideal of "simple living and high thinking" and abstinence from worldly pleasure commanded a social premium. Combined with this was traditional agrarian mindset of most people, which engendered an aversion to technology.

It was only in the 1980s that this trend showed signs of reversing. With economic growth, there was an improvement however; there was a rising desire for ownership and possession of assets, which became an indicator of social status. Lifestyle became an integral part of the social existence, with people trying to "Keep up with the Jones". It was also the decade when the India audience was introduced to number of new durables, resulting from initiatives from either the Government (e.g. colour televisions, launched during the 1982 Asian Games) or the domestic private sector (e.g. washing machines, launched in 1987 by Video con Group, which took a calculated risk by defying the results of a market research study the projected bleak prospects for a washing machines market in India). The credit for the first steps towards the evolution of the sector would thus go to the domestic players, since there were still restrictions both on imports of consumer goods and on the entry of multinational player.

The late 1980s also saw the emergence of some Indian companies like BPL, video con, and Micro Electronics on the Indian corporate scene, which redefined the norms of doing business. On the one hand these companies invested heavily in brand building through innovative
advertisement and promotion campaigns. On the other, sensing the importance of innovating on products, the entered into technological collaborations with global players (BPL with Sanyo, Japan, Video con with National, Japan).

The durables industry as a whole took off in India during 1990s after the commencement of economic liberalization. While on the demand side, economic growth led to higher disposable incomes and aspiration levels, on the supply side, the Government gradually opened up the sector to foreign participation and lowered tariff and non-tariff barriers. The last five years have witnessed the entry of multinational players who have stormed to market with internationally proven technologies, either on their own or in collaboration with established India players. However, initially, the advance of the potential as well as a lack of proper understanding of the peculiarities of the Indian market. While the multinationals were lured by the huge size of the Indian consumer market, they failed to gauge its heterogeneity, not only in terms of affordability levels (which would define the capacity to pay) but also lifestyle (indicating the willingness to pay). However these companies were global players with deep pockets, and this enabled them to persist with the Indian market. They went about understanding the peculiar requirements of the Indian markets and started tailoring their products accordingly. For instance, it was found that one of the key apprehensions among a number of housewives about washing machines was that mechanical agitator action would not be as gentle as manual washing, and would eventually damage clothes. Hence, most of the players came up with washing machines to take care of the longer clothes. Hence, most of the players came up with washing machines to take care of the longer clothes like sarees, which are prone to tangling. In the 1980s, microwave ovens had remained and esoteric product not eliciting much response from the market. However, the market took off after the companies came up with models adapting the machine to the requirements of Indian cuisine.
4.5 DEMAND CHARACTERISTICS FOR CONSUMER DURABLES

The demand for consumer durables hinges on a number of factors, some of which are universally applicable even as the others are specific to items. Among the universal demand drivers, affordability is the major one. The increase in household incomes combined with a relative reduction in prices (owing, in particular, to a decline in duties and taxes) has led to an overall growth in the affordability levels. Another demand influencing factor has been access (or the lack of it) to infrastructure imperatives, like regular power supply and running water. Also, lifestyle parameters have had a significant role to play, with the ownership of durable goods increasingly being seen as a source of social status, especially among urban household. Further, the availability of consumer financing schemes from dealers or dedicated asset financing companies has made the acquisition of durables more convenient, and has been a major demand driver. Replacement demand has also had a major effect in terms of creating a market for slightly older assets with price tags suitable for lower income households.

4.6 GOVERNMENT POLICIES

Till the 1980s the consumer durables sector was looked upon as a luxury goods sector, and successive Government policies treated it accordingly. While on the one hand high rates of excise were levied on consumer goods manufactured domestically, on the other, import barriers were raised either in the form of quantitative restrictions or high tariff protection. Although the 1991 - initiated economic liberalization programme did come up with a New Industrial Policy, the consumer durables sector had to wait till FY 1994 for the relaxation of controls on foreign direct investment in the sector. In 1997, several consumer electronic items, including CTVs,
were delicensed, and many restricted Government policy, as far as the duty structure is concerned, has followed a two-phased approach. While the first has focused on bringing about a gradual reduction in duties across the board, the second has emphasized rationalizing the duties to a limited number of slabs, for transparency and administrative convenience. The impact of the rationalization process has been mixed for different items. While higher-end items have benefited, the lower-end ones, hitherto enjoying lower rates, have been effected adversely.

Many of the Government policies on the consumer durables sector have been influenced by international guidelines, especially those of the World Trade Agreement (WTO). In compliance with the WTO guidelines seeking removal of quantitative restrictions (QRs) on the import of all goods, the Government of India has, over the last few years, transferred many consumer durable items like refrigerators, washing machines and ACs from the SIL to the Open General License (OGL). Other items, including CTVs, have been transferred to the OGL in the Exim Policy of 2001. Moreover, as signatory to the Information Technology (IT) Agreement of the WTO, India is bound to reduce the tariffs on select electronics items to zero by the year 2005. Another key international guideline, which affects the refrigerator and AC sectors, is the Montreal Protocol. This protocol stipulates the complete phase-out of use of chloro fluoro carbons (CFCs) as refrigerants and other ozone depleting substance (ODS) by the year 2010.

4.7 CONSUMER DURABLES UNDER STUDY

Among the different consumer durables, only three durables such as Television, Refrigerator, and Washing Machine, are taken up for the study. These products are discussed further.
Indian Players in Products taken up for study

The different brand names of the product taken up for the study is shown in the Table 4.1.

**Table 4.1 Products and Brand Names**

<table>
<thead>
<tr>
<th>CTV</th>
<th>Refrigerators</th>
<th>Washing Machines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aiwa</td>
<td>BPL</td>
<td>BPL</td>
</tr>
<tr>
<td>Akai</td>
<td>Daewoo</td>
<td>Electrolux</td>
</tr>
<tr>
<td>BPL</td>
<td>Electrolux</td>
<td>Godrej</td>
</tr>
<tr>
<td>Daewoo</td>
<td>Godrej</td>
<td>IFB</td>
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<tr>
<td>Samsung</td>
<td>Haier</td>
<td>Siemens</td>
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<tr>
<td>LG</td>
<td>LG</td>
<td>Kenstar</td>
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<tr>
<td>Onida</td>
<td>Samsung</td>
<td>LG</td>
</tr>
<tr>
<td>Oscar</td>
<td>Videocon</td>
<td>National</td>
</tr>
<tr>
<td>Philips</td>
<td>Voltas</td>
<td>Samsung</td>
</tr>
<tr>
<td>Panasonic</td>
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<td>Haier</td>
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</tbody>
</table>
4.7.1 Television Market

Historical Perspective

The history of televisions can be traced back to 1888 with the discovery by German physicist Wilhelm Hallwachs that certain substances emit electrons when exposed to light. Hallwachs demonstrated the possibility of using photoelectric cells in cameras. This property called photemission was applied in the creation of image orthicon tubes, which, in turn, allowed the creation of the electronic television camera. In 1897, the Cathode Ray Tube (CRT) was invented by the Karl Braun, and in 1904, the first colour television system was proposed, based on the principle of scanning three primary colours. In 1907, the American engineer Lee De Forest invented the triode electron tube. This made amplification of video signals created by photoconductivity and photoemission possible. From 1923 through 1926, the American Charles F. Jenkins developed a working television system based on the Nipkow disk. In England, Scottish engineer John L. Baird demonstrated a working television system that was based on the Nipkow disk, with improved resolution. The Baird system used infrared rays and could take pictures in the dark. Both systems produced a small crude orange and black recognizable image.

In 1923 itself, Philo T. Farnsworth developed an electronic camera tube, called the "Kinescope". In 1928, John L. Baird demonstrated a colour television system using a modified Nipkow disk. In 1929 Zworykin demonstrated the all-electronic television camera and receiver. In 1935, Germany began the world's first public broadcasting service, and in 1936, England followed suit.

Three years later, in 1939, broadcasting in the US, The National Broadcasting Company (NBC) started scheduled regular broadcasts to only
400 sets in the New York area. These initial broadcasts employed a scanning system of 340 lines at 30 frames per second.

**Global Perspective**

By 1970, television had become the primary information and entertainment medium in the US. Today, it is estimated that there are 605 million television sets worldwide.

In 1985, colour TVs with 35" picture tubes were first marketed and the first portable LCD TV sold. The 1990s saw worldwide activity towards the adoption of digital television. In 1993, the all-digital system was proposed in the US. In the same year, wide screen television sets (16:9 aspect ratio) were launched in the US and Japan. VCD was adopted as a 5-inch optical disc standard. In 1995, a single standard for the Digital Video Disc (DVD) - ultimately termed digital versatile disc - was selected. It was also the year when flat-screen plasma display TVs were introduced. In 1996, the first DVD players were sold in Japan. While in the US, Zenith introduced the first High Definition Television (HDTV)-compatible front-projection TV. DVD players made their debut in the US in 1997. In 1998, saw DVD formats - DVD -ROM, DVD-RAM, DVD-R and DVD+R - were introduced, and the DVD- Audio format agreed upon. In 1998 itself, the first HDTV sets and flat-screen, plasma TVs were sold at retail in the US. In 1999, the first color screen hand-held personal computers were launched. The same year, hard disk-based video recorders were first introduced, capable of "smart" programming and instantaneous playback of a recorded TV programme even while the program would be running.
Indian Perspective

The television industry started in India in 1970 with the production of black and white television sets. The initial TVs were all 20-inch (or 51-cm) sets. For 13 years, this was the only size offered in the B&W TV market, till 14-inch TVs were launched in 1984. During the 1970s, the B&W TV market (viz, 20-inch B&W TVs) grew at a CAGR of over 38%. At the end of 1979, the B&W TV stock in the country was 1,191,311 numbers, which translated into a penetration level of 14 per thousand populations. The Government policy on B&W TVs in the initial period was characterized by licensing of manufacturing units for capacity in excess of 10,000 numbers per annum and encouragement to the small sector industry (SSI) sector to set up the technology was provided by the Central Electronics Engineering Research Institute (CEERI), Pilani.

A notable development was the launch of the 14-inch B&W TVs in 1984, which evoked an even better response from the market, especially since they were affordable for households in the lower economic strata, in both rural and urban areas. In the first five years, the 14-inch market grew at a CAGR of more than 72%.

The birth of CTV in India can be traced to the Asian Games (ASIAD) held in New Delhi in 1982. After the Asiad, Doordarshan Kendras were set up in many parts of the country.

The second phase of CTV growth came on the heels of the 1991-initiated economic liberalization programme, after which there was a reduction in both excise and import duties. Simultaneously, with the opening up of Indian skies to foreign satellite channels in 1991-92 and the coming of cable TV, the demand for TVs grew further. This was also the period when
private and more aggressive domestic players like Videocon, BPL and Mirc Electronics consolidated their presence in the CTV market through their focus on both product promotion and technology— the latter through collaborations with international bigwigs (BPL with Sanyo, Japan, Mirc Electronics with JVC, Japan, and Videocon with National, Japan).

The second half of the 1990s saw the entry of the first bunch of global brands like Akai, Aiwa, Sansui and Toshiba through strategic tie-ups with the established Indian players. The other multinationals including Sony, LG, Samsung entered on their own and quickly captured the imagination of the market with innovations in product quality and features.

**REFRIGERATORS**

**Global Scenario**

The size of the global refrigerator industry in an estimated at 80 million units in financial year 2000. The market leader is Bosch. Siemens which constitutes 40% of the market. The next generation of multinational entrants included the Korean chaebols – LG, Samsung and Daewoo—who started off by exporting models from their parent or group companies. Since the export of refrigerators of size larger than 300 litres was still not permitted, these companies initially offered larger-size models.

**INDIAN MARKET**

Valued at around Rs.50 million, the domestic white goods include refrigerators, washing machines and microwave ovens. The domestic refrigerator sector has a size of around 3.3 million units per annum (as of 2000), or around Rs. 35 billion in value terms. The sector is broadly segmented into direct cool (DC) and frost-free (FF) categories. Although the
DC segment currently accounts for over 80% of the market, the FF segment is growing at a faster pace. The major features on which refrigerator manufacturers are differentiating their products are cooling efficiency (through enhanced compressor performance, focused cooling techniques, etc.), de-odorizing facility, freezer to refrigerator proportion, and aesthetics.

Till the 1980’s the refrigerator market was dominated by Godrej, Kelvinator, Alwyn and Volta’s. The early 1990s saw the advent of other domestic players like video on and BPL, while the other players began by focusing on the direct-cool segment, BPL, from the outset, differentiated itself by concentrating on the premium frost-free segment. With the Government permitting entry of foreign companies in 1993-94, the entry of multinationals like Whirlpool and Electrolux started. The entry strategy of both Whirlpool and Electrolux was through acquisition of Kelvinator, which was a trusted name in Indian.

WASHING MACHINES

Historical Perspective

The history of washing machines can be traced to an apparatus called the scrub board, which was invented in 1797. In 1851, an American named James King manufactured and patented the first washing machine to use a drum. The next notable development was a machine developed in 1874 by William Blackstone, a merchant from Bluffton, Indiana, which washed away dirt from clothes.

Blackstone began to build and sell his washers for US$2.50 each. Five years later, he moved his company to Jamestown, New York, where it operates and produces washing machines even today. In 1875, there were more than 2,000 patents issued for various washing devices.
The 1900 Corporation, a predecessor of Whirlpool in 1947, reached a milestone in 1953 with the introduction of the first top-loading automatic washer.

The invention of fuzzy logic and its application in the washing machine added a new dimension to convenience. Fuzzy set instructions in the microprocessor turn sensor data into wash commands: load size detected (small, medium, large or very large), water clarity detected (very dirty, dirty, medium clean, or very clean), and water/detergent level needed (little, medium, or a lot of water/detergent).

GLOBAL SCENARIO

The total global demand for washing machines is estimated at 65 million units (as of FY2000). Of this, Asia alone would account for close to 50% of the market, followed by West Europe (20%) and North America (15%). China and Japan are the countries with the major washing machine markets, with their sizes estimated at 12 million and 5 million units, respectively.

INDIAN MARKET

The size of the domestic washing machines market is around 1.3 million units per annum, or Rs. 10 billion in value terms. The washing machines sector can also be categorized initially, into two segments; semi-automatic, and fully automatic. While the semi-automatic variety accounts for bulk of the washing machines market, the fully automatic segment is growing faster. The major features on which washing machine companies are differentiating their products are the kind of washing action employed
(agitator, pulastor or tumable wash), number of wash programs, and aesthetics.

Washing machines constitute a major sub-sector in the consumer durables industry, accounting for around Rs. 10 billion in value terms. The total size of the washing machines market in India has been estimated at 1.275 million units per annum (as in calendar year 200). The sector grew from a level of 0.55 million units per annum in FY1994 at a CAGR of 16.5%. Now on the basis of the level of convenience provided, washing machines can be broadly segmented into three kinds: washers, semi-automatic and fully automatic.

OUTLOOK ON CONSUMER DURABLES

The short-term outlook for the Indian consumer durables sector may not appear all that bright in the aftermath of the series of natural calamities that the country has lately been witness to. But for the medium to long term, the view is positive, give the rising affordability levels (combination of increasing disposable incomes and the trend of reducing prices), and the existing low household penetration base for consumer durables. The growth prospects for individual items would, however, depend on specific demand drivers. For instance, within television, CTV demand is likely to benefit from the emergence of newer technologies, especially digitalization. But the market for B&W TVs, on the other hand, is likely to shrink further and faster, with the recent imposition of the 4% excise duty on B&W TVs hastening the process. In video products, the prospects for VCD and DVD players would be shaped by the high-income clientele, while their penetration into the mass market would hinge on the ability of manufacturers to reduce prices. As for the audio sector, the growth of the music industry is likely to remain the major demand driver. The MP3 player, which represents
the latest in the audio sector, is however unlikely to see any spectacular
growth in the Indian market in the short term, give the lack of product
awareness and the limited number of 'Net-connected' households in the
country.

In white goods, the market is likely to see the launch of more value
-added models across product categories. Among refrigerators, over the last
two to three years, the frost-free models have shown a higher growth
compared to direct cool ones, especially with new innovative product
offerings from multinational entrants like LG and Samsung. However, faced
with the recent demand crunch in the overall refrigerator market, the players
are realizing the importance of opening up the lower end of the market,
which is much less penetrated. Players are renewing their focus on the direct
cool category with the launch of new models, bedecked with attractive
convenience feature (like enhanced cooling efficiency and greater storage
space), which is likely to lead to a revival of their demand. Similarly, among
washing machines, the launch of the single-tub semi-automatic machine is
likely to create an intermediate segment in terms of both price and value. However, the skewness of washing machine demand towards urban areas is
likely to persist, for reasons of infrastructure and perceived utility (both low
for rural India).

INFERENCES ON CONSUMER DURABLES

- A Consumer durable is defined as a consumption item that is
  not immediately consumed, but renders a stream of services
  over certain period.

- As is typical in a developing country, in India, the evolution of
  consumer durables as a sector was delayed because of durable
assets being perceived as luxury items both by Government and household.

- The delay is also attributable to the fact that most durable items were technological innovations in the West, and had to be imported. With the Indian Government following an import-substitution policy for long, using up foreign exchange to import "non-priority items" was considered avoidable.

- In India, the consumer durables sector germinated during the 1980s, when the benefits of economic growth trickled down to raise affordability levels, leading to the evolution of consumers as a class. The psychographics profile of people underwent a change, and with the onset of consumerism, ownership of assets became a matter of social status as never before. The Government also did its bit by launching colour televisions in 1982, when India hosted the Asian Games.

- While domestic players laid the foundations for the consumer durables sector, it was in the 1990s that it started witnessing intense activity with the entry of multination. Initially, the multinationals, unfamiliar with the peculiarities of the Indian market, had to face a lot of teething troubles. However, with their financial muscle and time-tested global experience, the multinationals persisted with the Indian market and have now managed to create a significant presence for themselves.