Global Hides and Skins Market: Review of 2004-2007 and Prospects for 2008

1. Introduction

The global leather supply chain grew tremendously over the period 1981 to 2006, for example its exports, which included raw hides and skins, tanned leather and footwear, expanded by 329.19 percent in nominal terms from an average annual figure of USD13,4 billion in the 1981-3 period to USD59.8 billion in 2005-6 period. The three main segments namely hides and skins, tanning and footwear contributed 12.06 percent, 30.09 percent and 57.85 percent respectively to the total global export bill. Growth was propelled by rapid expansion in the exports of light bovine leather, which increased by 700 percent from USD2.0 billion in the base period to USD16.2 billion average per annum by 2005-6. Footwear rose by 363.89 percent, from USD7.7 billion to USD35.9 billion per annum in the same period. All categories registered growth of above 90 percent, except for the exports of goatskins, which declined by 76.97 percent in the same period; however its retreat was hardly felt in the chain because its share in the exports basket was less than one percent.

The main feed stock of the leather supply chain, hides and skins are a by product of the meat and dairy market chains. Therefore the production of hides and skins is virtually inelastic to changes in their price, but is influenced by factors that drive the meat and dairy markets. On the other hand the consumption of footwear with leather uppers¹ and other leather products is positively related to changes in the purchasing power of consumers, as reflected by the fact that high income countries import proportionately more footwear than poor countries, as shall be illustrated in the relevant sections of this report. The dynamics in the leather chain are therefore to a significant extent dependent on the level of performance in the meat and dairy markets and growth trends in the global economy.

From 2004 to 2007 the global bovine head averaged 1,566.3 million, which yielded approximately 6.2 million tonnes of raw hides per annum on a wet salted basis². The average unit weight per hide was 18.3 kg. Heavy leather production totalled 500,200 tonnes, while 13,832 million square feet of light leather, including split leather, were produced. Some 48 percent of the light leather was converted into 4,487 million pairs of footwear with leather uppers, utilizing roughly 6,730 million square feet. The remaining 52 percent of light bovine leather was absorbed by other diverse end-uses, largely garments, furniture and travel goods, including handbags. A global sheep and goat flock of 1,893 million generated 657,000 tonnes of raw skins on a dry basis³. This raw material was converted into leather measuring 4,689 million square feet. i.e. some 7.1 square feet per kg of raw skin. While some of the sheep leather was used in shoe linings and some goat leather in shoe uppers, the bulk found its way into a vast variety of leather articles ranging from leather clothing to wristwatch bands.

The market report is structured in the following sections: brief outlook of the world economy; characterisation of the hides and skins market; an analysis of the trends of key variables in the leather value chain in the 2003- 2007 period; a snap short view of the current issues in the meat market of selected countries; summary and prospects for 2008.

¹ Footwear in this context refers only to those with leather uppers.

² Wet salted basis – is the weight obtained after salting or brining hides or skins. Wet salted cattle hides may weigh 85 to 90 percent of a green hide in temperate climates and as little as 70 percent in tropical climates.

³ Dry weight – is the weight obtained after drying hides and skins without prior salting. It represents about 35 percent of the "green" weight. Green weight is the weight after flaying and removing dirt and dung.

2. Global Economic Situation

The global economy grew by 5.0 percent and 4.7 percent in 2006 and 2007 respectively, and it is projected to slow down to 3.7 percent in 2008. The forecasted decline is attributed mainly to the OECD countries, especially the U.S. The U.S. economy growth retreated to 2.2 percent in 2007, from 3 percent in 2006. This was triggered by financial markets turbulence and the underperformance of the subprime housing market. The continuous upsurge in petroleum prices dampened prospects of an early recovery. It increased from \$60/barrel in the early part of 2007 to \$92/barrel by October 2007 and \$99.29/barrel for December futures in New York on November 21, 2007⁴. This has undermined consumption, and has helped to accelerate yearly headline inflation to 3.4 percent by February 2008. The severity of the situation in the financial sector was epitomised by a near collapse of one of the five largest investment banks in March 2008⁵.

The projected decline in the U.S. economy is likely to impact the global leather chain from both ends of the chain, because she is the world leader in the production and importation of bovine hides and footwear respectively. Out of an average of 6,096.6 tonnes of hides which were produced per annum in the period 2000-7, the U.S. contributed 13.92 percent. On the other hand it imported 35.5 percent of the world's total import trade of 2,378 million pairs per annum. Growth of the U.S. economy may lead to increased demand for meat and footwear, entailing an increased supply of hides and importation of footwear from various countries across the globe, and the reverse is true in the event of an economic decline. Table 1 summarises the past and projected performance of the global economy and few selected countries.

Table 1: Gross Domestic Product Real Growth (percent)

Regions/Countries	2006	2007 ¹	2008 ²	2009^2
World Output	5.0	4.9	3.7	3.8
Advanced economies	3.0	2.7	1.3	1.3
Euro Area	2.8	2.7	1.4	1.2
Japan	2.2	2.2	1.8	2.1
U.S.	2.9	2.2	0.5	0.6
Developing Countries	7.8	7.9	6.7	6.6
China	11.1	11.4	9.3	9.5

Source IMF

3. The Market Structure of Hides and Skins 1996 to 2006.

As alluded to before the fundamentals governing the market structure of hides and skins are greatly influenced on the supply side by activities in the meat and dairy markets and on the demand side by the level of activities in the footwear and other leather products markets. The production of hides and skins is not a function of demand and price of hides and skins, because they are not produced primarily as raw materials of the leather industry, but they are a by-product of the meat and dairy supply chains. It is important to note that in certain markets, merchants of hides and skins may withhold supplies, if prices are not favourable, however this

⁵ IMF, World Economic Outlook, April, 2008.

⁴ wikpedia.org.

⁶ 1996 to 2006 – although our detailed analysis covers the period 2004 to 2007, we have used the long period to assist us to characterise the market.

can only be done to a limited extent given storage and preservation costs associated with carrying huge stocks of the product. The demand for hides and skins is derived demand that is they are not tanned for their own sake, but for the purpose of producing footwear, leather garments and other leather products.

The quantities of hides and skins brought to the market may influence their prices, for instance a change in the slaughter of livestock, which leads to a subsequent change in the supply of hides and skins on the market, may lead to an increase/decrease of their price other thinks being equal. The two variables had a correlation coefficient of -0.65 in the period 1991 to 2006. On the demand side the increase in the purchase of footwear and other leather products, would see producers of the leather products demanding more leather, this would in turn signal to tanners to purchase and process more hides and skins. Other thinks being equal an increase in the demand of hides and skins, would lead to an increase in their prices. The linear relationship between demand and price of hides was very strong in the period 1991 to 2006 with a correlation coefficient of -0.61; the relationship between price and demand of heavy leather was weak at -0.25. This variation could be explained by the fact that light leather is geared towards the manufacture of footwear and consumers are more sensitive to price changes than industrial users. Footwear is the single largest consumer of light leather, as alluded to before, a change in the demand of footwear, is likely to impact on the production of light leather and the two variables showed a high degree of correlation at 0.86. Data in Table 2, gives a picture of the dynamics of price of hides, number of cattle slaughtered, volume of hides in terms of weight, number of pairs of footwear, which were produced and hides, which were traded internationally.

Table 2: Trends of Key Variables of the Leather Value Chain (1991 to 2006)

	Number of animals slaughtered	Hides Produced	Prices	Footwear in pairs	Hides Traded in tonnes	Tanned light Bovine Leather
	In millions ⁷	In 000s tonnes	USD per Pound	In Millions	In 000s tonnes	million square metres
1991	390.32		79.45			
		5,352.30		3,912.90	3,885.30	9,301.70
1992	293.20	5,379.10	75.86	3,606.60	3,957.60	9,097.30
1993	294.80	5,398.90	80.03	3,830.10	4,015.70	9,169.30
1994	300.60	5,494.30	86.81	4,367.50	4,402.00	9,939.90
1995	305.50	5,578.90	88.14	4,199.80	4,361.40	10,108.90
1996	304.80	5,557.40	87.32	4,140.00	4,537.30	10,570.50
1997	313.40	5,722.90	88.25	4,155.40	4,601.50	10,789.40
1998	314.60	5,774.50	76.69	4,158.10	4,338.20	11,043.30
1999	316.70	5,848.80	72.15	4,122.50	4,394.70	11,328.70
2000	318.40	5,914.80	80.22	4,345.80	4,660.50	12,165.10
2001	314.80	5,839.70	84.60	4,427.00	4,617.00	12,741.60
2002	321.80	5,838.40	80.75	4,453.30	4,743.30	12,571.70
2003	329.20	6,103.50	68.30	4,475.70	4,508.90	13,040.00
2004	333.30	6,059.40	67.13	4,482.80	4,757.10	13,628.50
2005	333.00	6,098.80	65.64	4,478.50	4,818.30	13,824.90
2006	335.20	6,159.30	68.93	4,498.10	4,845.40	14,041.40
2007		6,319.6	72.14		4,845.4	

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⁷ This translates to the equivalent pieces of hides per annum.

a. The interaction of hides' production, volumes tanned and price in the period 1991 to 2007.

In the period 1991 to 2007, the production of hides increased by 18,07 percent, tanning of heavy and light bovine hides responded positively by 50.96 percent and 32.02 percent respectively, whilst the price of hides retreated by 9.2 percent. Hides production was on an upward trend in the entire period, except for two minor dips. It grew constantly from 1991 to reach 4.23 percent in 1995, and then slowed down to 3.83 percent in 1996, before accelerating to reach a peak of 10.51 percent in 2000. It then slowed down to an average of 9 percent in 2001 and 2002, before rebounding by 15 percent between 2005/2006 and closing the period at 2.5 percent. On the demand side, the tanning of both heavy and light leather retreated by around 1.5 to 3 percent between 1991 and 1993, before accelerating at a faster pace to reach double digit growth by 1996 and 1995 respectively. The price was the most unstable variable as illustrated in Figure 1, it moved in lips and bounds. It retreated by 4.51 percent in 1992, and then grew consistently to reach 11.08 percent in 1997, before slowing down by 3.47 percent and 9.19 percent in 1998 and 1999 respectively. It recovered slowly by 0.97 percent in 2000, it then rose by 6.48 percent in the following year. From 2003 to 2007, the price of hides went down significantly from USD84.60 to close at USD72.14 in 2007. Figure 1 illustrates the growth pattern of the four variables in the period 1991 to 2006, with 1991 as the base year.

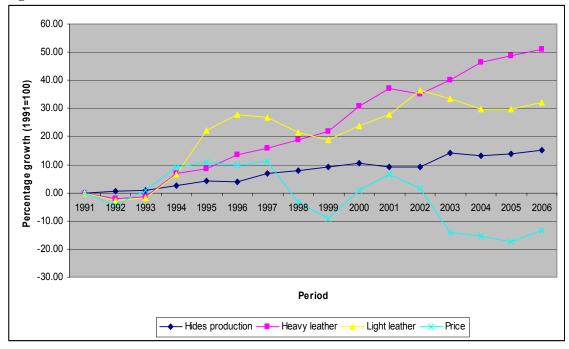


Figure 1: Growth Pattern of Production, Price and Demand of Hides

The interaction between price and volumes of hides processed has displayed a systematic pattern, whereby their peaks and troughs have coincided. This is a reflection that changes in demand of hides have influenced the direction of price, in a scenario where the supply of hides is a given parameter. These include peaks in the 1995 to 1997 period in relation to the tanning of light leather and 2001 in regard to the processing of heavy leather. The notable troughs, were in 1992 with respect to both heavy and light leather, then 1999 and 2005, this was with respect to light leather only. The relationship between price and production of hides

has also displayed a pattern, whereby some peaks in the production of hides have been associated with a decline in the price. In the years 1998 and 1999, hides production grew by 7.89 percent and 9.28 percent; this saw prices contracting by 3.47 percent and 9.19 percent respectively. In the second period of 2003 to 2006, hides production grew by an average of 14.06 percents, and prices retreated by 15.04 percent. This is a reflection that the price of hides is partly influenced by changes in the supply of hides, *ceteris paribus*.

b. The interaction volumes of hides tanned, footwear production and raw hides prices.

Historically footwear manufacturing has been estimated to consume 60 to 65 percent of all the leather tanned in the world, its importance has shrunk over the years and was estimated at 48 percent in the 2004-7 period. Nevertheless it still remains the biggest single user of leather, thus it is used as a proxy of the level of demand at the end market of the chain. It is assumed that an increase in the consumption of footwear would increase demand of leather.

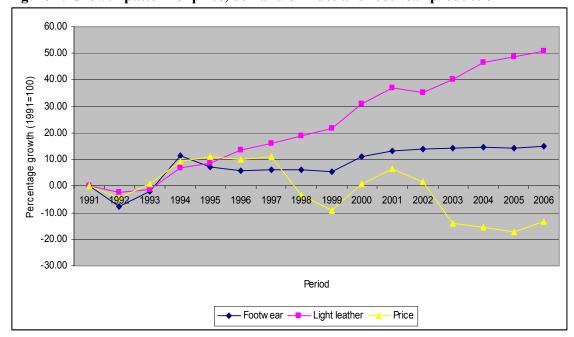


Figure 2: Growth pattern of price, demand of hides and footwear production

Footwear production grew slower than production of light bovine leather; the former grew by 14.96 percent against 50.96 percent by the later in the period 1991 to 2006. This huge discrepancy in growth reflected the contraction of footwear manufacture as the major user of light leather. Other uses such as the production of furniture and auto mobile seats have been making significant inroads in the consumption of light leather. Footwear manufacturing's use of light leather, which stood at 50 percent in the period 2001 - 2003, contracted to 48% in the period 2004 - 2007. From Figure 2, it is clear that in the period 1991 to 1995, footwear production was closely associated with the level of activity in the production of light leather. However the pace of growth between footwear and tanning widened from a margin of 1.35 percentage points in 1995 to 36 percent points in 2006, which implies that growth in the

⁸ It is difficult to estimate the amount of leather being consumed by the furniture and automobile industry as there is no readily available source of data, which we have been able to identify to date.

tanning of light leather was no-longer significantly being driven by the production of footwear alone.

4. Livestock size and slaughtering trends 2003 to 2007

Most agricultural commodities if not all, are characterised by cycles, that is their size/volumes or prices, may grow to reach a peak, then decline then rise again, and this pattern is repeated continuously at more or less the same length of time. The size of livestock, numbers slaughtered, price of livestock and livestock products, move in cycles with varying lengths of lags depending on both biological and economic factors. Variables, which influence the production cycle of cattle, sheep and goats are weather, feed grain prices, disease outbreaks, consumer incomes and expenditures, inflation and the changing consumer tastes. A drought, which results in poor pasture, may force farmers to send more animals for slaughter earlier than normal or feed then with grain or harvested forage, depending on price and availability respectively. Rising prices of beef may force consumers to switch to other cheaper protein substitutes, consequently leading to a cut in the slaughter of cattle and hence a decline in the production of hides. Another important factor, which may impact significantly on the slaughter of livestock, is the detection or an outbreak of diseases such as bovine spongiform encephalopathy (BSE) and foot and mouth disease (FMD). Empirically the negative impact of disease outbreak on slaughter numbers was more marked in countries, which exported a significant proportion of meat output at the time of disease outbreak or detection. It was estimated that loss of export markets is much more significant if 40 percent of the country's output is exported than if 5 percent is exported⁹.

The number of animals slaughtered translates to the number of pieces of hides and skins produced in a given period of time; however it should be noted that, in many countries, especially developing countries, the number of livestock slaughtered is estimated to be far greater than the number of hides and skins, which ends up in domestic tanneries or exported. This is an outcome of the non collection of hides and skins of livestock slaughtered at homesteads, poor flaying and preservation techniques, which leads to a higher rejection rate of hides and skins by merchants and tanners.

No attempt was made to undertake a detailed analysis of the performance of the meat and dairy supply chains, as this lies outside the scope of this report, however a snap short of the level of activities in the main hides and skins producing countries was undertaken. Table 3 shows the trends in livestock size split between developed and developing nations. Developing countries own 79.04 percent, 66.87 percent and 95.61 percent of cattle, sheep and goats respectively, at the same time the size of all categories of livestock have grown faster in developing than in developed countries in the period 2003 to 2007.

⁹ Economic effects of animal diseases linked to trade dependency (WWW.ERS.USDA.GOV/AMBERWAVES)

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Table 3: The Livestock size in the period 2003 to 2007 (in millions)

		•			Relative importance	Percent change 2007
	2003/4	2005	2006	2007	(%)	over 2003/4
Cattle						
	1,534.2					
World Total	5	1,555.60	1,571.90	1,591.70		3.74
	1,208.7				79.04	
Developing Countries	5	1,228.10	1,244.30	1,261.60		4.37
Developed Countries	325.50	327.50	327.60	330.10	20.76	1.41
Sheep						
	1,040.2					
World Total	5	1,079.00	1,086.00	1,094.50		5.22
Developing Countries	685.90	721.80	729.10	738.40	66.87	7.65
Developed Countries	354.35	357.20	356.90	356.10	33.13	0.49
Goats						
World Total	784.75	820.20	829.10	843.90		7.54
Developing Countries	749.50	784.30	793.10	807.30	95.61	7.71
Developed Countries	35.25	35.90	36.00	36.60	4.39	3.83

Developing countries slaughtered more livestock, however this was less in proportionate terms, when compared to the size of livestock they had in the period 2003- 2007. This is because developing countries have a lower off take rate than developed countries. This is attributed to the fact that most livestock is held as a stock of wealth, whereas in developed countries livestock rearing is mainly a business venture. Despite this, slaughter in all categories of livestock was faster in developing than in developed countries, indicating growth in the consumption of meat in the former. For instance cattle, sheep and goats slaughter increased by 4.56 percent, 13.70 percent and 12.22 percent respectively. Developed countries slaughter for sheep and goats increased by between 4.20 percent and 4.66 percent, however cattle slaughter declined by 2.71 percent. Table 4, gives trends in the size and number of livestock slaughtered in the period 2003 to 2007.

Table 4: The Livestock slaughtered in the period 2003 to 2007 (in millions)

	2003/4	2005	2006	2007	Relative importance (%)	Percent change 2007 over 2003/4
Cattle						
World Total	329.00	333.00	335.20	344.00		4.56
Developing Countries	214.70	224.90	226.10	232.80	66.99	8.43
Developed Countries	114.30	108.10	109.10	111.20	33.00	-2.71
Sheep						
World Total	517.60	545.70	556.70	571.40		10.39
Developing Countries	337.65	364.20	372.30	383.90	66.53	13.70
Developed Countries	179.95	181.50	184.40	187.50	33.46	4.20
Goats						
World Total	346.90	367.40	375.30	387.90		11.82
Developing Countries	328.65	348.60	357.10	368.80	94.97	12.22
Developed Countries	18.25	18.80	18.20	19.10	5.03	4.66

FAO

5. Situation in major hides producing countries

The countries, which slaughtered the most in the period under review, were China, the U.S., India, Brazil, the EU (15) and Argentina. Out of an annual world average slaughter of 344 million head, China and the USA contributed 15.7 percent and 15.4 percent respectively. The six countries cited above contributed 62.3 percent of the total world slaughter, in the period 2003 to 2007, thus by interpolation 62.3 percent of the hides pieces, which were tanned in the world came from the given countries. A sharp decline or increase in slaughter numbers in any of the countries listed in Table 5 is likely to impact on the performance of the global leather value chain. Table 5 gives out the relative importance of listed countries in the production of hides, which amounted to an average of 6,096.6 thousands tonnes per annum, in the period 2003 to 2007. China and U.S. contributed 13.64 percent and 13.92 percent respectively in the given period. China slaughtered more cattle than the U.S., however the later contributed more to hides output in terms of weight because it produces more heavy hides than China. China's relative importance increased by 17.07 percent, whereas U.S. receded by 9.33 percent. Other notable changes were recorded in the Russian Federation and EU (15), which declined by 18.42 percent and 5.50 percent respectively. India was static, whereas Brazil increased by 2.58 percent, Argentina, retreated by 1.47 percent.

Table 5: Relative Importance in the production of hides in wet salted weight (%)

						2003-7
	2003	2004	2005	2006 ¹	2007^{2}	Average
China	12.3	13.4	14.1	14.0	14.4	13.64
USA	15.0	13.9	13.3	13.8	13.6	13.92
Brazil	11.6	12.0	12.0	11.9	11.9	11.88
European Union (15)	10.9	10.9	10.6	10.3	10.3	10.6
India	6.8	6.9	6.9	6.8	6.8	6.84
Argentina	6.8	5.8	6.6	6.5	6.7	6.48
Russian Fed	3.8	3.7	3.3	3.3	3.1	3.44
Others	32.8	33.4	33.2	33.5	33.2	33.22
Developing Countries	57.3	58.6	60.4	60.2	60.5	59.4
Developed Countries	42.7	41.4	39.6	39.8	39.5	40.6

¹ Preliminary ² Estimate

i. Situation in the USA beef Market

The cattle inventory in the U.S. was 97 million in January 2003, down from the 1996 peak of 103.5 million and as of January 2008, the head had declined marginally from 97 million in January 2007 to 96.7 million. Commercial slaughter was 34.3 million for 2007, which was higher by 1.79 percent than in the previous year. The slaughter levels retreated by 9.35 percent from 35.73 million in 2002 to of 32.387 million in 2005, this decline was partly explained by the BSE detection on 23 December 2003. This was followed by an 81.7 percent decline in exports from 2,518 billion pounds in 2003 to 460 million pounds in 2004; however exports have recovered tremendously to reach 1,431 billion pounds in 2007.

According to the United States Department of Agriculture (USDA) despite a lower cattle inventory in the first quarter of 2008, slaughter levels are likely to exceed that of the same period in 2007, mainly because producers in Alabama, North Carolina, and Tennessee continue to face dry conditions and high feed costs. The domestic consumption of beef has been on a sustained upward trend from 27.9 billion pounds in 2002 to 28.1 billion pounds in

2007, with the exception of an isolated drop, which was experienced in 2003, when consumption dropped to 27 billion pounds. The demand for U.S. beef export is also growing after a sharp drop in 2004 as alluded to in the previous paragraph. The drought, high grain prices and increased exports are likely to increase slaughter of animals in 2008, consequently more hides, would be produced.

ii. Situation in the Chinese Beef Market

In the period 2003/7 China contributed an average of 15.7 percent to the total world slaughter of 344 million cattle. This made China the most significant producer of hides in the world in terms of pieces, followed by the U.S., which contributed 15.14 percent. China's contribution to the total slaughter in the period 2003/7, grew by 17.07 percent, this growth was attributed to robust economic growth which was above 8 percent in the same period.

Slaughter levels are expected to grow in 2008, because of disease outbreak in the Chinese swine industry and the summer Olympic Games, consequently this would see more hides being supplied to the market.

iii. Situation in the Brazilian Beef Market

In the period 2003 to 2007, Brazil contributed an average of 10.9 percent to the world total slaughter, which averaged 344 million cattle per annum. Its cattle and beef production was strong in 2007, despite the continuing impact of foot and mouth disease (FMD) since October 2005. The slaughter levels in Brazil were driven by firm domestic consumption and rejuvenated beef exports, as most countries had removed restrictions, except the European Union (EU). Beef production was estimated to have grown to 9.3 million metric tonnes in 2007, up by 3.4 percent from 2006¹⁰. This growth was attributed to strong domestic demand, which was driven by improved consumer purchasing power, growth in beef exports to non traditional markets and good rains have significantly improved pastures.

iv. Situation in the European Union (15) beef Market

EU (15) contributed 7.76 percent to the total world slaughter which averaged 344 million cattle per annum in the period 2003 - 2007. However EU (15)'s importance declined by 6.58 percent in the period 2003-7. The total herd in the EU (15) has also been estimated to have declined from 86.4 million to 85.1 million between 2005/6. The shrinkage in the size of the herd was attributed to increased milk production efficiency, which has led to lower dairy numbers in the EU (15).

b. Sheep Slaughter

China slaughtered the highest number of sheep, which amounted to 28.8 percent of the world average slaughter of 571.4 million sheep per annum in the period 2003/7. Its relative importance increased by 24.68 percent in the same period. This was fuelled by robust economic growth, which was accompanied by an increased consumption of meat. EU (15) took the second position in the slaughter of sheep as they accounted for 12.25 percent. Their relative importance was stable as it was in the 12-13 percent range for the entire period except for 2006, when it contracted to 11.8 percent, before rebounding to 12.21 percent in 2007.

¹⁰ USDA Foreign Agricultural Service – Gain Report Number: BR7608

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Other notable countries in terms of sheep slaughter were New Zealand and Australia, who contributed 5.46 percent and 5.36 percent respectively. However, both New Zealand and Australian contributions declined by 12.5 percent and 18.1 percent respectively in the period under review

An average of 402, 7 thousand tonnes of sheep skins were produced in the period under review, China maintained her pole position contributing 19.26 percent, followed by the EU (15) and New Zealand, whose relative significance stood at 15.9 percent and 10.02 percent respectively. China's contribution grew by 26.34 percent, however New Zealand shrunk by 8.33% and the EU (15)'S relative importance remained statistic between 2003 and 2007.

China slaughtered 28.8 percent and the EU (15) 12.25 percent of the world total, which translated to 19.26 and 15.9 percent of total weight of skins produced. The proportionate variance between the relative importance in slaughter and output of skins in terms of weight reflects that the skin sizes produced in China are relatively smaller that those produced by the EU (15). Table 6 summarises the relative importance of listed countries in the production of sheep skins, in the period 2003 to 2007.

Table 6: Relative Importance in the Production of Sheep in wet salted weight (%)

						2003-7
Countries	2003	2004	2005	2006 ¹	2007 ²	Average
China	16.7	18.7	19.7	20.1	21.1	19.26
European Union (15)	16.1	16.2	15.7	15.4	16.1	15.9
New Zealand	10.8	9.8	9.8	9.8	9.9	10.02
Australia	9.5	8.3	9.1	9.5	8.5	8.98
Iran	3.9	3.9	3.7	3.6	3.6	3.74
India	3.2	3.1	2.9	2.8	2.8	2.96
Others	39.8	40.2	39.0	38.7	38.1	39.16
Developing Countries	51.3	53.6	53.5	53.5	53.8	53.14
Developed Countries	48.7	46.4	46.5	46.5	46.2	46.86

¹ Preliminary ² Estimate

c. Goats Slaughter

China slaughtered the highest number of goats in the period under review, which translated to 37.7 percent to the world annual average slaughter of 364.88 million goats in the period under review, and was followed by India, which slaughtered 16.1 percent. Other notable countries were Pakistan and Bangladesh, which slaughtered 5.9 percent and 5.2 percent respectively. China's relative importance grew significantly by 26 percent, whereas EU (15)'s contribution shrunk by 12.8 percent.

Table 7 summaries the relative importance of listed countries in the production of goats skins in terms of percentage contribution to 246.1 thousands tonnes (wet salted weight), which is the average total weight per annum. China and India contributed 35.46 percent and 18.88 percent to total weight respectively, however the significance of the former grew by 13.21 percents, whereas that of the later shrunk by 9.09 percent. Other notable declines in terms of relative importance in goat skins production was recorded in Bangladesh which slid by 10.34 percent.

Table 7: Relative Importance in the Production Goat Skins in wet salted weight (%)

GOATS	2003	2004	2005	2006 1	2007 ²	2003-7 Average
China	33.3	34.0	35.8	36.5	37.7	35.46
India	19.8	19.5	18.7	18.4	18.0	18.88
Pakistan	6.0	6.1	6.0	5.9	5.9	5.98
Bangladesh	5.8	5.7	5.4	5.3	5.2	5.48
Others	35.1	34.8	34.1	33.9	33.2	34.22
Developing Countries	94.4	94.2	94.5	94.8	94.7	94.52
Developed Countries	5.6	5.8	5.5	5.2	5.3	5.48

¹ Preliminary ² Estimates

China's per capita meat consumption is less than 53 kg now, compared with the 70-130 kg consumed by citizens in developed countries. A study by the International Food Policy Research Institute has forecasted that by the year 2020, people in developing countries will eat more than 36 kilograms of meat on average - twice as much as in the 1980s. In China, the figure is expected to grow to 73 kilograms. These figures point to the fact that China's slaughter figures are set to continue to increase others things being equal.

6. Global Trade

The volume of hides and skins traded across the world is greatly influenced by geographical distribution of livestock and tanning, footwear, leather garments, upholstery industries across the globe. Global trade of hides averaged 4,711.96 thousand tonnes per annum, broken into 48.8 percent and 51.2 percent as imports and exports respectively. Total trade grew by 4.7 percent, with imports growing slower by 4.3 percent, against 4.9 percent that of exports.

a. Exports of Hides and Skins

The EU (15) and the U.S. were the main exporters of hides, they contributed 32.65 percent and 29.7 percent respectively in the period 2002/6 period to the world exports, which averaged 2308.73 thousand tonnes per annum. EU (15)'s export of hides grew through out the review period, with the exception of 2003, when exports declined by 0.8 percent, when compared to 2000/2 average. USA exports were also on an upward trend with the exception of 2004, when they declined by 4 percent, this maybe attributed to the detection of BSE in the late 2003, which was followed by a slowdown in slaughter levels by 8.7 percent in 2004. Although China led the world in slaughtering of cattle in the period under review, it only contributed 7.5 percent to the total exports of hides; this is largely explained by the fact that China has the biggest tanning capacity in the world, thus most hides, which were produced in China found their way into the tanning drums located within China. See Table 8 for more details, for export contributions of major players in the period 2003 to 2006.

Table 8: Exports of Hides and Skins in Thousand tonnes.

-	2003	2004	2005	2006	2000/6 average	Percent contribution
Bovine hides World						
Total	2,194.60	2,340.60	2,349.20	2,350.50	2308.72	
Contribution by top						
Four	1644.6	1785.6	1815.4	1832.9	1769.62	
EU (15)	726.2	762.4	762.9	763.9	753.85	32.65
USA	685.3	657.3	665.2	714.1	680.47	29.47
China	102.8	210.2	223.4	183.3	179.92	7.79
Australia	130.3	155.7	163.9	171.6	155.37	6.73
Others	550.00	555.00	533.80	517.60	539.1	23.35
Sheep Skins World						
total	163.30	160.60	164.20	174.60	165.67	
Contribution by top						
Four	112.1	108.7	116.2	126.7	115.92	
EU(15)	49.4	47.4	46.6	48.4	47.95	28.94
Australia	26.2	26	33.9	37.1	30.8	18.59
New Zealand	26.1	27.3	27.7	33.2	28.57	17.25
Iran	10.4	8	8	8	8.6	5.19
Others	51.20	51.90	48.00	47.90	49.75	30.03
Goat Skins World						
total	11.8	10.9	10.8	10.2	10.925	
Contribution by top						
Five	4.6	4.1	4	4.2	4.225	
EU(15)	1.3	1.1	1.9	2.1	1.6	14.65
Ethiopia	1.2	1	0.8	0.8	0.95	8.70
Nepal	0.9	0.9	0.8	0.8	0.85	7.78
Sudan	0.3	0.7	0.1	0.3	0.35	3.20
Australia	0.9	0.4	0.4	0.2	0.475	4.35
Others	7.2	6.8	6.8	6	6.7	61.33

¹ Preliminary ² Estimate

EU (15), Australia and New Zealand were the major exporters of sheep skins in the period under review; they contributed 28.94 percent, 18.59 percent and 17.25 percent respectively to the world exports, which averaged 165.67 thousand tonnes per annum. EU (15) and New Zealand's contribution grew, with the former increasing marginally by 0.08 percent and the later rising steeply by 18.1 percent. Australia on the other hand shrunk by 6.3 percent. Again China despite being the highest contributor to world slaughter of sheep, it did not feature at all amongst the top exporters of sheep skins, and this was due to reasons alluded to in the proceeding paragraph.

The EU (15), followed by Ethiopia, were the largest exporters of goats skins in the period under review, contributing 14.65 percent and 8.7 percent respectively to the world annual export average of 10.92 thousand tonnes in the period 2003 to 2006. Nepal and Australia were the other notable exporters, contributing 7.78 percent and 4.35 percent respectively.

EU (15) are prominent players in the export of hides and skins despite coming forth and second in cattle and sheep slaughter respectively, and are not even among the top four countries in the slaughter of goats. This scenario is explained by the fact that leather tanning business has declined significantly in this zone.

Imports of Hides and Skins

In the period under review China was the biggest buyer of hides on the international market, as it imported 38.41 percent of 2,494.9 thousand tonnes, which was traded annually, this is a reflection of China's significance in leather tanning. The second spot was taken by the EU (15), which imported about 22.3 percent amounting to an average of 544.27 thousand tonnes, however 64.91 percent of these imports were destined to Italy, living the other 14 countries to share 35.09 percent. Other notable importers of hides were Korea Republic and Thailand, whose import shares were 7.43 percent and 4.49 percent respectively. China imports grew significantly by 24.48 percent, whereas all key importing countries, contracted, for example the whole of EU (15) went down by 89.71 percent. Thailand and Korea Republic also saw their imports declining, for details see Table 9.

Table 9: Imports of Hides and Skins in thousand tonnes

•					2000/6	Percent
	2003	2004	2005	2006	average	contribution
Bovine Hides World total	2314.3	2416.5	2469.1	2494.9	2423.7	
Contribution by top Five	1838.9	1907.7	1978.1	1331.5	1764.05	
China	805.4	921.2	994.4	1002.6	930.90	38.41
EU (15)	721.3	690.1	691.5	74.2	544.27	22.46
of, which Italy contributes	347.2	337.2	331.6	397.2	353.30	
Korea Republic	197.4	183	181.7	158.4	180.12	7.43
Thailand	114.8	113.4	110.5	96.3	108.75	4.49
Others	475.4	508.8	491	1163.4	659.65	27.22
Sheep Skins World total	174.7	173	184.9	195.8	182.10	
Contribution by top Three	142.4	139.5	150.2	159.6	147.92	
Turkey	58.6	63.6	73.1	65	65.07	35.74
China	40.3	41.3	46.9	61.4	47.47	26.07
EU (15)	43.5	34.6	30.2	33.2	35.37	19.43
Others	32.3	33.5	34.7	36.2	34.17	18.77
Goat Skins World total	17.5	17.5	16.9	16.6	17.12	
Contribution by top Four	14.4	15	15	14.9	14.82	
Pakistan	4.5	4.5	5	5.1	4.77	27.88
Turkey	3.9	4.1	3.4	3.5	3.72	21.75
China	1.1	1.7	2.8	3	2.15	12.55
India	2.3	2.1	1.5	2	1.975	11.53
EU (15)	2.6	2.6	2.3	1.3	2.2	12.85
Others	3.1	2.5	1.9	1.7	2.3	13.43

¹ Preliminary ² Estimate

The lead importers of sheep skins in the period under review were Turkey, China and the EU (15), importing 35.74 percent, 26.07 percent and 19.43 percent respectively of the world average annual imports of 148.3 tonnes. This makes Turkey a key player in the production of soft leather, suitable for garments. In the period under review, China and Turkey's imports grew by 52.6 percent and 10.9 percent respectively against a steep shrinkage by EU (15) of 19.43 percent.

The top three importers of goat skins in the period under review were Pakistan, Turkey and EU (15), which imported 27 percent, 21.75 percent and 12.85 percent respectively of the annual average of 16.9 thousand tonnes. China imports sky rocketed by 172 percent and

Pakistan grew by 13 percent, indicating growing demand of skins in the two countries, whereas the imports by EU (15) and Turkey retreated sharply by 50 percent and 10.72 percent respectively.

7. Production and global trade of Leather and footwear

The tanning process transforms raw hides and skins into leather, which in turn is converted into several products, for both domestic and industrial use. A variety of products, which are produced from leather, include footwear, garments and upholstery goods among others. The trends in the quantities of hides and skins tanned per year, gives an indication of the demand of the leather products, which is in turn influenced by the spending power of consumers. High spending power is usually associated with an increased demand of footwear and other leather goods, which in turn boosts the tanning industry.

a. Trends in the volumes of hides and skins tanned

The volume of hides and skins tanned over the years have been split into three categories, namely heavy bovine, light bovine and light from goats and sheep skins. Developing countries led in the production of all types of leather, their highest contribution was 76 percent with respect to goats and sheep skins, and their least contribution was 61 percent in light bovine tanning. China is the biggest single tanning country in the world, processing about 33 percent and 29 percent of the heavy bovines and sheep and goats skins respectively, these figures exceed the combined amounts tanned by all developed countries.

i. Production of heavy leather from bovine

Production of heavy leather was concentrated more in developing countries than in developed; the former contributed 70.66 percent to global output. China was the most significant producer, contributing more than a third to the world output. Globally the output of heavy leather declined marginally by 0.97 percent in the 2003 to 6 period, this slump was associated with a sharp decline of 16.01 percent in developed countries and a growth of 6.18 percent in developing countries. China's output increased by 15.41 percent, at a time when output from the rest of the world retreated by 8.46 percent.

The year on year growth was characterised with ups and downs, for instance world output declined by 2.56 percent and 0.18 percent in 2004 and 2005 respectively and then made a rebound of 1.81 percent in 2006. That pattern of growth was greatly influenced by developed countries whose output went down by 7.71 percent and 11.37 percent, before increasing by 2.67 percent. In developing countries output slowed marginally by 0.12 percent in 2004, before rising by 4.74 percent and 1.49 percent in 2005 and 2006 respectively. The cyclical pattern was a mirror image of the slaughter pattern, in the U.S., which is the biggest producer of heavy hides. Table 10; gives a summary of heavy leather output in the period 2003 to 2006, in thousand tonnes.

Table 10: Volumes of Heavy Leather tanned in the period 2000 to 2006

					Percent
(in thousand tonnes)	2003	2004	2005	2006	contribution
World Total	510.90	497.80	496.90	505.9	
Developing Countries	346.10	345.70	362.10	367.50	70.66
Developed	164.80	152.10	134.80	138.40	29.34
China vs. the Rest of the World					
China	160.20	167.40	179.70	184.90	34.41
Rest of the World	350.70	330.40	317.20	321.00	65.59

ii. Production of light leather from bovine

Developing countries contributed 61.20 percent against 38.80 percent by developed nations in the production of light bovine leather in the 2003 to 2007 period. Although China was the main producer, as she contributed 17.58 percent to world output, her prominence was less pronounced as it was in the production of heavy bovine leather. World output of light bovine leather grew faster than heavy bovine leather as it increased by 7.67 percent, against 1.81 percent. Developing countries were responsible for that growth, as their output went up by 13.02% against a marginal retreat of 0.31 percent in developed countries. China's output grew steeply by 15.48 percent, which was more than double the growth in output in the rest of the world excluding China.

Annual growth of world output of bovine leather was positive throughout the period, as it grew by 4.51 percent, 1.44 percent and 1.57 percent in the successive years in the 2003 to 2006 period. This pattern was consistent with growth in developing countries, as they recorded growth rates of above 3.5 percent annually. However the situation was different in the developed world as output grew by 4.04 percent in 2004 and retreated by 2.93 percents and 1.30 percent in the other two years. Table 11; give a summary of hides volumes tanned in the period 2000 to 2006, in million square feet.

Table 11: Light Bovine Leather tanned in the period 2000 to 2006

					Percent
Million square feet	2003	2004	2005	2006	contribution
World Total	13,040.00	13,628.50	13,824.90	14,041.40	
Developing Countries	7,812.20	8,189.40	8,545.00	8,829.90	61.20
Developed	5,227.80	5,439.10	5,279.90	5,211.50	38.80
China vs. the Rest of					
the World					
China	2,219.10	2,318.50	2,489.10	2,562.60	17.58
Rest of the World	10,820.9	11,310.00	11,335.80	11,478.80	82.42

iii. Production of Light leather from Sheep and Goats

Developed countries processed an average of 22.54 percent of goats and sheep skins and their counterparts in developing countries tanned 77.46 percent in the period under review. World output grew by 3.02 percent, which was mainly contributed by a 5.20 percent expansion in developing countries, as developed countries output slumped by 4.14 percent. China

processed 29.83 percent of the total world output, and it registered a relatively impressive growth of 8.35 percent against a paltry growth of 0.82 percent by the rest of the world.

The world output grew by 3.63 per cent in 2004, before slowing down to grows marginally by 0.51 percent in 2005 and then retreated by 1.08 percent in 2006. Developing countries; output of sheep and goat skins leather expanded by 5.09 percent in 2004, and then retreated in the following year by 0.62, before rebounding marginally by 0.74 percent in 2006. On the other hand developed countries went down by 1.19 percent in 2004, rose by 4.48 percent in 2005, and crushed by 7.15 percent in 2006. China grew by 5.79 percent and 4.35 percent in 2004 and 2006 respectively, despite having experienced a dip in 2005. Table 11 shows the trends in the production of light leather from sheep and goat skins, in million square feet.

Table 11: Trends in production of Light Leather from Goats and Sheep Skins

Million square feet					Percent
	2003	2004	2005	2006	contribution
World Total	4525.8	4690.1	4713.9	4662.9	
Developing Countries	3472.7	3649.5	3626.7	3653.4	77.46
Developed	1053.1	1040.6	1087.2	1009.5	22.54
China vs. the Rest of the World					
China	1327.1	1404	1377.9	1437.9	29.83
Rest of the World	3198.7	3286.1	3336	3225	70.17

b. Footwear Production and Trade.

The relative importance of footwear as a major user of leather is on a gradual decline as alluded to before, this could be partly explained by the expansion in the use of synthetics and also that leather is becoming more popular in the manufacturing of other products. Footwear production averaged 4,452.67 million pairs per annum in the period under review, and the number of pairs produced grew by 4.5 percent in the same period. Developing countries produced about 76.5 percent of footwear in the period under review, this is partly explained by the fact that the footwear industry is labour intensive, which makes it attractive to concentrate production in low labour cost countries. China produced 44.3 percent, followed by the EU (15); however 50 percent of this production was concentrated in Italy. Almost all the leading producers of footwear, which include China, India and Brazil's output of footwear, grew by 6.6 percent, 12.6 percent and 11.4 percent respectively, except for EU (15), which experienced a decline of 12.3 percent. Table 12, shows the relative importance of listed countries in the production of footwear with leather uppers.

Table 12: Relative Importance in the Production of Footwear (%)

ubie 12. Relative impor	tance in the Froduction of Footwear (70)						
					Average for the		
	2003	2004	2005	2006	period		
Developing all	76.38	76.79	77.49	77.86			
Brazil	4.69	4.59	4.47	4.46	4.48		
China	44.21	44.46	44.88	45.03	44.34		
India	4.10	4.15	4.22	4.26	4.08		
EU 15	13.88	13.50	12.77	12.47	13.77		
Others	33.11	33.30	33.66	33.79	33.33		

Total trade of footwear in the period 2003 to 2006 amounted to 4,727.2 million pairs and it grew by 31 percent from 4,131.7 to 5,415.5 million pairs. Imports and exports contributed

49.25 percent and 50.75 respectively. Footwear imports by USA and EU (15) grew significantly, by 28 percent and 34 percent respectively, whereas Chinese imports grew by 7 percent. Developed countries were the largest importers of footwear in the period, buying a total average of 1901.7 million pairs, which amounted to 80 percent of all footwear imported in the period under review per annum. USA and the EU (15) imported about 35.5 percent and 33.6 percent of the total footwear traded in the period under review, and China came third importing about 13.49 percent. Given the importance of EU (15) and U.S. in the importation of footwear, it is therefore imperative that the economic dynamics of the two have a strong bearing on the level activity in the footwear industry, and subsequently in the tanning industry. Table 13, gives the detail in terms of relative importance of developing and developed countries and the individual key players in the importing of footwear.

Table 13: Relative Importance in the Importation of leather Footwear (percent)

				Average for
	2004	2005	2006	the period
Developing all	19.43	19.49	19.22	
USA	35.94	33.45	33.85	35.46
China	13.12	13.04	12.13	13.49
EU 15	33.32	35.06	35.10	33.63
Others	17.62	18.46	18.92	17.43

Developing countries exported 72.6 percent of footwear of the world's annual average export of 2,349 million pairs; this is explained by the fact that production is concentrated in developing countries as alluded to before. However of this, the biggest chunk was contributed by China, which exported an average of 1,352 million pairs per annum, which translated to 57.58 percent. The other notable exporter was EU (15), which exported an average of 416 million pairs per annum, which equates to about 21.5 percent, of which the significant proportion was from Italy. China's importance in footwear export grew significantly from 1,069.9 to 1.678.2 million pairs between 2000 and 2006, this translated to a 56.86 percent growth. During the same period the EU (15) exports shrunk by 9 percent, from 541.9 million pairs in 2000 to 491.5 million pairs in 2006. Table 14, shows the relative importance of major footwear exporters.

Table 14: Relative Importance in Exporting leather Footwear (percent)

					Average for the
	2003	2004	2005	2006	period
Developing all	73.72	74.65	75.50	76.30	72.67
Brazil	5.05	4.75	4.03	3.72	4.82
China	58.82	59.77	60.95	62.49	57.58
EU 15	20.62	19.59	18.98	18.30	21.47
Others	15.51	15.89	16.04	15.49	16.12

In sum the footwear industry has been growing with respect to output and trade in the period under review, as major consumers of footwear, namely USA and the EU (15) have continued to import footwear from less developed countries.

8. Policy Highlights Relevant to Hides and Skins

China Measures to Fight Pollution a.

China is taking measures to reduce pollution, for example the Pingyang county government ordered the industry in Shuiton town to reduce the number of rotating drums (for leather dveing) from 3.300 - 5.500 to 500^{11} in 2007

b. **Brazil Beef Exports to European Union**

By January 31, 2007, EU had not yet authorised any Brazilian farmer exports of beef to the EU. Given that EU accounts for 21percent in volume (31percent in value), out of the 184 countries that import Brazilian beef, this may affect the slaughter levels and subsequently the supply of hides. However current figures show that slaughter levels in Brazil are rising due to strong domestic demand and improved export to non traditional markets.

Argentina Policy on Beef Exports c.

The Government of Argentina's policy on export restriction of beef remained in force and this has seen notable declines in its exports. Exports to Russia declined by 39 percent¹² by November 2007 when compared against the same period in 2006. This trend was witnessed in all Argentina's major beef markets namely Chile and the US.

d. The Tax on Export of Raw hides and Skins

By September 2007, Kenya and Uganda had doubled their export duty on raw hides and skins to 40 percent. In the short run anticipated benefits are the resuscitation of the tanning industry in the two countries, however the medium term challenge is that this may push down the prices of hides and skins to below international market levels consequently hurting the primary producers of hides and skins and other intermediaries in the chain, however on the other hand benefiting tanners. Poor prices of hides and skins is likely to act as a disincentive to primary producers/merchants to ensure production and collection of quality hides and skins, and in the long run the local tannery industry maybe starved of the required volumes and quality hides and skins.

e. **Korea Inspection Regulations**

Korea now requires that imports of raw hides be accompanied by a health certificate, issued by vets in the country of origin. The inspection relates to carcases of animals, which would have been condemned for human consumption.

9. Summary and future Prospects

The following issues have emerged from this analysis:

Livestock sizes, slaughtering and consequently production of hides and skins was on an upward trend;

¹¹ Leather International, 19 November, 2007.

¹² Argentina's National Service of Agriculture Food, Health and Quality (SEWASA)

- Footwear remains the major consumer of processed leather, however its prominence is declining gradually;
- Prices and production of hides showed a strong negative correlation of 0.65, in the period 1991-2006, hides production increased by 15.08 percent, whilst prices declined by 13.24 percents;
- Developing countries owned 79.04 percent, 66.87 percent and 95.61 percent of cattle, sheep and goats respectively, and livestock sizes in all categories grew faster in developing countries than in developed;
- Slaughter of cattle, sheep and goats, grew by 4.56 percent, 10.39 percent and 11.82 percent respectively. In addition to this developing countries slaughtered more than developed countries in both absolute and relative terms;
- China dominated the world in the slaughter of all the three categories of livestock, however the U.S. produced highest volume of hides in terms of weight;
- The current situation in the major beef producing countries namely U.S., China and Brazil indicates that the slaughter of cattle for 2008, will be greater than in 2007, implying that more hides will be produced;
- Developed countries led in the export of hides, EU(15) and U.S., they contributed 62.12 percent, this is a reflection of high meat consumption and low tanning capacities in the two economies;
- China despite being the world leader in the slaughter of the three categories of livestock, was the most significant importer of hides, coming second and third in sheep and goats skins imports respectively;
- Tanning expanded significantly in developing countries, and China was propelling this growth. Turkey emerged as a major player in the production of soft leather from sheep skins;
- 76.54 percent of footwear was produced in developing countries, with China contributing 44.34 percent to world output of 4,452.62 million pairs; and
- 80.06 percent of footwear was exported by developing countries, with the U.S. and EU (15) receiving 35.46 percent and 33.63 percent of the world total imports in real terms.

Although the production of hides and skins are set to grow in 2008, chances are that footwear production is going to slow down towards the end of the year, because of the global economic retreat, which is being led by the world's major importer of footwear U.S. this will in turn have a trickle down effect to the tanning industry consequently pushing down price of hides and skins in 2008.