

## Overview of the Global Coffee Sector Supply Chain

*This overview has been prepared as part of the [World Bank's Agriculture Global Practice Discussion Paper](#) on improving the risk management and access to finance in the coffee sector. It provides a brief review of the sector as a whole, together with pricing aspects, an example of the coffee value chain and summary information on individual coffee producing countries.<sup>1</sup>*

There are substantial differences between the coffee sectors of individual coffee producing countries with some making substantial progress over the years, i.e. Brazil and Vietnam, and production elsewhere only just stable or even declining. Kenya, for example, routinely exports some of the world's most expensive coffee, yet current production remains below that of the late 1990's. In some other countries production has declined despite periods of high prices. Why this is the case needs more in-depth review as there are many reasons, but there can be little doubt that the sector or enabling environment in individual countries plays an important role in the success or otherwise of their coffee industry. Yet it would be a mistake to believe that the Brazilian and Vietnamese sector environments are the same with the former extremely well structured and the latter often relying more on impromptu initiatives. Similarly, types and levels of risk also vary between individual country supply chains, meaning that the impact or feasibility of potential risk mitigation options is equally variable.

### 1. Background facts

**1.1 Economic importance.** Coffee (Arabica and Robusta) is produced in some 70 countries and is an important commodity in world trade. In 2010 the ICO estimated total sector employment at about 26 million persons in the 52 main producing countries (Doc. ICC 105-5).<sup>2</sup> In calendar year 2013 world exports were some 6.79 million tonnes, valued at US\$19.2 Billion to which should be added domestic consumption in coffee producing countries themselves of some 2.68 million tonnes. The value of the latter is difficult to quantify but is estimated to be anywhere between US\$3 billion and US\$4 billion<sup>3</sup>.

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<sup>1</sup> This brief overview of the industry may assist those who may not be immediately familiar with different aspects. In most instances additional and more detailed information is available at [www.ico.org](http://www.ico.org) and at <http://www.intracen.org/The-Coffee-Exporters-Guide---Third-Edition/> (also in French and Spanish). See also [www.supremo.be](http://www.supremo.be) for their Coffee Encyclopaedia that provides helpful information on the coffee industry in individual producing countries.

<sup>2</sup> Of course, coffee also generates considerable employment in importing countries.

<sup>3</sup> Valued in terms of green bean, FOB

**Table 1 - World exports by value and volume**

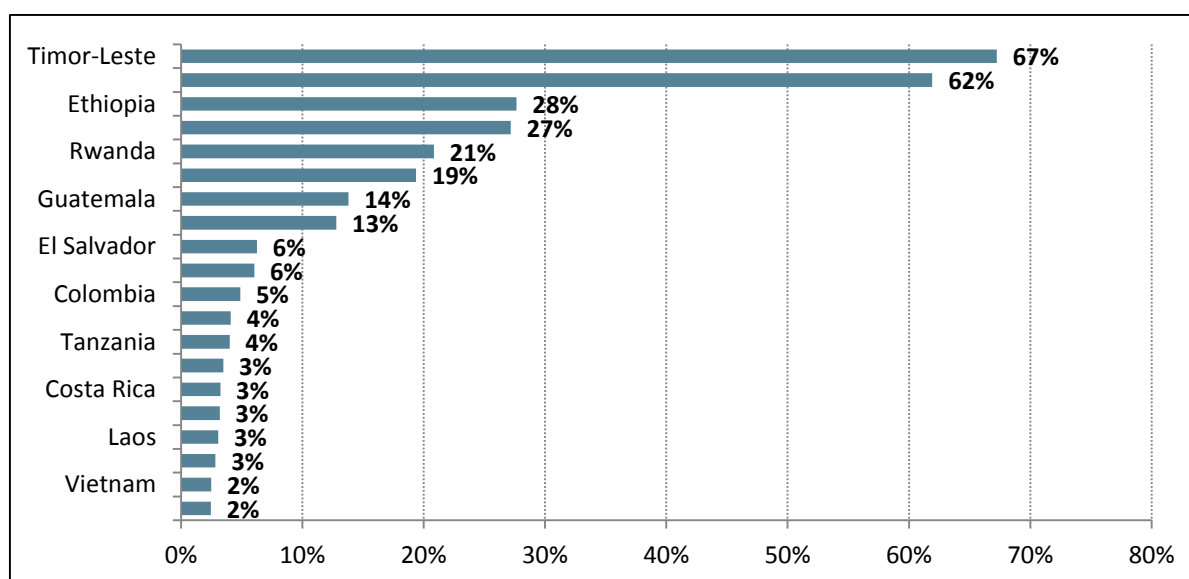
World coffee exports, by value and volume, 2005–2013			
Calendar year	US\$ billion	Million bags*	Cts/lb (FOB)**
1990	6.9	80.6	72
1995	11.6	67.6	138
2000	8.2	89.5	64
2005	9.2	87.6	89
2010	16.5	96.7	147
2011	24.7	104.1	210
2012	22.3	110.7	156
2013	19.2	113.2	120

Source: ICO.

\* Bags of 60 Kg net. \*\*Rounded to nearest cent.

Coffee plays an important part in the economy of a number of producing countries, as shown below.

**Figure 1 – Value of coffee as a percentage of all goods exported 2008-2012.**

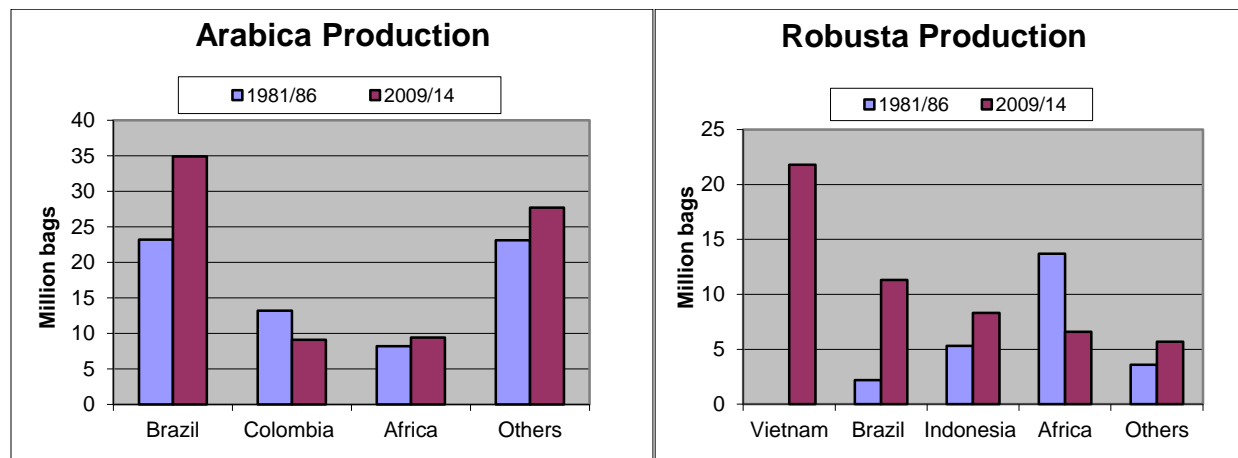


Source: ICO

In the past decade or so the industry has seen considerable change. Increasing and widespread emphasis on sustainability issues; strongly growing domestic consumption in producing countries themselves; and more recently a marked increase in demand for Robusta (driven by the inclusion of higher percentages of Robusta in major consumer blends). On the threat side, price volatility and continuing concentration of buying power apart, the looming impact of climate change today possibly constitutes the most significant factor. Climate change brings risks that require new and imaginative sector support measures: the bulk of world production emanates from smallholders who often are the least able to cope.

**1.2 Production.** Coffee is indigenous to Africa, with Arabica coffee (about 60 to 70% of world production) reportedly originating from Ethiopia and Robusta (about 30 to 40% of world production) from the Atlantic Coast (Kouilou region and in and around Angola) and the Great Lakes region. Today it is widely grown but the bulk of the world’s coffee, however, is produced in Latin America, particularly in Brazil which dominates world production. But both individual country and regional production shares are subject to change with, for example, Vietnam now the world’s second largest producer (even though regular exports only began in the early 1990’s) and Asia as a whole looming as a potential coffee power house. It also remains to be seen to what extent climate change may exacerbate shifts in production between both individual countries and regions.

**Figures 2, and 3 – Annual Arabica and Robusta Production 1981/86 and 2009/14**



**1.3 Supply and demand.** Supply is the sum of annual production plus stocks carried over in producing countries. But a certain amount of working stocks is always needed in producing countries and this, together with what is required for in-country domestic consumption, has to be deducted from the available supply to arrive at exportable production. Of course this is not all available at once because harvesting and export processing are spread out over a number of

months, meaning it is important to know when approximately each year's new crop coffee becomes available in individual countries.<sup>4</sup>

Many factors determine whether supply rises or falls, including of course climate change the effects of which cannot be quantified as yet but may be substantial. To what extent the impact of climate change can be mitigated also remains to be seen and will differ from country to country, but the introduction of more sustainable production practices is certainly part of the way forward.

Annual exportable availability from individual countries can fluctuate sharply, for example due to severe weather events as drought, or attacks by pests and diseases. But growth in the domestic markets in producing countries has a more permanent impact on the availability of coffee for export. As prosperity rises in developing countries and people there demand better tasting coffee, so in time established import markets will likely have to compete on a different footing for the available coffee, including the better qualities. Currently Latin America dominates in Arabica exports whilst Asia is dominant in Robusta exports.

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<sup>4</sup> Annex table 1 provides production totals for individual countries

**Table 2 Coffee exports by type 2007-2013**

Coffee Years	2007	2008	2009	2010	2011	2012	2013
Arabicas	58,510	59,182	56,703	60,874	61,225	60,571	62,813
Of which from:							
Brazil	23,325	23,958	26,254	28,573	27,478	23,819	26,711
Colombia	10,701	10,354	7,258	7,161	7,121	6,557	9,062
Other Latin America	16,308	17,401	16,011	16,685	19,308	20,897	18,148
Africa	5,345	5,301	4,648	5,788	5,090	5,980	5,687
Asia and the Pacific	2,831	2,169	2,532	2,667	2,228	3,318	3,205
Robustas,							
Of which from	30,532	30,787	32,787	28,301	32,631	41,021	35,959
Brazil	1,402	2,075	1,119	1,169	2,663	1,145	1,305
Other Latin America	211	115	359	277	459	407	187
Vietnam	17,911	16,087	17,044	14,212	17,646	25,299	18,190
Indonesia	2,870	4,984	6,810	4,463	3,447	6,196	7,454
Other Asia and Pacific	2,228	2,074	1,852	2,836	3,694	3,028	3,171
Côte d'Ivoire	1,814	1,149	1,455	1,628	502	1,371	1,568
Uganda	2,193	2,799	2,323	1,923	2,463	1,900	2,833
Other Africa	1,963	1,502	1,824	1,793	1,755	1,675	1,251
Roasted Coffee	230	260	293	229	266	305	295
Soluble							
Of which from	7,024	7,365	6,422	7,523	10,158	11,425	10,245
Brazil	3,373	3,365	2,881	3,226	3,305	3,320	3,439
Other Latin America	2,053	2,121	1,905	2,149	2,257	2,478	2,554
Africa	384	342	352	285	274	341	377
Asia	1,214	1,538	1,284	1,863	4,615	5,216	3,875
Shares (per cent)							
<i>Arabicas</i>	60.7	60.7	58.9	62.8	58.5	53.5	57.5
<i>Robustas</i>	31.8	31.5	34.1	29.2	31.2	36.2	32.9
<i>Roasted</i>	0.2	0.3	0.3	0.2	0.3	0.3	0.2
<i>Soluble</i>	7.3	7.5	6.7	7.8	10.0	10.0	9.4

Exports of roasted coffee from producing countries are low and stagnant. This is a constant feature, always attracting much discussion, but of course does not mean there is no vibrant roasting industry in producing countries themselves. In many there is and domestic consumption in producing countries has been growing steadily.

**Table 3 Coffee Consumption in Selected Coffee Producing Countries - 2013**

Country	Population	Production (million bags)	Imports (million bags)*			Per capita consumption (kg)*	Additional Information
			Green	Roasted	Soluble		
Brazil	198.66	49.15	0	0.03	0.03	6.09	Domestic consumption 20.33million bags Total imports only amount to 62,000 bags divided almost equally between roasted and soluble coffee mainly from Europe.
Ethiopia	91.73	6.60	0	0	0	2.22	Domestic consumption 3.65 million bags, which is around 55% of overall production.
India	1,236.67	5.19	0.46	<0.01	<0.01	0.09	Domestic consumption, 1.92 million bags, is growing at annual rate of around 3%, but appears to be slowing. Nevertheless the growth in consumption can be attributed to rising disposable income, shifting urbanisation as well as a rapid growth in population with 54% of the population of 1.24 billion aged under 25
Indonesia	246.86	11.66	0.24	0	0	0.87	Domestic consumption 4.17 million bags. Out of home consumption accounts for around 22% of the total market and although roasted coffee remains the most popular form of coffee consumed, 3-in-1 preparations are rapidly gaining market share and in 2013 accounted for around 30% of the market.
Mexico	120.85	3.90	0.72	0	0	1.17	Domestic consumption 2.35 million bags. A survey undertaken in 2009 showed that 57% of consumers use soluble coffee, 23% consume roasted coffee and 15% a combination of both. Nestle is the market leader.
Vietnam	88.77	27.50	0.22	0	0	1.05	Domestic consumption 1.58 million bags. Soluble coffee accounts for the bulk of consumption with Nestle as the market leader but modern cafes continue to proliferate in all of the major cities of the country.

\* Green Bean Equivalent. Source: ICO and other trade sources

In the last twenty years domestic consumption in producing countries has literally doubled and now is a major marketing and pricing factor in a number of them with Brazil likely to become the world's leading consumer nation, ahead of the United States. And as the quality and therefore popularity of domestic coffee blends generally grows, so this trend is likely to continue. Given the population densities of some Asian producing countries the next major move upwards in domestic consumption will likely be in that region. Indonesia is a good example already of a vibrant domestic market whereas coffee's popularity is definitely on the increase in Vietnam. For many China of course remains the ultimate prize even though the country also grows and exports coffee itself.

**1.4 Quality.** Different markets, regions and groups of consumers prefer different types and qualities of coffee but in general terms coffee quality, for both Arabica and Robusta, can be broadly differentiated as follows, with the comment that the majority of Robusta is used as a filler in blends.

*Exemplary quality:* Offers a unique taste experience, usually is of limited availability and, is mostly marketed as single estate or single area/origin coffee with links to producers etc. Because of their exclusiveness and niche market status Exemplary coffees usually sell at high to very high premiums to other market segments and are largely insulated from general market fluctuations. However this assumes that their availability is and will remain limited.<sup>5</sup>

*Premium quality:* Offers a good to very good but not 'amazing' taste experience, is available in reasonable quantities and is often marketed as single origin but is also presented as top blends. Whilst availability may be reasonable, demand for these coffees is high and as such they sell at sometimes considerable premiums over Mainstream quality. Whilst their quality offers a certain amount of 'price safety' these coffees are not immune from general market behavior.

*Mainstream quality:* Offers an average but acceptable taste experience that varies from market to market, is available in large to very large quantities and is nearly always marketed as blends with little or absolutely no indication of origin. Components of these blends are largely interchangeable, meaning if one origin is not available then coffee from another can be substituted. Prices for these coffees are directly linked to the futures markets and what transpires there. As a result prices are widely known and can fluctuate considerably.

It is generally accepted that between 80 to perhaps 90% of all coffee worldwide is of mainstream quality. However, there are no clear data available to confirm or deny this, partly also because 'quality and taste' are subjective judgments that vary from person to person.

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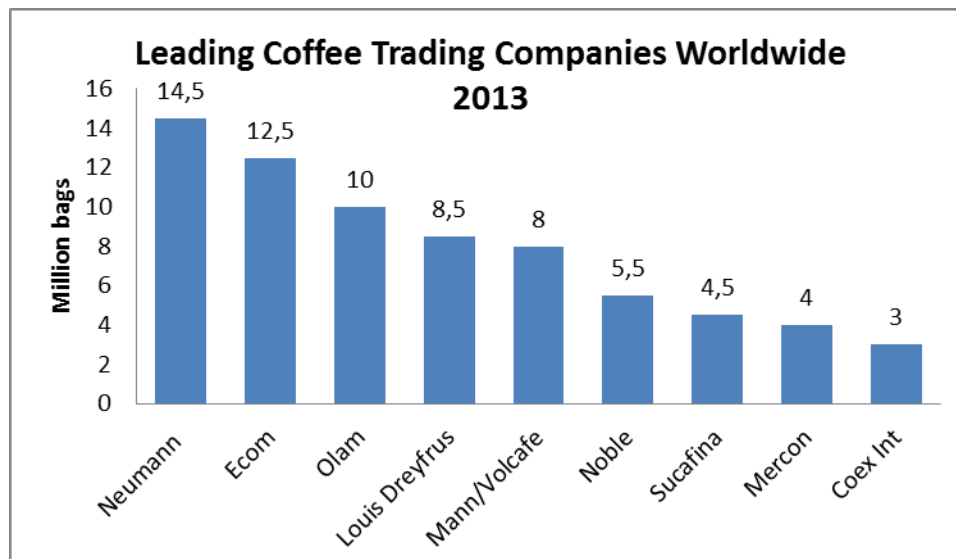
<sup>5</sup> The term 'gourmet' is today used to describe a huge number of different products and no longer conveys the idea of uniqueness.

## 2. The coffee trade

The international coffee trade, trade houses and importers alike, plays a major role in the marketing and distribution of coffee, often providing services that are out of the reach of local exporters. Much of the world's coffee imports, especially mainstream, are delivered 'just in time' at roasting plants and many importers have to guarantee 'quality on delivery as per contract' failing which they have to arrange for a replacement. Coffee is also often sold on (extended) credit, particularly in the specialty segment where 'approval of quality on delivery to plant' can add a further complication. Many importers also bring in full container loads (18 to 20 tons) that are then distributed on an ex-store basis to numerous small roasters. Of course there are notable exceptions to the foregoing in that a number of producers/exporters in different countries are managing to do successful business directly with roasters abroad. Generally speaking however the discussion around 'direct sales' from origin should also highlight that while such sales are possible and can be beneficial, in many instances bypassing the so-called middle man is not a realistic option.

Large multi-national trade houses are today a dominant presence. This is often the subject of much debate because of their greater resources and access to (usually cheaper) finance. However, in many instances their participation can and does result in increased competition at the farm gate level, something that ought to be beneficial to coffee growers. Whilst local traders and exporters may feel disadvantaged the real issue is perhaps not whether such competition is fair but rather that the local playing field may not be level. And this is where policy, the 'enabling environment' comes in...

**Figure 4 – Major coffee trading companies – 2013**



Source: Trade estimates – subject to constant change



**2.1 Major import markets.** In most established consumer markets coffee is generally procured by international trade houses, dealers and traders but some roasters also maintain their own in-house buying companies, which deal directly with origin. But many if not the majority of roasters tend to buy from trade houses or specialized importers, and agents who represent specific exporters in producing countries. Sales from origin are usually priced FOB (free on board) but in the United States most roasters prefer to buy basis ex-dock where the supplier clears and presents the goods ready for use. Delivery to roasting plants is often on a just-in-time basis with coffee delivered on a fixed date and time, especially so in Europe. Small roasters often prefer to buy small lots that are delivered to them on request.

All this requires the intervention of middlemen who generally perform useful functions. And whilst increased concentration at the roasting end of the mainstream industry previously reduced their numbers quite substantially, recent years of growth in the specialty segment have brought about the rebirth of numerous small roasters who however could not conduct their business without the services of green coffee importers. Interestingly, in the Nordic countries there are no importers at all, only roasters and agents, whereas in other countries many roasters only buy through importers and trade houses. This suggests that producers and exporters should have the flexibility to utilise all available sales channels, including middle men such as importers and also agents to whom they will pay sales commissions.

**2.2 Consumption.** It is difficult to estimate to what extent consumers influence demand and, therefore, prices for individual types or qualities of coffee. Prices for exemplary and high quality coffees are clearly and directly driven by consumer preferences but this is not so obvious for mainstream qualities where it could be questioned whether price levels reflect actual consumer preferences or rather simply the total demand 'for coffee'. This assumption is supported by the fact that the individual component coffees of most mainstream blends are largely interchangeable, i.e. they can be substituted. As a result their prices are closely linked to futures prices that reflect the supply and demand situation of coffee generally.

This incidentally raises an issue that is not often discussed but is nevertheless pertinent. Component coffees in mainstream blends of course have to satisfy certain requirements: they must be fit for human consumption and they must do the job within a blend that is expected of them. And, the quality must be stable and fluctuate as little as possible. This suggests that stability could be more important than trying to improve what already is acceptable mainstream quality and will always remain 'average'. If so then producers of inherently average quality coffees should perhaps think twice before investing in costly actions to try and enhance that quality beyond what the mainstream roasters actually want. And for which they may not pay more. At times it may be better to provide exactly what is demanded and to do so as efficiently and reliably as possible, resulting in enduring relationships.

**Table 4 Consumption in importing countries/areas 2007 – 2013**

Consuming Countries/areas	2007	2008	2009	2010	2011	2012	2013 <sup>6</sup>
World	93,171	95,013	92,653	96,115	96,574	98,547	101,130
North America							
Of which	24,278	24,863	24,709	25,370	25,618	25,736	27,280
United States	21,033	21,652	21,436	21,783	22,044	22,238	23,520
Western Europe							
Of which	42,430	42,094	41,335	42,583	42,200	42,404	42,233
France	5,628	5,152	5,677	5,713	5,962	5,789	5,549
Germany	8,627	9,535	8,897	9,292	9,460	8,830	8,950
Italy	5,821	5,892	5,806	5,781	5,689	5,731	5,652
Eastern Europe	<b>7,361</b>	<b>7,734</b>	<b>6,699</b>	<b>7,221</b>	<b>7,092</b>	<b>7,188</b>	<b>7,450</b>
Asia and the Pacific							
Of which	13,647	14,130	14,035	14,769	15,562	16,358	16,750
Japan	7,282	7,065	7,130	7,192	7,015	7,131	7,451
Others	5,455	6,192	5,875	6,172	6,102	6,861	7,417

Source: ICO

In the final analysis consumption data are more reliable indicators of individual country demand than are straight import figures because increasing amounts of coffee are traded across individual importing country borders, both in green and processed form. This is especially so in the European Union but happens all over Europe and indeed elsewhere, for example between the US and Canada. This is confirmed by the fact that re-exports worldwide of coffee in all its forms have grown steadily from 28.9 million bags in 2005 to almost 41 million bags currently – for countries as Germany and Italy this is an important segment of their coffee industry.<sup>7 8</sup>

### 3. The roasting segment

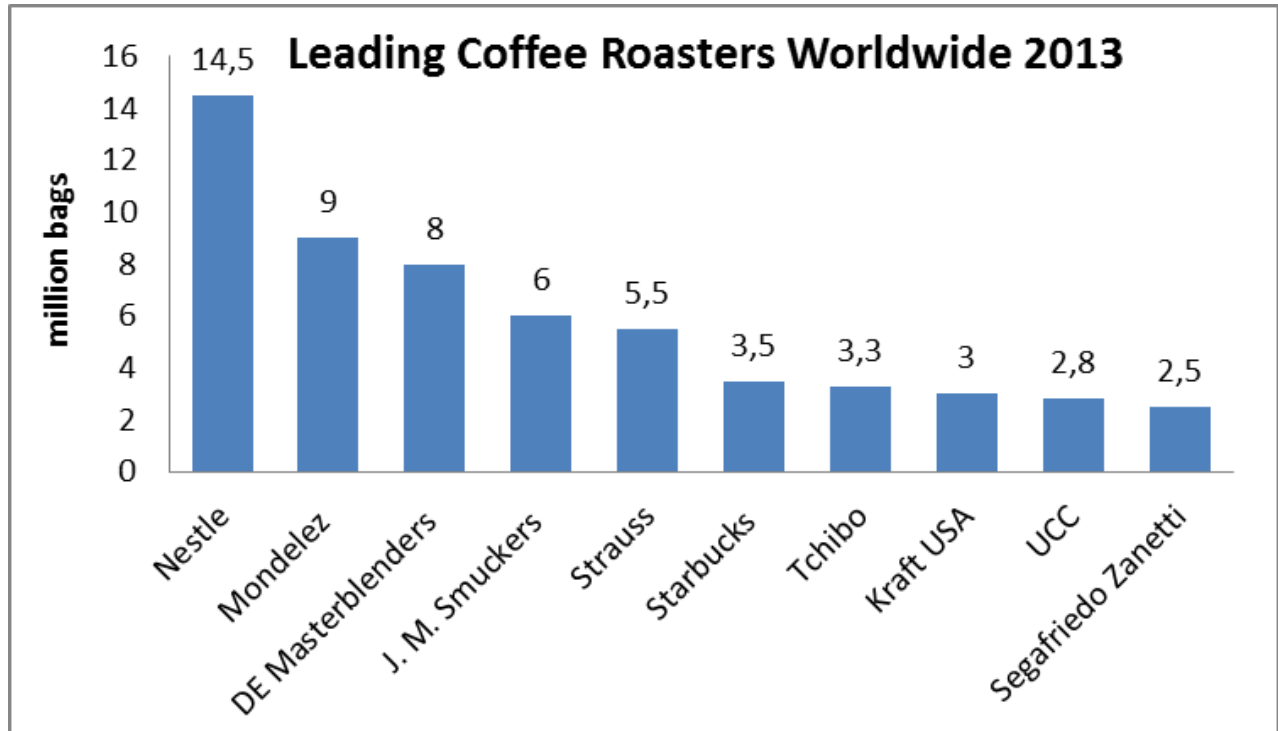
Over the years there has been considerable consolidation and today a relatively small number of firms dominate the sector, not only in importing countries but also in some producing countries that have sizeable domestic industries.

<sup>6</sup> Provisional

<sup>7</sup> Export/import statistics are broad indicators of the types of coffee individual markets tend to buy. Combining these with import values then helps to indicate which markets buy more expensive coffees. Export/import volumes are available at [http://www.ico.org/trade\\_statistics.asp?section=Statistics](http://www.ico.org/trade_statistics.asp?section=Statistics), whereas import values can be obtained from [www.trademap.org](http://www.trademap.org), a service provided by the International Trade Centre – ITC.

<sup>8</sup> Consumption data for individual countries, both total and per capita consumption, are regularly published by the ICO. Visit [www.ico.org](http://www.ico.org) and click on 'Monthly Coffee Market Report'.

Figure 5 – Leading roasting companies worldwide – 2013



Source: Various trade estimates and subject to constant change. To note that in 2012 Kraft Foods' coffee business was renamed Mondelez International. The Sara Lee Company split off its coffee business into a separate unit, DE Master Blenders 1753 that subsequently (2014) acquired the Mondelez coffee business with the combined companies now named Jacobs Douwe Egberts.

The coffee intake of most of these firms is such that they not possibly rely on supply from just one or two origins although it would be difficult if not impossible for any of them to do without coffee from Brazil and Vietnam. Security of supply is achieved through the purchasing of different but substitutable coffees, each of which will more or less do the same job in terms of end product quality. Giving a supplier the freedom to supply one out of a pre-agreed selection or 'basket' of coffees, provided the quality is as per contract, facilitates purchasing and achieves maximum response to buying enquiries. This is one of the reasons why trade houses play such an important role but of course often they also undertake to physically deliver the coffee to a roasting plant, at a date and time agreed in the contract, only invoicing it then. Clearly this kind of service is beyond the ability of any but the most powerful origin exporters but even those may not necessarily wish to become involved in this kind of extended service.<sup>9</sup>

<sup>9</sup> Such a basket could consist of, for example, Guatemala prime washed, and/or El Salvador central standard, and/or Costa Rica hard bean.

Individual roasters have different quality requirements that potential suppliers should understand. But the overriding requirement is that what was sold is delivered, not something that is 'just a little different' or 'almost as good'. If that was acceptable then the roaster would have bought this lesser quality in the first place! Receiving inferior quality disrupts the manufacturing sequence and from the roaster's perspective can be little short of disastrous. Roasters will therefore not buy direct from origins or suppliers with a poor record in terms of contract execution, preferring instead to use the intermediary of trade houses and importers.

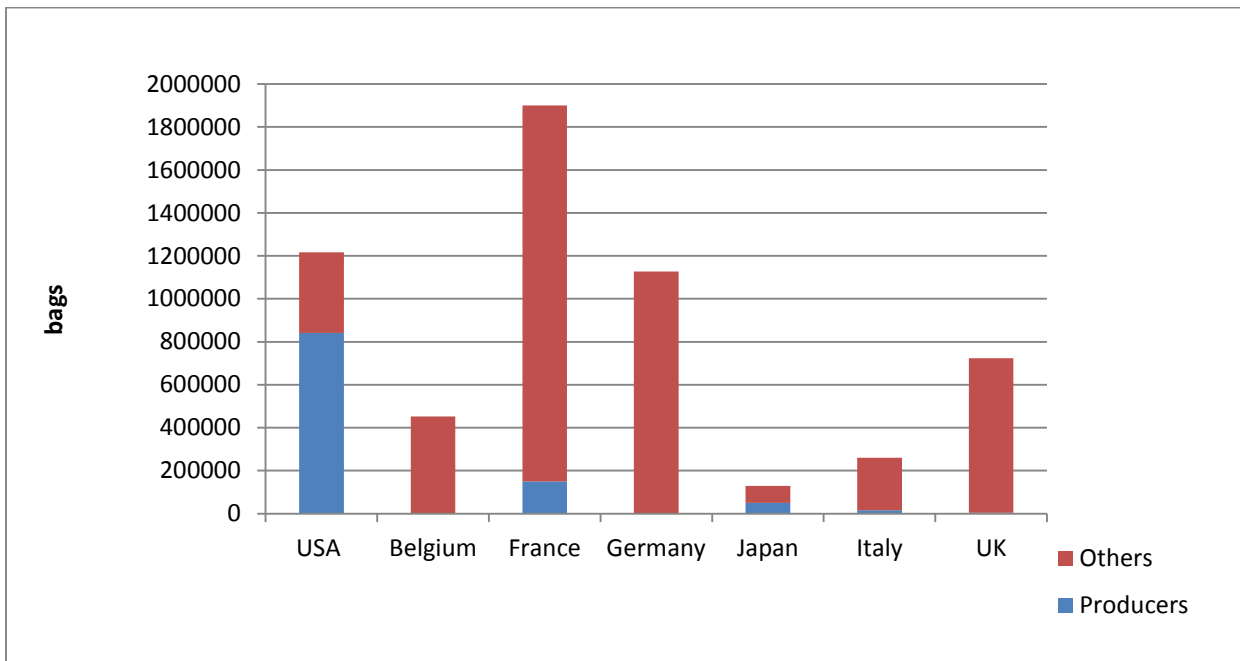
**3.1 Mainstream roast and ground coffee or R&G.** This is by far the largest segment of the global retail market, estimated at around three quarters of all coffee consumed. The R&G segment continues to be dominated by the large roasters, as is the international trade in roasted coffee between consuming countries themselves. Much R&G if not most is in the form of blends, tailored to both taste preferences (and sometimes also domestic water quality) in different markets. Exporters of roasted coffee from origin face the issue that not only does single origin roasted coffee seldom match the general quality large markets require, but the supplier also has to compete against well-established domestic roasters. In addition the shelf life of roasted coffee is limited, therefore usually requiring expensive airfreight to get the product there quickly. In the case of the US there has however been considerable growth in roasted coffee imports from Mexico through the shared land border whereas France has traditionally imported certain types of roasted coffee in bulk. Nevertheless these two markets are exceptions and total recorded origin exports of roasted coffee were 305,000<sup>10</sup> bags only in 2013 with the vast majority originating from re-exports by consuming countries.<sup>11</sup>

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<sup>10</sup> Provisional

<sup>11</sup> Data on imports of roasted coffee into consuming countries is inconsistent with data on exports of roasted coffee from producing countries. This is thought to be the result of confusion over the identification and reporting of the origin, or provenance, of coffee processed in other consuming countries, especially in regards to single origin roasted coffee blends where the provenance is sometimes mistakenly designated as the green bean origin rather than the country in which it was roasted or processed.

**Figure 6 – Imports of Roasted Coffee by Origin (average 2008- 2012)**



Source: ICO

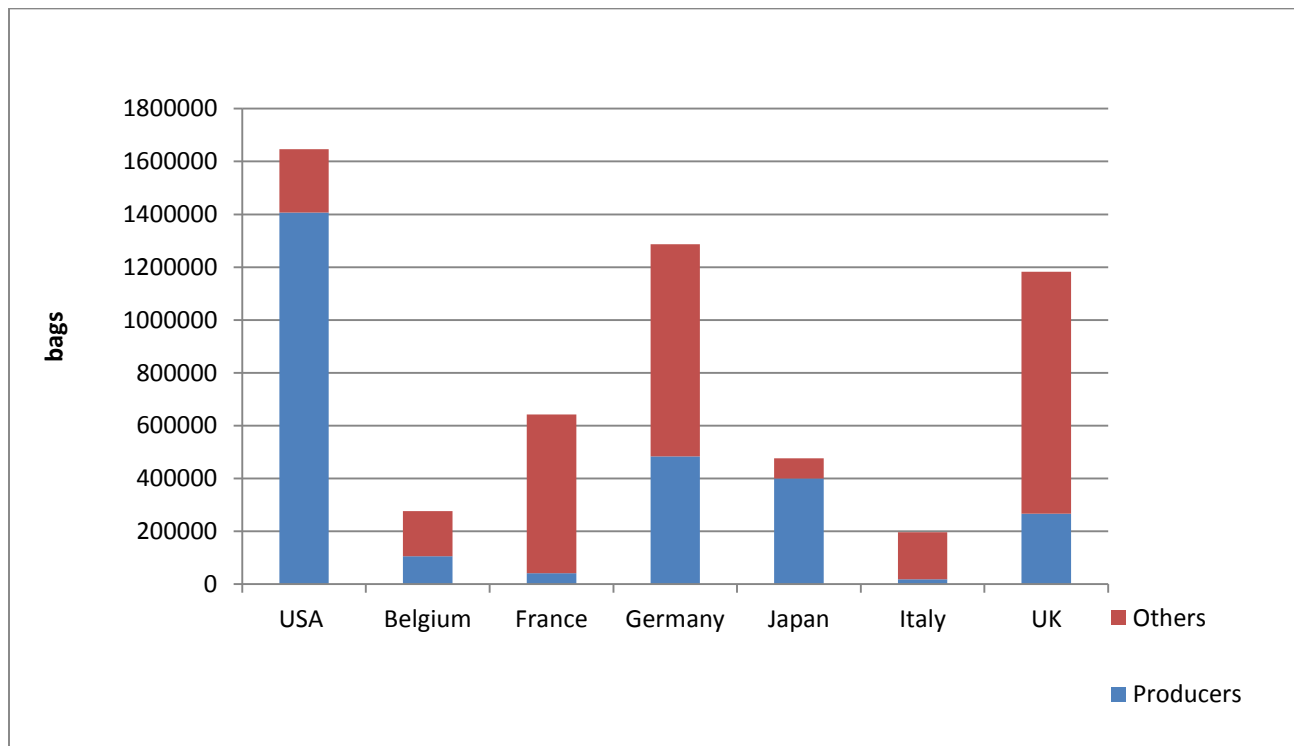
Another factor in many markets is strong growth in the use of single serve portions, including pods and capsules that require sophisticated packaging, often if not almost always patented and/or trademarked.

**3.2 Specialty coffee.** Today there exists an almost confusing array of types and quality of specialty coffee products, ranging from very expensive and really exclusive top quality coffees that are single origin, sustainably produced, fully traceable and of very limited availability, to mediocre coffees that are flavored with all kinds of essences, and end products that contain hardly any coffee at all, such as lattes for example. In fact the term Specialty basically refers to any coffee that is ‘different’ as opposed to Exemplary which is really top class coffee. Nevertheless, through innovative marketing approaches the specialty industry worldwide has had considerable positive impact on the popularity (and consumption) of coffee in many markets, increasingly also in Asia. Specialty’s share of actual consumption is difficult to determine, depending also as it does on how it is defined, but is generally put at around 10 per cent or slightly more of world consumption. The growth and scope of this segment is confirmed by the fact that many major roasters now also sell specialty coffees, albeit usually under a different name. Some large trade houses also have separate specialty coffee divisions that deal with what is essentially a different market with different buyers. But even so, producers and exporters wishing to enter this market have to do a considerable amount of homework to make

sure that the quality of their product and the publicity or ‘story’ around it warrant the effort and expense, remembering also that most small specialty roasters tend to buy on credit terms.

**3.3 Soluble coffee.** Consumption of soluble coffee has been rising, not only in the traditional mass markets but also through the introduction of premium brands. The trade in soluble coffee from origin is very much larger than that of roasted coffee with some 10.3 million<sup>12</sup> bags shipped in 2013. Premium brands of soluble coffee are manufactured in the importing markets themselves however.

**Figure 7. Imports of Soluble Coffee by Origin (average 2008 - 2012)**



However, in terms of value added the picture is not very clear in that compared to the ICO Composite Indicator Price the premium appears to be relatively modest. However, in some instances the transformation process may allow the use of lower quality green coffee that otherwise would have to be exported at discounted prices.

**3.4 Organic coffee.** Despite the publicity around organic products generally the demand for organic coffee remains relatively limited. Precise details of world production and exports are difficult to come by because not all countries report exports of organic coffee separately. It is accepted fact however that whenever availability increases the price premium tends to reduce which demonstrates that demand has its limitations. Indeed industry sources suggest some types of organic coffee are

<sup>12</sup> Provisional

overproduced, partly also because not all producers realise that, organic or not, this coffee still has to be of excellent quality to attract a reasonable premium that covers the costs of conversion and certification. Trade estimates suggest that total imports in 2011 may have been between 1.7 and 1.8 million bags, compared to around 1 million bags in 2006. Latin America, especially Peru, is by far the main producing area followed by Africa, particularly Ethiopia.

**3.5 Retail.** In most major consumption markets a combination of large retail chains and coffee house chains (some of which are roaster-owned) dominates the sector. In addition there is the independent specialty roaster segment that has been showing strong growth in the past decade or so. However, some of these 'independents' are in fact also owned by major roasters. The main difference between retail chains and other marketing channels is of course the buying and pricing power of the large retailers who allocate 'must have' shelf space to individual brands. This is another reason for low volumes of roasted coffee exports from origin. In addition there is the institutional or catering segment, the out-of-home market. In most countries the in-home consumption segment has traditionally been by far the largest although prior to the 2008 financial crisis there had been a notable shift to out-of-home consumption in some markets. But this seems to be losing some momentum again. Single serve portions (pods, capsules etc) for in-home brewing continue to gain ground however but the impression is that in established markets this is at the expense of traditional R&G.

Single origin coffees carried by the large retail chains tend to be from larger origins that can guarantee year-round availability or, are well-known specialty coffees such as Kenya for example. But the real market for single origin coffees lies in the coffee shop and specialty segment. However, these are nearly always roasted and packaged in the importing country and, as referred to earlier, some countries conduct a large re-export business in processed coffees.

It would be a mistake however to concentrate on the traditional and well-established markets only because consumption growth there tends to have stabilized, i.e. there is not much likelihood of further growth. New markets such as Eastern Europe but especially Asia, together with the domestic markets in producing countries themselves, look like being the areas for future growth.

**3.6 Food security.** Coffee is food – it is consumed by humans. As such coffee imports are subject to stringent food safety rules in most developed import markets. In the main these require coffee to be free of prohibited chemicals and free of all contamination, including mould and live insects. Furthermore, in recent years the possibility of bio-terrorism has drawn increasing regulatory attention, particularly so in the United States and the European Union. Both markets now require all those engaged in the food chain to be registered with their relevant authorities, including coffee

exporters. Particular attention is also placed on the risk posed by mycotoxins that themselves are caused by mould with the main emphasis for green coffee on Ochratoxin A or OTA.<sup>13</sup>

Traceability ('farm to fork' or 'plough to plate' etc) of foodstuffs is part and parcel of to-day's coffee industry and the obligation to provide it cannot be avoided. Alternatively, those who do not provide it risk finding themselves gradually shut out from important consumer markets. Food safety requirements in coffee are not restrictions of trade - none of the established major import markets grow any coffee themselves!<sup>14</sup>

The largest import markets (EU, US/Canada, Japan) do not levy any duties on green coffee imports nor does the Russian Federation. However, with the exception of the US and Canada who also have nil tariffs on processed coffee, import tariffs apply to processed coffee in quite a number of established import markets.<sup>15</sup>

**3.7 Sustainability.** There is growing interest in 'sustainable' or 'responsible' agriculture, partly as a result of consumer demand but also, and perhaps more so, because consumers expect retailers and their suppliers not to stock items that are produced through unacceptable practices as child labor, or practices that harm the environment. Most major roasters today, worldwide, have sustainability programs in place, complete with undertakings to ensure that future procurement will be sustainably produced. In part due to front-running initiatives in the Specialty sector this has given rise to two different approaches: high visibility certification standards that are directly promoted to consumers at the retail end (for example Rain Forest Alliance, Utz Certified) and, subsequently, a more mainstream entry level standard as 4C (The Common Code for the Coffee Community) that relies on verification and is promoted by way of general corporate statements. In addition some individual roasters have set their own in-house standards. Of course alongside all this there is the well-known Fair Trade movement that particularly emphasizes the improvement of conditions of trade in a number of sectors, including coffee. There is a huge amount of information in the public domain about sustainability but for a good introduction see the Conservation Principles for Coffee Production at [www.conservation.org](http://www.conservation.org).

The object here is not to go into detail. ITC's [www.standardstmap.org](http://www.standardstmap.org) gives an overview of the main aspects of the different standards and more detail is available from the standards directly. Instead the point is that in time adherence to one or the other of these will be the norm and buying interest for coffees lacking certification may dwindle which could affect prices. Participation on the other

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<sup>13</sup> For more information visit [www.fda.gov](http://www.fda.gov), and look for the New FDA Food Safety Modernization Act – FSMA. See also [www.ncausa.org](http://www.ncausa.org) and [www.fda.gov/Food/FoodDefense/Bioterrorism](http://www.fda.gov/Food/FoodDefense/Bioterrorism). For European Food Law generally visit [www.ec.europa.eu/food/food/foodlaw/index\\_en.htm](http://www.ec.europa.eu/food/food/foodlaw/index_en.htm). For information on OTA see [www.coffee-ota.org](http://www.coffee-ota.org). Information on food safety rules in many individual countries can be traced at <http://spsims.wto.org> or at <http://ipfsaph.org>

<sup>14</sup> With the exception of the US where Hawaii and Puerto Rico both produce small amounts of coffee.

<sup>15</sup> See ICO Document ICC-111-6 (Obstacles to Consumption) at [www.ico.org](http://www.ico.org)



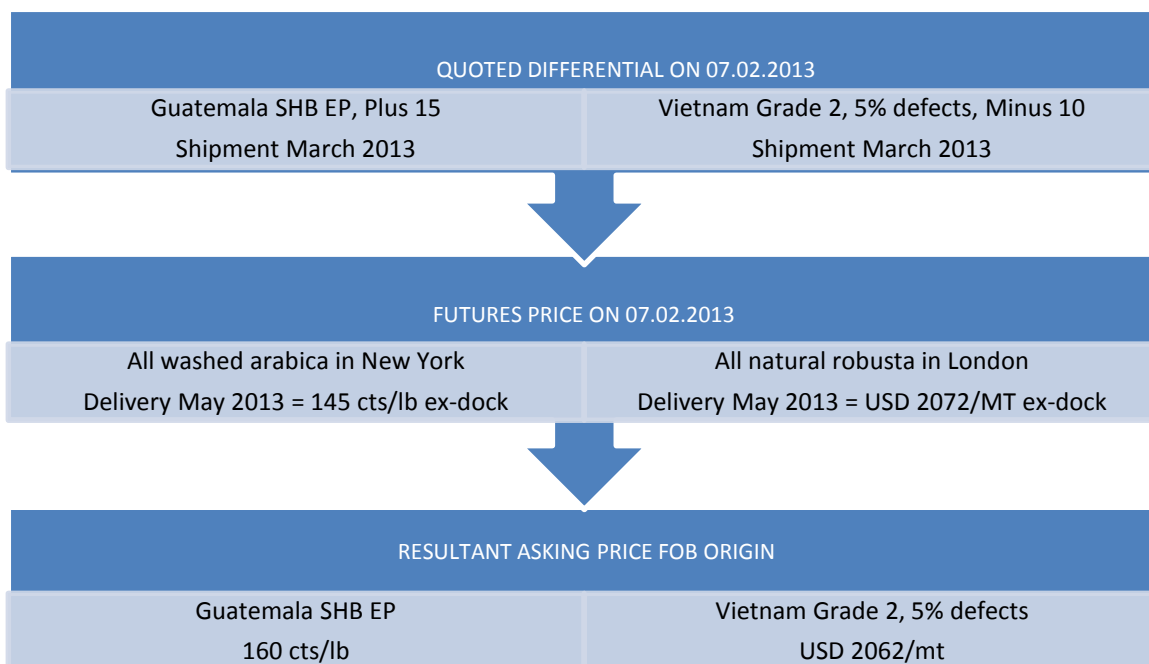
hand should enhance both farm management and a coffee's marketability, both important considerations in the review of credit applications.

#### 4. Some aspects of coffee trade pricing

##### 4.1 Differentials

Futures markets for coffee are intended to combine the sum of all available information regarding global supply and demand in 'a price for coffee' with New York representing standardised, average quality Arabica, and London the same for Robusta. In how far this assumption is always true is debatable given the influence of commodity funds and other investment vehicles as well as 'flash or hi-frequency trading' with the impact of the latter currently (2014) under investigation by US Authorities. But how are futures linked to actual green coffee trading?

Numerous individual and different types/qualities of physical or green coffee from many countries are traded between producers and end users in the physical or cash market. Individual coffees are linked to the futures price by way of a differential that expresses the difference between the coffee in question and what is represented by the standardized average quality futures market. If the quality is better the differential will be 'plus' – if it is lower the differential will be 'minus' as shown below.



The Arabica example shows that the international trade valued Guatemala SHB EP<sup>16</sup> 15 cts/lb above the average quality represented by the New York Futures Market. Vietnam Robusta Grade 2 on the other hand was quoted slightly below the equivalent for Robusta coffee traded in London. This is a snapshot only because both futures and differentials fluctuate all the time.<sup>17</sup>

Today most coffee is priced by way of a differential, plus or minus, vis-a-vis the price for a given futures delivery month, partly because stakeholders seek price protection but also because many lenders insist on it. However, futures markets only offer the possibility of hedging (protecting) the risk that the price for all coffee may rise or fall, meaning one can hedge the general price risk but not the risk that the price for the basis, i.e. the particular green coffee that was bought or sold, changes. For example if there is drought in the producing country, causing the price for that coffee to react independently of the market as a whole. This risk is called the basis or differential risk, for obvious reasons. Basis risk is less than price risk because it usually is much less volatile but it nevertheless is a risk.<sup>18</sup>

#### **4.2 Trading coffee Price to Be Fixed – PTBF**

Using the differential system the trade has developed a way of trading coffee without stipulating the final price at the time of contract – instead a PTBF contract only sets the differential (plus or minus) and the manner in which this differential is to be combined later with the price of a stipulated futures delivery month. This action is called fixing. In brief, the contract will state the timing (earliest and/or latest date permitted to fix the price), how this will be done (what action to take on the futures market) and who will do the fixing (seller = seller's call, or buyer = buyer's call). Huge volumes are traded PTBF and whilst the arrangement certainly facilitates the pricing of different coffees, seemingly ever-increasing volatility on the futures markets makes life extremely difficult for producers and exporters. As a result many lenders prefer to see only outright or fixed price contracts (with approved buyers) but this brings issues of a different kind.

#### **4.3 Why is coffee traded in US currency?**

Because coffee prices are notoriously volatile both stakeholders and lenders look for price protection on the futures markets of New York and London (operated by The InterContinental Exchange or ICE – a US company). Both markets are priced in US currency to ensure the maximum level of liquidity – in fact in 1992 the London market was forced to discard trading in Sterling for precisely that reason.

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<sup>16</sup> Strictly Hard Bean, Extra Prime = a trade quality description.

<sup>17</sup> The link March to May is because March shipment physicals from origin would only become available ex-dock New York or London around end April or even slightly later. A 'Plus Differential' usually suggests the quality is considered superior to the standard quality quoted on the futures markets whereas a 'Minus Differential' suggests the opposite. However, many other factors also play a role in determining differential levels such as ocean freight, reliability of supplier, availability and demand in the producing country itself etc.

<sup>18</sup> Clearly the better the quality of a coffee the higher the differential will be. There are times that the plus differential for certain coffees is (much) higher than the futures price itself, meaning that such coffees are much less likely to be influenced by movements on the futures markets.

Quoting/trading all coffee internationally in US currency means all quotations can be compared instantly and all positions can be priced/hedged instantly as well. The huge amount of PTBF trades of course further motivates the use of these US Dollar based coffee futures markets. At times pricing coffee exports in a different currency may look attractive but would mean more complicated (and more costly) price risk management for the buyer, likely resulting in reduced differentials... Hence individual producers/exporters and end-users have to manage the risk that the value of their own currency fluctuates against the US Dollar themselves. <sup>19</sup>

**Table 1 - Total production by exporting countries**

Crop years 2008 – 2013 Source ICO – in 1000's bags

Crop year commencing	2008	2009	2010	2011	2012	2013 estimated
<b>TOTAL</b>	<b>128 637</b>	<b>122 953</b>	<b>132 984</b>	<b>132 296</b>	<b>145 441</b>	<b>145 717</b>
Arabicas	78 902	72 883	84 108	81 870	88 890	85 402
<i>Colombian Milds</i>	9 964	9 160	9 705	8 720	12 010	12 238
<i>Other Milds</i>	27 056	26 526	28 789	32 030	29 102	26 425
<i>Brazilian Naturals</i>	41 882	37 198	45 614	41 119	47 778	46 739
Robustas	49 735	50 069	48 876	50 426	56 551	60 315
<b>Africa</b>	<b>16 017</b>	<b>16 000</b>	<b>16 053</b>	<b>15 715</b>	<b>16 529</b>	<b>16 451</b>
Cameroon	725	902	503	574	366	400
Côte d'Ivoire	2 397	1 795	982	1 886	2 046	2 100
Ethiopia	4 949	6 931	7 500	6 798	6 233	6 600
Kenya	541	630	641	757	875	850
Tanzania	1 186	675	846	544	1 109	750
Uganda	3 290	2 845	3 203	2 817	3 698	3 600
Others	2 929	2 222	2 377	2 338	2 201	2 151
<i>Arabicas</i>	7 910	9 153	10 125	9 084	9 360	9 309
<i>Robustas</i>	8 107	6 847	5 928	6 631	7 169	7 142
<b>Asia &amp; Oceania</b>	<b>34 995</b>	<b>37 222</b>	<b>36 016</b>	<b>37 897</b>	<b>42 707</b>	<b>47 320</b>
India	3 950	4 806	4 728	5 117	5 303	5 192
Indonesia	9 612	11 380	9 129	7 288	13 048	11 667
Papua New Guinea	1 028	1 038	870	1 414	717	1 000
Thailand	675	795	828	831	608	638
Vietnam	18 438	17 825	19 467	22 289	22 030	27 500
Others	1 292	1 379	994	959	1 002	1 323
<i>Arabicas</i>	4 467	5 189	5 217	6 050	6 541	6 886
<i>Robustas</i>	30 528	32 033	30 799	31 847	36 166	40 434
<b>Mexico &amp; Central America</b>	<b>17 236</b>	<b>16 685</b>	<b>18 021</b>	<b>20 282</b>	<b>18 595</b>	<b>15 995</b>
Costa Rica	1 287	1 304	1 392	1 462	1 618	1 344

<sup>19</sup> For more detailed information on both futures and options as well as the mechanics of coffee trading see <http://www.intracen.org/The-Coffee-Exporters-Guide---Third-Edition/>

El Salvador	1 410	1 065	1 814	1 152	1 360	844
Guatemala	3 785	3 835	3 950	3 840	3 743	3 130
Honduras	3 450	3 603	4 331	5 903	4 537	4 200
Mexico	4 651	4 109	4 001	4 563	4 327	3 900
Nicaragua	1 445	1 871	1 634	2 193	1 884	1 500
Others	1 209	899	899	1 168	1 125	1 077
<i>Arabicas</i>	<i>17 094</i>	<i>16 553</i>	<i>17 835</i>	<i>20 045</i>	<i>18 401</i>	<i>15 808</i>
<i>Robustas</i>	<i>142</i>	<i>132</i>	<i>187</i>	<i>236</i>	<i>193</i>	<i>187</i>
<b><i>South America</i></b>	<b><i>60 389</i></b>	<b><i>53 045</i></b>	<b><i>62 893</i></b>	<b><i>58 402</i></b>	<b><i>67 610</i></b>	<b><i>65 951</i></b>
Brazil	45 992	39 470	48 095	43 484	50 826	49 152
Colombia	8 664	8 098	8 523	7 653	10 413	10 900
Ecuador	771	813	854	825	828	676
Peru	3 872	3 286	4 069	5 373	4 453	4 200
Others	1 090	1 377	1 353	1 067	1 090	1 023
<i>Arabicas</i>	<i>49 432</i>	<i>41 988</i>	<i>50 931</i>	<i>46 690</i>	<i>54 588</i>	<i>53 398</i>
<i>Robustas</i>	<i>10 957</i>	<i>11 056</i>	<i>11 962</i>	<i>11 712</i>	<i>13 022</i>	<i>12 553</i>

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**Table 5 – Origin Overview**

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Grower s <sup>i</sup>
<b>Brazil</b>	290,000 growers; 2.4 million ha	Free from any major intervention. Highly organised, 220 registered exporters;	Freely available - many	Commercial banks;	45.57	19.15	30.94	145.15	86.7
Regulatory Authority: Coffee Department, Ministry of agriculture	<i>Av. Farm:</i> 8 ha. of which: < 10 ha 35% 10 to 50 ha 30% > 50 ha 35%	Functioning domestic coffee- futures market; Well- developed soluble coffee processing industry; & a well- developed domestic market.	available via Funcafe	Funcafe; PRONAF; ABC Program.	A: 34.33 R: 11.25		A: 27.66 R: 3.28	A: 148.53 R: 116.68	87.8 77.1
		No export taxes; Import taxes:- Green 10%; Roasted 10%; Soluble 16%.							
<b>Burundi</b>	650,000 growers; 70,000 ha.	Industry largely Privatised. Direct exports but internal trade fairly tightly controlled.	Very limited availability	Commercial banks (all with substantial Government stakeholding); Micro- financing institutions.	0.32	0.02	0.29	154.24	49.5
Regulatory Authority: Coffee Sector Regulatory Authority (ARFIC)	<i>Av. farm:</i> 0.1 ha. <i>Of which:</i> < 10 ha: virtually 100%	Export taxes - N/A; Import taxes:- Green 40%; Roasted 40%; Soluble 40%.							
<b>Cameroon</b>	400,000 growers; 226,000 ha	Entirely free since 1994/95 although exports subject to tight control.	Very limited availability	Commercial banks; Informal sector - comprising private moneylenders, informal traders and the Tontines (small, informal savings and loan associations).	0.70	0.07	0.59	91.16	64.1
Regulatory Authority: Office National du Café et du Cacao	<i>Av. Farm</i> 0.5 ha. <i>Of which:</i> < 10 ha: virtually 100%	Export taxes - N/A; Import taxes:- Green 5 - 30%; Roasted 30%; Soluble 30%.			A: 0.09 R: 0.61		A: 0.05 R: 0.54	A: 173.60 R: 83.47	62.8 64.2

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Grower <sup>s</sup>
<b>China</b>	50,000 growers; 104,000 ha Regulatory Authority: Ministry of Agriculture + local Provincial authorities <i>Av. Farm</i> 1.0 ha. <i>Of which:</i> < 10 ha: 75%	Progressively liberalised with a mixture of international, domestic private and state owned firms operating at all levels of the industry.  Export taxes - N/A; Import taxes: Green 8 - 30%; Roasted 30%; Soluble 30%.	Limited availability	Commercial banks;	0.54 A: 0.51 R: 0.03	1.10	0.65 A: 0.58 Sol: 0.07	N/A	N/A
<b>Colombia</b>	550,000 growers; 780,000 ha. Regulatory Authority: National Federation of Coffee Growers of Colombia (Federacafe). <i>Av. farm:</i> 1.4 ha. <i>Of which :</i> < 10 ha 70% > 10 ha 30%	Mixed -exports controlled by FEDERACAFE with limited participation by private exporters. Colombian state regulates internal prices through the National Coffee Fund.  Export taxes - N/A; Import taxes:- Green 10-15%; Roasted 15-20%; Soluble 20%.	Freely available, but National Coffee Fund ensures minimum prices with Government support	Commercial banks; Banco Agrario: Banco Cafetero; Finagro.	A: 8.19	1.35	8.34	205.48	74.3
<b>Congo, Dem. Rep of</b>	600,000 growers; 30,000 ha. Regulatory Authority: Office National du Café (ONC) <i>Av. farm:</i> 0.5 ha. <i>Of which:</i> < 10 ha 99% > 10 ha 1%	The industry operates in an unstable environment where legislation may be difficult to enforce. Various regulations exist governing the industry, but most are unenforceable.  Export taxes - N/A; Import taxes:- N/A	Mostly unavailable	Very few, possibly some informal sources.	0.37 A: 0.07 R: 0.30	0.2	0.16 A: 0.09 R: 0.07	93.42 A: 110.61 R: 74.01	N/A N/A N/A

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Grower s <sup>i</sup>
<b>Costa Rica</b>  Regulatory Authority: ICAFE (Instituto del Café de Costa Rica)	51,000 growers; 110,000 ha. <i>Av. farm:</i> 2.0 ha. <i>Of which:</i> < 10 ha 95% > 10 ha 5%	Tight control over exports as well as over internal industry and prices.  Export taxes - 1.5%; Import taxes:- Green 9-14%; Roasted 14%; Soluble 14%.	Freely available via ICAPE or directly	Commercial banks; FINAR credit Scheme; Rural Credit Union; Microfinance institutions.	A: 1.41	0.25	1.3	185.37	79.1
<b>Côte d'Ivoire</b>  Regulatory Authority: Conseil du Café & Cacao (CCC)	400,000 growers; 532,000 ha. <i>Av. farm:</i> 1.3 ha. <i>Of which:</i> < 10 ha: virtually 100%	Coffee marketing was fully liberalised in 1998 but minimum producer prices have since been reintroduced and the sector is once again strictly regulated.  Export taxes - N/A; Import taxes:- Green 20%; Roasted 20%; Soluble 10-20%.	Very few available	Commercial banks; and Micro-Finance Institutions	R: 1.82	0.32	1.54	86.74	50.0
<b>Cuba</b>  Regulatory Authority: Ministry of Agriculture	35,000 growers; 27,000 ha <i>Av. Farm:</i> 0.8 ha. <i>Of which:</i> < 10 ha 100%	Coffee marketing centrally controlled, all exports by Central Government Agency No Export taxes; Import taxes:- Green 5% to 10%; Roasted 30%; Soluble 30%.	Very few available	Limited, but a number of Commercial banks operate in Cuba as well as some micro finance institutions.	A: 07	0.22	0.01	289.35	0.35
<b>Dominican Republic</b>  Regulatory Authority: Codocafé	90,000 growers; 130,000 ha. <i>Av. Farm:</i> 1.4 ha. <i>Of which:</i> < 10 ha 75% > 10 ha 25%	Relatively free from any major controls or undue state intervention; Well-developed domestic industry.  No Export taxes; Import taxes:- Green 14%; Roasted 20%; Soluble 20%.	Freely Available, but usage not widespread and mainly limited to export sector	Commercial banks; and Micro-Finance Institutions	A: 0.38	0.38	0.09	183.25	74.8

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Ecuador</b>	105,000 growers; 193,000 ha. Regulatory Authority: COFENAC Av. farm: 1.8 ha. Of which: < 10 ha 80% > 10 ha 20%	Relatively free from any major controls or undue state intervention. Sizeable soluble industry mainly for export.  Export tax: 2% of FOB value. Import taxes Green 10-15% Roasted 15-30% Soluble 30%	Freely Available	Commercial banks;	0.89 A: 0.48 R: 0.41	0.22	1.15 A: 0.46 R: 0.69	111.79 A: 121.24 R: 105.49	98.2 130.9 76.4
<b>El Salvador</b>	24, growers; 155,000 ha Regulatory Authority: Consejo Salvadoreño del Cafe (CSC) Av. Farm: 6 ha. Of which: < 10 ha 25% > 10 ha 75%	Relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 10-15%; Roasted 15%; Soluble 15%.	Freely Available, but usage not widespread and mainly limited to export sector.	Commercial banks;	A: 1.37	0.15	1.34	165.06	62.5
<b>Ethiopia</b>	1.1 million growers; 520,000 ha. Regulatory Authority: Ministry of Trade Av. Farm: 0.5 ha. Of Which: < 10 ha 95% > 10 ha 5%	Liberalised but remains under relatively tight Government control. Central Spot Exchange, limited direct sales. Internal trade also tightly controlled.  Export Taxes N/A Import Taxes N/A		Commercial Banks; Oromia Cooperative Bank.	A: 6.86	3.29	2.78	169.01	58.5
<b>Guatemala</b>	90,000 growers; 270,000 ha. Regulatory Authority: ANECAFE (Asociación Nacional del Café de Guatemala) Av. Farm: 3 ha Of which: < 10 ha 30% > 10 ha 70%	Relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 15%; Roasted 15%; Soluble 15%.	Freely Available	Commercial Banks;	A: 3.70	0.34	3.64	168.59	85.4



Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Haiti</b> Regulatory Authority: National Coffee Institute (INCAH)	150,000 growers 115,000 ha. Av. Farm: 0.8 ha Of which: < 10 ha 85% > 10 ha 15%	Relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 15%; Roasted 15%; Soluble 15%.	Not widely available	Very limited some commercial banks and micro finance institutions operate in the country but interest rates are high.	A: 0.35	0.34	0.01	N/A	N/A
<b>Honduras</b> Regulatory Authority: IHCAFE (Instituto Hondureño del Café)	87,000 growers; 265,000 ha. Av. Farm: 3 ha. Of which: < 10 ha 85% > 10 ha 15%	Relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 10-15%; Roasted 15%; Soluble 15%.	Freely Available	Commercial Banks;	A: 4.44	0.32	3.83	167.96	75.5
<b>India</b> Regulatory Authority: Coffee Board of India	221,000 growers; 360,000 ha Av. farm: 1.6 ha. Of which: < 10 ha 70% > 10 ha 30%	Liberalised and relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 100%; Roasted 100%; Soluble 30%.	Freely accessible, a number of which including insurance (both life and crop), as well as a price stabilisation scheme are provided by the Coffee Board.	Commercial Banks; Micro finance institutions: Plus interest rate subsidies are available via the Coffee Board of India; The Central Bank (RBI) through the banking network; through NABARD; and from State Governments covering the Cooperatives.	4.86 A: 1.55 R: 3.31	1.78	4.43 1.44 2.99	117.64 146.56 103.72	91.3 96.0 89.1

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Indonesia</b> Regulatory Authority: Ministry of Agriculture; AEKI (Indonesian Coffee Exporters' Association)	1.0 million growers; 1.3 million ha. Av. Farm: 1.3 ha. Of which: < 10 ha 95% > 10 ha 5%	Both the internal and export trade is entirely in the hands of the private sector. Substantial domestic market.  No Export taxes; Import taxes:- Green 0-5%; Roasted 5%; Soluble 5%.	Freely Available, but usage not widespread and mainly limited to export sector	Commercial Banks;	10.00 A: 2.00 R: 8.00	3.40	7.18 A: 1.31 R: 5.87	94.31 145.23 82.94	N/A
<b>Kenya</b> Regulatory Authority: Coffee Board of Kenya	600,000 growers; 160,000 ha. Av. Farm: 0.3 ha. Of which: < 10 ha 58% > 10 ha 42%	Some state control; Private exporters but sales via Central Auction and direct sales; internal market channels highly regulated.  No Export taxes; Import taxes:- Green 25%; Roasted 25%; Soluble 10-25%.	Freely accessible	Commercial Banks; Coffee Dev Fund; Co-operative Bank; Micro-Financing Institutions/SA CCOS (saving and Credit Cooperatives); Marketing Agents.	A: 0.67	0.05	0.60	217.67	N/A
<b>Laos</b> Regulatory Authority: Lao Coffee National Committee/Lao Coffee Board (public and private sector)	40,000 growers 77,300 ha. Av. Farm: 0.5 ha. Of which: < 10 ha 80% > 10 ha 20%	Liberalised and relatively free from any major controls or undue state intervention.  Export & Import taxes: N/A	Not widely available	Very limited, some commercial banks and micro finance institutions operate in the country.	0.51 A: 0.21 R: 0.30	0.15	0.36	81.50	N/A

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Madagascar</b>	350,000 growers; 155,000 ha. Regulatory Authority: Av. Farm: 0.4 ha. Comite National de Commercialisation du Café (CNCC)	Liberalised and relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 20%; Roasted 20%; Soluble 20%.	Mostly unavailable	Mainly from Micro-finance institutions (both formal and informal); very limited finance available from Commercial banks;	R: 0.58	0.47	0.11	92.57	N/A
<b>Mexico</b>	300,000 growers; 690,000 ha. Regulatory Authority: The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food, (SAGARPA); Asociación Mexicana de la Cadena Productiva del Café (AMECAFE)	Relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 20%; Roasted 72%; Soluble 140.4%.	Price risk management tools and facilities are made available under a programme operated by the Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food, (SAGARPA)	Commercial banks; plus AMECAFE together with SACARPA operate a revolving fund which provides credit guarantees	A: 4.49	2.29	<b>2.84</b>	172.56	73.5

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Nicaragua</b>	48,000 growers; 120,000 ha. Regulatory Authority: National Coffee Council Nicaragua- (CONACAFE)	Relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 10-15%; Roasted 15%; Soluble 15%.	Freely Available, but usage not widespread and mainly limited to export sector	Commercial Banks; Fondo de Desarrollo local; National development Bank (BANADES); Micro-financing through Nicaragua Credit Unions; Nicaragua Rural credit Fund.	A: 1.70	0.20	1.63	171.98	43.1
<b>Panama</b>	8,050 growers 30,000 ha. Regulatory Authority: Ministerio de Desarrollo Agropecuario (MIDA)	Relatively free from any major controls or undue state intervention.  Export taxes: N/A Import taxes:- Green 30%; Roasted 54%; Soluble 30% – 81%.	Freely Available	Commercial Banks;	A: 0.11	0.07	0.06	202.50	N/A
<b>Philippines</b>	276,000 growers 120,000 ha. Department of Trade and Industry	Relatively free from any major controls or undue state intervention.  Export taxes: Green N/A; Roasted 40%; Soluble N/A Import taxes:- Green 10%; Roasted 10%; Soluble 10%.	Freely Available	Commercial Banks;	0.36	2.09	<0.01	N/A	N/A

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Growers <sup>i</sup>
<b>Papua New Guinea</b>	400,000 growers; 60,000 ha. Av. Farm: 0.15 ha. Regulatory Authority: Coffee Industry Corporation (CIC)	Relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 25%; Roasted 25%; Soluble 25%.	Freely Available, but usage not widespread and mainly limited to export sector	Commercial Banks; National Development Bank; a small number of micro-financing schemes.	1.11 A: 1.10 R: 0.01	0.02	1.04 A: 1.03 R: 0.01	169.37 A: 169.97 R: 107.41	52.5 52.7 29.5
<b>Peru</b>	160,000 growers; 370,000 ha. Regulatory Authority: Junta Nacional del Café; Peruvian Chamber of Coffee and Cocoa	Relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 17%; Roasted 9-17%; Soluble 0%.	Freely Available, but usage not widespread and mainly limited to export sector	Commercial Banks; Peruvian microfinance institution ARARIWA; Cajas Rurales de Ahorro y Credito (CRAC);	A: 4.31	0.25	3.93	170.98	N/A
<b>Rwanda</b>	500,000 growers; 37,500 ha. Regulatory Authority: National Agricultural Export Development Board (NAEB)	Liberalised and relatively free from any major controls or undue state intervention.  No Export taxes; Import taxes:- Green 5-15%; Roasted 30%; Soluble 30%.	Available, but usage not widespread and mainly limited to export sector	Commercial Banks; Banque Populaire, Cooperatives; Savings and Credit Associations plus other Informal sources.	A: 0.32	0.001	0.28	181.16	N/A

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Grower s <sup>i</sup>
<b>Tanzania</b>	400,000 growers; 120,000 ha. Regulatory Authority: Tanzania Coffee Board <i>Av. Farm size: 0.3 ha.</i> <i>Of which:</i> > 10 ha 90% > 10 ha 10%	Liberalised, but both internal and external trade subject to Government regulation. Central Auction, but direct sales permitted.  No Export taxes; Import taxes:- Green 25%; Roasted 25%; Soluble 10 -15%.	Available, but usage not widespread and mainly limited to export sector	Commercial Banks; Savings and Credit Cooperatives (SACCOs); micro financing schemes run mainly by NGO's.	0.83 A: 0.53 R: 0.30	0.06	0.81 A: 0.52 R: 0.29	138.47 A: 169.32 R: 83.15	47.4 48.5 45.5
<b>Thailand</b>	<i>No. of growers: N/A</i> 52,500 ha. Regulatory Authority: Thai Coffee Exporters Association <i>Av. Farm siz: N/A</i> <i>Of which:</i> < 10 ha: virtually 100%	Relatively free from any major controls or undue state intervention.  Export taxes - N/A; Import taxes:- Green 40% in quota, 90% out of quota; Roasted 40% in quota,90% out of quota; Soluble 49%.	Available, but usage not widespread and mainly limited to export sector	Commercial Banks; Agricultural bank; Micro-finance available through the Village fund scheme	R: 0.80	0.5	0.23	102.93	N/A
<b>Timor Leste</b>	67,000 growers 53,500 ha. Regulatory Authority: Ministry of Tourism, Commerce and Industry <i>Av. Farm size: 0.8 ha</i> <i>Of which:</i> < 10 ha: virtually 100%	Relatively free from any major controls or undue state intervention.  Export Taxes: N/A Import Taxes: N/A	Available, but usage not widespread and mainly limited to export sector	Commercial banks and both formal and informal Micro-finance institutions.	0.05 A: 0.04 R: 0.01	0	0.05	N/A	N/A

Country	Industry Structure (Estimates)	Marketing System & Taxation	Risk Management Instruments	Finance Options	Production (million bags - average of crop years 2008 to 2012.)	Domestic Consumption (million bags - average of crop years 2008 to 2012.)	Exports (million bags - average of crop years 2008 to 2012.)	FOB Price (US Cents/lb - average of crop years 2008 to 2012.)	% of FOB to Grower <sup>s</sup>
<b>Uganda</b>	500,000 growers; 320,000 ha. Regulatory Authority: Uganda Coffee Development Authority (UCDA)	Liberalised and relatively free from any major controls or undue state intervention <i>Of which:</i> > 10 ha 99% > 10 ha 1%	Available, but usage not widespread and mainly limited to export sector	Commercial Banks (including the Centenary Rural Development Bank Ltd); Micro-financing agencies.	3.03 A: 0.61 R: 2.42	0.14	2.96 A: 0.68 R: 2.28	91.34 A: 129.78 R: 79.88	76.1 65.6 79.2
<b>Vietnam</b>	500,000 growers; 570,000 ha. Regulatory Authority: Vietnam Coffee and Cocoa Association (VICOFA)	Tight control over exports as well as over internal industry. <i>Of which:</i> < 10 ha 85% > 10 ha 15%	Extensive Government support including price and input subsidies.	Commercial Banks; Agribank;	A: 0.12 R: 20.39	1.4	18.08	A: 158.57 <sup>ii</sup> R: 85.9	94.9
<b>Yemen</b>	100,000 growers 35,000 ha. Regulatory Authority: Department of Agriculture & Irrigation	Free from any major controls or undue state intervention. <i>Of which:</i> > 10 ha 100%	Not Available	Commercial Banks and some donor led micro finance institutions	A: 0.17	0.13	0.05	N/A	N/A

<sup>i</sup> Caution is required when interpreting and comparing these figures, as reported producer prices do not necessarily always relate to the same point in the marketing chain in all countries.

<sup>ii</sup> Based on limited data.