

Grupo Básico del Foro Consultivo
4ª reunión
12 septiembre 2013
Belo Horizonte, Brasil

**Riesgo y financiación en el sector cafetero:
Informe sobre los avances realizados en el
estudio conjunto de la OIC y el Banco Mundial**

Antecedentes

1. En septiembre de 2012 el Grupo Básico acordó que tres estudios en los que se analizase el riesgo y la financiación en el sector cafetero serían elaborados por el Banco Mundial, en colaboración con la OIC. Los estudios identificarán riesgos y limitaciones en distintas fases de la cadena de valor; determinarán el impacto que tienen en la disponibilidad y el costo de la financiación; y propondrán, en la medida en que se pueda hacer, posibles medidas de saneamiento que podrían mitigar esos riesgos. Estarán dirigidos a tres públicos diferentes: productores de café, empresas de comercio de café y elaboradores de políticas. En diciembre de 2012 el Director Ejecutivo hizo distribuir una nota de concepto acerca de esos estudios en la que se solicitaba a los Miembros que facilitasen asistencia y datos a los consultores nombrados por el Banco Mundial para que los preparasen (véase el documento ED-2146/12). En marzo de 2013 el Grupo Básico examinó el documento CG-7/13 en el que se describe el enfoque que se estaba dando a los estudios y el probable contenido de los mismos.

2. Se ha recibido del Banco Mundial el informe adjunto sobre los avances realizados, junto con los Anexos que figuran a continuación (disponibles sólo en inglés). El objetivo del informe es hacer que los Miembros puedan ofrecer observaciones, sugerencias e información adicional que pueda ser usada en la elaboración de la producción final. Sujeto a la información más a fondo que pueda ser facilitada, el informe final será distribuido en el verano de 2014 y examinado por el Consejo en septiembre de 2014.

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Anexo 2: Riesgos del comercio intermedio y de exportación

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Medidas que se solicitan

Se invita al Grupo Básico a que examine este documento.

Estudio conjunto



RIESGO Y FINANCIACIÓN EN EL SECTOR CAFETERO

INFORME SOBRE LOS AVANCES REALIZADOS EN EL
ESTUDIO CONJUNTO DE LA ORGANIZACIÓN
INTERNACIONAL DEL CAFÉ Y EL BANCO MUNDIAL

Nota informativa a ser presentada en las reuniones de
septiembre de 2013 de la Organización Internacional
del Café (OIC)



THE WORLD BANK



Ministry of Foreign Affairs of the
Netherlands



Schweizerische Eidgenossenschaft
Confédération suisse
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INTERNATIONAL COFFEE ORGANIZATION

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La modernización de una cooperativa cafetera de Costa Rica: con agradecimiento al Sr. Carlos Vargas y al Sr. Sebastien Lafaye, Coopetarrazu, Costa Rica

Minimización del riesgo de los precios mediante opciones de compra: con agradecimiento a Sustainable Harvest Coffee Importers, Portland, EE UU

Intervenciones en el programa

Dinámica actual de la financiación en el sector cafetero de Kenya: con agradecimiento al Sr. John Amino, Fondo de Desarrollo del Café de Kenya

Puesta en práctica de la gestión del riesgo de los precios en el mercado de Rwanda: con agradecimiento al Sr. Paul Stewart, Technoserve

1. Antecedentes

El Banco Mundial, junto con la OIC y sus Miembros, están elaborando una tipología de las mejores prácticas mundiales en financiación agrícola y gestión del riesgo en el sector cafetero. Se espera con ello identificar riesgos y limitaciones en distintas fases de la cadena de valor; determinar su impacto en la disponibilidad y el costo de la financiación; y proponer, en la medida en que se pueda hacer, posibles medidas de saneamiento que podrían mitigar esos riesgos. Este informe interino está encaminado a reseñar de forma sucinta los avances realizados hasta la fecha e informar acerca de algunas de las observaciones iniciales que se hicieron. El objetivo de este documento es proporcionar a los Miembros de la OIC la oportunidad de ofrecer observaciones, sugerencias e información adicional si fuere apropiado o si se solicita, que será utilizada en la elaboración de los resultados finales.

2. Avances hasta la fecha

Hasta la fecha se ha entrado en contacto con un gran número de posibles fuentes de información pertinentes, tanto en el sector público como en el privado. La respuesta hasta ahora sugiere que, si bien hay una serie de bien publicitadas intervenciones estatales en algunos países (incluidos mecanismos de apoyo de los precios)¹, la mayoría de las iniciativas identificadas hasta la fecha que tienen como objetivo el acceso a financiación de los pequeños y medianos productores emanan de las ONG, de prestamistas con orientación social y de otros participantes en el sector, con frecuencia formando parte de una promoción general de la sostenibilidad en la cadena de la oferta, pero también como resultado de intentos de mejorar la seguridad de la oferta en general. En esta fase es evidente que hay aún muchas lagunas en los datos y la información acerca de iniciativas en curso encaminadas a abordar el riesgo y la financiación inadecuada en el sector cafetero, en especial a nivel nacional o macroeconómico. En el camino hacia adelante será preciso un esfuerzo más a fondo para conseguir datos de los países productores de café relativos a actividades y programas en curso.

A ello hay que añadir que la serie de cuestiones relacionadas con el riesgo y la financiación en los sectores cafeteros identificados hasta la fecha, en conjunción con entornos diferentes en grado sumo en cada país, dejan en claro que es probable que no haya un enfoque único

¹ Cabe señalar que, a menos que exista la posibilidad de tener cobertura o vender el producto a plazo, la provisión de financiación para retirar existencias a la espera de aumentos de precio más adelante deja por supuesto a los agricultores totalmente expuestos al riesgo de los precios. La Cédula de Produto Rural o CPR del Brasil (de la que se hablará en el informe final del estudio) ofrece una respuesta interesante a esto, pero hay que tener en cuenta que Brasil dispone de un entorno sumamente sofisticado de comercio de futuros. Véase http://siteresources.worldbank.org/INTARD/Resources/RFI_final.pdf.

que pueda dar todas las respuestas. Es probable que haya innumerables enfoques posibles para abordar las cuestiones del riesgo y de insuficiente acceso a financiación que reúnan una serie de opciones diferentes de financiación, entre los que figuran opciones públicas, comerciales, sociales y de capital, así como otra serie igualmente amplia de estrategias y técnicas para abordar los riesgos del sector cafetero.

3. Razón para este trabajo

Como se acordó en la reunión de septiembre de 2012 del Grupo Básico del Foro Consultivo sobre Financiación del Sector cafetero de la OIC, el objetivo de este estudio es identificar el riesgo en las distintas fases de la cadena de valor; determinar el impacto que pueda tener en la disponibilidad y el costo de la financiación; y proponer, en la medida en que se pueda hacer, posibles medidas de saneamiento que podrían mitigar esos riesgos. Se espera que gestionar el riesgo en la cadena de valor mejore la disponibilidad de financiación y reduzca el costo de la misma, dado que en la mayor parte de los casos ni el posible prestatario ni el prestamista comprenden plenamente el riesgo que acompaña a las distintas fases de la cadena de valor del café. El resultado es que los prestamistas no se deciden a prestar y los prestatarios no se deciden a pedir el préstamo. Agrava estas cuestiones el hecho de que el riesgo a menudo no esté bien comprendido por los que participan en la cadena de la oferta, por lo que no puede ser mitigado por los que operan en esa cadena.

La investigación inicial realizada hasta la fecha confirma que el riesgo sigue siendo uno de los costos principales no definidos para los que prestan al sector cafetero, y parece tener un papel clave en cuanto a reducir la cantidad de financiación que se pone a disposición de los sectores cafeteros en todo el mundo. Esto se aplica en especial a la fase de producción de la cadena de la oferta. De momento hay pocos y limitados métodos de cuantificación del riesgo en relación con la agricultura y, sin embargo, cuantificar y gestionar el riesgo podría servir de catalizador para obtener un mayor acceso a financiación. Si los bancos integrasen la gestión del riesgo en sus procesos de evaluación de crédito, obtendrían una visión mejor del riesgo de sus clientes y hasta de la cadena de la oferta como un todo, algo que tendría el potencial de mejorar el acceso al crédito y al mismo tiempo de fortalecer sus propias carteras. Además, los prestamistas serían más capaces de calcular el precio del riesgo de forma más apropiada y cobrar primas de riesgo más fuertes a los que gestionasen el riesgo con menos eficacia, al tiempo que premiasen a los que lo gestionasen de forma más eficaz. Esto significa que gestionar el riesgo tiene importantes beneficios no sólo en cuanto al perfil de riesgo del prestatario, sino también en cuanto a la capacidad de las instituciones financieras para otorgar préstamos. **Mejorar la identificación de riesgos graves y los medios para manejar esos riesgos en todas las etapas de la cadena de la oferta hará posible que los participantes en esa cadena se planteen esos riesgos, con lo que**

mejorarán su atractivo para los prestamistas y, al mismo tiempo, el hecho de que los prestamistas puedan comprender mejor los riesgos con que se enfrenta el sector cafetero los hará capaces de evaluar mejor la solvencia de sus clientes.

4. Consideraciones adicionales

Hay que considerar otras cuestiones conjuntamente con el riesgo. Al hablar del acceso a financiación para los participantes en la cadena de la oferta, el riesgo no es ni mucho menos el único, o en algunos casos el principal, obstáculo a la expansión de servicios financieros para el café. Esto es así en especial en situaciones en que falta un ambiente propicio (legislación, reglamentación, política, apoyo e información adecuados). Esto puede llevar a la exageración de determinados riesgos y a costos financieros más elevados. Las cuestiones relacionadas con el riesgo y la financiación resultan también más graves cuando no están presentes los tradicionales requisitos previos para pedir prestado (familiarización con las finanzas por parte de los prestatarios, gestión comercial adecuada, etc.). Esto es un hecho, aunque esas cuestiones podrían ser abordadas con medidas relativamente simples que adoptasen los propios participantes en la cadena de la oferta, como por ejemplo ampliando la familiarización con las finanzas entre los productores o introduciendo prácticas contables adecuadas entre los recaudadores y los comerciantes. Este informe analizará por tanto maneras en que la mejora en la gestión del riesgo podría facilitar mejor acceso a financiación, además de cómo medidas para mejorar el acceso a financiación de los que actúan solos mejoraría la negociación bancaria de los clientes. En resumen, el objetivo de este trabajo es facilitar una comprensión mejor del riesgo y del sector cafetero en general, lo que sería ideal para mejorar la interacción entre las distintas partes de toda la cadena financiera y el acceso a financiación.

5. Lecciones iniciales aprendidas

La investigación inicial llevada a cabo y los datos recopilados han proporcionado una serie de interesantes lecciones iniciales. Aunque esas lecciones serán ampliadas y se hablará de otras en el informe final, se detalla a continuación una pequeña selección de esas lecciones.

A) Se necesita acceso a financiación en toda la cadena de la oferta de café

La investigación inicial ha indicado que sin lugar a dudas el mayor centro de atención de los gobiernos, los organismos de desarrollo, las ONG y demás instituciones relacionadas con la insuficiente financiación del sector cafetero han sido los productores en pequeña escala. Esto no es motivo de sorpresa, dado que en la parte correspondiente a la producción de la cadena de oferta del café están los grupos más vulnerables, incluidos muchos productores

pequeños y medianos. Se tiene también la impresión de que esa parte de la cadena es la de más riesgo y por tanto la menos atractiva para las entidades financieras: básicamente, el riesgo es mayor en la parte productiva de la cadena de la oferta, no sólo debido a los miles de riesgos en la producción y comercialización, sino también a la más larga duración de ese tipo de préstamo (préstamos para inversión en infraestructura y operaciones e insumos previos a la temporada). No obstante, además de examinar los diversos enfoques que pueden adoptarse para gestionar el riesgo de esos grupos, es preciso concentrarse también en mejorar la financiación de otros segmentos de la cadena de la oferta, en especial la de operadores locales que pueden tener que luchar para obtener suficiente financiación que les permita operar con el máximo de eficiencia. La labor inicial ha mostrado que, para que mejore el acceso a financiación, se precisa una serie de diferentes intervenciones con respecto a diferentes participantes en la cadena de la oferta. El documento final pondrá de relieve intervenciones tanto en la parte de la producción como en otros segmentos de toda la cadena de la oferta.

B) Se dispone en general de financiación en la parte con menos riesgo de la cadena de la oferta

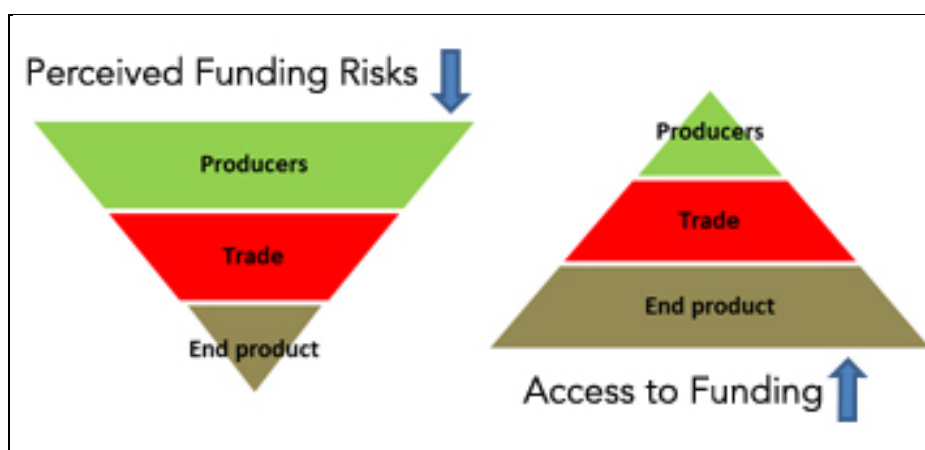
El valor añadido aumenta a medida que el café circula por la cadena de valor, de forma más marcada en la parte de la importación, como muestra el cuadro *infra*. Esto es de suma pertinencia, dado que muestra por qué la parte correspondiente al origen de la cadena de valor se enfrenta con la mayor escasez de financiación (bajo valor/alto riesgo), mientras que la parte correspondiente a la importación/venta al por menor de la cadena de valor (alto valor/bajo riesgo) obtiene el mayor acceso a financiación asequible. Los más grandes retos, y oportunidades, para mejorar la financiación mejorando la gestión del riesgo están en la parte de la cadena de la oferta correspondiente al origen.

Cadena de valor Fase	Ex dock a 200 cts/lb			Ex dock a 150 cts/lb		
	Valor Cts/lb	Valor US\$ TM (redondeado)	Valor de 1 contenedor 18.000 kgs	Valor Cts/lb (redondeado)	Valor US\$ MT	Valor de 1 contenedor 18.000 kgs
Valor Acumulado = al por menor	511,40	11.274	202.932	417,30	9.200	165.600
Equivalente Ex Dock	200,00	4.409	79.362	150,00	3.307	59.526
Equivalente En fábrica	157,10	3.463	62.334	110,80	2.443	43.974
Cereza fresca En finca	96,25	2.122	38.196	50,00	1.102	19.836

Arábica: Todo en equivalente en grano verde o GBE.

Fuente: Datos de la OIC (precios al por menor) y cálculos propios.

El diagrama que figura a continuación simplemente visualiza la cuestión de que se trata, esto es, que la impresión de riesgo de crédito que se tiene es mayor en la parte correspondiente a la producción de la cadena de la oferta de café y menor en la parte correspondiente a la venta al por menor de la cadena, y que el riesgo se reduce a medida que se sube en la cadena de la oferta. Parece haber una relación inversa en términos de acceso a financiación. La financiación por consiguiente se vuelve cada vez más disponible a medida que se sube en la cadena de valor, dado que se reduce la impresión de riesgo.



A) No es sólo el riesgo lo que limita la financiación

La información recibida de los participantes en la industria sugiere que, además de las limitaciones en financiación para pequeños productores en términos absolutos (principalmente debido a la impresión de altos niveles de riesgo crediticio), esos participantes en la industria han notado una incapacidad de los productores para acceder a financiación incluso cuando se ofrece o está disponible. Hay muchas razones para esto, entre otras falta de familiarización con las finanzas, falta de familiarización con el sector financiero estructurado, falta de representación de las instituciones financieras en zonas rurales, etc. Se están haciendo estudios que muestran cómo el educar a los productores en gestión financiera y anotación en cuentas básicas tiene el potencial de expandir considerablemente el acceso a financiación de los pequeños productores.

B) Diferentes tipos de préstamos suponen diferentes riesgos

Hay considerables diferencias entre la financiación de la producción y la de postcosecha, y esas diferencias influyen mucho en el nivel de financiación disponible y supone niveles muy diferentes de riesgo. Lo cierto es que sería incorrecto dar por supuesto que la falta de financiación para el productor es atribuible por completo a la impresión de un nivel de riesgo mayor. Lo que ocurre es que los prestamistas están en general más dispuestos a facilitar préstamos a corto plazo que préstamos a largo plazo, y esto explica en parte por

qué los préstamos tradicionales de la banca comercial se concentran en la postcosecha, en que el requerimiento de préstamos es en su mayor parte a corto plazo. Debido a que los dos tipos de financiación, esto es, el de producción y el de postcosecha, son considerablemente diferentes, en el informe final habrá panoramas por separado de los riesgos en distintas fases de la cadena de la oferta.²

C) La agregación como medio de expandir el acceso a financiación de los productores

El enfoque más común para mejorar el acceso de los productores a financiación ha sido el de que los pequeños productores se agreguen en asociaciones y grupos. Hay muchos tipos de agregación y, dependiendo de la situación individual, la agregación podrá o no ser un elemento facilitador apropiado de financiación. Se enumeran a continuación unas cuantas conclusiones iniciales relacionadas con la agregación, el riesgo y el acceso a financiación:

- a) Promover la agregación supone que el agrupamiento de pequeños productores los hará aceptables para los bancos, pero debería reconocerse que eso por sí solo no aborda la cuestión de la viabilidad individual. En último término deberá ser reconocido que, para ser aceptables para los bancos, los pequeños productores tendrán que ser viables desde el punto de vista económico.
- b) La agregación de la oferta da por supuesto que existen intereses comunes, como por ejemplo en torno a los puestos de lavado que reciben cereza fresca de las zonas de captación de alrededor. De hecho, muchas de las iniciativas identificadas hasta la fecha se crean en torno a esas operaciones, la mayor parte de las cuales pertenecen a cooperativas. No obstante, el reto está en que la agregación de la oferta es mucho más difícil de conseguir en el sector del café natural o secado al sol, porque es difícil demostrar que se añade valor a corto plazo. Además, siempre se tiene la opción de vender por cuenta propia (para efectivo inmediato) y también la de que los agricultores pueden retener su café como una forma de ahorro. Hay indicaciones de que se encuentran más iniciativas basadas en agregación en el sector del Arábica suave o lavado que en el sector (mucho más grande) del café secado al sol (tanto en cuanto al Arábica como al Robusta) y, sin embargo, ahí la necesidad de financiación podría ser más grande, precisamente porque es más difícil encontrar elementos catalizadores para la agregación. Esto plantea un reto interesante: el de que la agregación podría ser menos posible como medio de tener acceso a financiación cuando la necesidad es en realidad más grande.

² Debido a que podrían ser muy voluminosos y duplicar información disponible en otros lugares, se presentarán en forma de tabla. Véase el Anexo 1: Producción y transformación primaria y el Anexo 2: Comercio intermedio y exportación. En el Anexo 3 figuran cuestiones de crédito.

- c) Las cooperativas son por naturaleza instituciones basadas en la colaboración, y pueden requerir aprobación de los miembros para tomar decisiones diarias de gestión. A veces las estructuras de gestión cooperativa pueden no otorgar a la dirección la capacidad adecuada para “manejar” el negocio. Esto puede resultar en largos procesos de decisión sobre las ventas, o en que no haya mucha disposición a invertir en nuevas estrategias de gestión del riesgo, lo que impide a la empresa funcionar de forma óptima y por lo mismo reduce su capacidad de atraer financiación. Se ha sostenido que las cooperativas podrían tener que mantener aparte las decisiones de la dirección y la influencia de los miembros para que puedan funcionar de forma óptima.
- d) Las experiencias de los bancos cuando prestan a cooperativas y asociaciones cafeteras no son siempre positivas, dado que los miembros no siempre están lo bastante unidos como para respetar las obligaciones mutuas, lo que lleva a incumplimientos de pago del préstamo. Entre las experiencias recopiladas hasta la fecha está la de una organización de agricultores en Uganda que comercializa Robusta natural y reunió los requisitos necesarios para obtener un primer préstamo formal en 2010. Esto le permitió transformar y exportar con éxito parte de su café directamente y pagar así precios más altos a los miembros. Tras la amortización completa de ese préstamo, le fue otorgado un préstamo más grande para la temporada de 2011, también con buenos resultados. Se le concedió otro aún más grande para 2012, parte del cual fue usado para proporcionar adelantos en efectivo a los miembros. Pero el hecho de que un número considerable de miembros no suministraron el café prometido y no pagaron los adelantos, además del aparente incumplimiento de un cliente, llevaron a que la organización cayese en atrasos de pago y, a partir de mediados de 2013, el préstamo había sido sólo pagado en parte. El estudio completo de ese caso figurará en el informe final. Las cuestiones con que se enfrentaron algunas cooperativas latinoamericanas en 2010 y 2011 son otro ejemplo, cuando se vieron forzadas a incumplir compromisos de ventas a plazo de precio fijo porque, cuando los precios del café subieron de forma pronunciada, los miembros se negaron a suministrar café al precio que se había acordado antes. Estos dos ejemplos muestran claramente que la agregación no siempre es una solución perfecta para mejorar el acceso a financiación.
- e) Se están probando distintos enfoques para tratar de evitar ese tipo de situación en el futuro. Entre tanto, sin embargo, la experiencia desafortunadamente refuerza la impresión de que prestar a grupos de pequeños productores, o directamente a pequeños productores, para la cosecha, el beneficio y la comercialización es arriesgado, lo que plantea cuestiones en torno a cómo canalizar el crédito a los pequeños productores para (re)plantar y capital de

explotación. A ese respecto cabe señalar que lograr en esas organizaciones niveles adecuados de ética comercial y de respeto individual por obligaciones contractuales, y ya no digamos ser capaces de poner en práctica soluciones complejas de gestión del riesgo, lleva mucho más tiempo del que con frecuencia se sugiere.

- f) Es demasiado simplista, por tanto, sostener sin más que la agregación es un medio automático de mejorar el acceso a financiación; lo cierto es que la eficacia de la agregación varía de grupo a grupo y podrá o no incluir mejor acceso a financiación mediante ventas y crédito compartidos. No obstante, hay casos en que una agregación satisfactoria facilita ese acceso, y lo usual es que esos casos estén acompañados de acceso a técnicas de gestión del riesgo y otras mejoras. Esos casos refuerzan el punto de que las dos cuestiones, la de mejora de la gestión del riesgo y la de acceso a financiación, están estrechamente entrelazadas y se refuerzan mutuamente, tanto cuando se trata de crédito individual como de financiación de grupo. Las cooperativas y otros tipos de organizaciones de agricultores deberían también comprender, sin embargo, que el manejo de la comercialización y las finanzas exige una gestión moderna, lo que a su vez requiere administradores profesionales. Administradores que sean seleccionados basándose en mérito y no en que sean miembros o en que estén relacionados o sean promovidos por miembros prominentes. Un estudio de Costa Rica (Anexo 6) es un ejemplo, no sólo de lo que puede lograrse, sino también de cuánto tiempo lleva hacerlo.

D) La entrada de instituciones de crédito alternativas (de orientación social)

Las instituciones de crédito de orientación social, juntamente a menudo con la industria, están desempeñando un papel cada vez mayor en la facilitación de acceso a financiación de los productores.³ Es poco probable que esas iniciativas por sí solas puedan generar los recursos precisos para el sector en conjunto, dado que en términos acumulados son todavía pequeñas. Además, esos prestamistas y los enfoques que usan son algo fragmentados, ya que tienen distintos centros de atención y zonas de interés. Excepto el Fondo Rural Rabobank, que usa bancos asociados, la mayor parte de los prestamistas de orientación social proporcionan crédito directo. No obstante, hay excepciones, cuando se ha creado una presencia bancaria en un país, por ejemplo por Opportunity International. Además, están teniendo lugar novedades interesantes con el uso de tecnología de telefonía móvil para mejorar el acceso a servicios financieros en zonas remotas. Esto es especialmente común en África y está impulsado en parte por iniciativas del sector privado y de

³ Por ejemplo, Alterfin, Oiko Credit, Progreso, Responsibility, Root Capital, Fondo Rural Rabobank y Shared Interest que están agrupados informalmente como Council on Smallholder Agriculture Finance (CSAF).

prestamistas de orientación social. Y las Ferias Financieras de FAST (FFF), iniciadas por la Alianza Financiera para el Comercio Sostenible (FAST) reúnen a prestamistas con orientación social y a pequeñas y medianas empresas sostenibles para tratar de oportunidades de financiación.^{4 5}

E) Los pequeños productores no son los únicos participantes del sector con escasez de financiación

La financiación es una cuestión que se plantea no sólo para los pequeños productores y productores en general, sino también para otros participantes en el sector tales como recaudadores/comerciantes, transformadores primarios y para la exportación, y los propios exportadores. Por ejemplo, las empresas locales que están solas a menudo tienen que luchar para obtener acceso a instrumentos apropiados de gestión del riesgo y por consiguiente no pueden tampoco obtener con facilidad, o no pueden obtener en absoluto, financiación adecuada o a un precio razonable. Esto las sitúa en clara desventaja cuando se trata de competir con jugadores más grandes que pueden valerse de apoyo internacional y representa un auténtico reto en cuanto que en algunos casos el campo de juego del país puede no estar bien nivelado.

6. El camino hacia adelante/Próximos pasos

Ir hacia adelante en esta labor supondrá recopilar más datos procedentes de una amplia serie de fuentes gubernamentales y no gubernamentales. La labor también incluirá la contratación de una serie de estudios específicos relacionados con intervenciones nacionales, regionales y de gestión del riesgo específica y programas de financiación. Cuando se haya finalizado la recopilación de datos, tendrá lugar el análisis para extraer lecciones clave que puedan ser utilizadas para mostrar cómo podría ser mejor gestionado el riesgo en el sector cafetero y cómo podría ser mejorado el acceso a financiación. Los resultados de ese análisis serán presentados en un informe final que se espera será distribuido alrededor de junio de 2014, a tiempo para que sea examinado en el período de sesiones del Consejo Internacional del Café en septiembre de 2014. No obstante, la entrega

⁴ Hasta la fecha han tenido lugar nueve FFF en Latinoamérica y África, y está programada la décima para que tenga lugar en Nairobi (Kenya) en septiembre de 2013. FAST ayuda a los candidatos prestatarios proporcionando recursos por Internet y consultores que ayudan a preparar la documentación necesaria para cumplir los requisitos iniciales de los prestamistas para iniciar conversaciones. Hasta la fecha y como resultado se han invertido US\$21,5 millones, repartidos en 23 préstamos.

⁵ Cabe tomar nota también de que el recién establecido Fondo de Acceso de Fairtrade International empezó otorgando tanto financiación del comercio como préstamos a largo plazo en 2013, de momento limitado a cooperativas en Latinoamérica pero con la intención de ampliarse y llegar a Asia y África. Es digno de interés el hecho de que esos préstamos pueden hacerse también en la moneda local del prestatario, lo que evita el riesgo cambiario que suponen los préstamos en moneda extranjera. De esto también se informará en el informe final; mientras tanto puede visitarse <http://www.fairtrade.net>.

dependerá de lo dispuestas que estén las partes externas (tanto del sector público como del privado) a compartir información más fondo con el equipo del informe.

Una vez más se solicita a los países Miembros y otros interesados que ofrezcan comentarios, asesoramiento e información adicional cuando esté disponible, concretamente sobre ejemplos que puedan tener relación con metodologías y prácticas usadas para alentar el crédito al sector cafetero de sus países, y medios alternativos de reducir el riesgo en el sector cafetero y aumentar la capacidad de los bancos de ofrecer y proporcionar financiación.

Marco temporal indicativo:

Actividad	Descripción	Fecha estimada de entrega
Recopilación de datos	Más solicitudes de datos de los gobiernos, el sector privado, las ONG y otras organizaciones pertinentes.	Noviembre de 2013
Identificación de estudios	Identificación de estudios de riesgo y financiación de una serie de países productores de café (tipologías múltiples).	Octubre de 2013
Realización de estudios	Se contratan y realizan estudios y se reciben resultados finalizados.	Febrero de 2014
Análisis/Síntesis	El equipo del proyecto realiza análisis/síntesis.	Abril de 2014
Se produce un esbozo de informe	Se produce un esbozo de informe y se recibe la reacción.	Mayo de 2014
Se produce el informe final	Se produce el informe final.	Junio de 2014
Se distribuye el informe final	La OIC lo distribuye en las reuniones de septiembre de 2014.	Septiembre de 2014

7. Anexos

Notas:

Se incluyen los apéndices para añadir detalles importantes a la labor que ya se ha llevado a cabo con respecto a este informe. Los estudios son muestra de los ejemplos prácticos, tanto relativos a la gestión del riesgo como a la mejora del acceso a financiación, que seguirán recopilándose y utilizándose para extraer lecciones de ellos.

Si bien un volumen significativo de información cafetera de países específicos está disponible para el público, en general lo está con base individual o de país por país, lo que hace difícil hacer la comparación. Por consiguiente se presentan puntos destacados de países por separado, también en forma de tabla, en el Anexo. Con esto se presenta un

esbozo inicial que será ampliado a medida que se tenga más información. En esto también se solicita a los países Miembros que proporcionen información adicional cuando se precise.

Aunque a menudo se hace referencia a la cadena de valor del café en publicaciones, no siempre es fácil visualizarla. No obstante, comprender la cadena de valor es importante, tanto para los productores como para los prestamistas, si se quiere visualizar el sector cafetero en conjunto. El Anexo 5 presenta, por consiguiente, una explicación general de la cadena de valor del café, que a su debido tiempo será ampliada para mostrar los mercados de consumo reales.⁶

⁶ Una cadena de valor “consiste en una serie de actividades que añaden valor a un producto final, empezando con la producción, siguiendo con la transformación o elaboración del producto final y acabando con la comercialización y venta al consumidor o usuario final”. Un enfoque basado en la cadena de valor puede, en algunos casos, racionalizar costos y en potencia minimizar el riesgo para los participantes en la cadena. La cadena integrada ofrece a los que operan en ella (suministradores, productores, transformadores y empresas de comercialización) acceso a bienes y servicios que facilitan la compra y venta de productos. Véase <http://www.fao.org/aq/aqs/agricultural-finance-and-investment/value-chain-finance/en/>.

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ANNEX 1 – PRODUCTION AND PRIMARY PROCESSING RISKS

Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
Production – Field						
Climate Change Impact	Confirmed	Variable to Considerable	GAP and adequate information	Good farmer organization and education	Sustainability Programs	Higher costs Lower incomes Withdrawal from coffee farming
Severe weather events, i.e. droughts, floods etc.	Probable	Considerable to Catastrophic	GAP and Early Warning Systems	Weather stations and insurance	State supportive	Severe sudden losses Switching to other crops
Erratic Rainfall	Probable	Moderate to considerable	GAP and Early Warning Systems Irrigation	Weather stations and insurance Finance irrigation equipment. Water availability.	Varieties research State supportive	Higher costs Lower yield and quality Switching to other crops
Unseasonal Rainfall during flowering	Occasional	Variable				Lower yield
Excessive rainfall	Occasional	Variable	GAP, drainage. Control of fungus diseases	Weather stations and insurance Renewal finance	Varietal research Replace traditional cultivars	Higher cost
Planting unselected varieties	Occasional	Variable to considerable	Research and Extension Services	Experimental and demonstration farms/plots	Sustainability programs Trade support	Lower yield, quality and income
No suitable (selected) planting material	Occasional	Variable	Private or public seed production/ nurseries	Finance purchase of planting material. Subsidize cost.	Good sector organization. Private initiatives. NGO's	Lower yield, quality and income
Insufficient or inadequate irrigation	Occasional	Variable to considerable	GAP and Irrigation equipment	Finance irrigation equipment	State supportive Availability of water	Erratic flowering/maturation Lower yield, quality and income
No or insufficient fertilization	Occasional	Variable to considerable	GAP. Production of compost/mulch	Experimental and demonstration farms/plots. Input finance.	Good sector organization	Lower yield, quality and income. Weak plants
Incorrect fertilization	Occasional	Variable	GAP, Research and Extension Services	Good farming education. Access to soil analysis and fertilization advice.	Sustainability programs	Higher costs. In extreme cases water pollution

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
Pests/Disease	Probable	Moderate to catastrophic	GAP, Research and Extension Services. Early Warning Systems	Adequate funding of Research and Extension Sanitary harvesting	State supportive Sustainability Programs	Higher cost. Lower yield, quality and income, at times severe. Switching to other crops
Ageing Tree Park	Probable to frequent	Variable to considerable	GAP Adequate Research and Extension Services	Good farming education. Access to appropriate seed and seedlings. Renewal finance Spread replacement	Good Sector Organization Sustainability Programs Informed banking system.	Higher risk of Pest/Disease outbreak and contamination. Lower yield, quality and income. Failing coffee industry.
No renewal strategy, i.e. no pruning or replanting cycle.	Occasional	Variable	GAP. Reliable long-term land ownership. On-farm nurseries	Availability of appropriate seed and seedlings. Renewal finance	Long-term State policy. Sustainability programs	Higher risk of Pest/Disease outbreak and contamination. Lower yield, quality. And income. Failing coffee industry
Poor erosion control, shade management, weeding etc	Probable	Variable	GAP, Training, Demonstration Plots, Extension	Good farming education	Sustainability programs	Lower yields, quality and incomes.
Theft	Occasional	Variable	Trade controls	Good Sector organization	State intervention	Direct loss
No or Poor Quality Inputs	Occasional	Variable to considerable	Farmer organization Trade Controls	Sector organization. Seasonal finance. Use of mulch, compost, waste and manure	State supportive	Lower yield and quality
Input Price Volatility	Probable	Variable	Farmer organization	Sector organization. Bulk buying, direct import. Storage	State supportive	Inability to plan. Variable production costs.
Inadequate Yields	Probable	Variable	GAP. Adequate Research and Extension Services Demonstration farms/plots	Adequate funding of Research and Extension. Farmer education.	State supportive. Sustainability Programs.	Low farmer incomes. Switching to other crops
No or expensive labour	Probable	Variable	GAP and Tree Management. Mechanization	Extension and Farmer education Investment Finance	Sustainability Programs	Reducing farmer incomes

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
				Good farm management		
No (affordable) Finance	Probable	Variable to considerable	Access to Micro Finance, Savings and Loans, etc	Good Farmer organizations	Good Sector organization. State, Trading and Banking Sector supportive	Excessively high costs or, unable to invest. Often unable apply inputs or harvest when required = lower yields, quality and income
No Formal Land Ownership	Probable	Variable	Formalised ownership structures, not only title deeds	Good Sector organization. Micro Finance Schemes and other NGO support	Informed banking sector. State intervention. Cadastral survey	Limits access to finance, yet formalized land tenure not necessarily an effective security. Also results in breaks in plantings and investment. Impedes long-term strategy
Production – Harvesting & Processing						
Harvesting errors	Occasional Probable	Moderate to considerable	Separate green cherry and floaters. Quality control. Remuneration according to quality.	GAP and training.	Sustainability programs	Lower quality and value
Poor on-farm storage	Probable	Variable	GAP Training Investment	Good Farmer organization. Extension Services Investment finance	Good Sector organization. Sustainability Programs	Lower quality, theft. Risk of ingress of pests, mould, contamination etc. Lowers value.
No or unreliable electricity supply	Occasional	Considerable	Generating equipment. Improved State infrastructure	Sector lobbying Investment finance	State intervention	Higher cost. Loss of income.
No or limited water	Occasional	Moderate to considerable	Limit water consumption. Switch to dry or semi-wet processing. Farmer education	Sector organization	Sustainability programs	Lower quality, value and income
Unseasonal rainfall – drying	Probable	Moderate to considerable	Early Warning Systems Covered drying	Weather stations	Sector organization	Higher cost Lower quality and

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
			surfaces, or drying equipment	Investment Finance		value. Risk of mould.
Theft	Occasional	Variable to considerable	Trade controls Insurance Secure mills and stores	Good Sector organization	State intervention	Direct loss
Poor or erratic Quality	Occasional	Variable to considerable	Research and Extension Quality controls and standards. Price according to quality. Manual or mechanical sorting	Good Sector organization Farmer education Investment finance	State supportive. Sustainability Programs	Lower value, at times severely so. Risk of mould and insect infestation
Processing errors	Occasional	Variable to Considerable	Research Training Extension Services Quality control	Good Farming organization Investment finance	Sustainability Programs	Can destroy quality and value. Risk of default and loss of reputation.
Outdated or inappropriate equipment	Occasional	Variable to considerable	Training Extension Services	Investment finance	Equipment manufacturers	Lower yield, quality and income
High water consumption	Occasional to probable	Variable to considerable	Adapt process techniques and equipment. Water recirculation Demonstration mill	Investment finance	Equipment manufacturers Sustainability programs Legislation	Impact on environment
Water pollution	Occasional to probable	Variable	GAP. Farmer education. Training. Water sanitation	Good Sector organization Investment finance	Sustainability programs Legislation	Impact on environment and human health
Waste management	Occasional	Variable	GAP. Training.	Good Sector organization	Sustainability programs Legislation	Impact on environment

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
Poor Roads/Lack of transport	Occasional to Probable	Variable to considerable	Infrastructure investment	Good Sector organization Investment finance	State intervention	Higher costs. Limits market access. Fewer collectors often results in lower farm gate prices.
Production - Marketing						
Poor or Erratic Quality	Occasional	Variable to considerable	Quality Control Trained staff Standards GPP (Good Processing Practices)	Good Sector organization	Sustainability Programs	Fewer buyers, reduced values
Excessive Moisture Content	Occasional	Variable to considerable	Training Standards. GPP. Remuneration according to MC	Farmer education Moisture meters	Sector organization	Lower quality and value
Limited (farm gate) competition	Occasional to Probable	Variable	Good farmer organization Transport facilities and Establish collection centres. Price information	Good sector organization	Trade support, Education	Low prices. No quality premium. In extreme cases: exploitation of farmers.
Excessive (farm gate/Collectors/Exporters) competition	Occasional	Variable	Farmer education.	Good sector organization Supervision/monitoring	Sustainability programs	Unrealistic price promises. Quality destruction. Defaults
Lack of Working Capital/Crop finance	Probable	Variable to considerable	Well organized Audited Accounts Good Reputation	Good Sector organization. Security pledges that can be realized.	Informed banking sector. State and buyer support	Unable guarantee supply = less buyer interest, lower price
Poor Roads/Lack of transport	Occasional to Probable	Variable to considerable	Infrastructure investment	Good Sector organization Investment finance	State intervention	Higher costs. Limits market access. Shipping delays = lower revenues.

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
No or insufficient market information. Inability to interpret market behaviour	Probable	Variable to considerable	Trained staff 'know' coffee.... Decent communications	Good Sector and Farmer organization	Trade support, education	Lower prices, wrong decisions
Production–Prices						
Prolonged external price falls	Remote but possible	Catastrophic	Improve yields Improve quality Reduce costs Research and Extension	Good Sector and Farmer organization	Informed banking sector. State and buyer support. Sustainability Programs	Impossible to 'manage'. Destruction of assets. Increased poverty. Farmer withdrawal.
Unstable internal prices	Highly Probable	Considerable	Forward sales Risk Management	Good Sector and Farmer organization	Informed banking sector. State and buyer support	Unstable incomes Inability to raise finance or plan investments
Day to day external price volatility	Highly Probable	Considerable	Trained staff 'know' coffee.... Decent communications Risk management	Good Sector and Farmer organization	Informed banking sector. State and buyer support.	Inability to time sales. Often no relation to domestic market situation and increases chances of exploitation by intermediaries.
No clear farm gate pricing models or formulas	Highly Probable	Moderate to considerable	Training, regulation, transparency, communication. Extension.	Good Sector and Farmer organization	Final buyer/exporter support. Use of electronic media.	Farmers may be cheated on weight, moisture content, conversion ratios, defects and price.
Exchange rate volatility	Probable	Moderate to Considerable	Decent communications Risk management	Good Sector and Farmer organization	Informed banking sector. State supportive.	Increases domestic price volatility. Strengthening local currency = lower sector revenues
Production - General						
No clarity around real cost of production	Probable	Moderate	Farmer organization. Farm	Good Sector and Farmer organization.	State supportive. Sustainability programs and other NGO initiatives.	Not managing costs. Inability to make informed comparisons and

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
			accounting. Training			investment decisions.
No Financial Literacy/ do not understand difference between revenue and profit.	Probable	Moderate	Farmer organization. Training	Good Sector and Farmer organization.	State supportive. Sustainability programs and other NGO initiatives.	Uninformed investment decisions. Potential for financial loss if not exploitation.
Inadequate Research and Extension Services	Possible	Considerable	Identify priorities and set strategies. Provide resources.	Good Sector organization	State intervention. Sustainability Programs	Falling volumes and quality. Over time can mean becoming 'irrelevant' in market terms, followed by farmer withdrawal. Pest and disease outbreaks.
Interest rate risk	Possible	Variable	Strong industry representation Lobbying	Good Sector organization.	State supportive. Informed banking system Final buyer support (occasionally)	Rising interest rates impact directly on farm gate prices as all along the value chain pass this cost back. Can disadvantage domestic operators. Less investment.
No (neutral) price information	Probable	Variable	Easily available neutral price and market information	Training on how to analyze/interpret information Provide formal, i.e. neutral channel via Internet and Mobile Phones	State supportive. Good Sector organization.	Exploitation by middlemen. But information excesses can be equally problematic.
No long term investment finance	Probable	Variable	Good farmer organization. Extension Services	Good sector organization. Demonstrate cost/benefit of crop rejuvenation	State supportive. Informed banking system. Sustainability programs.	Many unable to even afford annual replanting of small numbers of trees. Lower yields and falling quality. Increasingly uncompetitive
No weather related insurance	Probable	Variable to considerable	Lobbying by Sector Organizations	State intervention	Insurance or banking companies	Loss of income. If severe (which entirely possible) may result in farmer withdrawal.
No more suitable land	Occasional	Variable to considerable	Land restructuring. Switching from other less profitable crops.	Restricting speculative land ownership	State supportive Legislation	Stagnating or decreasing yield

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Types of Risk and/or factors impacting grower incomes	Probability	Impact	Potential Mitigation Measures	Required Support Environment	Macro linkages	Value Impact
No owner succession	Occasional	Variable to considerable	Education Decent levels of income	Farmer organization Training	Agricultural colleges	Stagnating or decreasing yield. Probably reduces access to finance.
No crop differentiation	Occasional	Moderate	GAP and adequate information	Good farming education	Agricultural colleges. Sustainability programs	Exclusive dependence on coffee
Individual coffee holdings too small to be viable	Probable	Variable	Land consolidation	Appropriate government and sector strategy	Realistic sustainability approaches	Coffee reduced to subsistence and/or opportunistic farming only.

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ANNEX 2 – INTERMEDIATE TRADE AND EXPORT RISKS

Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
Domestic Collection Marketing						
Erratic quality Adulteration	Possible to probable	Variable	Quality control Trained Staff Reward 'quality'. Extension Services	Sector regulation Standards Farmer training	State supportive Sustainability Programs	Reduced values. Risk of rejection.
Unseasonal rainfall - drying	Probable	Moderate	Early Warning Systems Extended drying surface, drying trays, covered drying beds, mechanical drying equipment	Weather stations Investment finance	Informed banking system. Final buyer/exporter support	Lower quality. Risk of rejection.
Excessive (farm gate) competition	Occasional	Variable	Reward 'quality'. Honest weighing and pricing. Farmer training. Supervision/monitoring.	Extension Services	Good Sector organization. Sustainability Programs	Quality destruction. Risk of grower default.
Poor roads/lack of transport	Occasional to Probable	Variable	Infrastructure improvement. Up-country collection centres. Grouped transport by farmer organizations	Good Sector and Farmer organization. Investment finance	State intervention Final buyer/exporter support	Higher costs Limits market access.
Inadequate storage	Occasional to Probable	Variable	Trained staff GAP. Suitable storage facilities Training	Investment finance	Informed banking system. Final buyer/exporter support	Damage and/or loss of quality, ingress of pests. Higher insurance and finance costs or, inability to raise finance.
Poor intermediate processing	Occasional to Probable	Variable	Trained staff Good supervision Understand 'quality' Avoid poor quality cherries and wet parchment.	Sector regulation. Good Sector and Farmer organization	Final buyer/exporter support. Sustainability programs.	Quality and value destruction. Unnecessary losses.
No, or not transparent MC/quality/weight assessment. No, or not transparent bonus/penalty policy	Possible to probable	Variable to considerable	Standards. Communication Training of farmers/collectors/traders, i.e. in cupping	Good sector and Farmer organization. Formal structures for complaints and mediation	State and regulatory support	Mistrust. No interest in 'quality'. Declining interest in coffee farming.

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Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
Poor or no traceability	Possible to probable	Variable but in time can become Considerable	Training. Good Farmer organization. Good storage facilities	Good Sector organization. Extension Services.	Trade support. Sustainability programs.	No feedback to farmers. No recognition by buyers and end users. Eventually value destruction.
Theft	Occasional	Variable to Considerable	Secure storage Insurance	Good Sector organization Trade controls	State intervention	Direct loss. Possibly inability to insure/raise finance.
Day to day (external) price volatility	Probable	Considerable	Trained staff 'know' coffee... Decent communications. Risk management training	Links with final/export buyers. Access to (neutral) market information	Informed banking system. Final buyer/exporter support	Trading back-to-back least risky but, not always possible, lower margins. Alternatively take more risk. Needs discipline, limits etc..
Lack of market information/ inability to interpret market behaviour	Probable	Variable to Considerable	Trained staff 'know' coffee... Decent communications	Links with final/export buyers. Access to market information	Informed banking system. Final buyer/exporter support	Trading 'blind' = speculation if no internal discipline and exposure limits.
Major price moves	Possible	Variable	'Know' your growers and your buyers.	Links with final/export buyers. Access to market information	Sector regulation	Growers and/or buyers default on earlier commitments.
Prolonged external price falls	Remote but possible	Variable	Specialize on 'quality' Diversification... Join sustainability standards	Links with final/export buyers. Access to market information	Informed banking system. Final buyer/exporter support	Low prices = lower margins. Increased quality problems. More risk if stock holdings increase
Lack of working capital	Probable	Variable to Considerable	Well organized, disciplined trading Audited accounts Track record	Security pledges that can be exercised.	Informed banking system. Final buyer/exporter support	High cost of funding. Unable to attract volumes =less buyer interest=lower prices/margins.
Interest rate risk	Possible	Variable	Strong industry representation Increase turnover speed. Improve efficiency	Good Sector organization Final buyer/exporter support.	State supportive Informed banking system	High domestic interest rates increase costs and reduce turnover/buying capacity =lower farm gate prices. Can also disadvantage domestic operators.

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Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
Non-payment or buyer default	Possible	Variable	Valid contracts. 'Know' your buyers	Good Sector organization Credit insurance	State and Regulatory support	Fewer traders can mean reduced competition at farm gate
Export Marketing Environment						
Erratic quality Inferior quality Adulteration Unfit for human consumption	Possible to Probable	Variable to Considerable	Know your domestic counterparts. Quality Control Reward 'quality' through transparent purchasing procedures. Refuse to accept substandard coffee. Employ qualified staff.	Good Sector organization Standards	Sector regulation Sustainability Programs	High cost of processing. Reduced to producing bulk or commodity quality = lower value, higher risk. Possible export default if suppliers deliver sub-standard coffee.
Inefficient export Processing	Possible	Variable	Trained staff who 'know' coffee and keep proper records Adequate equipment Monitor...	Good Sector organization Standards Self-regulation Investment finance	Sector regulation	Excessive weight loss and quality destruction. Can hide fraud/theft. Limits markets. Loss of value.
Inadequate shipping opportunities. Port congestion	Possible to Probable	Variable to Considerable	Infrastructure investment	Good Sector organization. Decent port structures. Investment finance	State supportive	Shipping delays, transshipment = higher costs. Puts off buyers, especially roasters. Limits markets and reduces flexibility
Overregulation Bureaucracy	Possible to Probable	Variable	Strong industry representation. Streamline procedures. Self-regulation	Good Sector organization. Sensitization programs.	State intervention	Limits competition. Adds indirect or 'invisible' costs that in the end reduce farm gate prices.
Counterpart cum Reputational risk Defaults	Possible , both internal and external	Variable to Considerable	Know your domestic counterparts. Good Sector organization.	Sector regulation. Formal dispute resolution procedures	State supportive. Appropriate, effective legal framework offering redress	Quality claims and defaults put off many buyers, especially roasters. Increases cost of doing business. If severe lowers price potential.
Theft and Fraud	Occasional	Variable to	Know your domestic counterparts.	Sector	State	Increases the cost of doing

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Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
		Considerable	Good internal monitoring. Insurance	regulation.	supportive Appropriate, effective legal framework offering redress	business and reduces farm gate prices.
Excessive export costs and taxes	Possible	Variable to moderate	Strong industry representation. Open monopolies to competition. Follow best practices	Good Sector organization. Regulation Lobbying	State intervention	In the end all coffee is priced 'landed roasting plant'. Deducting all costs and margins gives the farm gate price...
Corruption	Possible	Variable	Strong industry representation	Good Sector organization. Regulation	State intervention	See above...
Lack of affordable trade finance	Possible to Probable	Variable	Well established Audited accounts. Acceptable balance sheet. Security... Collateral management	Good Sector organization. Final buyer support.	State supportive. Informed banking sector.	Limits competition and can lower farm gate prices. Can disadvantage domestic operators.
Interest rate risk	Possible	Variable	Strong industry representation Increase turnover speed. Improve efficiency	Good Sector organization Final buyer support.	State supportive. Informed banking system Access to external financial markets	High domestic interest rates increase the cost of doing business =lower farm gate prices. Can also disadvantage domestic operators.
Currency risk	Probable	Variable to Considerable	Access to risk management mechanisms. Monitoring Discipline	Good Sector organization. Enabling regulatory regime.	State supportive Informed banking system Access to external financial markets	Inability to manage currency risk requires higher margins = lower farm gate prices. In worst case scenarios can eliminate some actors thereby reducing competition. Can disadvantage domestic operators.
Country Risk	Possible	Moderate	Strong industry representation	Good Sector organization Long-term policy	State intervention. Informed banking sector	Increased country risk raises the cost of finance = lower farm gate prices
Insufficient clarity on contractual rights and	Possible to	Variable	Training, seminars etc.	Good Sector	State	Impact can range from simple

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Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
obligations	Probably			organization.	supportive. Informed banking sector	errors and inconveniences to almost catastrophic losses
Inadequate, inefficient or non-existent Sector Organization/representation	Possible to Probable	Variable to considerable	Understand and promote the common interest. Demonstrate the impact 'invisible costs' have...	Good Sector organization, able to analyze constraints and make strong representations	State supportive. Informed banking sector. Enlist help of final buyers	Without credible representations the revenue impact of constraints remains hidden.
Export Marketing - Price Risk						
Day to day external price volatility	Highly probable	Considerable	Trained staff who 'know' coffee... Good communications. Internal trading limits and discipline. Risk management.	Good sector organization. Access to affordable risk management solutions. Enabling regulatory regime.	Informed banking sector. Possible State support and help from final buyers.	Often no link with domestic market situation. Increases risk. Complicates purchase and sales decisions. Hedging means margin calls... Options not always the answer... Lack of access to risk management instruments disadvantages domestic operators.
Basis or Differential risk	Highly probable	Considerable	Trained staff who 'know' coffee... Good communications Internal trading limits and discipline. Understand local markets and how PTBF contracts work. ¹	Good sector organization. Training and information sources.	Informed banking sector. Possible State support and help from final buyers.	Cannot be 'managed' other than by limiting exposure = internal discipline. Impact can be severe.
Speculative risks	Possible to Probable	Moderate to Considerable	Trained staff. Trading limits. Position reports. Unfortunately it is possible to 'hide' short sales until the coffee has to be bought... ²	Training and information sources.	Informed banking sector.	Over-trading or speculative positions can lead to defaults and bankruptcy. Affects sector reputation.
Quality and Value risk	Possible	Variable	Quality control. Does quality of purchases, arrivals or stocks match sales? Know coffee, i.e. learn how to cup.	Sector regulation.	Informed banking sector. Collateral	Incoming quality doesn't match what is sold or, is

¹ PTBF = Price To Be Fixed contracts = at the time of sale only the differential is set with the applicable futures price left open for 'fixing' at a later date through an agreed arrangement. Combining the two then provides the final sales price.

² Short = enter into the sales commitment now and purchase the required coffee later. Long = buy coffee now and resell at a later date.

RISK AND FINANCE IN THE COFFEE SECTOR – PROGRESS REPORT – ANNEXES

Sector	Probability	Impact	Potential Mitigation	Support Environment	Links	Value Impact
				Standards.	management	unusable. Can mean having to buy new stock and sell unfit stock = huge losses.
Counterpart risk Domestic	Possible	Variable	Know your suppliers. Set individual exposure limits for forward commitments. Daily reports on everything!	Sector regulation.	Informed banking sector. Enabling legal environment.	Default by domestic suppliers can in turn result in defaulting on sales commitments.
Counterpart risk External	Possible	Variable	Know your buyers. Set individual exposure limits on both forward sales and outstanding payments. Daily reports on both. Look for changes in payment behavior. Documents for collection via banking system etc.	Access to information sources (although credit reports not always helpful or even accurate).	Informed banking sector	Default by end users is rare but can happen. Potential impact huge as no payment and now unsold coffee afloat or in an overseas port.

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ANNEX 3 – LENDING ISSUES IDENTIFIED

Sector	Availability	Cost	Limitations	Impact	Potential mitigation	Support Environment	Value Impact
Production							
Longer term Investment finance	Limited to nil	?	No security and/or insecure land tenure. Not a commercial bank activity or priority.	Inability to renew or extend plantings	Good Sector and Farmer organization.	State supportive. Agriculture credit channels for longer term finance. Sustainability programs.	Declining yield and quality. Increasingly uncompetitive, becoming unsustainable. High interests
Medium Term Investment Finance	Limited to nil	?	No security and/or insecure land tenure. Not a commercial bank activity or priority.	Inability to construct or upgrade processing and storage facilities	Good Sector and Farmer organization.	State supportive. Agriculture credit channels. Sustainability programs	Unable improve quality, address food security concerns or diversify into specialty markets.
Crop Finance	Limited to nil	?	As above. Also, in cooperatives and farmer groups crop may be diverted or quality delivered may be too poor.	No inputs or untimely application. Insufficient or no labour. Forced to use informal credit channels.	Good Sector and Farmer organization.	State supportive. Agriculture credit channels. Micro-credits Sustainability programs and value chain partners.	Lower yield and quality. Forced to pay usury rates of interest.
Post-harvest							
Collection and Interior Processing credit	Limited. Ratio to own funds: lowest	Highest	Insufficient security. No formal accounts. Limited own funds. Price, quality and theft risk.	Use own funds or informal credit channels.	Good Sector and Farmer organization Adequate storage, insurance. Collateral manager. Bank has real title to goods.	Agriculture credit channels. Informed banking system Sustainability programs and supportive value chain partners. Letters of Credit...	Reduces competition whilst higher cost of funds mostly recouped from farm gate prices. Can exclude small farmer organizations.
Multiple borrowing: Where no mechanisms exist for sharing information, especially between non-financial institutions, there is a risk of multiple borrowing by farmers from different sources/lenders along the value chain. This can result in the same crop and/or collateral being							

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Sector	Availability	Cost	Limitations	Impact	Potential mitigation	Support Environment	Value Impact
hypothecated against various sources of financing, leading to high levels of indebtedness among coffee farmers.							
Export							
Stock credit	Limited. Ratio to own funds: lowest	High	Must have own funds, pledgeable security. Stock rotation. Price, quality and theft risk.	No credit for speculative (unsold or unhedged) stocks.	Adequate storage, insurance. Collateral manager. Bank has real title to goods. Pre-sold to approved buyers or hedged	Informed banking system. Appropriate, effective legal framework. Access to hedging instruments. Supportive value chain partners, Letters of Credit...	Can exclude small farmer organizations from moving up the value chain. Can disadvantage domestic operators.
Export Processing credit	Limited to Adequate. Ratio to own funds: higher	High	Must have own funds, pledgeable security. Stock rotation. Price, quality and theft risk.	No credit for speculative (unsold or unhedged) stocks	Adequate storage, insurance. Collateral manager. Bank has real title to goods. Pre-sold to approved buyers or hedged	Informed banking system. Appropriate, effective legal framework. Access to hedging instruments Supportive value chain partners. Letters of Credit...	Can exclude small farmer organizations from moving up the value chain. Can disadvantage domestic operators.
Pre-shipment finance	Adequate. Ratio to own funds: higher	Lower	Must have own funds, pledgeable security. Stock rotation. Price, quality and theft risk.	No credit for speculative (unsold or unhedged) stocks	Adequate storage, insurance. Collateral manager. Bank has real title to goods. Pre-sold to approved buyers or hedged	Informed banking system. Appropriate, effective legal framework. Access to hedging instruments. Supportive value chain partners. Letters of Credit...	Can exclude small farmer organizations from moving up the value chain. Can disadvantage domestic operators by excluding potential but unknown buyers.
Negotiation of shipping	Adequate. Ratio to	Lowest	Understands the business.		Sold to pre-approved buyer.	Informed banking system. Appropriate,	Can disadvantage domestic operators by excluding

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Sector	Availability	Cost	Limitations	Impact	Potential mitigation	Support Environment	Value Impact
documents	own funds: highest		Collateral manager. No errors. Must have good track record.		Documents in bank's name, providing real title.	effective legal framework.	potential but unknown buyers. Costs can be manipulated.
Different types of advance Letters of Credit	Variable	Variable	Understands the business. Collateral manager. No errors. Must have good track record.	Can be very helpful but recipient still has to conform to local bank's requirements and limitations.	Sold to pre-approved buyer. Documents in bank's name, providing real title.	Informed banking system. Appropriate, effective legal framework.	Many buyers dislike opening L/C's. Cost always calculated and deducted. But can assist especially smaller operations.

Initial List of Mechanisms and Tools for Improving Coffee Sector Finance and Regulatory / Enabling Environment Prerequisites and Requirements

General	Pre-conditions	Comment
Foreign funding	Can be freely repatriated.	No 'unexpected' regulations or controls. No taxation ambiguity.
Pre-financing in foreign currency	Against certified purchases/stocks. Insured in convertible, transferable currency. Can be directly offset against collection of export proceeds.	Ditto
Collateral	Clear, unambiguous documents of title. No prior liens or rights. Must be enforceable under local legislation = fiduciary transfer of goods and authority to sell the goods.	Clear legislation. Functioning (commercial) courts. No endless 'delays' or surprises.
Collateral Management	Collateral Manager carries appropriate liability/indemnity cover. Proceeds freely transferable or cover taken out abroad.	Recognised in domestic legislation.
Warehouse Receipts	Formally recognised as <i>enforceable</i> documents of title. No prior liens or rights. Warehousemen carry appropriate liability/indemnity cover.	Recognised in domestic legislation Functioning (commercial) courts. No endless 'delays' or surprises.
Execution of Collateral rights	Clear procedures governing default confirmation and execution. Underlying goods can be freely processed and/or exported by or on behalf of the creditor.	Recognised in domestic legislation. Functioning (commercial) courts. No endless 'delays' or surprises. Automatic trade or export license where

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General	Pre-conditions	Comment
		<p>required</p> <p>Buyer accepts contract execution by lending institution,</p> <p>i.e. contracts are pledged to the lender.</p>
Taxation	Clarity on external lender's liabilities and rights in terms of interest income.	<p>No 'unexpected' regulations or controls.</p> <p>No taxation ambiguity.</p>
Lending limits	Provision of external funds through local banks does not necessarily release these from their own or local lending limits.	<p>Limits (or caps) always apply to maximum exposure</p> <p>to the sector and to individual borrowers.</p> <p>Ratio of lending to pledged securities will never be 100%.</p>
Commercial	Pre-conditions	Comment
Underlying transaction	Agreed structure. Pre-approved buyers. Fixed price, risk management or fully hedged.	<p>Borrower has all authorizations necessary to export.</p> <p>All levies, taxes are paid up to date.</p> <p>Legal opinion confirms lender's rights.</p>
Risk management	Hedging tools, in-built margin call financing	<p>Access to financial markets/risk management instruments</p> <p>Clarity on how PTBF contracts are to be fixed</p> <p>Clear in-house position and exposure limits</p> <p>Regular reporting plus spot checks</p>
Insurance	Full commercial all-risks cover up to/including placing on board vessel or as stipulated in the contract, pledged to lender. Suitable political risk cover.	<p>To include exporter default due to export restrictions,</p> <p>riots etc.</p>
Physical stocks as security	Pledge agreement. Stored in approved warehouses, properly marked and identifiable. No commingling.	<p>Warehousemen carry appropriate liability and indemnity cover.</p> <p>Quality and weight certificates are available.</p>
Stock values	Daily verification of market value.	Top-up clause in lending agreement if

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General	Pre-conditions	Comment
		value falls. Monitoring of processing and turnover speed.
Collateral Management Agreement	Must be in place. Must include performance and indemnity insurance, including fraud/negligence by own staff.	Collateral Managers and Warehousemen should not hold pre-emptive rights to the goods. Local legislation must be clear on this.
Export documents	Always in name of or assigned to the lending institution.	Must be negotiable. No ambiguity as to how or when shipping documents come under the lender's control.
Payment Risk	Pre-approved buyers only. Pre-set individual exposure limits.	Monitor payment speeds. Look for changes in payment patterns.
Daily position reports	Provide daily overview of borrower's entire trading operation.	Quantity and type of stocks; sold or unsold; amount of stocks under processing; goods awaiting shipment/in transit to port; outstanding invoices by individual buyer; open sales contracts by type (fixed price/PTBF) and by individual buyer; does quality of stocks match outstanding sales;

ANNEX 4 – COUNTRY SPECIFIC COFFEE SECTOR INFORMATION

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 ³
Brazil Regulatory Authority: Coffee Department, Ministry of agriculture	290,000 growers; 2.4 million ha Av. Farm: 8 ha. of which: < 10 ha 35% 10 to 50 ha 30% > 50 ha 35%	Free from any major intervention. Highly organised, 220 registered exporters; Functioning domestic coffee-futures market; Well-developed soluble coffee processing industry; & a well-developed domestic market. No export taxes; Import taxes:- Green 10%; Roasted 10%; Soluble 16%.	Freely available - many available via Funcafe	Commercial banks; Funcafe; PRONAF; ABC Program.		45.57 A: 34.33 R: 11.25	19.15	30.94 A: 27.66 R: 3.28	145.15 A: 148.53 R: 116.68	86.7 87.8 77.1
Burundi Regulatory Authority: Coffee Sector Regulatory Authority (ARFIC)	650,000 growers; 70,000 ha. Av. farm: 0.1 ha. Of which: < 10 ha: virtually 100%	Privatised but under relatively tight Government control. Central Auction, limited direct sales. Internal trade also tightly controlled. Export taxes - N/A; Import taxes:- Green 40%; Roasted 40%; Soluble 40%.	Very limited availability	Commercial banks (all with substantial Government stakeholding); Micro-financing institutions.		0.32	0.02	0.29	154.24	49.5

³ 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.

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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 ³
Cameroon Regulatory Authority: Office National du Café et du Cacao	400,000 <i>growers</i> ; 226,000 ha <i>Av. Farm</i> 0.5 ha. <i>Of which</i> : < 10 ha: virtually 100%	Entirely free since 1994/95 although exports subject to tight control. Export taxes - N/A; Import taxes:- Green 5 - 30%; Roasted 30%; Soluble 30%.	Very limited availability	Commercial banks; Informal sector - comprising private moneylenders, informal traders and the Tontines (small, informal savings and loan associations).		0.70 A: 0.09 R: 0.61	0.07	0.59 A: 0.05 R: 0.54	91.16 A: 173.60 R: 83.47	64.1 62.8 64.2
Colombia Regulatory Authority: National Federation of Coffee Growers of Colombia (Federacafe).	550,000 <i>growers</i> ; 780,000 ha. <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 Agario; Banco Cafeterio; Finagro.		A: 8.19	1.35	8.34	205.48	74.3
Congo, Dem. Rep of Regulatory Authority: Office National du Café (ONC)	600,000 <i>growers</i> ; 30,000 ha. <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 the rule of law is 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

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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 ³
Costa Rica Regulatory Authority: ICAFE (Instituto del Café de Costa Rica)	51,000 <i>growers</i> ; 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 ICAFE or directly	Commercial banks; FINAR credit Scheme; Rural Credit Union; Microfinance institutions.		A: 1.41	0.25	1.3	185.37	79.1
Côte d'Ivoire Regulatory Authority: Conseil du Café & Cacao (CCC)	400,000 <i>growers</i> ; 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. 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
Dominican Republic Regulatory Authority: Codocafé	90,000 <i>growers</i> ; 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
Ecuador Regulatory Authority: COFENAC	105,000 <i>growers</i> ; 193,000 ha. <i>Av. farm:</i> 1.8 ha. <i>Of which:</i> < 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

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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 ³
El Salvador Regulatory Authority: Consejo Salvadoreño del Cafe (CSC)	24, growers; 155,000 ha 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
Ethiopia Regulatory Authority: Ministry of Trade	1.1 million growers; 520,000 ha. Av. Farm: 0.5 ha. Of Which: < 10 ha 95% > 10 ha 5%	Liberalised but remains under relatively tight Government control. Central 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
Guatemala Regulatory Authority: ANECAFE (Asociación Nacional del Café de Guatemala)	90,000 growers; 270,000 ha. 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
Honduras 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

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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 ³
India Regulatory Authority: Coffee Board of India	221,000 <i>growers</i> ; 360,000 ha <i>Av. farm:</i> 1.6 ha. <i>Of which:</i> < 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
Indonesia Regulatory Authority: Ministry of Agriculture; AEKI (Indonesian Coffee Exporters' Association)	1.0 million <i>growers</i> ; 1.3 million ha. <i>Av. Farm:</i> 1.3 ha. <i>Of which:</i> < 10 ha 95% > 10 ha 5%	Both the internal and export trade is entirely in the hands of the private sector. 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

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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 ³
Kenya Regulatory Authority: Coffee Board of Kenya	600,000 <i>growers</i> ; 160,000 ha. Av. Farm: 0.3 ha. <i>Of which:</i> < 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/SAC COS (saving and Credit Cooperatives); Marketing Agents.		A: 0.67	0.05	0.60	217.67	N/A
Madagascar Regulatory Authority: Comite National de Commercialisatio n du Café (CNCC)	350,000 <i>growers</i> ; 155,000 ha. Av. Farm: 0.4 ha. <i>Of which:</i> < 10 ha: virtually 100%	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

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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 ³
Mexico Regulatory Authority: The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food, (SAGARPA); Asociación Mexicana de la Cadena Productiva del Café (AMECAFE)	300,000 <i>growers</i> ; 690,000 ha. <i>Av. Farm:</i> 2.3 ha. <i>Of which:</i> < 10 ha 70% > 10 ha 30%	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	2.84	172.56	73.5
Nicaragua Regulatory Authority: National Coffee Council Nicaragua- (CONACAFE)	48,000 <i>growers</i> ; 120,000 ha. <i>Av. Farm:</i> 2.5 ha. <i>Of which:</i> < 10 ha 65% > 10 ha 35%	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 Nicargua Credit Unions; Nicargaua Rural credit Fund.		A: 1.70	0.20	1.63	171.98	43.1

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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 ³
Papua New Guinea Regulatory Authority: Coffee Industry Corporation (CIC)	400,000 growers; 60,000 ha. Av. Farm: 0.15 ha. Of which: < 10 ha 85% > 10 ha 15%	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
Peru Regulatory Authority: Junta Nacional del Café; Peruvian Chamber of Coffee and Cocoa	160,000 growers; 370,000 ha. Av. Farm size: 2.4 ha. Of which: < 10 ha 90% > 10 ha 10%	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
Rwanda Regulatory Authority: National Agricultural Export Development Board (NAEB)	500,000 growers; 37,500 ha. Av. Farm size: 0.07 ha. Of which: < 10 ha: virtually 100%	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; Bank Populaire, Cooperatives; Savings and Credit Associations plus other Informal sources.		A: 0.32	0.001	0.28	181.16	N/A

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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 ³
Tanzania Regulatory Authority: Tanzania Coffee Association	400,000 growers; 120,000 ha. Av. Farm size: 0.3 ha. Of which: > 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
Thailand Regulatory Authority: Thai Coffee Exporters Association	No. of growers: N/A 52,500 ha. Av. Farm size: N/A Of which: < 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
Uganda Regulatory Authority: Uganda Coffee Development Authority	500,000 growers; 320,000 ha. Av. Farm size: 0.6 ha. Of which: > 10 ha 99% > 10 ha 1%	Liberalised and relatively free from any major controls or undue state intervention Export taxes - N/A; Import taxes:- Green 25%; Roasted 25%; Soluble 10-25%.	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

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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 ³
Vietnam Regulatory Authority: Vietnam Coffee and Cocoa Association (VICOFA)	500,000 <i>growers</i> ; 570,000 ha. <i>Av. Farm size:</i> 1.1 ha. <i>Of which:</i> < 10 ha 85% > 10 ha 15%	Tight control over exports as well as over internal industry. No Export taxes; Import taxes:- Green 16-20%; Roasted 35%; Soluble 43%.	Extensive Government support including price and input subsidies.	Commercial Banks; Agribank;		A: 0.12 R: 20.39	1.4	18.08	A: 158.57 ⁴ R: 85.9	94.9

⁴ Based on limited data.

ANNEX 5 – GENERAL EXPLANATION OF COFFEE VALUE CHAIN**1, Introduction**

Coffee like all other commodities progresses through a number of stages as it travels along the supply or marketing chain from seed to cup. However, not all coffee follows the same route, some coffees by-pass a number of stages along the chain while other coffees pass through additional stages on the path to the consumer. Furthermore, with the improvement in logistics (both international and domestic), a number of stages that existed in the past have now been eliminated. Nevertheless, because coffee is only occasionally consumed by people who actually grow it and it is a product which requires roasting/ processing, packaging and brewing before it is consumed, it is inevitably handled by a number of different intermediaries along the supply chain. At each and every one of these stages, costs are incurred either directly or indirectly and as a result, value is added. And whenever there is a change in value or whenever the coffee is held for any length of time there are risks (most of which are identified in the risk matrix contained in ICO document CG 7/13), and while some risks can be insured against, all need to be managed.

The coffee supply/value chain starts at the farm gate, where the majority of farmers sell their coffee. Some farmers sell their coffee as fresh cherry, others sell dried cherry, some process their coffee through to parchment and then sell, while many larger farmers process their coffee through to green bean. In a few exceptional cases (in Hawaii for example) some farmers roast their coffee and either sell direct to consumers (especially recently via the internet) or to wholesalers, but this is the exception rather than the rule. The further up the supply value chain the grower sells his coffee, the greater the percentage of the final value of the product he retains, but equally the greater his costs.

It is often argued that there are too many middlemen in the coffee industry but this fails to recognise the many stages that coffee (and similar commodities) pass through between grower and consumer. These stages include collection, primary processing, export processing, marketing, financing, transport to port, export clearing and shipping, import discharge and clearing, inland transportation to roaster, roasting, packaging, marketing, promotion, distribution/wholesale, retail to final consumer. All are necessary stages that involve third parties, i.e. middlemen, because someone has to perform these functions, obviously at a cost that, of course, includes a profit margin.

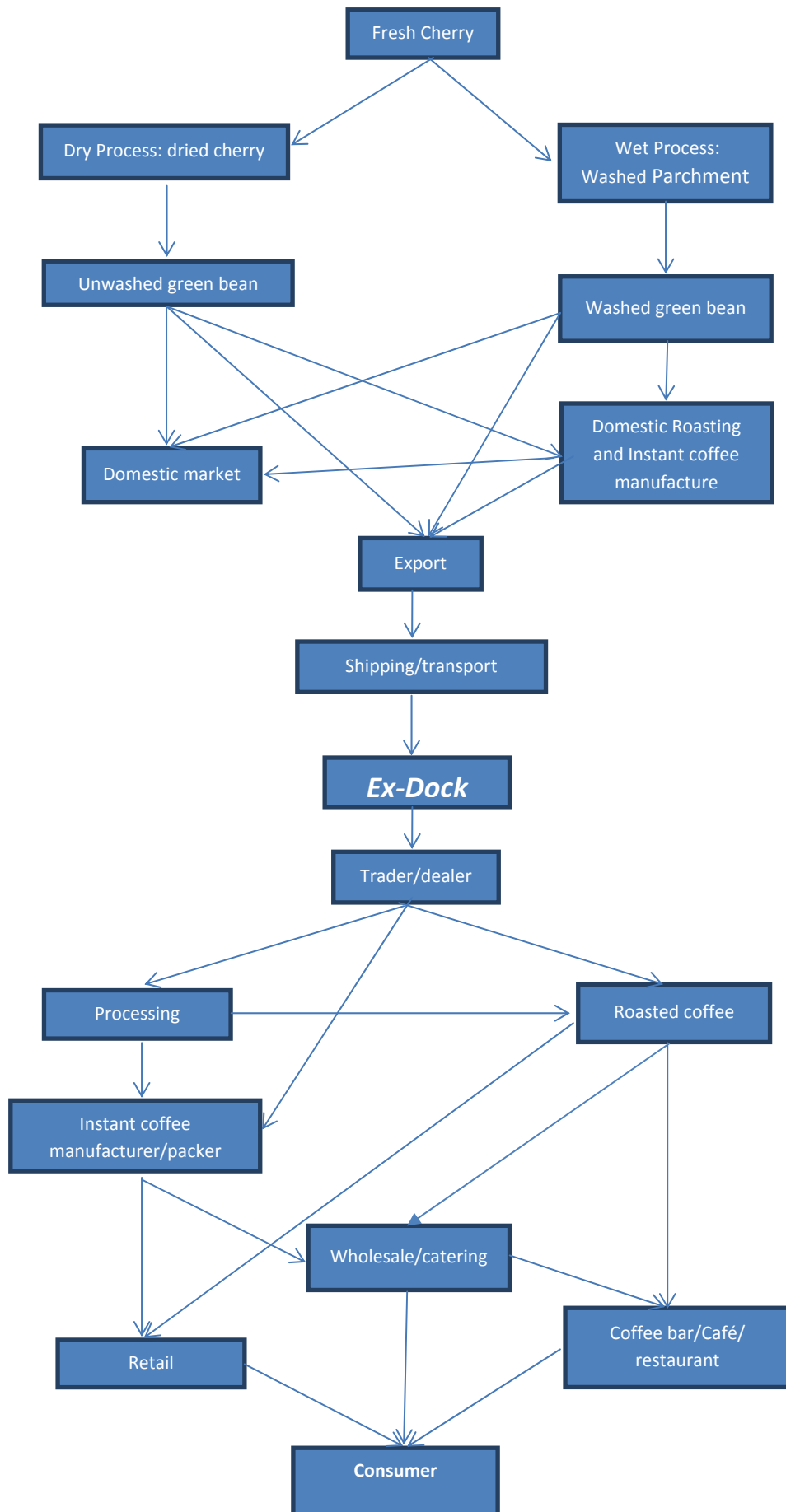
Therefore, removing the ‘middle man’ does not remove the ‘middle function’...

Put differently, everyone who handles coffee between the grower and the end-consumer, including the roaster and the retailer, is a middleman.

The chart below shows the important stages in coffee supply chain together with the various linkages that exist. What is probably not self-evident from the chart is that fact that the value generated throughout the chain is largely determined by the price generated or referenced at the chain's centre by the two major international coffee exchanges. These exchanges (the Intercontinental Commodity Exchange (ICE) in New York for arabica and Euronext/LIFFE in London for robusta) act as the primary price discovery mechanism for the bulk of the coffees traded on world markets and essentially establish an ex-dock reference price, against which the bulk of the world's coffee is priced. Consequently the reference price established by the exchanges acts as the pivot around which the value chain revolves, in that it determines the value which flows down to producers and at the same time determines the price of coffee that flows upwards throughout the chain to the consumer.

Chart 1:

Coffee Supply chain



It is true that there are some coffees, especially specialty coffees which are to an extent independent of exchange-determined prices, but in reality there are only a few such coffees, i.e. Jamaica Blue Mountain.

Consequently, as a result, the value a coffee grower creates is effectively totally dependent upon the price determined by the exchanges and over which he has little control, i.e. he is a price taker, whereas the roaster/manufacturer uses the price determined by the exchange to establish the value of his output i.e. he remains a price setter. In other words the chain is asymmetrical in terms of control over the value-creation either side of the exchange-determined price.

2, Costs

When looking at the costs incurred as well as the value added at various stages throughout the supply chain, it is important to understand that while some costs and value additions are fixed, for example transport costs and promotion & distribution costs, others are not, as they are directly influenced by the price or value of the coffee at that particular stage in supply chain. Indeed, the greater the value of the product passing through that stage, the greater the financing requirements and hence the cost of financing that particular stage and vice-versa. Furthermore, the time lag involved between production and consumption varies considerably and whenever there are time lags, the greater the opportunity for substantial value changes and hence substantial risk. Any exercise, therefore, which sets out to demonstrate the costs and value additions at each stage is, by definition, at best flawed, in that it is an attempt to take a snapshot of a process which is in a constant state of flux.

With that proviso and bearing in mind that the situation varies from country to country and from coffee to coffee, the table below attempts to identify and place a typical cost on each stage in the supply chain. It is only a simulation and should not be seen as an accurate reflection of a particular coffee or origin's coffee as it passes up through the chain. It is important that particular attention is paid to the notes incorporated into this table, as they explain the variations in costs and the assumptions that have been used in the table's compilation. The table is based upon the average of the ICO composite indicator price that prevailed through 2011 (210.4 cents/lb) and produces a final roasted coffee retail price of 530.9 US cents/lb, which according to ICO statistics is the very close to the average of the average prices reported for Germany, Finland, Portugal and the USA during 2011 (526.8 cents/lb), although it should be noted that retail prices can and do vary significantly from country to country. Indeed in 2011 the annual average retail price varied from a high of 866.9 cents/lb in Latvia to a low of 413.4 cents/lb in France reflecting the different composition of national blends as well as external costs and factors, such as taxes, high transport costs, structure of the retail market, etc.

Using this methodology it is possible to demonstrate that a 10% increase or decrease in the Ex-Dock prices (i.e. that determined by the exchanges) brings about a 7.4% increase/decrease in the retail price of the coffee but conversely it brings about a 11.7% increase/decrease in the ex-mill price for the coffee in the producing country and a 18.7% increase/decrease in the fresh cherry price. The asymmetry between the impact of increases and decreases on prices at different stages in the chain reflects the number of fixed costs that occur in a number of the sectors of the industry.

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Table 1

Indicative Average Costing from Retail Level to the Farm Gate

(US cents/lb; 2011 prices)

Stage	Unit Cost	Cumulative Stage Value	Notes
1, Retail price		530.9	This is very close to the average retail price of roasted coffee which prevailed in 2011 in Germany, Finland, Portugal and the USA (526.8 cents/lb).
2, VAT or other such taxes	48.3	482.7	Many countries impose either a value added tax or a general turnover/service tax on coffee, although in a number of countries no such tax is imposed. In Denmark this is as high as 25%, Portugal 23%, but in Germany is 7%. For the purposes of this exercise VAT is assumed at 10%.
3, Retailers administration, costs and margin	96.5	386.1	This varies hugely from country to country and from retailer to retailer. Large supermarkets tend to operate on smaller gross margins than independent or smaller retailers can. And much will depend on the turnover the store experiences. Various studies have found that larger supermarkets operate on general gross margins of between 20% and 30% while smaller retailers will add anything up to 40% or 50%. For the purposes of this exercise, the retailers mark-up is assumed at 25%.
4, Advertising and promotion,	15.0	371.1	Estimated
5, Packaging and distribution	25.0	346.1	Estimated
6, Roasters costs and margin	79.9	266.2	Roasters margins vary according to their size and their position within the market. Larger mainstream roasters obviously operate on a smaller gross margin than smaller, medium or micro roasters can. For the purposes of this exercise the roaster's fixed costs, i.e. all his running costs plus depreciation have been estimated at 40 cents/lb plus a variable margin of 15% which would cover his financing and hedging costs as well as his profit. This may well be on the low side for many smaller roasters but is around the average for many of the medium to larger mainstream roasters.
7, Weight loss adjustment		223.7	Weight loss during roasting depends upon the degree of roast. With espresso roasts the weight loss can be as high as 22%, whereas with a really light roast the weight loss can be as low as 14% or 15%. For the purpose of this exercise the weight loss is assumed at 19%, which is the official conversion rate used by the ICO to covert green coffee to roasted.
8, Importers/traders costs and margin	11.3	212.4	As a general rule, importers work on gross margins of between \$10 and \$15 per bag, some obviously earn more on some deals, especially smaller deals, while on larger deals importers are obviously willing to settle for less, but for this exercise a flat rate of \$15 per bag is assumed.
9, Transport ex-dock to warehouse/roaster	2.0	210.4	Estimated
10, EX-DOCK PRICE		210.4	This is the price of coffee landed and cleared through customs ready for distribution to the roaster's warehouse. It the price which most closely resembles the Futures market spot price. Interestingly in this exercise the ex-dock price cited here is virtually identical to the 2011 average of the ICO composite indicator price (210.39).
11, Warehousing & Customs clearance	4.0	206.4	In many importing countries coffee is stored in bonded warehouses in free port areas until it is required. This delays paying any import duty or other levies due on the coffee, which obviously saves money. It also makes the process of re-exporting coffee to other destinations easier. For green coffee most countries allow duty free entry but processed coffees face a range of taxes and levies. In this exercise the coffee being imported is green so charges and levies relate mainly to storage costs but there are also costs in administering customs clearance. These costs have been estimated.

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Stage	Unit Cost	Cumulative Stage Value	Notes
12, CIF Price		206.4	This is the price landed in the imported country but before customs clearance.
13, Freight – origin to importing country	3.4	203.0	The cost of freight varies considerably from origin to origin with coffee shipped to destination via road, rail and sea. The bulk of coffee is shipped in containers and the cost depends very much on the distance and routes taken. From landlocked origins in Africa, coffee might travel on all three modes of transport before reaching its destination. For the purposes of this exercise transport costs have been based on the average cost of a container travelling from Central America to Europe which is currently around \$1,350. It should be noted however that with the improvements in logistics and in particular the increasing size of vessels, this rate is considerably lower than prevailed even 10 years ago when the rates were nearer \$2,000 per container.
14, Insurance	2.0	201.0	Based on industry norms.
15, FOB PRICE		201.0	This is the indicative FOB price. Interestingly it is somewhat higher than average export values reported by the ICO for all origins in 2011, but that is not necessarily surprising, in that the quality of coffee which is used in roasted coffee tends to be average or better. Low quality coffees, which tend to be used in instant coffees or in specific markets, command a lower price and thus when incorporated in national statistics lowers the overall average FOB price received by origins. In 2011 the average FOB price received by all origins was 180.04 cents/lb but the average FOB price for Colombian mild coffees was 283.29 cents/lb, the Other Milds 231.98, Brazilian Natural arabicas 201.21 and robustas 101.78.
16, Port handling charges/customs clearance	1.0	200.0	Port handling charges have been estimated but do vary significantly from country to country.
17, Export Tax		200.0	Export taxes vary from country to country but many origins suspended such taxes when prices were low at the turn of the century. Indeed most do not appear to have reintroduced them, although the legislation remains on the statutes. According to the ICO a small number of origins do levy a small tax at between 1 and 3%, but in view of the fact that Brazil, Vietnam and Colombia do not levy any tax, export taxes in this calculation are put at 0%, but the heading has been included in the table as export taxes remain a potential liability.
18, Storage at port/container stuffing charges	0.5	199.5	Storage at port and stuffing charges have been estimated
19, Exporters costs and margin, including hedging and financing costs	29.8	169.7	Exporters' costs vary from country to country but one of the biggest cost any exporter faces is that financing his purchases and covering that cost in the interim until he gets paid. The costs of borrowing vary significantly even sometimes between exporters in the same country, especially if exporters are able to borrow off-shore at low interest rates, whereas borrowing from domestic lending institutions at origin tends to be many times more expensive. Exporters' fixed costs in this exercise have been estimated at 15 cents/lb, plus a variable margin of 8% which is very conservative.
20, Freight to port	1.0	168.7	Estimated
21, Grading, sorting and bulking	2.0	166.7	Estimated
22, EX-MILL PRICE		166.7	This is the price paid by exporters to processing mills for delivery of the coffee as green bean. In some instances the exporter will have pre-financed the purchase and the price will reflect any such arrangement. Coffee purchased at this stage may need further sorting and grading.
<i>For Washed Coffee (assuming an ex-mill price of 166.7)</i>			
23, Hulling costs and processor's costs	20.0	146.7	Estimated using trade sources.

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Stage	Unit Cost	Cumulative Stage Value	Notes
and margin			
24, Weight loss adjustment		115.9	The parchment to green bean weight ratio for both robusta and arabica coffee can vary significantly as it depends upon the moisture content of the parchment coffee. Dried green beans should have no more than 12% moisture content. As a general rule recovery rates average 79%.
25, PARCHMENT FACTORY DOOR PRICE		115.9	This is the price the farmer receives if he delivers his coffee in parchment form to the processing mill door.
26, Transport farm gate to factory door	0.5	115.4	Estimated and obviously varies depending upon distances and location.
27, Traders margin	6.0	109.4	Estimated but this refers to roadside buyers and other agents/traders who buy direct from growers and deliver the coffee to the factory door.
28, FARM GATE PRICE – Parchment		109.4	This is the price the grower receives for parchment coffee sold at the farm gate or roadside.
29, Wet processor's costs and margin	10.0	99.4	Growers in many countries do not process their coffee themselves but sell their fresh cherry on a daily basis to a wet mill which processes the coffee into parchment coffee. The costs involved in running a wet mill are estimated.
30, Weight loss adjustment		19.9	Fresh cherry to parchment coffee weight ratio is generally thought to be around 5 to 1. This is not an absolute, in that recovery rates can vary, depending on the development of the crop throughout the growing season. It has been known to be as low as 6 to 1 and as higher as 4.5 to 1.
31, Transport farm gate to processing mill	0.5	19.4	Estimated
32, Trader's margin	2.5	16.9	Estimated but covers the gross margins of roadside buyers and agents who buy fresh cherry direct from growers.
33, FARM GATE PRICE - FRESH CHERRY		16.9	This is the derived indicative price paid to growers for fresh cherry sold at the farm gate.
<i>For Unwashed Coffees(assuming an ex-mill price of 166.7)</i>			For the purposes of this exercise, it is assumed that average quality naturals or unwashed arabicas are being sold for the same price as average quality washed arabicas. In reality there is usually a price difference between the two on any given day, but as this an indicative exercise both are considered as having equal value.
34, Huller's costs and margin	20.0	146.7	Small growers do not generally process their dried cherry into green bean themselves but sell their coffee to a dry mill which processes the coffee for them. The costs involved in running a dry mill are estimated.
35, Weight loss adjustment		73.4	Dried cherry to green bean weight ratio is approximately 2 to 1.
36, Transport farm gate to processing Mill	0.5	72.9	Estimated
37, Trader's margin	6.0	66.9	Estimated
38, FARM GATE PRICE - DRY CHERRY		66.9	This is the price the grower receives for dried cherry coffee sold at the farm gate or roadside.

3, The Global Coffee Value Chain

The ICO estimate that in 2011 exports of all forms of coffee from exporting countries totalled 122.836 million bags which at FOB values totalled US\$24.892 billion, with a unit value in current terms of 180.04 cents/lb. Re-exports of all forms of coffee by ICO importing member countries totalled 35.012 million bags in 2011, with an estimated value at FOB at US\$13.601 billion. The greater unit value reflecting that the bulk of re-exported coffee by ICO importing member countries is processed coffee. Non-member countries exported a further 6.028 million bags, but no data exists on the value of such re-exports.

In a recent study ⁵, the ICO analysed the overall share in the resources created along the coffee value chain in nine countries: France, Germany, Italy, Japan, Netherlands, Spain, Sweden, United Kingdom and the USA. These countries account for almost 70% of total average consumption of all importing countries during the period under study. The study, which was conducted over three separate periods found a very close correlation between the value of imports and the ICO indicator price and hence demonstrated that unit values of imports are strongly dependent on world market price levels. The study also referred to an earlier study which found that a strong correlation exists between unit values of imports and retail prices. Consequently the study found that the gross value added by the roasting sector in these countries could be calculated using the difference between the unit value of imports and retail prices. The results are shown in the table below:

Table 2 **Gross Added Value as a Percentage of the Retail Price**

Year	1975 - 1989	1990 - 2009	2000-2009
France	55.5%	63.8%	66.5%
Germany	57.3%	71.3%	74.2%
Italy	57.9%	81.6%	84.4%
Japan	81.2%	89.1%	86.3%
Netherlands	45.7%	65.8%	86.9%
Spain	50.8%	72.4%	75.1%
Sweden	48.9%	62.5%	63.1%
UK	58.3%	82.3%	85.6%
USA	42.3%	65.4%	67.2%

Source: ICO

The study also found that the total gross added value obtained by the roasting industry in the nine countries was US\$28.8 billion in calendar year 2009, US\$31.1 billion in 2008 and US\$30.4 billion in 2007

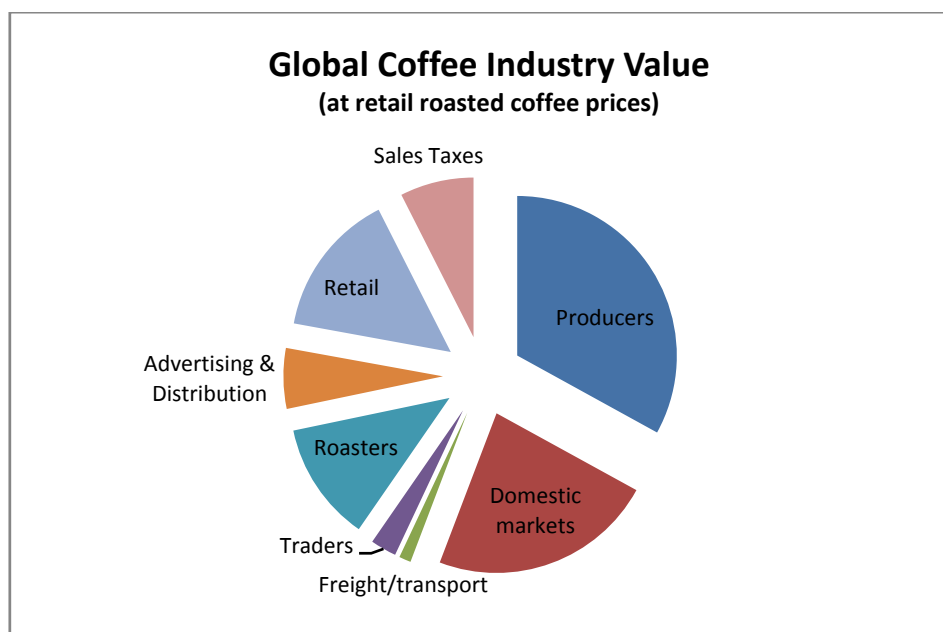
Using a very similar methodology but extending it to include all consuming counties, domestic markets in producing countries, as well as the value of the green coffee generated by producers, the total value of the global coffee industry can be estimated to total somewhere in the region of US\$75.4 billion, valued purely in terms of retail value of roasted coffee at 2011 prices.

Providing an accurate breakdown of the value added by each sector in this total is extremely complex as the data to undertake such a calculation simply does not exist. Nevertheless using some fairly broad assumptions, the chart below gives a reasonable approximation of the value that using this method of calculation implies. Please note that the value generated by domestic markets in producing countries is not broken down into its constituent parts in the same way as it is in importing markets. This is because very little data exists which would allow such a calculation.

⁵ ICC 106-1 *Coffee value chain in selected importing countries* (February 2011)

Chart 2

Global Coffee Industry Value



However, as the ICO study acknowledges, this method of calculation of total gross value understates the true value of the coffee industry since it assumes that all coffee is sold at supermarket prices. If the value of coffee sold through the out-of-home segment of the market is included (and this includes the value of all other ingredients such as milk, sugar, cups, brewing equipment depreciation, retail rents and labour) then the global value of the industry balloons and can conservatively be valued at around US\$175.7 billion. But even this is probably an underestimate!

Table 3

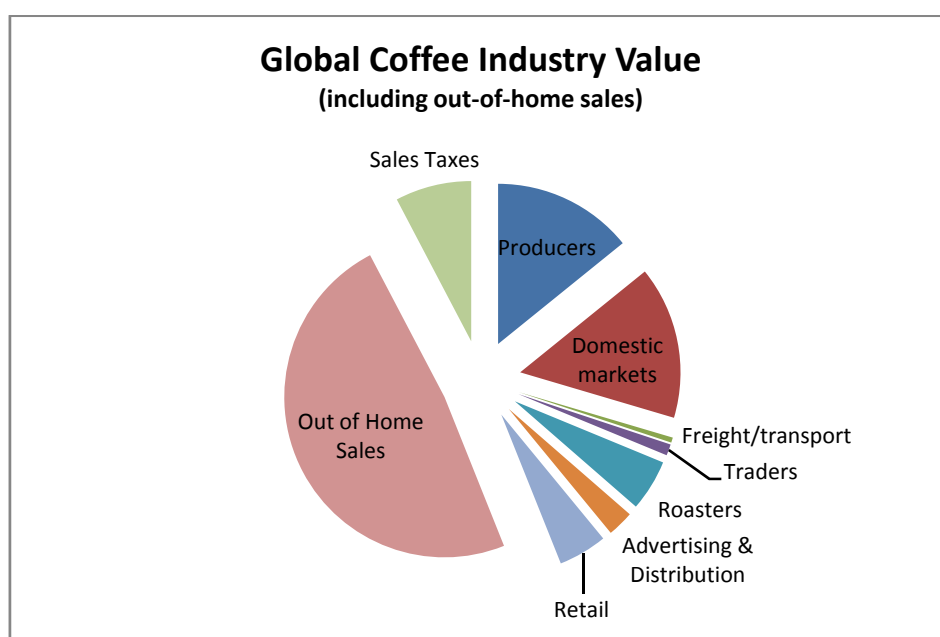
Estimated Global Gross Value of the Coffee Industry

Country/Region	Total Consumption (million kgs -GBE)	Value calculated at roasted retail value only (\$ million)	Total Gross Value including out of home sales (\$ million)
Consuming ICO member countries	4,339.3	46,056.5	126,972.9
<i>Of which: -</i>			
<i>France</i>	357.8	2,739.0	10,390.4
<i>Germany</i>	567.6	5,366.0	15,948.8
<i>Italy</i>	341.3	5,389.7	13,542.7
<i>Poland</i>	122.5	940.0	1,875.6
<i>Spain</i>	188.9	1,544.9	7,277.8
<i>U.K.</i>	175.6	2,379.6	6,091.6
<i>Japan</i>	420.9	5,729.9	20,549.8
<i>USA</i>	1,322.6	12,714.6	27,478.5
Non-member countries	1,390.2	12,177.4	21,697.4
Producers	2,556.7	17,187.6	27,070.5
<i>Of which:</i>			
<i>Brazil</i>	1,183.2	7,954.2	12,528.0
Total	8,286.1	75,421.1	175,740.9

The table above shows the breakdown in the retail value of coffee by country and region. Both global values have been calculated using ICO published consumption data and retail price data for the main consuming countries, however, estimates of retail prices have had to be used for those other countries where no such data exists. Trade sources have been used to calculate the split between in home and out of home consumption, where this available, and once again, very conservative estimates have been used for other countries where no such data exists. Furthermore there is very little data on domestic markets in producing countries, in terms of retail prices or on the in-home/out-of-home split but these markets are important, especially the Brazilian domestic market, and thus must be included in the calculations. Fortunately good data exists on the Brazilian market, so there is a reasonable degree of confidence in the figures produced. The calculation also takes into account that not all coffee consumed in producing countries actually enters into the marketing chain, but is instead consumed by those who grow it, however, this is not thought to account for more than 10% of the coffee consumed in these markets. Similarly very conservative figures have been assumed for both the size and the price of liquid coffee consumed in the out-of-home market in these countries.

Chart 3 shows how the value added by different sectors is altered by including the value of the out-of-home market in these calculations.

Chart 3 **Global Coffee Industry Value**



ANNEX 6 – SAMPLE CASE STUDIES

Enabling Environment

The 2012 Latin American Coffee Rust Outbreak: “Black Swan” or “New Normal” – with thanks to Dr P S Baker, CABI

Coffee Leaf Rust (CLR, *Hemileia vastatrix*) is a serious fungal disease of Arabica coffee, which famously destroyed the Ceylon (Sri Lanka) coffee industry in the 19th century.

The disease reached Latin America in the 1970s, becoming ubiquitous by the late 1980s. Despite sporadic outbreaks and upsurges however, the disease never quite lived up to its earlier notoriety and many farmers controlled it sufficiently with either routine calendar sprays or occasional ‘just-in-time’ sprays.

This situation now seems to have changed. Colombia suffered a serious outbreak in 2009-10 which coincided with a severe and enduring ‘La Niña’ event. And whereas previously the rust was never problematic above 1600 m above sea level, these high-quality Arabica zones now came under attack.

The 2012 outbreak appears to be a similar but much more widespread event, ranging from Mexico in the north to Peru in the south with increased attacks also reported in the Dominican Republic and Jamaica. The wide extent and severity of the outbreaks caught almost everyone by surprise and it seems now certain that the 2012 outbreak is the most severe since the fungus was first discovered in Latin America in 1970 and possibly the worst since the notorious Sri Lankan event. The following reviews evidence of what happened, why and what might be done about it.

What happened?

Rust outbreaks were reported from 10 Latin American countries between the latter part of 2012 and the first quarter of 2013, and are listed in Table 1 along with available data.

Country	Total coffee area (ha)	CLR area (ha)	% Area affected	Production Losses (\$ million)
Peru	415,000	178,450	43	126
Mexico	769,786	75,000	10	?
Guatemala	276,000	193,200	70	101
Honduras	280,000	70,000	25	230
El Salvador	152,187	112,293	74	74
Nicaragua	106,160	39,014	37	60
Costa Rica	93,774	60,953	65	14
Dom. Rep.	131,250	60,000	46	?
Panama	19,490	4,850	25	?
Jamaica	3,013	841	28	5

Table 1. Areas affected by CLR and losses (mostly ICO data May 2013).

Percentage area affected varies greatly from country to country, though survey methods may differ substantially between countries and it is mostly not clear what criteria were used to establish the area affected. Surprisingly though, percentage national yield losses are mostly similar, in the 15 to 20% range for the 2012/13 year. Most forecasts for 2013/14 tend to be greater, in the 30 to 50% range. Clearly all this will lead to possibly serious job losses as well.

Thorough survey data at sub-country level is mostly lacking – the most detailed mapping by Anacafé Guatemala, reveals a complex pattern of CLR attack across the country that suggests neither a random nor a highly aggregated distribution.

Anecdotal accounts (personal observations, communications and press reports) suggest that the broadest range of coffee growing conditions were attacked. Hence sun and shade coffee, organic, other certified and non-certified coffee, large and small farmers – all have been affected, though there is no indications that the resistant Catimor varieties were affected. A comprehensive breakdown by altitude, location, farming system, tree age etc. is currently lacking and this is making it difficult to establish causality.

Why did it happen?

Some facts about CLR epidemiology need to be understood: a temperature around 22°C, the presence of liquid water and darkness all favour germination, though a lower temperature (13 to 16°C) apparently favours growth of the spore tube that forces its way into the leaf. The condition of the coffee tree is also important; poor nutrition and a heavy fruit load increase the likelihood of heavy infection. When trees in sun and shade have equal fruit loads, shade favours heavier attacks, but this is confounded by the generally lower fruit loads that occur under shade through reduced flowering.⁶

Despite this knowledge however, we still don't understand why CLR became such a widespread problem in 2012. Attempts to explain what happened fall into two main camps: 1) a virulent new strain; 2) unusual weather conditions caused by climate change.

The virulent strain hypothesis: the possibility of a mutated strain of CLR as the cause of the Colombian epidemic was investigated in some detail by Cenicafe scientists in 2012⁷. They carried out quite extensive studies involving comparisons between pre and post 2008 spore samples, which included genetic marker analysis and seedling infection experiments on a range of varieties to measure virulence. They could find no significant differences and concluded that a new strain was not responsible.

It seems likely therefore that the same conclusion can be applied to the 2012 outbreak. Indeed it would seem improbable that a virulent strain could spontaneously appear over such a very large geographic area in the same year.

Furthermore, there are reports of other coffee diseases, notably 'Ojo de Gallo' (American Leaf Spot, *Mycena citricolor*) increasing in several countries. Cenicafe for instance has recorded unusually high levels of *M. citricolor* on unshaded coffee in Cesar and Cauca (Colombia)⁸ and HR Neumann Stiftung technicians in Central America recently rated the disease as second only in importance to CLR⁹. It is therefore stretching credulity to suggest that two diseases are mutating to higher virulence and instead an explanation that accounts for all such changes is desirable.

The climate hypothesis: climate change as the cause of the CLR outbreaks has been widely mooted and it is a fact that the fungus now attacks at higher altitudes (up to 2000 m reported in Colombia) than a decade or more ago. Since a clear warming signal can be found in the meteorological data across the region, it is virtually certain that climate change has caused this new outbreak pattern.

⁶ Avelino J., Zelaya H., Merlo A., Pineda A., Ordon M., Savary S., (2006). The intensity of a coffee rust epidemic is dependent on production situations. *Ecological Modelling* 197: 431–447.

⁷ Yomara Rozo Y., Escobar, C., Gaitán A., Cristancho M., (2012). Aggressiveness and Genetic Diversity of *Hemileia vastatrix* During an Epidemic in Colombia. *J Phytopathol* 160:732–740

⁸ Rivillas C., Castro A.M. (2011) Ojo de Gallo o Gotero de Cafeto. *Bol. Téc.* 37, 25pp.

⁹ Baker P.S. unpublished report for HRNS.

However, this does not explain why 2012 was such a bad year, especially since it was not a particularly hot or wet year – in terms of the El Niño/La Niña oscillation, 2012 was more or less neutral. A problem for scientists is that meteorological data from the region is poor, especially considering its complex topography. Additionally, available survey data does not help to determine the extent to which the upsurge might be caused by the inexperience of farmers at higher altitudes as opposed to increased CLR aggressivity at lower altitudes.

There is also a third hypothesis – *the ecological collapse hypothesis*. This suggests that increases in pests and diseases are due to increasing intensification, especially the eradication of shade. However the 2012 experience shows that shade and organic coffee farms were sometimes very heavily attacked. For example, at the PROMECAFE-WCR rust meeting in April 2013 Anacafé's Miguel Medina said: *"I don't know how organic coffee can have a future. There is nothing that works to control rust in the field and I am not seeing anyone in the market offering more to create additional incentives for organic farmers."*

Since the best data comes from Colombia, which has an extensive network of meteorological stations, the following scenario is offered, based on a description of events in Huila (Colombia) in 2010¹⁰:

1. A long 'La Niña winter' in 2008 and 2009 left coffee trees in poor condition because of reduced efficacy of fertilizer applications under prolonged rain and low light. But CLR levels were not excessive at this time because flowering and hence fruit loading were low.
2. In the first half of 2010 there was an intense summer period that induced heavy flowering leading to expectations of a bumper crop.
3. Wet conditions returned in the second half of 2010, with prolonged rain and high minimum temperatures (caused by heavy cloud) that produced ideal conditions for CLR proliferation.
4. Already weak coffee trees, now struggling to cope with a heavy burden of growing berries, easily succumbed to CLR attacks, shedding much of the expected harvest.

The above scenario may not correspond to the 2012 event, but it is likely that a similar concatenation of factors led to conditions ideal for CLR. A major difficulty is that unless we can determine the specific events that caused the outbreak, we will not be in a position to judge how rare they were and therefore how likely they might be to return.

What should have been done differently?

At the Guatemala rust summit in April 2013 a working group compiled the following list of shortcomings:

- Chronically insufficient economic resources to deal with the rust: most farmers make very modest profits and spraying is costly, so why do it if CLR has not been a problem?
- The problem was underestimated – some warning signs were there but were not acted upon;
- Ineffective application techniques (poor droplet size, wrong frequency & timing of applications) due to lack of training;
- Poor infrastructure – very bad roads after storms in 2010 leading to more difficult access to farms;
- Conflicting advice: technologists promote rust resistant varieties, roasters prefer susceptible varieties.

The same working group recommended the following to prioritize limited resources to deal with present situation and lower its impact in future years:

- Improve information collection: systematize, analyse, distribute and share with producers to take corrective/preventative actions;
- Develop diagnostics and monitoring for early warning;

¹⁰ Federación Nacional de Cafeteros (2010). Prosperidad Cafetera, Informe de Comités Departamentales. LXXV Congreso Nacional de Cafeteros. Bogotá, Colombia.

- Increase use of new technology e.g. cell phones and improve producers' networking capacities;
- More information and research needed on:
 - Weather: temperature, amount of rain and rain patterns, relative humidity, solar light and shade, El Niño y La Niña;
 - Levels of infection, incidence, and severity;
 - New crop varieties and more testing and improvement of quality of catimors;
 - More socioeconomic information about farmers;
 - Monitor not only CLR but other diseases;
 - Trials on farming systems: tree density changes & shade modification to increase resilience of coffee plantations;
 - More studies on rust – its genetic variety and virulence;
- Campaign to renovate plantations and promote better farming practices;
- Carry out physical and chemical soil analysis and promote better soil use and conservation;
- Create insurance programs;
- Better equipped extension services for knowledge and technology transfer;

Widely expressed opinions were that an attitude change is now required by all stakeholders, to understand that:

- 'We are playing under new rules' – with more extreme climatic conditions than previously;
- 'We can't go on as we have been' – a greater need to be more proactive, less reactive.

Black swan or new normal?

A black swan event is a rare occurrence, such as the global financial crisis of 2008 onwards. Was the 2012 CLR outbreak a similar peculiar event, or a signal that underlying conditions have changed?

The fact that the 2012 event was presaged by the 2008-2010 experience in Colombia suggests that underlying conditions indeed may be changing and that we would be very foolish to ignore them.

We cannot be sure of the extent to which climate change may have contributed to this but there is convincing evidence that extreme weather events are now more common in Central America¹¹ (Fig 1) and indeed also elsewhere, including events that favour one or more pests or diseases and disrupt a normal equilibrium.

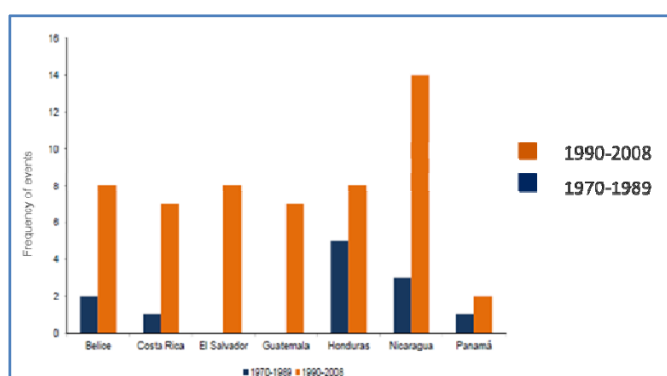


Figure 1. Number of tropical storms and hurricanes in Central American countries for two periods.

Effectively therefore farmers' risk levels have risen; it is becoming more difficult to farm in many localities because of changed weather patterns. It is especially risky for farmers of perennial crops such as coffee, which require substantial investment with a long payback period.

¹¹ ECLAC (2012). La economía del cambio climático en Centroamérica, Síntesis 2012. 114 pp.

Conclusions

The gravity of the outbreak, together with the large degree of unpreparedness, points to a systemic failure – that is, underlying any individual and institutional shortcomings, there has been a failure of anticipation, insight and overall management by the coffee industry.

This is surprising, given the extent to which the concept of sustainability has risen to prominence over the past 10 years. It is becoming clear that the shortcomings of this approach have been an over-concentration on micro-management of a large number of farm-level tasks and a relative failure to look at larger scale material issues such as pests and diseases, water use, land use change and overall economic farm performance.

This state of inadequacy is in turn a direct result of the history of coffee over the past generation, which has stressed market-driven measures to realise maximum value, whether through quality or some more symbolic attribute of sustainability. Unfortunately the many NGO driven initiatives to promote sustainable production have not been able to substitute for the long term support of science and technology that has historically been provided by public institutions.

This in turn has led to a weakening of research and extension services, which are ill prepared for what is now most likely an era of accelerating change. The relative collapse in the field aspects of coffee science can be seen from the decline in the number of CLR science publications (Fig. 2) which at one point fell to only three in one year; research on the medical effects of coffee consumption now greatly outweigh agronomic studies.

The coffee industry now needs to re-examine fundamental concepts about how it nurtures and protects the complex social-environmental system that supplies its raw material. Tacit and explicit assumptions of risk, stability, resilience and sustainability need to be reviewed in the light of recent events, which may well turn out to be less of a black swan, and more of a canary in the mine.

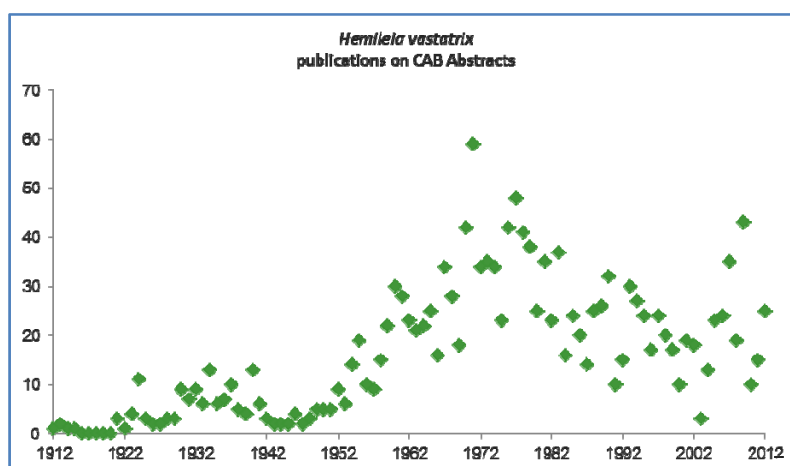


Figure 2. Annual frequency of CLR publications recorded on CAB Abstracts.

Individual Interventions

Modernizing a Costa Rican Coffee Cooperative – with thanks to Carlos Vargas & Sebastien Lafaye, Coopetarrazu, Costa Rica

Issues

Arrest declining competitiveness. Respond to increasing competition. Protect against price risk and price volatility. The case of Coopetarrazu R.L., located in San Marco de Tarrazú in Costa Rica.

Response

Stagnation, difficult trading conditions and signs of discontent amongst members around the year 2000 caused Coopetarrazu's Board to re-evaluate its strategies. It concluded that bringing in external expertise would help address these issues, even if initially costs would increase and the tradition was that managers were found in-house. However, in a relatively short period this (almost revolutionary) approach resulted in improved operational efficiency, lower costs and, eventually, better operating results.

However, subsequent to this growing competition at the farm gate, offering attractive outright cash prices, risked rendering Coopetarrazu's position untenable unless the cooperative could match this by also buying coffee outright that would however expose it to price risk. Expert advice was therefore brought in to design a risk management program, conduct training and facilitate links with banks and brokerage houses that could assist in executing actual risk management operations. Today Coopetarrazu has a well-thought out, multi-faceted strategy and, for example, the 2013 crop was profitably hedged more or less in its entirety using put options, demonstrating good market insight and decision making.

Background

In the late 1990's Coopetarrazu's competitiveness began to be eroded by quality problems, insufficient finances and a lack of market access, all of which combined to make membership less attractive. To arrest this the Board re-evaluated the overall strategy and in 2003/04 brought in high level management executives, assuming that the additional cost would justify itself through better results. As a result of a good selection procedure this was indeed the case and in time the new management gained the trust of both Board and members. It should be noted that this decision went against a well-established tradition (found in many cooperatives) that managers are selected from within the membership or have close links with leading members. The decision to engage executives who had no membership links with the cooperative therefore was not an easy one. But today Coopetarrazu has 2,750 members (80% of whom have less than 4HA planted to coffee) and total revenues of USD 60 million out of which coffee represents 55%.

However, around 2006/07 and as has been experienced in many other coffee producing countries as well, buying competition generally moved increasingly closer to the farm gate. This presented new challenges in that growers were now being offered outright cash prices which, in many instances, were (much) higher than the first payment under Coopetarrazu's traditional pricing model. This consisted of a conservative first payment on delivery, followed by periodic additional payments as coffee was liquidated with a final payment at season's end. As a result growers began to question whether the old system was worth maintaining, especially as their total payments at times came to less than the outright prices offered by the increasingly active cash buyers. Unless Coopetarrazu found ways and means to also make outright cash purchases it was likely that side selling would gain ground, coffee intake would fall, competitiveness generally would be eroded and eventually services to members would have to be curtailed. The only answer was to square up to competitors who enjoyed good access to low cost finance and availed of multiple possibilities to manage risk exposure. The decision was made to change with the

times by moving to outright purchases, assume the price risk associated with that and build a risk management program that in time would, hopefully, also facilitate access to more and less costly finance.

How was this done?

The introduction of professional management, revolutionary as it was at the time, had in fact already set the stage in that Coopetarrazu availed of good internal systems. It had managers who were familiar with modern business practices and understood that price risk management was essential but also complicated. Hence external advisers were brought in to familiarise both Board and management with the complexities of the available mechanisms and to design/implement a three step price risk management strategy, including arranging access to a futures trading account (today in Coopetarrazu's own name).

The three steps are Before, During and After the Harvest.

This is entirely logical as volumes and therefore exposure to price risk change as the harvest season progresses and so each stage should be assessed and analysed individually.

- Before the harvest local and global fundamentals are reviewed, including an estimate of the anticipated harvest, leading to the adoption of a forward looking risk management scenario consisting of purchasing put options to protect against price falls, selling coffee forward (short) basis price to be fixed (PTBF¹²) or at outright prices and, in the latter case, probably buying call options to protect against price rises after that sale (or after a forward PTBF sale has been fixed).
- During the harvest a daily position report details the overall position: long, short, stocks, break-even, total coffee intake, total sales, finances, costs... Additional decisions are made as required, taking into account both domestic (very important) and global price developments.
- After the harvest the total volume collected and sold is known, meaning decisions have to be made on any unsold volume. If no immediate sales are anticipated then again put options may be used or, as Coopetarrazu has access to a futures trading account, a futures Stop Loss Sell Order might be considered.¹³

In the last three seasons Coopetarrazu handled between 6,000 and 7,000 MT on average. This is received and processed from November to March with sales running approximately as follows: May-October: 40 to 50% of the expected crop; November-April: 30 to 40% of the actual crop and May-August the remainder, i.e. 10 to 20%. Shipping runs from January through August. Approximately 65% is exported directly; about 25% is sold to local exporters (paid in cash); and the remainder, mostly lower qualities, is sold domestically.

During the last two seasons approximately 4,000 MT on average were hedged, using options and (some) futures, through their futures account with positive results that permitted an end-of-season top-up payment to members. Most of the current season's (2013) expected harvest has been hedged in its entirety through put options at prices that compare favourably with the current market (mid 2013).

¹² NB. It is important to note here that when selling basis Price To Be Fixed (PTBF) Coopetarrazu's Board has instructed that fixing shall latest be prior to shipping. This ensures the act of fixing prices doesn't become pure speculation by 'rolling' fixations from one futures position to the next in expectation of higher prices.

¹³ A Stop Loss Order is triggered when the relevant futures price reaches a certain level but it is worth noting a) that futures trading involves financing margin calls and b) that volatility caused by so-called program or flash-trading can cause price shifts that could make it impossible to execute at the stated price.

To note here that at the beginning of all this Coopetarrazu already availed of a forward looking Board of Directors and quality modern management. These realised the necessity of introducing risk management in the cooperative's day-to-day management as a permanent management tool and not as a once-off exercise. Secondly, the cooperative was first established in 1960 (!) meaning its membership is cohesive and cognisant of both the advantages and the responsibilities (!) of being members. Thirdly Coopetarrazu has an established track record, is well-known in the market and avails of reasonable own resources.

Yet it took some years until to-day's mature and multi-faceted price risk management strategy was in place, meaning that less well established cooperatives or farmers' groups undoubtedly need considerable and prolonged guidance before 'going it alone' when it comes to risk management.

Lessons learned

- To assist the learning process professional input is essential.
- Decision making processes have to be formalised, have to be disciplined and should involve more than a single person. Daily and fully inclusive position reports are a must.
- A hedging program requires its own financial resources. Otherwise there is a risk of working capital for the collection of coffee being diverted. Hedging through futures is therefore problematic in that it can result in (very) substantial margin calls that could affect overall liquidity.¹⁴
- Risk management is a long term strategy, meaning that even if this year's results are not optimal this does not mean we ignore risk the coming year. But understand also that not all risk can be covered – basis risk is a good example.
- Executing a risk management strategy requires qualified personnel who are able to deflect 'what if' arguments from both Board and individual members.
- Never use futures for speculation and do not carry positions 'forward'. Where possible use physical strategies, i.e. trade back-to-back.
- Understand the basics = buying coffee outright means a long position has to be protected against price falls.
- Understand the relationship between local prices and futures, i.e. know what basis risk is and constantly monitor it.
- Understand it is not possible to protect all the volume – the inventory is the most important in this respect, i.e. protect the break-even. This includes coffee under process for which the final quality is not yet known.
- Watch differentials daily – avoid selling at low differentials where possible. At times a put option may be the better option.
- When faced with uncertain supply prospects in terms of volume and quality it may sometimes be preferable to stick with put options rather than trying to sell forward.
- Banks do not necessarily understand how futures work. For some options are easier and 'cleaner', also because there are no issues around potential margin calls. Having put options in place means a certain volume has at least a minimum value, making it easier and sometimes cheaper to raise advance funding.
- Having a well-functioning risk management strategy can assist with the raising of short term or intra-seasonal funding but does not help when it comes to long term funding...

To recapitulate

- Good organizational level, including a mature Board
- Qualified and trained technical staff.
- Long-term vision. Financial instruments work better under a clear long-term strategy as a way of minimizing the *natural* speculative position of producers who are always long.

¹⁴ Logically a cooperative will always be long in that it has to buy its members' coffee. Failing forward or back-to-back sales the temptation would obviously be to short futures but this is both dangerous and may become a financial albatross if the market moves suddenly and sharply.

RISK AND FINANCE IN THE COFFEE SECTOR – PROGRESS REPORT – ANNEXES

- Understand this is a progressive learning process.
- Requires parallel finance which is still not easy to get. (Coopetarrazu have invested their own capital). Could help to access finance without having sales contracts.
- A dynamic (flexible) strategy should take into account the organizational structure, the local environment and the global market for the particular type of coffee.

Minimizing Price Risk Through Call Options – with thanks to Sustainable Harvest Coffee Importers, Portland USA

Background. Price volatility complicates the timing of marketing decisions for the entire supply chain, particularly so for managers of coffee cooperatives who take sales and pricing decisions on behalf of the members. If prices rise subsequent to selling then the members may refuse to supply (default) or, if prices fall subsequent to buying coffee then a cooperative will lose money. Taking sales decisions in this environment is not only difficult but can also be quite hazardous. And, even where a guaranteed floor price such as the Fairtrade model is in place, volatility still impacts on the decision making process. To note here that without financial literacy a cooperative may not know its true costs (and cannot present a good business case to potential lenders), whereas lack of market insight may result in blind speculation or indecision, i.e. ad hoc decisions. And whilst trading back-to-back (buy and sell simultaneously) sounds simple in terms of risk avoidance, in reality this does not really make the pricing decisions any easier.

Realizing that poor decision making processes were detracting from efficient and sustainable supply, in 2009 the Portland USA based firm Sustainable Harvest Specialty Importers (SH) invested in an extended program with 35 cooperatives, of which 27 in Peru and 8 between Costa Rica, Guatemala, Honduras, Mexico, and Nicaragua, to improve both financial literacy and market insight.¹⁵

Financial literacy, audited accounts and being able to demonstrate that the operation adds value are all prerequisites for any business case. In terms of accessing finance, having confirmed sales on the books to pre-approved buyers makes it easier to obtain seasonal funding to finance coffee purchases. In this case all 35 cooperatives had previously demonstrated their reliability as suppliers, both in terms of coffee quality and respect for contract execution, but all had difficulty in coping with the complexities of taking pricing decisions. Enter the Price To Be Fixed sales system.¹⁶

The SH Program. This consists of on-going (and annual refresher) training taking in the functioning of markets, market analysis, the role of futures, put and call options and related subjects, such as daily position analysis. Plus of course financial literacy and trading discipline as a whole. Initially a total of 4 training seminars were held.

Participating cooperatives subscribe to independent real-time price information through an account established by Sustainable Harvest, charged at a minimal fee.

Two sales methods

- **Outright sale:** In addition to all usual terms and conditions the contract immediately stipulates the final price.
- **Sale PTBF:** Seller and buyer agree quality, quantity, delivery, the differential and against which futures position the sale is to be fixed. The sale is 'sellers call' meaning the seller calls for the fix (within the time

¹⁵ Partly funded by grants from USAID and other donors. Total cost circa USD 1,000 per participating cooperative who also make a small contribution themselves to ensure solid buy-in.

¹⁶ In terms of supply and demand producers need to confirm sales for their production and roasters need to fill their supply line but, neither may necessarily wish to set the price at the same time as they make those arrangements. Selling green coffee at a defined differential to the futures market (called Price To Be Fixed), leaves the final price decision for later, yet accommodates these conflicting interests. At the same time outright or market risk is changed into differential or basis risk. Basis risk usually is much lower than price risk. Nevertheless, also such sales still require a pricing decision in that someone has to decide on when to 'fix' the futures price that, together with the agreed differential will constitute the final sales price. In the mainstream coffee trade the execution of PTBF contracts is often done through the buying and selling of futures contracts which many producers find complicated but this is not the case here.

period and in the manner agreed). The seller is not involved in any futures transactions but simply calls for the price to be fixed using the method laid down in the contract.¹⁷

Under the outright option the pricing decision is made immediately but under PTBF it is postponed. Of course it still has to be made and cooperatives need to have clear internal guidelines that govern the fixing of PTBF contracts.

The problem. In a rising market potential profits may be lost which makes taking sales or fixation decisions very difficult. In extreme cases subsequent price rises may even lead to member default.

The answer. Price insurance.

Through the SH sponsored account cooperatives can purchase call options (the right to buy coffee futures forward at a set price) at the same time they sell physical coffee outright or fix an existing PTBF contract. If subsequently the futures market rises so will the value of the call option. On expiry the option will then be cashed in and the profit, minus the option cost, will accrue to the cooperative. Should the market fall then the option is simply allowed to expire and the cost, the 'insurance premium' that was paid to benefit from a possible price rise after sale, will detract from the original sales transaction.

Exercising the option. Option holders monitor both futures and the option value through the SH sponsored account. Options showing profit can be exercised through direct orders to the broker (assumes good communications); by giving a Good-till-Called order (the broker sells when the stated value is reached); or by Stop-Loss orders (the broker sells automatically if the value of a profitable option falls to a certain level).

NB. The cost of options varies and individual cooperatives decide for themselves whether they consider the premium worthwhile. Clearly calls are cheaper in a falling market... 18

Outcome. The cost of call options was subsidized by 50% in years 1 and 2 but is now paid by the participating cooperatives. Currently approximately 30% of sales are being made in conjunction with call options, often at season's beginning and end when the price outlook may be less clear, or in the middle when fears of frost in Brazil come into play. To date 70 call options have been taken out at an average cost of USD 1,317 each.

Today participating cooperatives know their cost price. They have developed better understanding of market behaviour and mechanisms, decision making processes have been formalised and they have learned how to make use of market rallies to transact both physical coffee and options. They now use both fixed price and PTBF contracts and do not necessarily fix entire positions all at once but judge market behaviour. Improved monitoring, trading and risk management has provided some of them not only with more but also with cheaper finance as lenders understand better how this system functions and the assurances it provides. Total data are available for Peru where so far a total of 239 containers were contracted of which 10 at fixed price and 229 basis PTBF. On average the fixation result for PTBF contracts combined with call options has been better because the cooperatives fixed the price as soon as they availed of the physical coffee, knowing the call option gave them a stake in any subsequent market advance. Delaying fixation might sometimes result in better or even much better prices but, can also result in a much lower price – whether to fix a PTBF contract or not when the physical coffee is bought is of course a management decision but deciding not to fix should be recognized for what it is: speculation.

¹⁷ With the SH system the cooperatives need not concern themselves with futures transactions.

¹⁸ Cooperatives wishing to protect against falling prices can of course themselves purchase put options (the right to sell coffee futures forward at a set price) but this is not part of the SH program as it does not relate to the import of physical coffee.

Lessons learned

- It is important to have insights on both sides (producer and roaster) and to be able to provide real-life information;
- Once cooperatives begin to understand how the system works they realize its advantages and are ready to pay the costs but initially it has to be subsidized;
- Being linked to a broker account has made them conversant with market behaviour, yet they can still ask the advice of the importer and, most importantly, they do not have to be involved with futures trading;
- Under Fairtrade contracts cooperatives of course have a natural floor price but nevertheless, by selling PTBF they can still benefit from market rallies;

Program Interventions

Current Financing Dynamics in the Kenya Coffee Sector – with thanks to John Amino, Kenya Coffee Development Fund

Background

Finance to the Kenya coffee sector is provided through different channels, both formal and informal

- Government through the Coffee Development Fund
- Commercial Lending Institutions i.e. Banks
- Micro-Finance Institutions/SACCOS¹⁹
- Marketing Agents/Traders²⁰

Apart from the Coffee Development Fund and in part, the Cooperative Bank of Kenya through STABEX, most commercial lenders are known to provide financing to coffee value chain actors through existing loan products rather than specific products tailored for the value chain. For instance, financing for coffee growers is largely catered for in agricultural loans, while value chain players like Marketing agents and Coffee Dealers can access a range of products offered under Trade Finance.

Micro-finance institutions, particularly rural SACCOS, also makes them primary sources of micro-credit to coffee growers. The majority of coffee cooperative societies are closely affiliated to SACCOS whereas others have gone further and established their own.

Marketing Agent/Traders as a source of credit is perhaps one of the unique features of coffee value chain finance in Kenya. This is inevitably so, due to their direct links and vested interest to coffee growers which has made them move beyond their marketing role to also play a financial role.

Savings and Credit Cooperative Societies - SACCOS

SACCOS generally emanate from Cooperatives which are entities primarily designed to promote the economic interests of their members through a number of ways. Coffee-based cooperatives for instance wet-process and transport coffee, and also have an intermediary role in channeling finance and credit to members. Most agricultural based cooperatives such as the coffee cooperatives were created around a single activity; coffee farming. However, in recent years cooperatives have been forced to diversify or transform to remain competitive, especially in sectors that were no longer profitable such as cotton and pyrethrum. Diversification of activities explains the substantial growth of cooperatives in the financial sector especially in rural markets in the form of Savings and Credit Cooperatives (SACCOS)

¹⁹ Savings and Credit Cooperative Societies.

²⁰ Marketing Agents/Traders provide quality analysis, milling and financial services to growers, including readying coffee for auctioning, price risk management and so on.

The SACCO movement in rural Kenya is quite vibrant mainly due to the fact that most commercial lenders have a low presence in rural areas or coffee growing areas. As such it is highly likely they are the preferred financial providers for most smallholder coffee farmers. Indeed, the majority of coffee cooperative societies are closely affiliated to SACCOS or have established their own to offer savings and credit facilities to their members. The type of credit offered however is mainly seasonal agricultural loans and welfare loans that cater for social expenses such as school fees and medical bills.

Despite their key role in rural markets SACCOS are usually hampered by limited resources and from time to time require assistance from commercial lenders to meet the financial demands of their members. It is highly likely therefore that most SACCO's would borrow from Banks or other financial institutions to on-lend to their members.

The Coffee Development Fund - CoDF

At inception in 2007, CoDF faced a major challenge to reach coffee farmers who are widely dispersed in the coffee regions. The Fund therefore adapted a financial intermediation model by establishing linkages with rural-based financial institutions, the majority of whom are SACCOS, to act as financial 'intermediaries'. The function of CoDF 'intermediaries' is to mobilize, recruit, vet, appraise, approve, disburse and recover due loans on behalf of the Fund. The model mainly targets smallholder coffee growers organized in cooperatives. To monitor the movement of funds CoDF disburses to these 'intermediaries' based upon financial requests from the respective cooperatives and in tandem with the activities of the coffee cycle²¹.

As of now CoDF channels funds through 29 intermediaries of which 27 are SACCOS, thus reaching just over 66,000 individual smallholders. In addition CoDF also lends direct to some 100 larger growers. Interest charged to farmers is 10% p/a of which 1% accrues to the farmer's own Primary Cooperative Society, 4.5% to the intermediary and 4.5% to CoDF itself. To date approximately USD 16 mln has been disbursed of which about one third is currently outstanding. CoDF applies a provision for doubtful debt of 3%.

Risk Management

Cooperatives try to cushion themselves against risk in a variety of ways. The strategy varies from one cooperative to another and depending on the coffee growing regions. Perhaps the most common coping mechanism is diversifying to other enterprises. In the Western coffee growing regions for instance, most farmers intercrop their coffee with other food crops (sweet potatoes) for own consumption and also for commercial purposes. Other regions especially the North Rift Valley region have encouraged their farmers to venture into dairy and food crop enterprises. The common feature across cooperatives is diversification into enterprises that have a short turnover cycle to meet short term financial needs during the long coffee cycle.

Traditional methods of tackling price risk are mainly undertaken by Marketing Agents/Traders who have the ability and know-how to apply price risk mechanisms such as hedging, forward sales, futures etc. and, who have the access to such facilities that the cooperatives themselves lack.

Nationally CoDF is looking at financial interventions aimed at market diversification and value addition that will promote domestic consumption, currently just 5% of production. The opportunity to increase domestic

²¹ See Annex 1

consumption in Kenya is huge due to rapid urbanization and a growing middle class that is increasingly becoming accustomed to better quality coffee.

Lessons learned

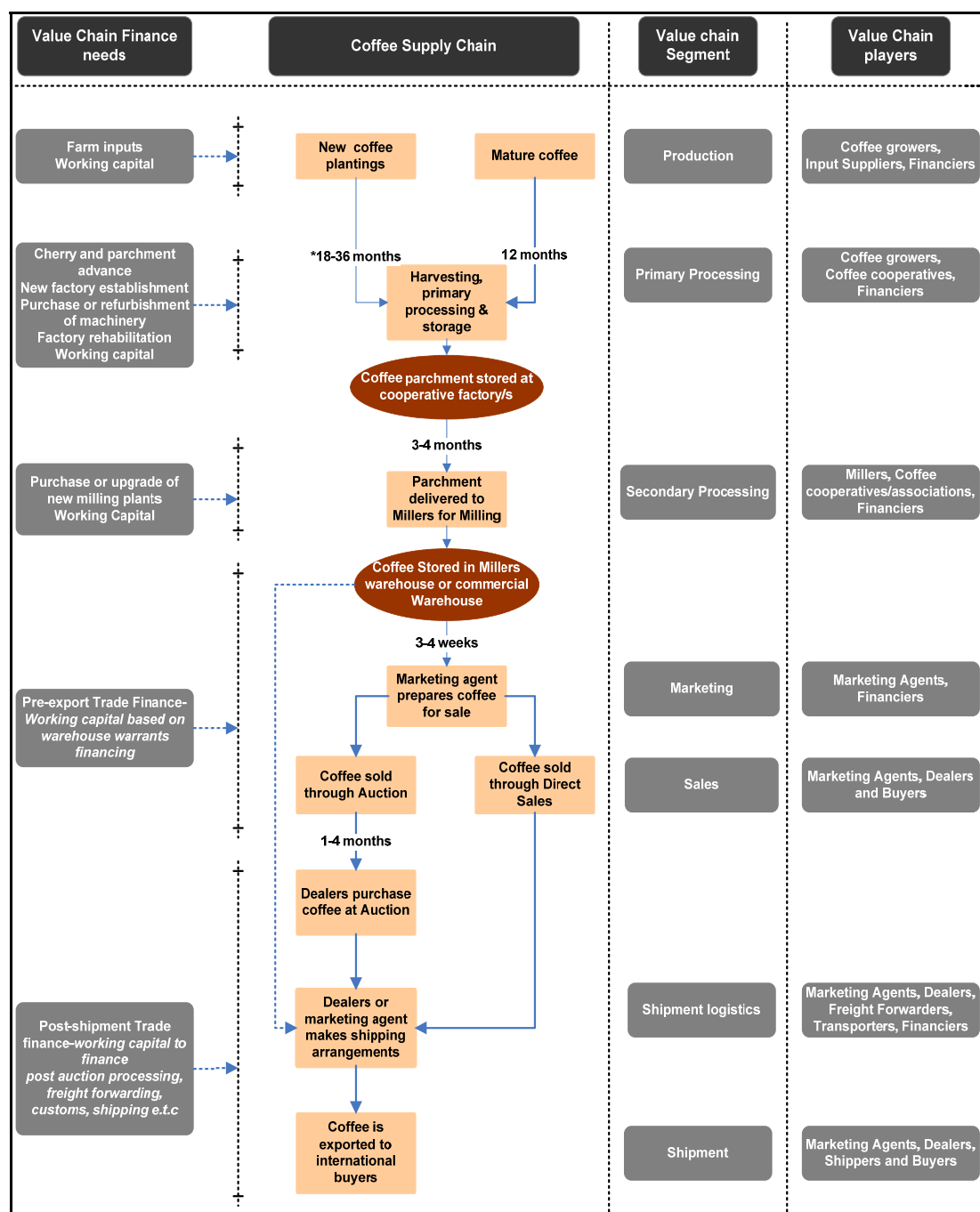
- Over the years, one of the key lessons learned from this model was that non-agricultural based SACCOS, particularly the **teacher-based** SACCOS did not perform well in administering CoDF loans.²² This mainly because coffee was not the core activity of its members and also to some extent governance/mismanagement issues in some of them. **Farmer-based** SACCOS on the other hand were impressive in administering CoDF loans, purely because of the pressure to meet the demands of their member farmers who are directly involved in coffee farming as a core activity and, are their main shareholders. Some of these SACCOS have gradually strengthened their operations and financial base through commissions paid out by CoDF for their services. Others, also based on performance (good repayment history of CoDF loans), now borrow wholesale directly from CoDF so as to plan in advance for members requests during the coffee season.
- Prior to the establishment of CoDF, various government intervention were designed to channel credit to coffee farmers through SACCOS and Coffee Cooperatives but received mixed success in the various coffee growing areas. Non-successful areas were mainly hampered by poor management structures and lack of adequate capacity to administer funds efficiently. In this respect the recent establishment of an oversight regulatory body, the SACCO Societies Regulatory Authority or SASRA, probably is a welcome development. Industry players and stakeholders as CoDF are optimistic about the future performance of SACCOS.
- Farmers borrowing from different sources/lenders along the value chain leads to multiple borrowing, meaning the same crop may be hypothecated against various sources of financing. This leads to high indebtedness among coffee farmers. However, as yet there is no mechanism for sharing financial and credit information, especially between non-financial institutions as Marketing Agents, as well as Banks and indeed CoDF.

Way Forward

Given the experiences and lessons learnt, Coffee development seeks to strengthen the model by building capacity especially amongst its financial intermediaries (SACCOS) and coffee cooperatives as a whole. Capacity building interventions will involve financial literacy and corporate governance training. Other interventions to strengthen the model shall include alternative service delivery models such as the use of mobile technology and smart card systems.

²² Teachers often play a leading role in establishing and managing cooperatives in Kenya.

Coffee Cycle Activities



Implementing Price Risk Management into the Rwandan Market Place – with thanks to Paul Stewart, Technoserve

Issues

Protect producer organizations or cooperatives that operate coffee wet mills against potential loss or default due to major price moves. Create access to hedging opportunities.

Response

TechnoServe works with exporters that buy from producer cooperatives that own coffee wet mill stations, providing services that help reduce or avoid altogether the losses and defaults that can arise from sharp movements in both local and global coffee prices. The scheme is innovative in its use of mobile technology (cellphones) to track the daily volume of coffee cherry purchases, the volume of coffee parchment yielded by the coffee washing process, coffee stock movement and wet mill station operating expense data. This data keeps exporters informed of how much coffee is being held at the stations they purchase from and allows them to use this volume data on the futures market to “lock in” a price. The program was initiated in 2010 and in 2012 already approximately 1,000 metric tons was hedged on the New York futures market (ICE).²³

Background

Rwanda’s coffee sector has similarities to many other coffee producing countries. Farmer associations and cooperatives buy coffee cherry from smallholder coffee farmers, process it at their wet mill station and subsequently sell that coffee to exporters. The exporters then mill, market, and ship the product (green coffee) to buyers across the globe. Many exporters are subsidiaries of global trading houses, with some domestic / local exporters active as well. When purchasing coffee, exporters and buyers index the price to the international market price when determining their offer price.

A challenge for the Rwandan coffee market (and elsewhere across the globe) is that sharp price movements may occur in relatively short periods of time. This can be contrasted with the coffee harvesting and production process, in which there is typically a lag of at least 2-3 months between harvest of coffee cherry and sale due to the time required to wet-process and dry-process green coffee. Thus, coffee harvested when the market is strong, may be sold at a point when the market has collapsed, adversely impacting the position of cooperatives and their member farmers.

As an example, after a significant period of rising prices in 2010, the international price of coffee started to fall dramatically in 2011. Cooperatives in Rwanda suddenly found their profits wiped out, with some at risk of making losses. The risk of default became quite real and answers had to be found to avoid similar occurrences in future.

To avoid such exposure to price fluctuations, cooperatives could consider agreeing a price with a buyer for an entire season (ie forward sell), thus allowing them to know exactly what price to expect once their coffee is harvested and processed. However, despite the benefit of price stability, such agreements (informal or contractually bound), are also exposed to a set of risks:

²³ Rwanda produces Arabica, a small percentage of which is processed in modern wet mill stations. The 1,000 MT that was hedged represented about 25% of the total wet mill station 2012 output of some 4,000 MT. The bulk of Rwandan coffee output is processed using conventional means.

- Should prices fall during the season, a buyer might try to renegotiate a contract to obtain more favorable (ie lower priced) terms.
- Should prices rise, farmers may not sell their coffee cherry to the cooperative, choosing instead to sell to a competitor paying a higher price.

Hedging as a Solution

Price risk is an issue for all actors operating within an agricultural commodity supply chain. Commodity exchanges or futures markets provide access to futures contracts that can be used to manage and protect against price risk. The coffee futures contract traded on the New York exchange represents the global market for Arabica coffee. This market allows coffee sector firms to both buy and sell coffee for a future date, hence protecting themselves against price movements caused by their position in the physical coffee market.²⁴ However protecting one's position against price risk can be both time consuming and costly, requiring in-depth expertise of the global markets and the financial products, also known as derivatives.

For producer organizations and cooperatives, accessing the futures market is a challenge logistically (distance from market); financially (the need to have sufficient funds to cover hedges and meet margin calls); and in terms of complexity (the risk of increasing rather than reducing risk if a hedging strategy is poorly implemented and managed). As such the vast majority of trading on the exchanges is by coffee exporters and buyers rather than by producer organizations. Such enterprises have the in-house skills and resources to effectively utilize these markets. With hedging nevertheless representing the best approach against price volatility, the question remained: how could produce organizations benefit from such strategies?

Providing Price Risk Management to Producer Cooperatives

As described above, the cooperatives in Rwanda were struggling with the adverse effects of volatile prices. They neither had the expertise, the financial resources, nor the access to markets to enable them to directly manage their exposure to such price volatility. By working with TechnoServe, however, who had helped to establish relationships between these producer cooperatives and coffee exporter companies, producer organizations were able to benefit from a hedging strategy implemented by coffee exporter companies.

In Rwanda, in addition to milling and marketing services, coffee exporters also provide working capital financing to the producer organizations. Working at first with one local exporter, TechnoServe began a program to better enable that exporter to manage the price risk of coffee purchases by utilizing the coffee futures market.

The mechanism included an exporter paying a cooperative a price determined by the current international coffee market price at the time the purchase was negotiated. The exporter would, in turn, hedge the volume of coffee it purchased through a sale on the futures market, therefore locking in their own price and justifying the price agreed with and paid to the cooperative. As such, all parties in the transaction would no longer be exposed to price fluctuations minimizing future default risk.

In order to execute on such a strategy, the exporter required accurate, daily coffee volume information – both regarding daily cherry purchases at the cooperative level and regarding how much green coffee that cherry could be expected to yield. By knowing how much coffee the cooperatives had purchased daily, the exporter could use pooled information from its member cooperatives to hedge its exposure and thereby reduce price volatility risks.

²⁴ The physical market is where the actual green coffee changes hands.

Challenges of Hedging via an Exporter Service Provider

This approach is not without its own challenges. Specifically, exporters provide marketing services to many farm cooperatives at once, require accurate, up to date coffee cherry purchase volume reports from each of these rural businesses, daily, in order to hedge. Additionally, exporters provide credit services to many cooperatives and need to monitor these loans. The most effective way to do this is to monitor the farm-gate prices paid daily by cooperatives to farmers for the cherry they deliver to the wet mill stations and to ensure that these prices are in-line with what the international market would justify. With an accurate monitoring tool, exporters can ensure cooperatives do not overpay for coffee cherry thereby risking making a loss at the time of sale and defaulting on loans. If exporters were geographically near to their member cooperatives, they could more easily monitor these businesses closely; however most wet mill stations are rural, located far from where the exporters are based. As such, a more transparent inventory management system was needed to allow exporters to obtain accurate pricing and stock volume information from rural wet mill stations in order to execute on their hedging strategy, as well as for their loan monitoring purposes.

Traditionally, cooperatives have used paper-based records to monitor volume and operating expense information. But paper-based records are difficult to share and easy to falsify, causing delays in information dissemination and difficulties in monitoring for fraud, theft, or poor management.

A more Transparent Inventory Management System Solution

TechnoServe worked closely with Rwandan exporters and cooperatives to find a solution to these issues. As a result, an SMS bookkeeping tool was developed, linking simple cellphone text message technology to a sophisticated cloud-based platform.

The move to SMS bookkeeping enabled for daily data collection at wet mill stations which could then be shared real-time with exporters, thus enabling exporters to (1) use this volume data to hedge coffee at appropriate scale and times and (2) monitor the risk associated with lending working capital to these cooperatives.

The benefits of using cellphones and SMS technology are widely recognised: cellphone usage is extremely widespread in Rwanda, including amongst wet mill station accountants. By taking advantage of existing utilized technology the need for expensive or complicated hardware (such as PCs) was avoided. Additionally, these phones are relatively simple to use avoiding the need for expensive training. Finally, data sent via SMS is both inexpensive and fast. SMS data can arrive almost instantly rather than be delayed by conventional postage. In short, this program utilizes existing, readily available, and easy-to-use technology enabling speedy adoption, rapid scale-up and ensuring reduced user-error.

How the System Works

SMS bookkeeping requires wet mill station accountants to send daily and weekly messages that are recorded on an online platform viewable to affiliated lenders and export companies. The daily message reports the kilos of cherry purchased, the cash / credit spent on cherry and the cash advanced to satellite buying sites. The weekly cash message reports opening cash balance, working capital received and operating expenses at each cost center. A weekly stock message reports parchment moved to store from the drying beds and the parchment shipped to the dry mill. The cloud-based system collates this information from all wet mill stations, allowing an exporter to view its entire portfolio of wet mill stations at once.

With this information an exporter at any point can know exactly what the stock position of each wet mill station is; where coffee sits in the chain; and the pricing and cash position of each wet mill station – providing them with sufficient information to ensure that funds are being spent appropriately and to know when they should hedge the exposure.

The system promotes financial transparency but also protects private information. Producer organizations, exporters and other related parties agree on the data that will be viewable to each party at the beginning of the season. And, the system can be programmed to send performance reports to cooperative leaders and farmers directly, via SMS, thereby promoting financial transparency within producer associations.

Improving Access to Finance

The program and the inventory management system enabled cooperatives and their smallholder farmer members to benefit from a sophisticated hedging strategy, thereby avoiding price risk and related losses. With greater real-time transparency into the operations and track record of producer organizations, exporters, in their role as credit providers, are able to underwrite greater amounts of working capital to the producer organizations, as well as disburse them more timely and efficiently. This has caused an increase in financing available to producer cooperatives at a time when many businesses and banks continue to be hesitant to extend loans to small, rural, agriculture-based borrowers. At the end of 2012, SMS bookkeeping had been implemented at more than 50 of Rwanda's 215 cooperatives. Starting the next coffee season, TechnoServe will begin implementing this approach in Tanzania and Ethiopia.