



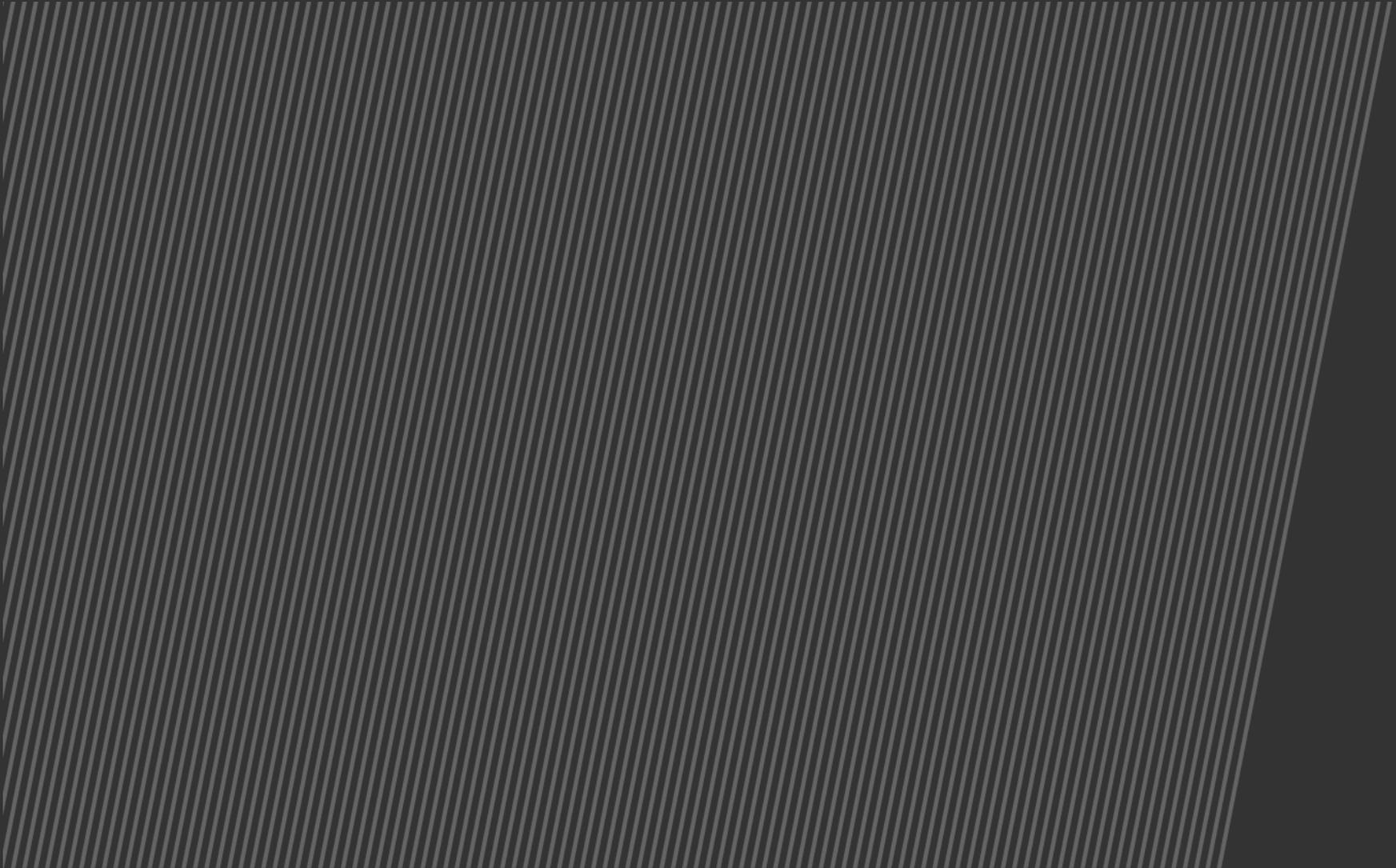
Utilización de productos derivados en la industria minera

9 octubre 2009

Contenido

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- ▶ Etapas proceso minero y uso de derivados
- ▶ Desafíos futuros
- ▶ Algunas publicaciones

Situación actual



Situación actual

ISDA

INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, INC.

NEWS RELEASE

For Immediate Release, Thursday, April 23, 2009

Over **94%** of the World's Largest Companies Use Derivatives to Help Manage Their Risks, According to ISDA Survey

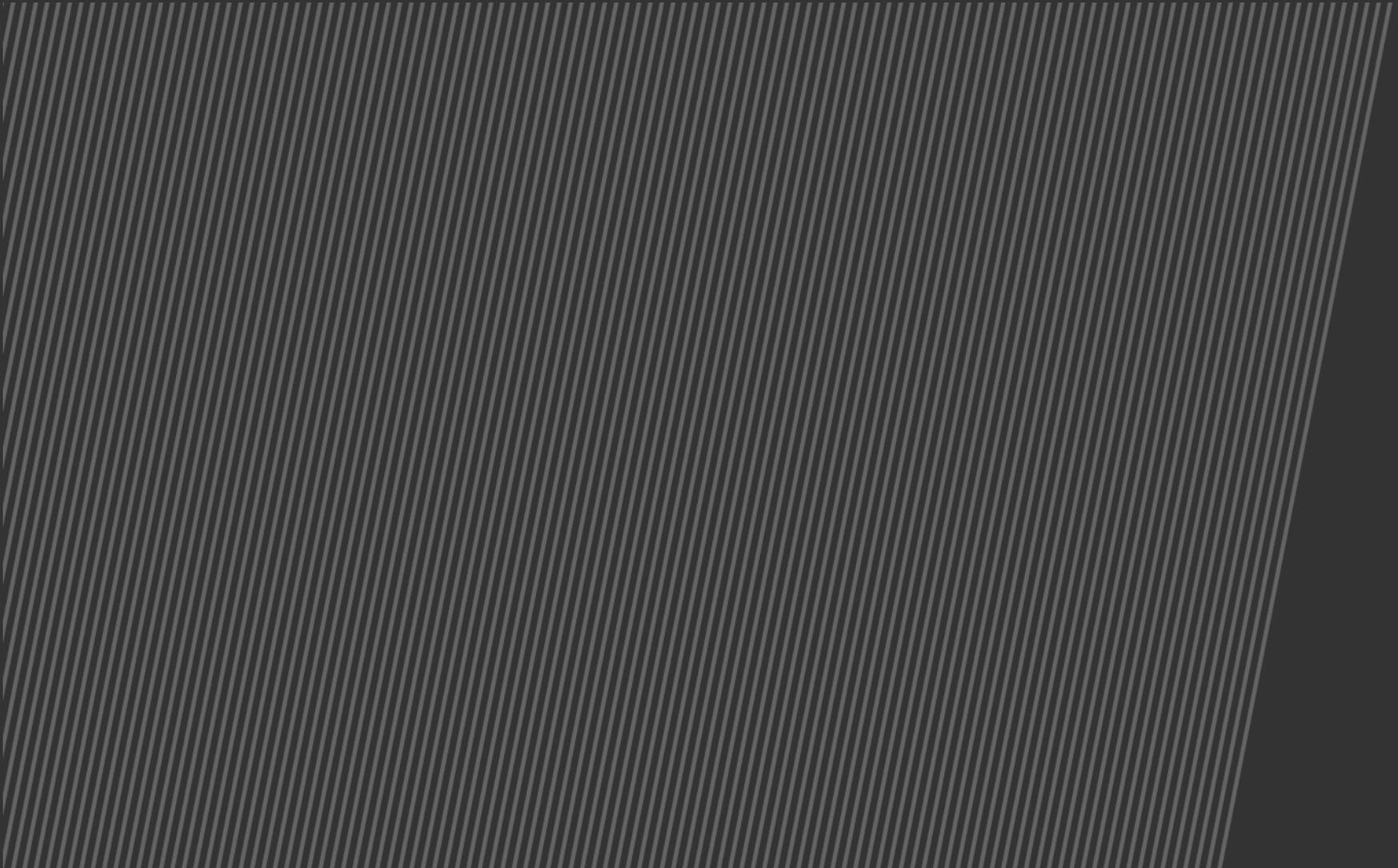
ISDA SURVEY RESULTS:

DERIVATIVES USAGE BY THE WORLD'S LARGEST COMPANIES

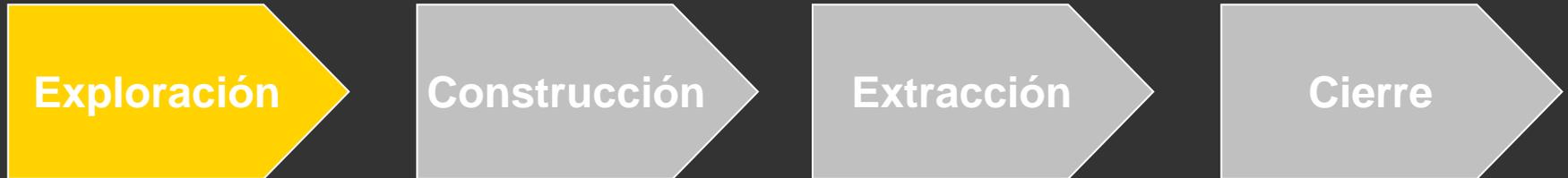
Usage by Sector

Sector Name	Total	% Using Derivatives	% Using Interest Rate	% Using Forex	% Using Commodity	% Using Credit	% Using Equity
Basic materials	86	97%	70%	85%	79%	0%	6%

Etapas proceso minero y uso de derivados



Etapas proceso minero y uso de derivados



- ▶ Exploración:
 - ▶ Compañías juniors tienen, generalmente, presupuestos y caja (o futuros aportes) en USD
 - ▶ Algunos gastos son en CLP, tales como sueldos, estudios, transporte, etc.
 - ▶ Uso de derivados:
 - ▶ Cobertura de tipo de cambio
 - ▶ Forwards de FX
 - ▶ Opciones de FX (poco utilizado)

Etapas proceso minero y uso de derivados



▶ Construcción:

- ▶ Proyecto de construcción posee un componente de gastos en USD y otro en CLP
- ▶ Búsqueda de fuentes de financiamiento
 - ▶ Project finance
 - ▶ Créditos sindicados
 - ▶ Bonos mercado local y/o internacional
 - ▶ Venta futura de subproductos

Etapas proceso minero y uso de derivados



▶ Construcción:

▶ Uso de derivados:

▶ Cobertura de tipo de cambio

▶ Forwards y opciones de FX → cobertura de gastos

▶ Swaps de monedas (CCS) → cobertura de bonos en moneda no USD

▶ Cobertura de tasa de interés

▶ Swaps de tasas de interés (IRS) → cobertura de endeudamiento a tasa variable

▶ Cobertura precio de commodities

▶ Collars y swap de precio de commodities → venta futura de subproducto (en forma indirecta)

Etapas proceso minero y uso de derivados



▶ Extracción:

- ▶ Ingresos en USD y parte de los gastos en CLP
- ▶ Necesidades de re-financiamiento
 - ▶ Créditos sindicados
 - ▶ Bonos mercado local y/o internacional
- ▶ Descalce de plazos en venta de mineral
- ▶ Venta de mineral bajo distintos índices
- ▶ Exposición a alza en precio de insumos

Etapas proceso minero y uso de derivados

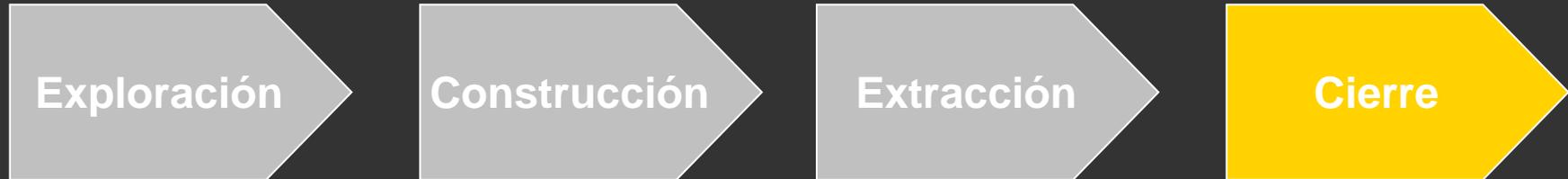


▶ Extracción:

▶ Uso de derivados:

- ▶ Cobertura de tipo de cambio
 - ▶ Forwards y opciones de FX → descalce de monedas de ingresos y gastos
 - ▶ CCS → cobertura de bonos en moneda no USD
- ▶ Cobertura de tasa de interés
 - ▶ IRS → cobertura de endeudamiento a tasa variable
- ▶ Cobertura precio de commodities
 - ▶ Collars y swap commodities → descalce de plazos venta mineral (corto plazo)
 - ▶ Basis swaps → descalce versus benchmark
 - ▶ Out-of-the-money call → seguros catastróficos (petróleo)

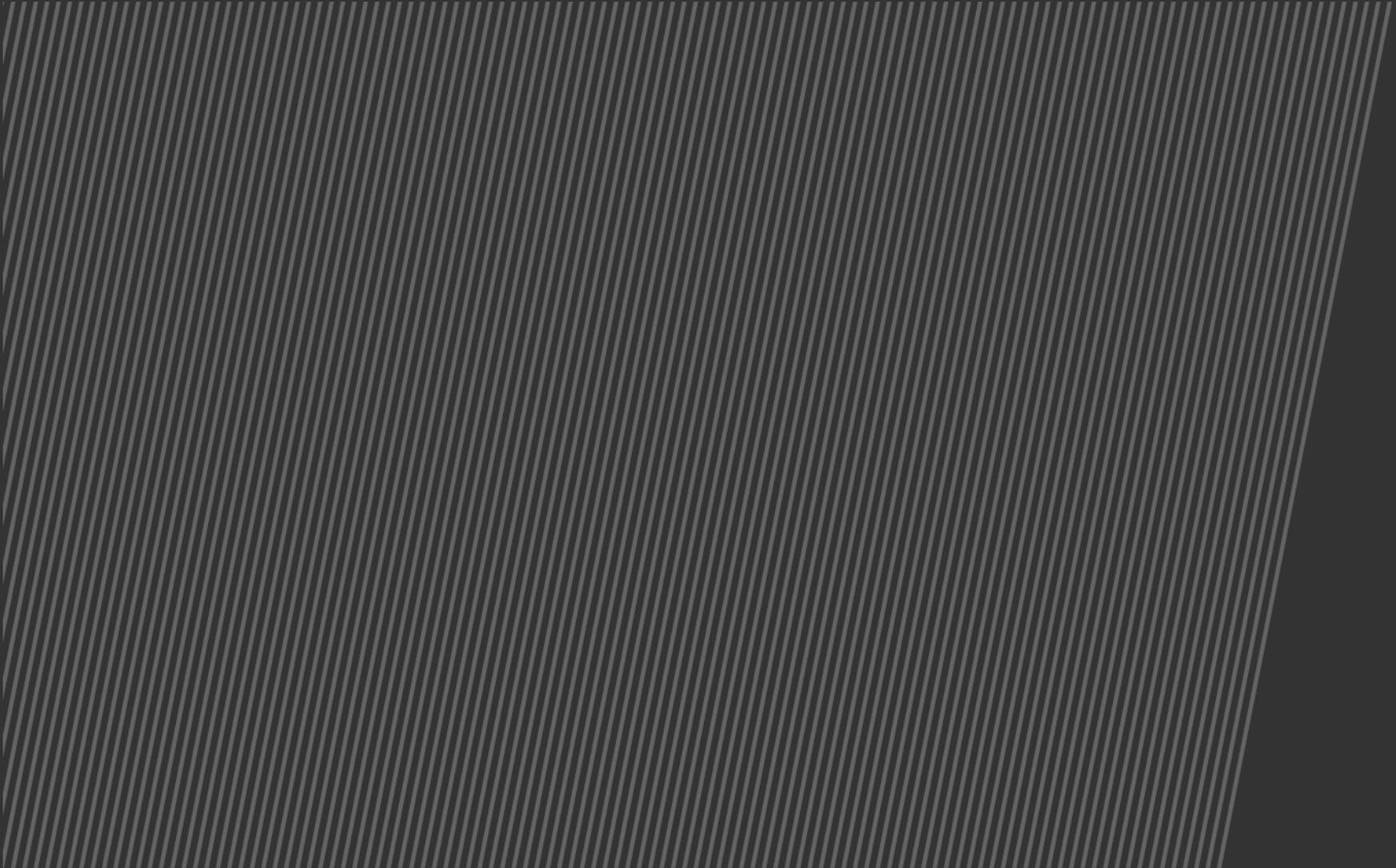
Etapas proceso minero y uso de derivados



▶ Cierre:

- ▶ Asegurar la vida útil del yacimiento
- ▶ Prepago de financiamiento
- ▶ Uso de derivados:
 - ▶ Cobertura precio de commodities
 - ▶ Collars y swap de precio de commodities de mediano plazo
→ asegurar precio mínimo para cubrir costos
 - ▶ Unwind de operaciones vigentes
 - ▶ Cancelación con vencimiento posterior al cierre de la operación

Desafíos futuros

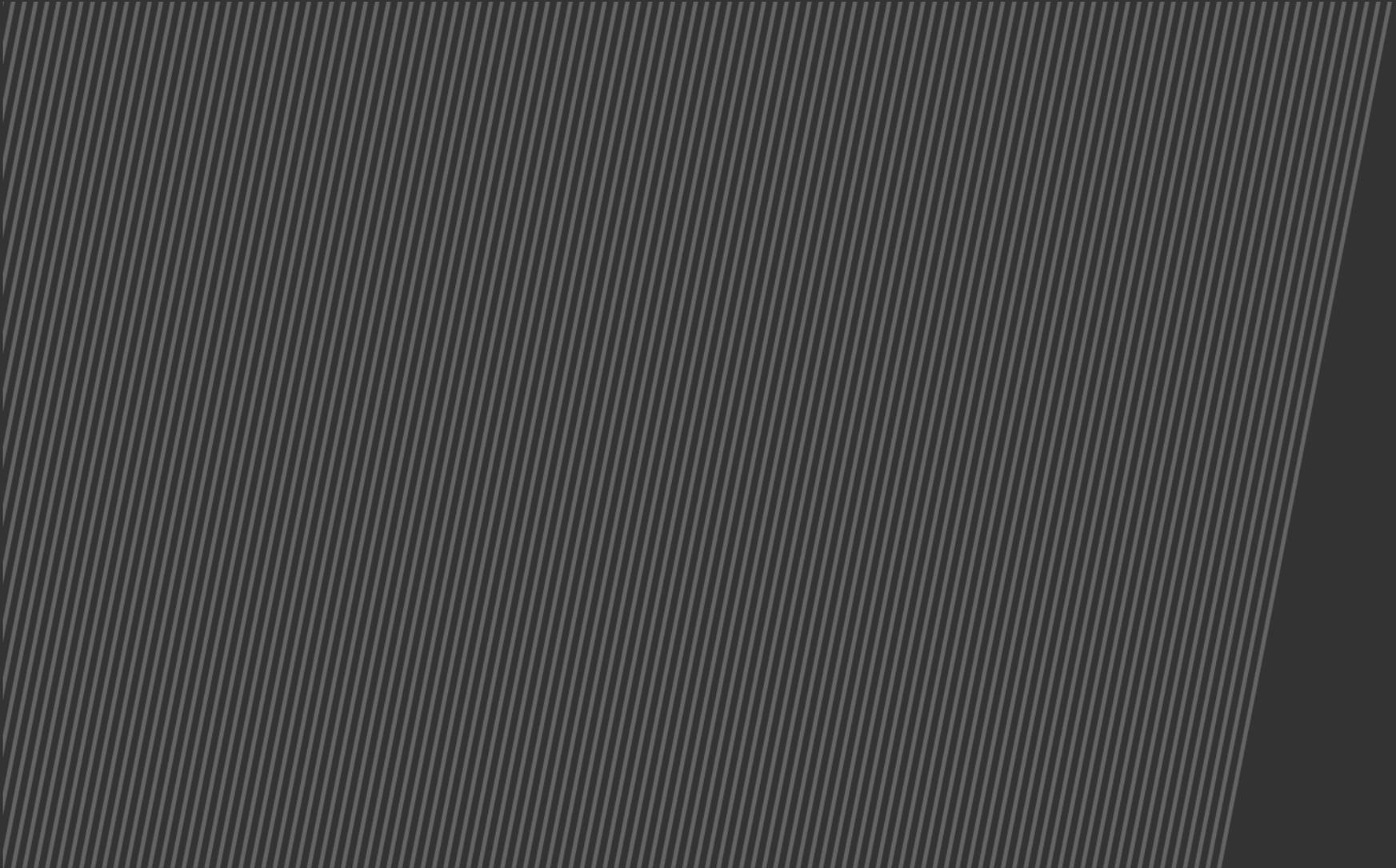


Desafíos futuros

- ▶ **Desafíos internos de las compañías**
 - ▶ Diseño plataforma operativa
 - ▶ Programa de administración de riesgo financiero
 - ▶ Involucramiento de alta dirección
 - ▶ Controles y atribuciones
 - ▶ Entendimiento del tratamiento tributario
 - ▶ Falta de ley específica para uso de productos derivados
 - ▶ Entendimiento del tratamiento contable
 - ▶ IFRS y requerimiento de “hedge accounting”
 - ▶ Documentación
 - ▶ Contratos ISDA / CSA
 - ▶ Contrato condiciones generales

- ▶ **Desafíos externos**
 - ▶ Mayor entendimiento por parte del sistema financiero local de las necesidades, procesos, etapas, ciclos, etc., de la industria minera
 - ▶ Mayor oferta de productos por parte de instituciones financieras locales
 - ▶ Expansión por parte de Enami a otros productos derivados

Publicaciones



Publicaciones disponibles

Mining eye
Q1 2009

Q1 2009: glimmers of optimism as the Mining eye recovers some lost ground

Ernst & Young's Mining eye report examines the performance of the mining industry as a whole. This report can be found at www.ernst.com/industryreports. For more information on all of the reports we have published, visit www.ernst.com/industryreports.

To receive copies of the Mining eye please contact Julie Davies on julie.davies@ey.com or call +44 (0)20 7557 3400. For more information on the Mining eye please contact info@ey.com or call +44 (0)20 7557 3400.

The following is a list of the authors of the Mining eye report:

Ernst & Young
Quality In Everything We Do

Strategic business risk report 2009
Mining and metals

Ernst & Young's Strategic Business Risk Report 2009 examines the risks facing the mining and metals industry. This report can be found at www.ernst.com/industryreports.

To receive copies of the Strategic Business Risk Report 2009 please contact Julie Davies on julie.davies@ey.com or call +44 (0)20 7557 3400. For more information on the Strategic Business Risk Report 2009 please contact info@ey.com or call +44 (0)20 7557 3400.

The following is a list of the authors of the Strategic Business Risk Report 2009:

Ernst & Young
Quality In Everything We Do

2008: the year when cash was king
Mergers, acquisitions and capital raising in the mining and metals sector

2008: the year when cash was king examines the mergers, acquisitions and capital raising in the mining and metals sector. This report can be found at www.ernst.com/industryreports.

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Mining and metals in adversity
May 2009

Mining and metals in adversity examines the challenges facing the mining and metals industry in 2009. This report can be found at www.ernst.com/industryreports.

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Quality In Everything We Do

Margin protection in the mining and metals sector
Cutting costs not corners

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Ernst & Young
Quality In Everything We Do

Good Mining (International) Limited
International GAAP illustrative financial statements
Based on International Financial Reporting Standards in issue at 31 December 2008

Good Mining (International) Limited provides illustrative financial statements based on International Financial Reporting Standards. This report can be found at www.ernst.com/industryreports.

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Ernst & Young
Quality In Everything We Do

Operational risk in mining and metals
A competitive difference

Operational risk in mining and metals examines the challenges facing the mining and metals industry in 2009. This report can be found at www.ernst.com/industryreports.

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