



石油价格基准

——基本面和趋势

当前宏观背景下国际石油定价趋势

2012年3月

法律声明

前瞻性声明

此内容可能包括根据《1995年私营证券诉讼修正案》的安全港条款而制定的"前瞻性声明-有关我们业务的非历史性数据的声明为前瞻性声明,该等声明涉及难于预测的风险、不确定性及假定。这些声明不是未来表现的保证,实际结果和成果可能与任何前瞻性声明中清楚表明或暗示的结果有实质的出入。关于一些可能导致实际结果不同于前瞻性声明中所含内容的风险与不确定性的讨论,请参见我们向证券交易委员会(SEC)提交的文件,包括但不限于,2009年2月11日向SEC提交的Form 10-K表中截至2008年12月31日的年报中的"风险因素"。在此演示文稿的所有前瞻性声明是根据已知的本公布日期给我们的信息,我们不承担任何义务公开更新任何前瞻性陈述。

以下是洲际交易所有限公司和/或其附属公司的注册商标: IntercontinentalExchange,IntercontinentalExchange与设计,ICE,ICE和方框设计,GlobalMarketsinClearView,ICE加拿大期货交易所,ICE欧洲期货交易所,ICE美国期货交易所.,ICE清算所,ICE欧洲清算所,ICE美国清算所,ICE加拿大清算所和ICE

投资者必须 通过各自的独立顾问自行作出他们认为必要的,根据其具体的财务状况和投资目标为基础的投资决。如果一个金融工具是用非投资者的货币标价,汇率的变化可能会影响此金融工具中衍生出的计价价格或价值,而这样的投资者有效地承担货币风险。此外,从投资收益可能出现波动,本出版物中所述的价格或金融工具价值,无论是直接或间接上升或下降。此外,过去的表现不一定是未来业绩的指标。衍生工具交易涉及包括,除其他外,市场,交易对手违约风险和流动性不足的风险无数。适当性或以其他为投资者使用的这些产品依赖于投资者自身状况,包括其纳税地位,监管环境和其他资产和负债的性质,因此投资者在作出任何由本出版物内容启发的交易前,应该采取外部法律和财务的意见。

石油市场基本情况和要点

——内容大纲

- 介绍: 现状, 基本面和交易
- 原油基准—布伦特
 - 石油市场是怎么运作的——实物和衍生品的价格矩阵
 - 布伦特作为原油基准所扮演的角色和作用
 - ICE 布伦特期货合约
 - 美元和石油的相关性
- · 全球原油基准表现——价差(WTI/Brent)
- · 成品油基准—ICE轻柴油
 - ICE轻柴油和全球的低硫化趋势
 - ICE低硫期货合约
 - 中间馏出物的市场基本面和趋势
- 风险管理和套期保值(对冲)策略
- 总结: 原油价格趋势—布伦特和WTI, 轻柴油
- 问答

洲际交易所一览

洲际交易所(ICE) 是全球领先的受监管的期货交易所、结算所和场外交易(OTC)市场等的综合运营商。

全球分布

- ICE交易平台遍布全球70多个国家
- 4个受监管的期货交易所 / 2个场外交易市场
- 位于美国, 欧洲和加拿大的5个清算所

多元化的市场

- 能源、排污权、农产品、股票指数、货币和信贷
- 期货、场外交易和期权

金融改革的先行者

■ 清算,市场透明和监管

创新和执行

■ 满足前沿的行业需求

ICE 商品和衍生品市场

ICE 美国、加拿大期货清算所

ICE数据与服务 ICE受监管的期货交易所 ICE场外交易 市场数据 场外交易合约 欧洲能源 美国和加拿大 场外交易 能源 历史和实时数据 金融 布伦特原油 农产品 原油和成品油 指数和每日报告 货币组合 WTI原油 可可 现货/金融天然气 每笔数据、时间和交易量 美元指数 ASCI(阿格斯含硫原油)指数 咖啡 Russell (罗素) 现货/金融电力 市场价格和有效期 轻柴油 棉花 股票指数 液化天然气 远期曲线 阿格斯高硫原油价格 糖 排污权 欧洲天然气 橙汁 服务 英国电力 大麦 场外交易信用 – Creditex 煤炭 菜籽油 ICE电子确认 信用违约掉期(CDS) - 指数, 排污权 ICE 链接 独立合约,结构性产品 YellowJacket Ballista 场外交易铁矿石 漆咸能源 咖啡评级 巴西电力交易所 - BRIX ICE移动服务

综合的市场、清算和技术

ICE清算所 ICE欧洲期货清算所

- CDS(信用违约掉期)和能源

ICE清算集团, ICE 信用清算

各种石油衍生品的交易和清算

- ICE的布伦特和轻柴油期货是核心价格基准
 - 其他级别,期货或场外的掉期交易的交易价格可能与此"核心"价格不同
 - 一个由现货市场发展而来的持久和牢固的基准
 - 期货在覆盖平价风险暴露中起重要的作用
 - 一些场外掉期交易是基于期货的
 - 剩余的风险暴露由偏差和不同的掉期覆盖
 - 可以是:
 - 品质价差,例如ICE布伦特/迪拜(也是地理价差)
 - 时间价差,例如三月/四月ICE布伦特月中价差
 - 或成品/原油—轻柴油/布伦特裂解差
 - 或成品/成品,例如低硫轻柴油/轻柴油

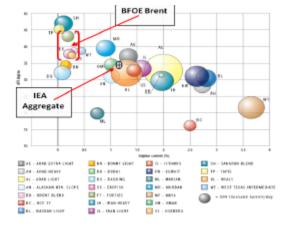


Figure 1: Global Crudes and their physical characteristics - density and sulphus Source: DW Movid CO & Gast Review 2008

- ICE布伦特和轻柴油由全球为数众多的不同组织在交易,包括:
 - 石油巨头/炼油厂,生产者,为客户提供套期保值的银行,石油交易公司,渠道销售商和终端用户例如航空公司、产权交易者或者财富管理机构如对冲基金、指数基金和一些商品基金
 - ICEB布伦特最终参照ICE布伦特指数——提供每天北海实物现货市场按成交量的加权平均

基准:

以北海为例

市场围绕单一等级实物 等级发展

其他等级的商品交易时 与主要合约有一定的 价差

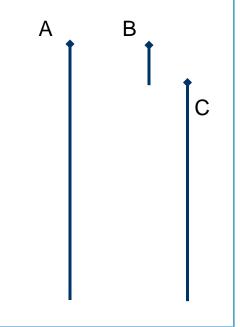
基准设定市场的基础价 格

这里的不同指品质、位 置和可获得性的差别

核心基准的流动性和透明度意味着可以讨论 不同商品的定价 A - 福卡多斯(同期布伦特加 \$2.65)

B - 同期布伦特/福卡多斯 差价**\$2.65**

C-同期布伦特 \$103.54



围绕基准发展起来的风险管理工具

用于套期保值和风险 管理,成交量和透明 度增强

基准为各种不同等级 的实物交易提供流动 性池

条件:基准必须具有 流动性,透明性,公 平性,代表商品的真 实价格,易于理解

石油基准: 市场怎样使用它们

——为什么它们这么重要

- 它们的重要性源于其他等级实物商品和衍生品对其的杠杆化程度
- 基准是可见的和公开的,因为它们可以在一个比较"广泛"的基础价格下公开的交易和申报
- 它们代表地区的或全球的原油主要价格
- 它们有最好的流动性池,较高的远期到期收益,提供基于基准的不同地理位置所产生的不同定价
- 提供基于品质和地理位置的交易,产品的"裂解差"可以被分割到其他低流动性的商品上
- 基准对于透明地定价至关重要
- 对于俄国各种不同等级的石油如Ural,西伯利亚 轻质/重质原油,布伦特是它们主要的参考价格
- 虽然布伦特可以作为远期价格参考值,对于ESPO,迪拜原油的定价起到一样的作用,
- ICE轻柴油与俄国中间馏出物产品具有可比性

ICE欧洲期货清算所

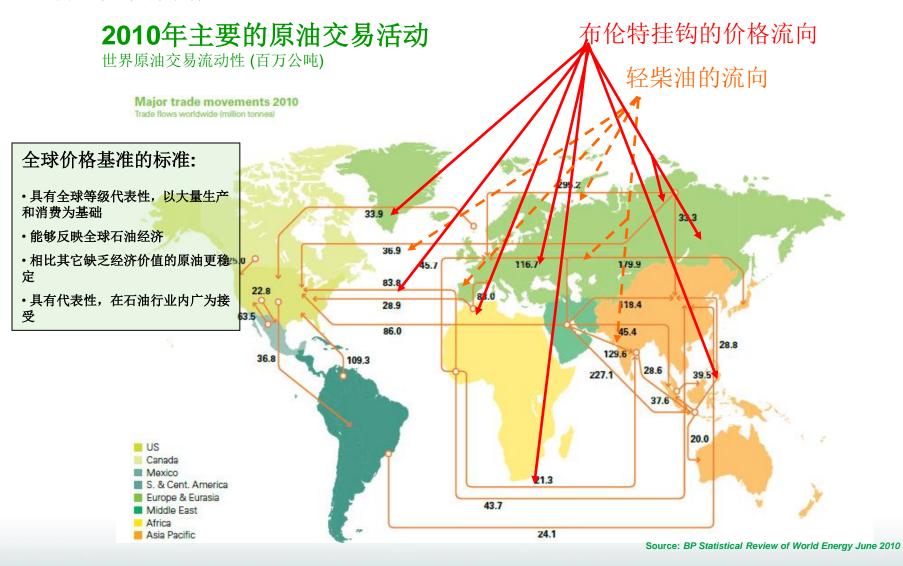
ICE 布伦特期货合约: 布伦特相关的全球定价



- 70%的国际贸易石油价格,直接或间接联系布伦特综合基准定价
- ICE 布伦特原油期货合约是这一综合基准的关键组成部分
- 基于布伦特指数的金融结算,并通过EFP机制最终交割
- 美国的成品油裂解。马来西亚、巴西、哥伦比亚在2010年至2012年加入布伦特定价体系。

全球合约,全球原油流动性

主要的原油交易活动

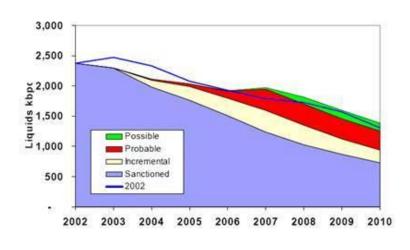


无硫原油

北海原油供应寿命, 通过科技发展

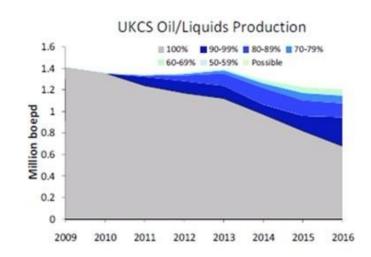
2003年北海原油调查

Total Liquids Forecast - 2003 Survey



2010年北海原油调查

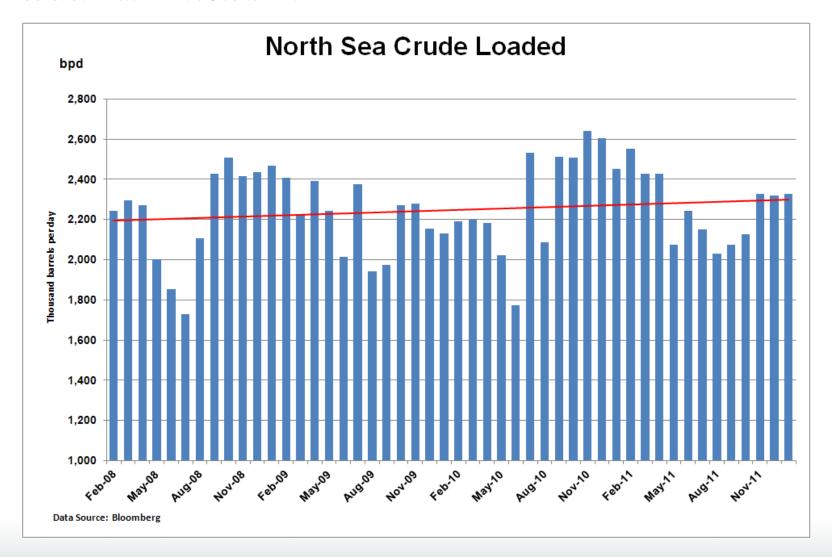
2011 North Sea Survey



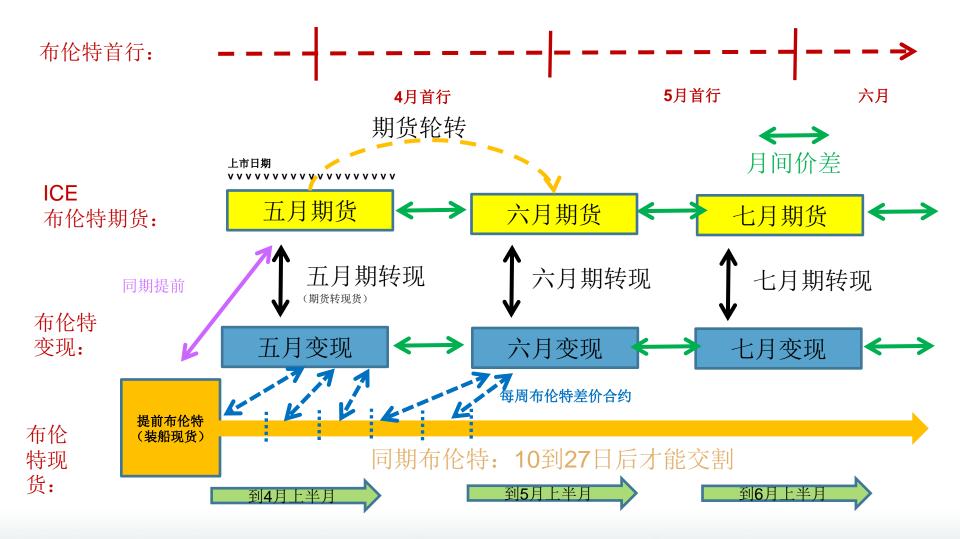
- •7年中, 采收率不断提高....
- 2003年的调查显示2010年产量可能低于100万桶/天
- •实际上2011年只有英国的产量是120万桶每天
- 值得注意的是, 2010年产量水平高于2003年最乐观估计的可能产量
- 英国大陆架协会(UKCS) 2011年调查预测2010-2016年间下降速度相比上个年代6%减少到3%
- 在加入额外的等级原油前,BFOE的产量是WTI的3到4倍,是迪拜的1.5倍
- 布伦特是最大的跨国现货交易商,近十年来最多的时候有60艘货船装卸

布伦特基准的创新保证了流动性

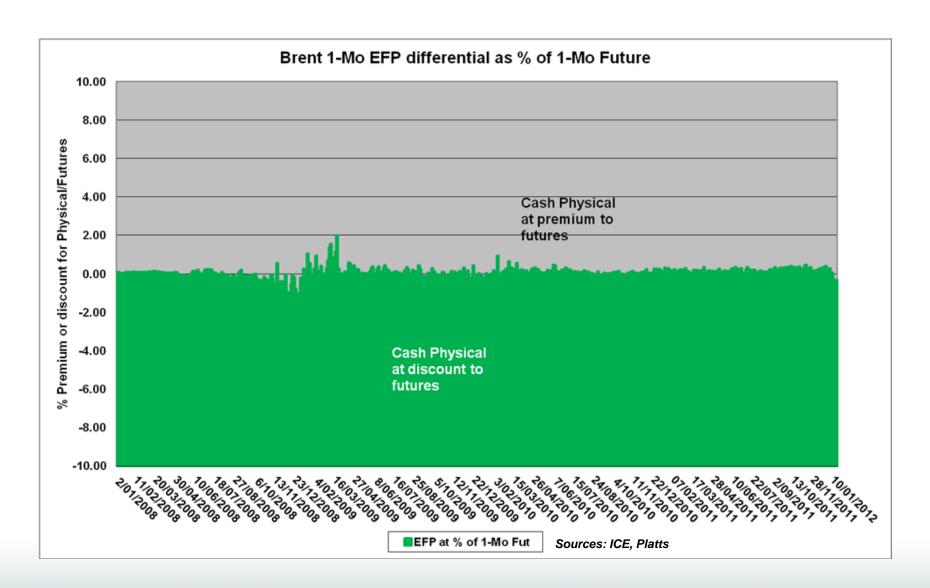
布伦特最具流动性的全球现货市场- 北海 2008-2012



ICE 布伦特综合指数



THE ICE BRENT COMPLEX - 收敛到实物价格



北海原油市场的变化

- •主要的运营商,购买者和价格评估者
 - •修正时间范围以反映布伦特对10-25天远期的评估,现行的是10-21天
 - •普拉茨会检查其他等级和有升级潜质的轻质原油
 - •考虑到DUC和Troll-up的另外600桶每天,复合超过80船货/月
- •到2015年3月实现月末提名的过程
- •ICE布伦特 NX 期货和期权
 - •到期时间基于25天的交易日历
 - •2011年12月5日可以交易
 - •与现存的布伦特原油期货合约平行交易
 - •第一个合约月份是2012年12月
- •从2015年3月移动到第二月月尾
- •回顾2012年第二季度的转移过程

ICE布伦特指数:每日灵活的处理机制

ICE布伦特指数的计算

该指数的计算采用下列各项的平均:

- 1.21-(25-) 天BFOE市场第一个月船货(cargo) 交易的加权平均
- 2.21-(25-) 天BFOE市场第二个月船货(cargo) 交易的加权平均加上或者减去第一个月和第二个月之间的价差交易的连续平均
- 3.特定的媒体报告中估价的连续平均
- •日历上的15,21,25,30日有相同数目的潜在现金货物,差别仅是期货到期日不同
- •不考虑报价机构(PRAs)选择的BFOE评估时间窗口,尽管指数是每日变化, 他具有和现金工具相同的完全的流动性
- •所以一个21天的现金合约与25天的现金货物是没有区别的
- •现金船货可以继续交易且报价机构(PRAs)继续在当前的ICE布伦特合约结束后提供最少15天的现金合约的报价

影响价格变化的市场基本面趋势

当期布伦特现货交易方案

- 运营商发布实物交易方案
- 五月五号的六月期船货数量
- 维护程序

案

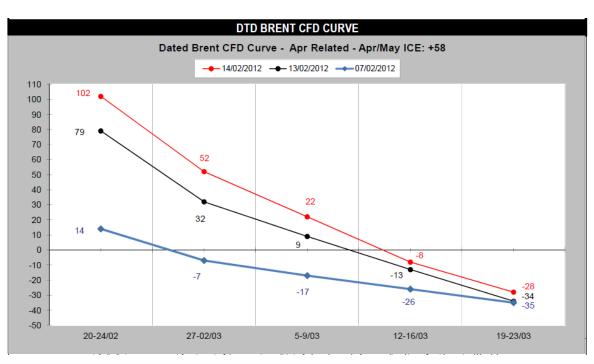
- Forties维护
- 实物交易者通过布伦特25天远期、差价合约和CDL互换拥有定价期权一套方

```
HEREWITH ACCEPTED SHIPPING PROGRAMME FOR FORTIES BLEND FOR
JUN 2010
DATE
        CARGO QUANTITY PARTICIPANT
                                                                 同期布伦特
RANGE
         NUMBER (MMBBLS)
01 - 03/06 F0601 600 000 SHELL
                                                                提前的时间
01 - 03/06 F0602 600.000 BP
02 - 04/06 F0603 600.000 SHELL
02 - 04/06 F0604 600.000 CHEVRON
03 - 05/06 F0605 600.000 PETRO-CANADA
04 - 06/06 F0606 600.000 BP
05 - 07/06 F0607 600.000 TOTAL
07 - 09/06 F0608 600.000 SHELL
08 - 10/06 F0609 600.000 NEXEN
09 - 11/06 F0610 600.000 SHELL
10 - 12/06 F0611 600.000 CONOCOPHILLIPS
11 - 13/06 F0612 600.000 STATOIL
12 - 14/06 F0613 600.000 NEXEN
13 - 15/06 F0614 600.000 SHELL
14 - 16/06 F0615 600.000 PETRO-CANADA
15 - 17/06 F0616 600.000 EXXON-MOBIL
16 - 18/06 F0617 600.000 BP
17 - 19/06 F0618 600.000 SHELL
19 - 21/06 F0619 600.000 NEXEN
20 - 22/06 F0620 600.000 VITOL S.A
21 - 23/06 F0621
               600.000 SHELL
22 - 24/06 F0622 600.000 TOTAL
23 - 25/06 F0623 600.000 NEXEN
24 - 26/06 F0624 600.000 PETRO-CANADA
25 - 27/06 F0625 600.000 SHELL
26 - 28/06 F0626 600.000 CONOCOPHILLIPS
27 - 29/06 F0627
               600.000 BP
```

影响价格变化的市场基本面趋势

布伦特场外原油合约价差

- 布伦特差价合约曲线显示即期的紧缩
- 伊朗生产3.5mbpd(百万桶每天),出口2.5mbpd中质,API(30-33)原油
- 潜在的伊朗中断供应的缓冲
- 柴油在欧洲的交易量很大,是一种很重要的产品,如果短缺,一时难以补充。



价差结构:

布伦特价差缩紧—这 是由什么导致的

WTI与Brent套利空间 扩大 WTI与Brent 受库新和 美国库存的影响

美国石油数据

	EIA statistics			
Millions/bbls	Total	Weekly	Year on Year	
	Stocks	Change	03/03/11	
Crude	344.87	+4.16	-1.5	
Distillate	141.44	-2.07	-17.7	4市
Gasoline	229.93	-1.60	-4.8	
Refinery Utilisation %	83.60	-1.90	+2.7	
Cushing Crude Stocks	33.81	+1.60	-4.8	──────────────────────────────────────

基本面和价格方向(差价的变化)存货的增减是关键

- •不是完全的必要,但现有的趋势和假设建立在这一趋势之上
- •存货增加了,但如果不是在主要地区,市场依然阻止趋势的变化基本面中可见受区域影响的统计趋势
- •地区性报告中每周库存的增减很重要
- •总库存可能增加了,但其对价格的影响取决于这些库存的位置 WTI与布伦特套利区间变窄了吗?

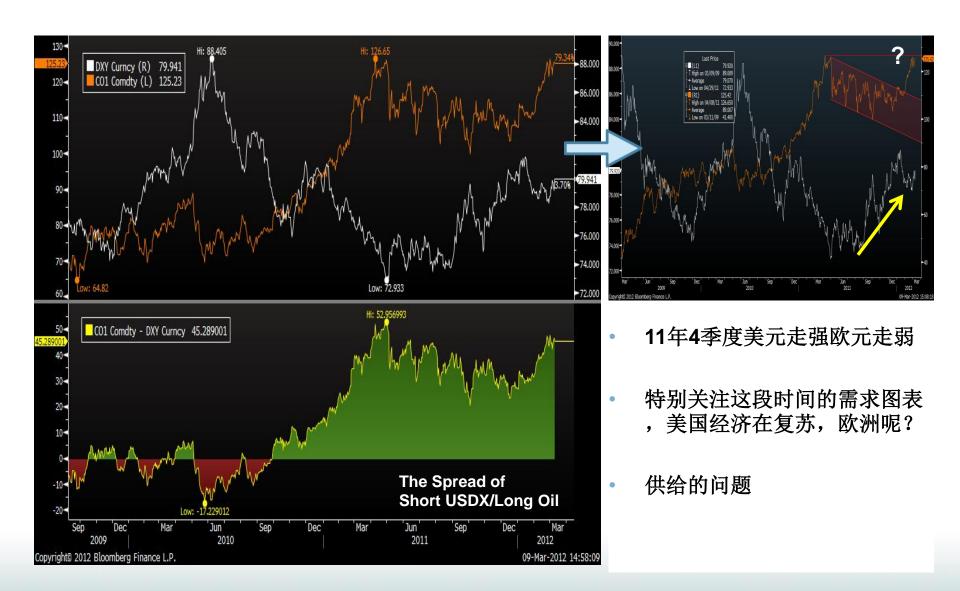
做空美元/做多石油

四月末开始变小的反向系数



做空美元/做多石油

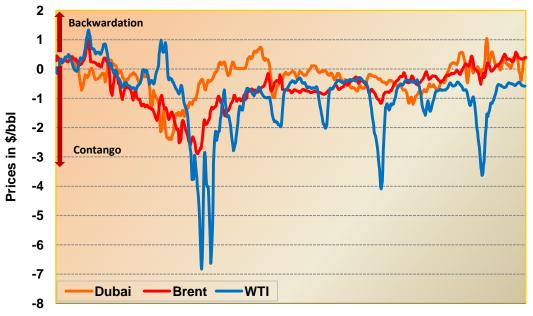
2012年3月开始的正相关



2008到2011年全球无硫/含硫原油基准:

基准表现

WTI, ICE 布伦特和普氏 (Platts) 迪拜跨期买卖



2009到2011年间 无硫/含硫原油定价几个点

国际基准

•6月13日(7月和8月合约),WTI对BRENT折价达到21.8美元 每桶最大价差,2月11日折价16美元每桶,1月9日折价低于 11.56美元每桶,而正常溢价在2010年5月为5.71美元每桶。

无硫原油与含硫原油的价差

• 2011年6月, MARS含硫原油对WTI溢价14.59美元每桶, 2010年溢价5美元每桶, 2009年3美元每桶, 而历史折价4到5美元每桶。

美国基准

- LLS(路易斯安娜,美国海湾轻油)2011年2月份交易价格高于WTI 20.41美元每桶,09年高余9.9美元每桶,2010年5月高于8.4美元每桶,而两地间运输费用仅1.3美元每桶。
- •墨西哥Maya重质原油2008年中交易价格低于同期WTI 20美元 每桶,而在2009年2月价格超过WTI.
- 迪拜重硫原油在2011年2月交易价格低于WTI 15美元每桶
- 简而言之, 延远期曲线, 波动更加频繁, 更加极端, 持续性 更强
- 即期套利价差波动性更大
- 更大可能促使沙特、科威特、伊拉克寻求基于ASCI的低价。
- 仅是CUSHING(库欣)地区的标准,甚至都不是全美的原油 基准

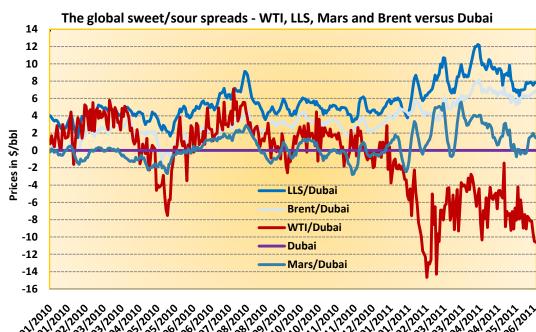
2008到2012年间全球无硫/含硫原油基准

基准表现

有关WTI的争议

- Cushing, 俄克拉荷马州库欣, WTI指定的合约交割地和管道运输枢纽, 与墨西 哥湾的炼油厂没有任何相近性,新增的 KEYSTONE管道运输量在2011年2月为16 万桶/天
- 自给并循环强化式的地方性石油库存, 已经增长到4190万桶每天的历史新高, 实现远期期货升水套利
- 原油单向的流入Cushing(库欣)地区 ,造成原油库存锁定效应 - 现货持有 套利
- 即期差价呈现强劲波动, 促使即期平价
- 期货升水整体深度的和不稳定的期限结 构,对所有投资者造成问题,机敏的和 坐拥庞大库存的交易者除外
- 以上所有因素导致WTI与美国和世界其 他等级的石油脱轨, MARS价格高于WTI \$21.89美元每桶, LLS 高于WTI31.03美 元每桶(2011年9月2日), 而WTI价格 低于布伦特达到27.88美元每桶——这 又对即期价差产生如何影响?

全球无硫与含硫价差 2010-2011



2008-2012石油基准 价格

基准走势

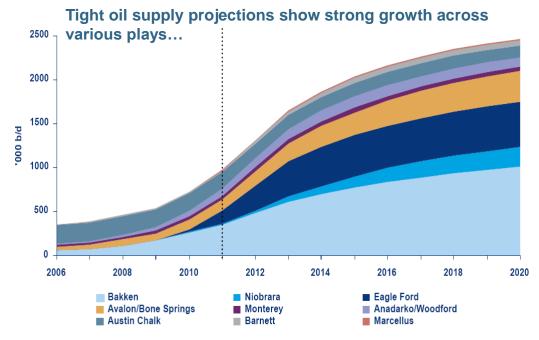
WTI 和Brent倒挂 及其他全球石油市场综合

加拿大、北达科他, Eagle Ford (伊格福特)轻质无硫原油产出增加

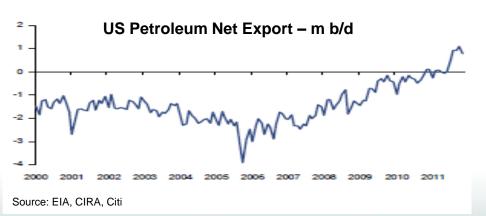
• 美国墨西哥湾岸区日趋重要——在 2011年下半年第一次成为成品油的净出 口者, 处理非WTI定价的原油

美国国内石油价格的不确定性加剧:

- 美国法律禁止石油出口,未来会被允许吗?
- 输油管道发展的步伐
 - 北海的反转
 - Keystone XL product (50万桶原油输出到美国墨西哥湾岸区), 延期至2015年
 - Enterprise和Enbridge (输油管线运营商) 的输送能力为80万桶每天的Wrangler管道工程 -估计北部通道会在2017年开始向太平洋和亚 洲地区输送沥青
 - 前期的管道建设
- PADD II (中西部)加工量——决定国内原油需求量
- 政治经济因素
- 宏观经济趋势



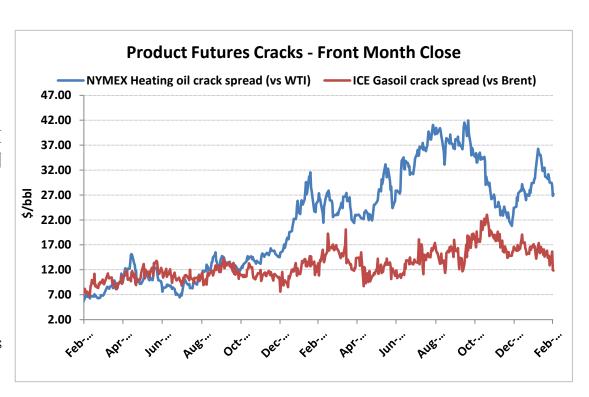
Source: Wood Mackenzie



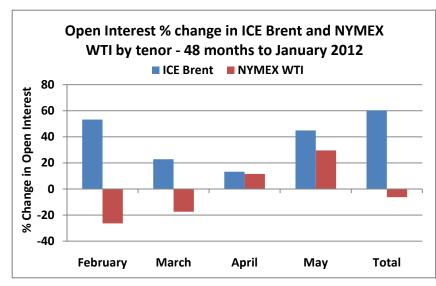
2008-2012年原油基准定价

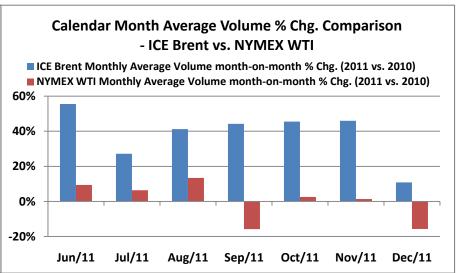
原油基准表现, 其他价格矩阵的影响

- 美国炼油毛利和需求在2010年12月 和2011年1月间 突然比欧洲市场有 重大好转吗?
- 简单来讲,不是。为寻求相对价格信号(比如石油产品的裂化)而对WTI的依赖,会因WTI的价格错位而受到影响;定价机制中的信号,如石油海上运输或库存对于投资商和提炼厂的决策非常重要。
- 跨大西洋无硫原油的套利行为,从此可能会在结构性上变得不可行
- 美国馏出物裂化关系间的相对波动 性看得出墨西哥湾地区的LLS和Mars 的远期交易更受关注
- 海上航道逆转和其他管道的变动将不会改善供大于求的现状——像磁性般不断累积的库存…?



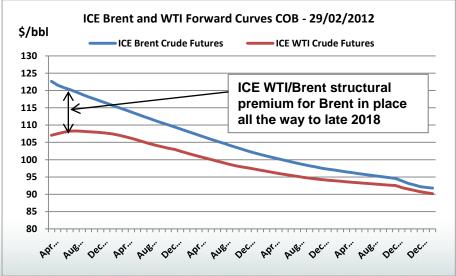
价差交易和指数复制: ICE布伦特期货





布伦特: 全球石油基准

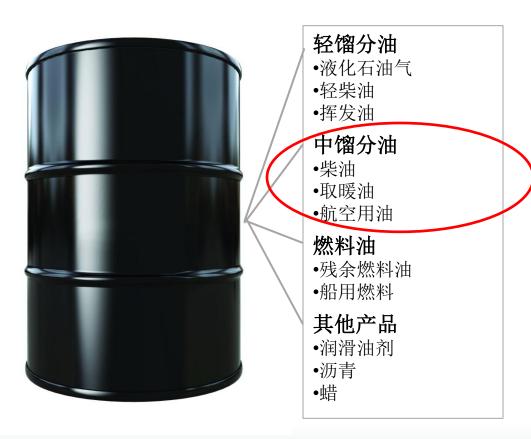
- 东西方之间的套利
- 展期收益为正
- 日末持仓量下降很小
- 更为长久、持续的价差,回报率高于WTI, 波动性低于 WTI
- ICE 布伦特所有未平仓合约增加 66% , 而WTI为13%
- ICE 布伦特成交量增加50%, 而WTI为6.7%
- ICE 布伦特与WTI: 至2019年布伦特都有结构性的溢价



价格变化的基本面趋势

轻柴油

综述:一桶原油中有什么



柴油

- ▶ 炼油厂产量最大的产品
- 更偏向于无硫原油
- 欧洲馏油不足——所以是一个比较大的价格驱动者

ICE欧洲期货交易所:

ICE轻柴油期货合约

- ICE轻柴油合约是主要的欧洲成品油基准
- ICE柴油现已成为输往东方和西方的所有 取暖油之全球基准
- 所有欧洲中馏油均以ICE轻柴油差价的形式定价
- 自2011年9月起,贸易商还可以交易低硫 (10ppm) 轻柴油期货合约
- 新合约反映了中馏油符合低硫规格的全球 趋势
- 低硫轻柴油最终将取代现在的含硫**0.1%**轻 柴油,成为主要的欧洲成品油基准



石油市场要点——ICE轻柴油

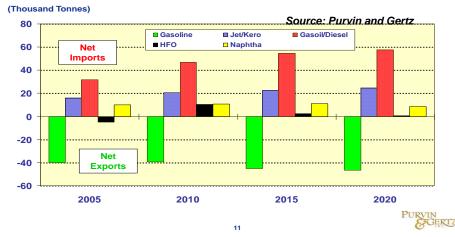
ICE 轻柴油是现货和金融市场中全球成品油的佼佼者

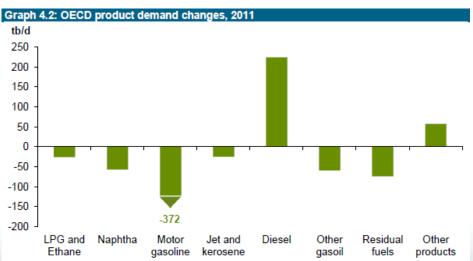
- 中东和远东,印度贾姆钠格尔,俄罗斯,中国和美国炼油能力的提升
- 柴油市场的增长(轻柴油市场的1.5倍到 2倍)
- 全球革命性的变化,绿色环保
- 欧洲缺少柴油, 重要的清洁交通用油
- 美国由于利润而进口61等级产品
- 中国为弥补发电不足使用柴油作为短期 替代品
- 拉丁美洲和西非在过去**2**年从欧盟的进口增加

轻柴油全球化的其他非地域性原因::

- 裂解价格的变化
- 轻柴油需求的减少
- 场外市场的套期保值
- 价差交易者喜欢价差波动小,指数基金 是赢家
- 套利交易平衡了海运价格

European trade flows: few prospects of a diminishing of the gasoil and jet/kerosene shortfall



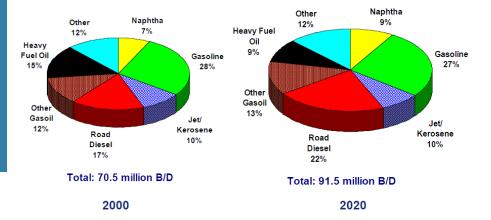


Source: OPEC
IntercontinentalExchange

价差交易和指数复制: ICE轻柴油期货合约

ICE 轻柴油-全球提炼产品的领先者

- 定价能力辐射东方和西方
- 市场份额大于轻柴油和取暖油的总和
- 2008年以来公开收益翻番
- 优异的展期收益
- 0.1%的含硫量越来越成为全球的共识
- 远期曲线的流动性更强,原油与其价差产品的交易量 达到500手/天
- 增长最快的主要石油合约,引领全球馏分油市场



ICE 低硫轻柴油合约(10ppm柴油驳船)

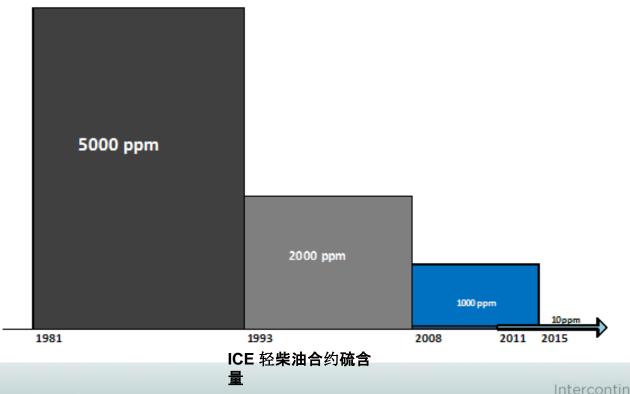
- 2011年9月上市
- 将提供一个有效的对冲工具,这对一个柴油需求逐渐 旺盛的市场非常重要
- 两种油合约之间的价差交易在ICE期货可以实现

Global demand (M tonnes/yr) for diesel/gasoil will grow over the next decade, while gasoline demand stagnates

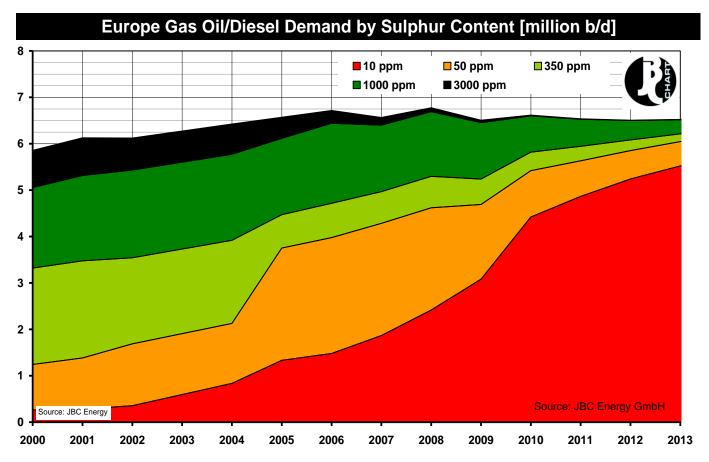


柴油——炼油的核心产品

- 亚洲和中东地区新的石油精炼厂将出口低硫产品以应对欧洲的短缺
- 美国精炼厂提高产能增加馏分油的产量以出口到欧洲
- 分馏技术至关重要,柴油更多用户交通运输,轻柴油则更多由于取暖
- ARA增加的低硫馏油——参考ICE轻柴油定价
- 全球增加的柴油动力车推动需求(到2020年增加至40%)



欧洲轻柴油需求的低硫化趋势



- 含硫量10ppm(0.001%)的柴油逐渐成为全球分馏产品的代表,政策制定者青睐更清洁能源产品
- 运输燃油相比取暖油不断增长, 炼油盈利更好
- 与轻柴油动力车相比, 快速增长的柴油动力车
- 0.1%的柴油依然很重要, 但主要受欧洲对其供需的影响

ICE 低硫轻柴油期货合约

质量和合约特点

- 基于《德标590汽车燃料油标准》的柴油规格
 - 欧盟基准等级
 - 10ppm 含硫量, 十六烷指数46, 闪点56
 - 冷热属性(4月到9月 +5/-2, 10月到3月 -7/-22)
- 合约的其他部分与ICE现有轻柴油合约相似
 - 现货交割通过艾恩德霍芬、鹿特丹、阿姆斯特丹区域的驳船
 - 合约单位100吨,最小变动价位25厘斯每顿(\$25)
 - 相同的到期日,相同的交易时间
- 油品的提升使得合约被人熟知
- 两者将并行交易直到2015一月份

ICE低硫轻柴油

套保和交易机会

ICE低硫轻柴油期货和期权

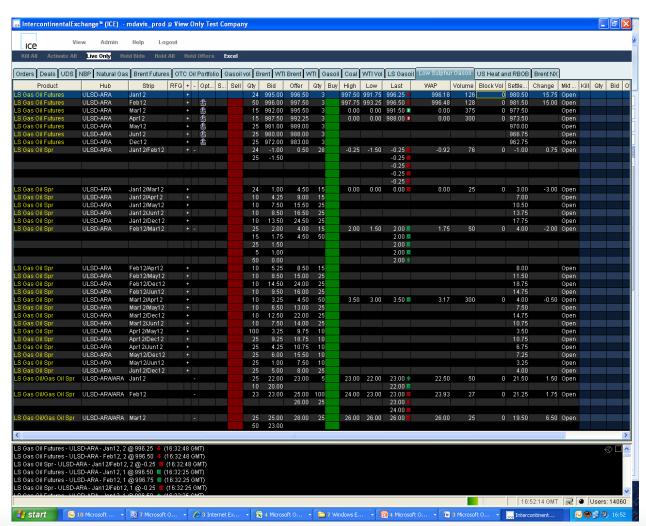
- 挂牌月份远至2016年12月
- 价差
- 期权

跨商品价差一目了然

- 低硫轻柴油比对轻柴油("高低轻柴油"或"LOGO") 价差 (ULS-GAS)
- 低硫轻柴油裂解比对布伦特(ULS-BRN)
- 取暖油和低硫轻柴油 (HO-ULS)
- RBOB / 低硫轻柴油 (RBR-ULS)
- 无铅轻柴油 和轻柴油 ——请注意本价差是根据现有的ICE轻柴油期货(1000ppm) (RBR-GAS)

场外交易的低硫

首行掉期,裂解差,与低硫轻柴油的差价掉期,包括柴油、航空煤油、轻柴油现货



ICE低硫轻柴油期货

在ICE进行航煤套保的全新一站式解决方案

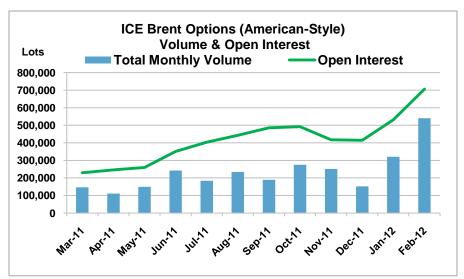
ICE低硫轻柴油期货:

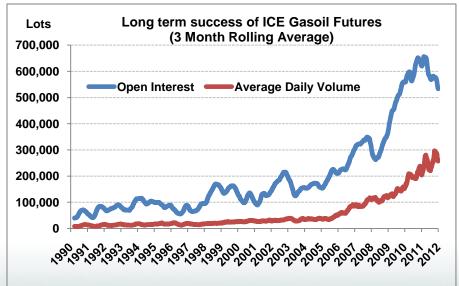
- 价格相关性——详见价格图表,R平方,较小基差差别,最为接近的套保机制
- 历史上的航油期货一直难以吸引流动性;该期货是最为接近的等同产品,可能吸引大量流动性
- 流动性一目了然——可视性、可获得性以及相关性高
- 特别适合于柴油和航油的混合配比。
- 一种运输燃油,而非取暖燃油
- 流动性可能超过美国相应品种

原油和相关产品趋势总结

趋势——我们将何去何从?

- 布伦特已将是而且将继续是全球石油 价格的参考
- WTI价格由于缺少内陆资源作为其基准,它的远期收益率曲线已开始下降
- ICE 轻柴油将逐渐成为全球成品油的 参考
- ICE 低硫轻柴油合约将继续完善和发 挥更大作用
- 布伦特裂解差(轻柴油)将集中体现 石油精炼的利润
- 欧洲的全球定价权。欧盟短缺柴油, 将不断从东方和西方进口柴油。
- 分馏油是原油分离出来的关键品种, 和天然气一样,柴油更多地用于交通 运输,轻柴油也用于取暖
- 轻柴油是柴油,航海用油和取暖油定价的基准,基差稳定,价格清晰,易于交易和对冲,清算机制灵活
- 场外交易和期货差距减小
- WTI和布伦特套利空间差异在扩大, 但是到了2018是否会恢复原样呢?





休息一下

ICE 联系人

U.S.

Jeff Barbuto - 美国石油市场副主席 +1 646 733 5014 jeff.barbuto@theice.com

Europe

Deborah Pratt -石油市场总监 +44 (0) 20 7065 7734 <u>Deborah.Pratt@theice.com</u>

Singapore

Julius Foo -亚洲区市场经理 +65 6594 0161 julius.foo@theice.com

ICE 24小时服务热线

+1 770 738 2101 ICEHelpDesk@theice.com





ICE布伦特和轻柴油 交易、套期保值和风险管理 布伦特原油期货在涉油企业风险管理中的运用

2012年三月

ICE 布伦特和轻柴油:交易,套期保值和风险管理 大纲

- ■介绍: 现状,风险管理和交易
- ■期货在透明度和价格发现中的作用
- ■石油和成品油产品族的交易和清算
- ■场外交易原油和分馏产品例子
- ■总结:石油价格趋势——布伦特和WTI原油,轻柴油
- ■问答

什么是风险管理?

a) 价格或市场风险

- 平价风险
- 基差风险(结算/指数风险)
 - 产品/规格
 - 地理位置
 - 时间
- 汇率风险等

b) 信用风险

交易对手风险 (操盘风险)

c) 运营

- 物流——天气、船货(运费)等
- 法律/契约风险
- a) 和 b) 是最易于理解和确定的风险, 也是今天讲述的范围。

期货在透明度和价格发现中的作用

期货在基准价格发现中越来越重要的角色

- 作为现货的代理,减少现货的流动,期货和现货关系密切
 - 运营和物流不再那么频繁
 - 期货机会可以24*7交易,流动性意味着在价格发现中的快速反应
 - 期货市场的远期性质可以抵消基本面趋势中4到6周内短期因素引起的变化
 - 通过交割机制或期转现而实现的期现价格的一致收敛性确保了在价格确定中基本面因素的重要地位,无论该基本面因素是全球的或是地区的
 - 现货定价已经使用期货价格加减价差或被看做一个合成的期货像金融工具一样可以被定价, 例如 普氏通过部分船货

例子:

- 原油: 期货价格 +/- 期转现差价 = 远期 +/- 合约价差 (CFD) = 现货价格
- 普氏同样适用掉期作为现货价格发现过程的一部分, 在相关定价中测试表达值
- 成品油: 期货 +/- 期转现价差合约= 现货
 - 轻柴油期货+期转现为欧盟和其他全球许多地方提供价格矩阵

期货对透明度和价格发现的贡献

- 通过交割机制或期转现关系实现的收敛性确保了在价格确定中基本面因素的主要作用,无论这些基本面因素是全球的或是地区的。
- 受监管的交易所对履约有严格的标准,拥有透明的规则框架和对电子交易市场的实时监控
- 在受监管的交易所指引下期货交易的特性:
 - 集中交易 (CCP) ——清算所的对账和确认
 - 由初始和变动保证金确保的安全性
 - 电子匹配和监管, 在1毫秒内执行
 - 众多的集中服务中心以满足市场的深度
 - 标准化的合约意味着只有价格能够变化
 - 清算杜绝了操盘事故

基准价格和石油期货

交易商、对冲者、投资者想要什么?

石油合约的重要性表现在它是核心价格和世界经济的导向标

- 投资者,交易商希望获得所谓的"全球"石油价格
- 全球宏观供给和需求,而不受地方性物理条件的限制
- 石油的展期收益是关键的期货指数表现衡量之一
- 航运合约交割:
 - 提供全球相关的均衡价格
 - 同时也具有优异的展期收益
 - 石油行业关注基于原油的价差,而非净价
- 当没有基础设施的制约时,石油是套利交易所达成的均衡价格

ICE航运合约能够提供

- 更加优异的表现——持续走高的展期收益,整体波动较小的回报率
- 日益频繁的长期现货套利需要的彻底的流动性
- 长期的全球价格基准,在给内部相关的不同产品间定价时,价格波动性更小
- 扩大现货长期价格的定价基础和适当的相关性
- 地域覆盖面遍布全球

布伦特综合的交易和清算

布伦特综合指数的交易和清算

ICE 的布伦特期货是核心价格基准 场外交易掉期在于核心价格一定的价差下交易

- 期货对冲大部分的风险暴露
 - 一些 场外交易掉期是基于期货的
- 剩余的风险由基差或价差互换对冲
- 可以是:
 - 原油品质价差,例如: 布伦特和迪拜之间
 - 或 成品有和原油之间——轻柴油裂解差
 - 或 成品油和成品有之间,例如: 航空用油和轻柴油

基准: 价格发现和保险

套期保值策略举例

套期保值策略——固定价格 (掉期)或保险

- •我们可以说"将以多少美元一桶的价格收货?"
- 或者"以不高于多少美元一桶的价格在 2012 或 2013收货
- 生产者套保和被动多头之间互补的流动性
- 更低成本下大额套保
- 很方便的掉期, 流动性和物流更容易确保
- 灵活的期权,确保价格在预算之内
- 像掉期一样的价格期权, 有着相同的回报
- 保险溢价, 如果清算的话, 知道将付出多少美元一桶

以墨西哥为例 - 买进看跌期权 - 在特定价格下卖出的权力

- 如果布伦特是116/bbl美元每桶,能够卖出远期,例如 2013年12月,价格为107.15 美元每桶
- 或者: 2013 年看跌, 在9.60美元每桶价位卖出"以90美元每桶卖出"的权力
- 无论原油价格如何波动,确保整个2013年80美元每桶的净卖价:
 - •例如10美元每桶, 30美元每桶I, 60美元每桶(最近十年, 价格范围是 美元17到美元147)
 - 如果超过 90美元每桶, 保险到期失效, 接受全价100 美元, 既150 200

各种石油衍生品的交易和清算

- ■ICE 布伦特期货是核心基准,为场外交易原油和成品油价格提供价格支持和流动性,
- ■场外交易提供灵活的基差,尽管未标准化
- 期货在价格发现中有很多作用,依据不同期货等级之间基差的相近程度可以对冲石油或分馏产品85~99.8%的平价风险
- ■场外交易领域可以在或宽或窄的基差下定价(期货报价/指数平均值)
- 首次掉期或使用期货报价, 但却在场外交易领域交易:
 - 较宽的基差,对期货不同的回报,没有实物交割
- 首次掉期对期货流动性的杠杆化:
 - 期货基础的简单工具
 - 如果波动性太大则不必通过期货交易
 - 能锁定场外交易合约
- 掉期的波动率更容易预期的和趋向平均,更稳定的定价,与现货合约关联

衍生工具

交易所的列表 (期货)

- 交割或期转现
- 保证金
 - 产品,位置,时间
- 标准化
- 更强的监管
- 准确清算

场外交易市场 (掉期)

- 双边的, 但更多的被清算
- 现金定价
- 平均价格
- 灵活性
- 信用风险

各种成品油的交易和清算

场外交易提供灵活的基差,尽管未标准化 产品,位置,时间

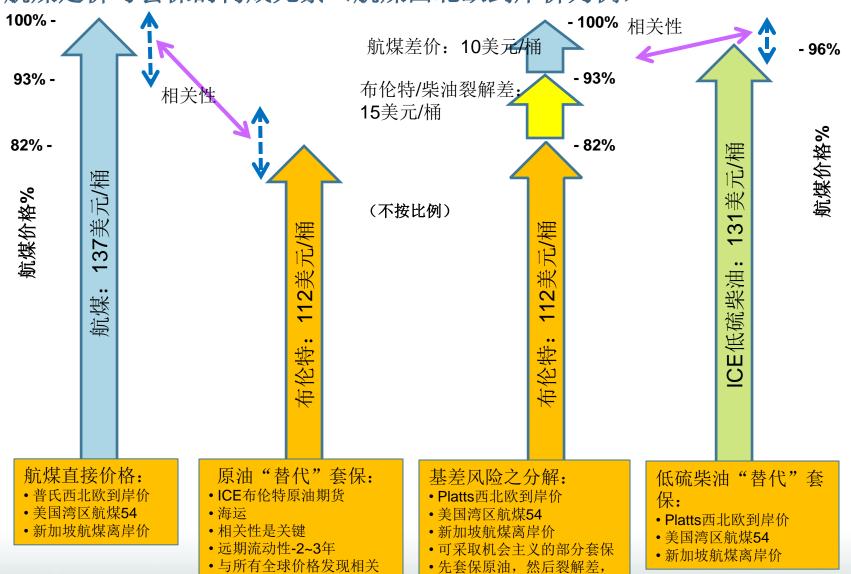
- 三种类型的基差风险,例如:产品,位置,时间
- •不同的掉期都可以覆盖地理基差风险——主要航线、艾恩德霍芬、鹿特丹、阿姆斯特丹,西北欧洲地区、中东、远东、布伦特北海油品质量和地区因素
- 流动性和基差之间的权衡: 场外交易同样适用价差和保证金
- 数量繁多的工具使流动性得到优化,通过选择特定的场外交易套保,可以同时解决全部三种基差风险
- 全球覆盖性,基于流动性和透明度的远期价格发现
- •工具概述:流动性和基差之间的取舍:价差和保证金——ICE布伦特,期货提供了流动性,掉期则通过特定的线性或非线性(期权)工具来解决这些问题

在低硫和柴油市场中为何使用ICE?

□ 为何在ICE交易低硫油?

- 有机会在主要地区交易具有很高影响力的成品油
- 价差,低硫产品间工具的期货和期权
- ICE 轻柴油已经具有很强的流动性, 现在又增加了 10ppm 的规格品种补充现有的轻柴油和屏幕套利
- 套保效率: ICE布伦特/航煤相关性——成品油价格通过国际市场发现,海运原油/成品油之间相关性更强
- 保证金可以抵消最大化资金效率/减少清算过程中的现金流波动 抵消范例
- 通过工具基础实现的场外交易的灵活性——有关航煤场外交易工具的列表
- ICE为全球运输公司提供全球交易工具的延伸

航煤定价与套保的构成元素(航煤西北欧到岸价为例)



然后差价

ICE 低硫轻柴油 套保和交易机会

套期和交易机会	ICE期货场外交易工具
现有期货的价格和价差和价位的保护机制	ICE低硫轻柴油期货或首行掉期(每季度) ICE低硫轻柴油期权——美式期权 ICE低硫轻柴油均价期权或欧洲式的期权
使用欧盟的原始柴油基准套期和交货	可以交出现货轻柴油(如果不能提前期转现)
观察东方和西方炼油商的宏观经济条件和季节性的交易情况	ICE低硫轻柴油差价(夏季等级:4月到9月;冬季等级10月到3月) 月) ICE低硫轻柴油首行掉期或布伦特首行掉期(裂解) ——通过ICE低硫轻柴油或布伦特期货差价或每桶每顿裂解掉期 实现
美国输出到欧盟,中东和远东输出到 欧盟的关键出口和套利品种	新加坡0.5%轻柴油对比低硫轻柴油首行掉期 新加坡0.05%轻柴油对比低硫轻柴油首行掉期(即将推出) 纽约港超低硫柴油对比低硫轻柴油期货(即将推出)—— 即时价差
灵活的场外交易工具进行套保以抵消风险	0.1%阿姆斯特丹驳船到岸价轻柴油对比低硫轻柴油首行掉期——可见高低硫轻柴油差价 10ppm阿姆斯特丹驳船到岸价对比低硫轻柴油首行掉期对比低硫轻柴油首行掉期 短柴油首行掉期 航油西北欧离岸价;对比低硫轻柴油首行掉期

场外交易原油和分馏产品示例

布伦特首行掉期	布伦特欧洲期权(场外交易)
同期布伦特掉期排布	布伦特同期首行掉期 (日期价差)
布伦特远期货物或部分货物 (BFOE)	布伦特每周成交合约掉期(普氏同期对比普氏布 伦特现价)
迪拜首行掉期	布伦特对比迪拜首行掉期 (EFS)
东西伯利亚平原太平洋海岸(ESPO) 价差掉期	ICE 低硫轻柴油均价期权
ICE场外交易低硫轻柴油裂解:轻柴油 首行掉期对比布伦特首行掉期	10ppm超低硫柴油驳船或西北欧货船对比低硫轻 柴油首行掉期
西北欧航油到岸价掉期	新加坡航空煤油对比新加坡0.5%轻柴油掉期
0.5%新加坡轻柴油掉期	新加坡0.5%轻柴油对比低硫轻柴油首行掉期
新加坡180厘斯燃料油掉期	新加坡 180 厘斯燃料油对比新加坡 380 厘斯燃料油 掉期

OTC 原油: 布伦特工具"家族" 期货和OTC定价

合约月份	ICE布伦特基价	价差(期货或首行)	+/- 加减差价	= 最后价格 (Where relevant)
2012三月期	4月合约125.34美 元每桶 五月合约124.76 美元每桶	2012年3月布伦特首行掉期 (= 4月合约价或5月合约价)		124.74美元每桶
2012 年二季度 期	\$124.40美元每桶	普氏同期或前期 (首行) 掉 期——2012年二季度期	+46美元厘斯每桶 (现货升水 = 正差价)	124.86美元每桶
2013期	114.89美元每桶	WTI与布伦特掉期——2013 年	-9.33美元每桶 (布伦特超过WTI)	2013年WTI达到105.56美元每桶 114.89美元 -9.33美元
2012 年二季度 期	123.95美元每桶	2012年2季度场外交易轻柴油裂解掉期(桶)	裂解加14.49美元每桶	2012年2季度达到\$138.44 美元每桶(二季度轻柴油 达到 1031.38美元每吨)

基准和差别原则适用于现货,现货周期,期货和掉期。定价变动为每月最长期的平均价格及相关场外交易掉期的变化(从期货交割和现货提供的3到5天)

场外交易产品:欧洲分馏油"家族" 轻柴油,柴油和航煤

ICE轻柴油和艾恩德 霍芬、鹿特丹、阿姆 斯特(三月)的基价	现场价差(Spot)	+ 现场价差	= 最后价格
1024.41美元/吨	轻柴油首行(3 月或 4 月的 期货)	2012年3月期货价1029.50美元 /吨 2012年4月期货价1034.75美元 /吨(延期交易费)	
1024.41美元/吨	普式轻柴油0.1 Barge 艾恩 德霍芬、鹿特丹、阿姆斯 特离岸价	-0.74美元/吨	1023.67美元/吨
1024.41美元/吨	Platts Gasoil 0.1 CIF NWE Cargoes	+5.79美元/吨	1030.20美元/吨
1024.41美元/吨	普氏10ppm西北欧柴油到 岸价	+25.70美元/吨	1050.11美元/吨
1024.41美元/吨	普式航油西北欧卸货到岸 价	+70.85美元/吨	1095.26美元/吨
1024.41美元/吨	新加坡轻柴油价的0.5%	-1.45美元/吨	1022.96美元/吨

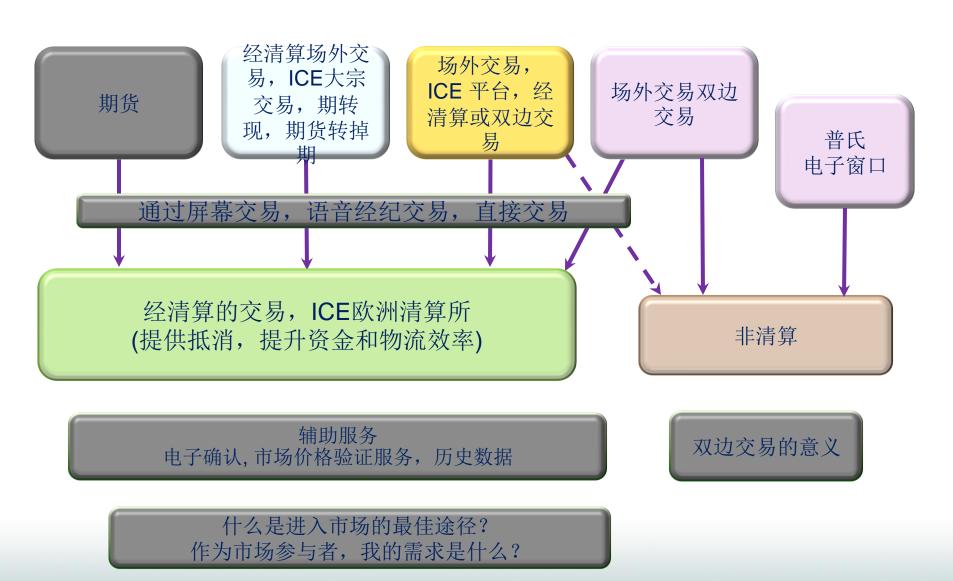
基准和差别原则适用于现货,现货周期,期货和掉期。定价变动为每月最长期的平均价格及相关场外交易掉期的变化(从期货交割和现货提供的3到5天)

航煤期货/场外交易馏分油套保/交易举例

贸易商在西北欧购买航煤,买方 套保	买入ICE布伦特期货或者较长期的首行掉期,买入中期的ICE(低硫)柴油裂解差,买入近期的航煤差价掉期来对冲剩余的现货航煤产品基差风险(10ppm超低硫柴油ARA驳船货/西北欧大船货vs. ICE柴油首行掉期)或者买入ICE低硫柴油期货
贸易商在美国湾区按比例买入航 煤, 普氏关联定价	买入ICE布伦特期货或ICE布伦特期权——"领口"结构(买入OTM认购期权,卖出OTM认沽期权),或者: 买入较长期的ICE布伦特加上中期的取暖油裂解差
航空公司持有航煤长约,对燃油 做出最高预算	买入ICE低硫柴油平均价(认购)期权,对冲价格上涨的风险 (燃油的预算目标是最高水平)
消费者按比例购买航煤,以普氏新加坡MOPS月平均价定价,倾向场外交易	买入新加坡航煤掉期 – 将浮动价在掉期结算后转为固定价 (进行清算来最大化资金效率)或者: 中期含硫0.5%柴油掉期 – 增加regrade掉期来捕捉相关的行情 机会(较短期)
航空公司已有原油套保,担心柴油/航煤对原油的基差扩大	可以套保ICE(低硫)柴油或新加坡裂解差,加上航煤大船货 vs.柴油首行差价掉期,或者航煤对布伦特的裂解差
选择基差 – 东/西柴油或航煤	还可以在期货屏幕交易中交割现货柴油(如果之前没有进行 期转现的操作)

ICE能源产品:

全方位产品、期货、掉期与现货, 可交易和清算



指数和能源——重要市场表现

指数告诉我们关于基准和实物基础设施的什么呢?

- 为什么石油对指数表现很重要
- 布伦特和轻柴油引领整个能源分类指数(标普高盛商品指数及其它指数)
- 对于新的投资媒介和投资工具来说,我们的合约补充了表现导向的积极投资策略的指数 在 展期收益,新的和新型合约方面,有更加优异的表现
- 合约分类指数10年期相对表现(标准普尔一高盛商品期货指数,截止到2010年1月)(来源:标准普尔)

2000年1月到-2010年1月	ICE布伦特	原油	ICE柴油	取暖油
现货价格收益率	+210.73	+211.02	+185.94	+206.94
总收益率	+262.39	+132.48	+280.89	+189.9
超额收益率(展期收益)	+51.66	-78.54	+94.95	-17.94

- 相对较高的收益率 第一代和第二代指数有着相近性质
- 10年期,对于一个道琼斯瑞银商品指数的投资者,布伦特分类指数将比WTI 获得每年8.46%的额外收益;3年期,获得每年12.57%的额外收益;去年多余31.52%的额外收益;本年迄今,表现超过WTI 分类指数20.89%(截至2011年5月31号)
- 对于标普高盛商品指数,截至到2011年5月,ICE布伦特分类指数本年迄今增长了23.48%,同比之下,WTI分类指数仅增长4.56%。截至到2011年4月,ICE布伦特分类指数增长15.06%,而WTI下降了0.51%

指数表现

全球水性合约的连续实现优异表现

套利交易保证了全球(东部和西部)定价的相关性,而非受当地基础设施制约 ICE合约分类指数近期相关表现(标普高盛商品指数,数据截止月2011年5月31号):

日期和期限	ICE 布伦特总收益率	原油总收益率	ICE合约超额收益	ICE柴油总收益率	取暖油总收益率	ICE合约超额收益
2011年6月本年以来	23.48	4.56	18.92	23.76	18.49	5.27
2011年6月 1年期	51.00	21.00	30.00	43.50	40.40	3.10
2011年6月5年期	1.37	-9.26	10.63	3.06	-0.46	3.52
2010年6月10年期*	12.16	4.06	8.10	13.52	7.83	5.69

May 2011 figures as of May 31, 2011, March figures as of March 31, 2011 * 10-year data as of May 2011

(Source: Standard & Poor's)

基准和石油定价

结论

石油基准应该满足何种需求?

- 市场观点 分析师、交易员、政策制定者、投资者希望全球石油基准可以对宏观因素、流动性、长久性做出有效回应,并与关系型/矩阵型定价具有一致性
 - 常规基准必要条件 流动性、持久性、相关性
 - 寻求流动的,可靠的、稳定的定价关系
 - 符合经济运行规则的常理
 - 消费和生产量的着重点从西部向东部转移
 - 问题是: WTI能够满足市场需求吗?

ICE布伦特和ICE柴油能够提供?

- 逐步的价格演变,对于投资者来说,意味着一致的高展期收益,小幅的收益波动;对于价差和 关系定价而言,意味着较小的风险
- 为积极型和被动型投资,提供深度的流动性
- 航运合约能够对全球的,不受地域基本条件限制的状况做出回应
- 绕开地域瓶颈,规避价格蒸空

ICE 原油合约表现的驱动因素

- ICE布伦特期货持仓量的增长率要远大于竞争对手,在过去48月中增长了66%,相比13%
- 布伦特为全球65-70%的世界原油实物交易定价,并持续增长,尤其在亚洲市场
- ICE布伦特和柴油能更好地反映出全球宏观经济状况,更能够代表期限结构 因此从1月期到10年期,布伦特分类指数表现超出同等WTI和取暖油
- ICE 柴油持仓量在过去两年内翻番,远高于取暖油和RBOB(氧化混调型精制轻柴油)的加总

后续

ICE产品的更多资源:

产品信息:

Brent NX FAQ: https://www.theice.com/publicdocs/futures/ICE_Brent_NX_FAQ.pdf

Webinars: https://www.theice.com/webinars.jhtml

合约规格:

ICE Brent NX Crude Futures: https://www.theice.com/productguide/ProductDetails.shtml?specId=3775846 ICE Brent NX Crude Option: https://www.theice.com/productguide/ProductDetails.shtml?specId=3775848

场外交易:请致电ICE热线获得最简单的开始场外交易的途径电话:: +17707382101(US), +44(0)2074885100(UK)

电子邮件: <u>ICEHelpdesk@theice.com</u>

链接:

场外交易能源清算所 https://www.theice.com/otc_energy_cleared.jhtml ICE场外交易能源市场概述

清算的场外交易产品清单 https://www.theice.com/publicdocs/ICE_OTC_Cleared_Product_List.pdf ICE场外交易能源市场概述

场外交易清算会员清单

https://www.theice.com/publicdocs/clear europe/ICE Clear Europe Clearing Member List.pdf 更新后的ICE场外交易清算会员清单

场外交易清算手册https://www.theice.com/publicdocs/ICE Clearing Guide.pdf 清算单位和参与者的用户手册

ICE帮助 https://www.theice.com/help_desk.jhtml

如何员工管理、交易、技术方面的咨询

资源

关于ICE航煤和其他石油市场的更多信息,请联络:原油市场请联络:

Mike Davis -市场发展部总监

+44 (0)20 7605 7753 mike.davis@theice.com

亚洲: Jennifer Ilkiw - 亚太区销售副总裁

+65 6594 0161 jennifer.ilkiw@theice.com

Julius Foo - 亚太区总监

+65 6594 0162 julus.foo@theice.com

US: Jeff Barbuto, 美洲销售副总裁

+1 646 733 5014 jeff.barbuto@theice.com

欧洲: Michelle Payne - 客户总监

+44 (0)20 7065 7754 michelle.payne@theice.com

欧洲场外交易:

Deborah Pratt - 原油市场总监

+44 (0) 207 065 7734 deborah.pratt@theice.com

Tracey Miller - 原油产品总监

+44 (0) 207 065 7733 tracey.miller@theice.com

Jean-Luc Amos - 原油产品经理

+44 (0)20 7065 7744 jean-luc.amos@theice.com

ICE 服务热线: +1 770 738 2101 ICEHelpDesk@theice.com



结束

RECENT QUOTATIONS (2011)

31/05/2011: Dan Strumpf and Carolyn Cui, Wall Street Journal - Oil Epicenter's Sway on Prices Begins to Slip

6

CUSHING, Okla.—This small city, which calls itself the "Pipeline Crossroads of the World," has been the center of the oil market for nearly three decades, housing millions of barrels of the light, sweet crude that make up the world's most actively traded oil contract. But that contract, known as West Texas Intermediate, isn't what it used to be. A pipeline-building boom that has flooded Cushing's terminals has kept WTI well below other oil-price benchmarks.'

'The resulting price gap is clobbering airlines that use the Cushing-tied contract to lock in fuel prices, while causing some major oil producers to switch to different pricing methods. "It's a broken marker," said Larry Goldstein, director of the Energy Policy Research Foundation, a Washington group that studies the oil industry.'

'West Texas Intermediate has long traded within about \$1 a barrel of foreign oil priced as Brent crude. WTI settled at \$100.59 a barrel Friday on the New York Mercantile Exchange, while Brent settled at \$114.68 on Monday on IntercontinentalExchange Inc.'s ICE Futures Europe, a gap of \$14.09. In the past year, the price of Brent has soared 55%, compared with a 36% jump by WTI, propelled by global fears of supply disruptions for some of the world's biggest oil producers as well as stronger demand as the world economy recovers from the financial crisis. Gasoline, heating oil and jet-fuel prices, which historically tracked WTI, are up by more than 50%.'

'Cushing was long considered a good proxy for the oil market because its pipelines and tanks let oil flow freely in and out of the city. But the boom in Canadian oil-sands production during the last decade created a river of previously untapped crude. The easiest parking place for much of that crude has been the storage tanks in Cushing.'

'More than 40 million barrels of oil are now stored at Cushing, two-thirds higher than the weekly average of 24 million barrels over the past seven years. Inventories have been rising steadily, in part because new pipelines have been connected to the town's tanks. Few pipelines have been built to take the oil out, leading to a logjam. The glut has been disastrous to airlines that use WTI to lock in fuel prices. Such carriers found themselves unprotected from rising jet-fuel costs.'

IntercontinentalExchange

RECENT QUOTATIONS (2011)

'Delta Air Lines Inc., of Atlanta, Ga., now mostly uses Brent and heating-oil contracts to hedge fuel costs, according to Ed Bastian, the company's president, having found itself underprotected by WTI hedges. The airline reported a net loss of \$318 million for the first quarter, as fuel expenses rose \$610 million. Mr. Bastian, speaking at a conference in March, cited the price difference between Brent and WTI for the change.'

'Some economists at the Federal Reserve have stopped using the WTI contract as the sole gauge in their growth forecasts. Securities analysts at Raymond James Financial Inc. in Florida recently dropped WTI in favor of the European benchmark to forecast some oil-company earnings.'

"If we just look at WTI, it's lower than the effective oil price facing consumers at the moment," said Mine Yücel, an energy economist at the Federal Reserve Bank of Dallas. WTI used to be "the first thing you eyeball," she said, though she now looks at a wider range of oil prices. Deutsche Bank AG economists now use Brent to forecast global and U.S. growth.'

'Petroleo Brasileiro SA, the Brazilian oil exporter, said it recently began pricing most of its oil based on Brent, not WTI. Ecopetrol SA, Colombia's largest oil company by output, recently started to sell some of its crude priced against Brent instead of WTI. Saudi Arabia, the world's biggest oil exporter, abandoned WTI last year and started pricing oil sold in the U.S. against crude produced in the Gulf of Mexico.'

'Cushing oil is "clearly a regional benchmark today," rather than a global one, said Norm Szydlowski, chief executive of SemGroup Corp., one of the largest owners of storage in Cushing. The Oklahoma Corporation Commission, the state's oil and gas regulator, has discussed using 100-year-old laws that could give it the power to set a floor under the price of oil. But the commission said it is unclear whether the panel can apply these laws to the current situation. "We're not necessarily calling for high energy prices. We just think that Oklahoma's oil should be at the same price as the others," said Jeff Cloud, a member of the commission.'

RECENT QUOTATIONS (2011)

02/05/2011: Chevron CFO Patricia Yarrington, HOUSTON (Dow Jones) - Brent to Replace WTI In Way Co. Gauges Foreign Production Contracts' Effect:

"Chevron will start using European Brent crude benchmark prices, instead of Nymex-traded West Texas Intermediate oil prices, when it calculates the effects of production-sharing contracts signed with foreign governments. These contracts reduce the amount of output received by companies when oil prices rise. In order to gauge the impact of production due to oil-price variation, Chevronand other oil companies have traditionally used WTI prices. But given the sharp price disparity between the two benchmarks, Chevron is switching to Brent, which is used in most international contracts." Yarrington said.'

29/04/2011: S&P Commodities Market Attributes May 2011 – Brent, Beta and Backwardation:

'Petroleum continued to drive S&P GSCI gains in April, as evidenced by the 6.54% increase in the S&P GSCI Petroleum Index, bringing the YTD gain to 23.89%. Better reflecting strong global demand and supply disruptions in the Middle East and North Africa (MENA), Brent has asserted itself in 2011 as the best performing major petroleum benchmark. The S&P GSCI Brent Index ended April with a YTD gain of 32.79% on the back of a MTD increase of 7.56%. The anticipation of strong global demand has recently accelerated due to the need for generating electricity in Japan in the aftermath of the March earthquake and the potential for reduced longer-term global use of nuclear power.'

YTD, the S&P GSCI Gasoil Index was the best performing S&P GSCI Energy commodity with a gain of 33.48% on the back of a 4.75% increase in April. Helping to boost S&P Gasoil 2011 total returns has been its relatively flat futures term structure as measured by a slightly higher YTD S&P GSCI Gasoil spot return of 34.93%, for a difference of 1.45% above the total return.'

12/04/2011: FT (Lex) - WTI v Brent: Cushing disease:

'Airlines, truckers and utilities are reeling from a sharp gap in the price between refined products and the West Texas Intermediate (WTI) crude futures, which are based on the price at the physical delivery point in Cushing, Oklahoma. Crude is used as a hedge because the market is liquid and the price is usually a good proxy for jet fuel, diesel and the like. But a physical glut around Cushing has skewed prices into what one airline boss calls a "silent killer." Oil for delivery at Cushing plunged nearly \$20 a barrel below ostensibly less valuable Brent crude early this year. May futures remain more than \$12 lower.'

Hedgers' loss is others' gain, giving a temporary windfall to Midwestern refiners. JPMorgan estimates that the Cushing surplus, and demand from power-starved Japan could widen the crack spread (the gap between crude and refined product prices) to a juicy \$50 a barrel on diesel this summer.'

RECENT QUOTATIONS (2011)

11/04/2011: Greg Meyer FT - CME-linked index looks at tracking Brent:

'A leading commodity index is to look into tracking benchmark European crude, potentially draining billions of dollars from the exchange operator's flagship energy contract. Supervisors of the Dow Jones-UBS Commodity Index will consider adding Brent crude to the basket of 19 futures contracts tracked by about \$77bn in assets.

Crude oil makes up 16.5 per cent of the index. The proposal would likely shift more oil trading volume, and investor money, to Brent, the main rival to CME's own benchmark oil futures contract. The only crude type now in the index is West Texas Intermediate, the blend that has lagged behind Brent by \$10 or more this year as a glut has grown at the contract's US delivery point. "If they do a reshuffling in January 2012, they are going to have to buy Brent and sell WTI," said Olivier Jakob of Petromatrix, a consultant in Switzerland.

Traders from the Saudi state oil company to Delta Air Lines have lost faith in WTI as a pricing tool. The index handbook this month said a supervisory committee "intends to consider whether storage and delivery characteristics of crude oil" would make an "allocation to Brent crude oil in the index appropriate" in 2012. The handbook cited a research note by the International Energy Agency titled: US WTI Price Structure Collapsing Under Weight of Surplus Inventories.'

06/04/2011: Aaron Clark, Bloomberg - Nymex May Tighten WTI Rules as Refiners Question Crude Quality:

'The New York Mercantile Exchange may tighten specifications on the West Texas Intermediate oil contract, the U.S. benchmark, because refiners say existing rules fail to eliminate variability that can cut product yields. The exchange supports a proposal from an industry group called the Crude Oil Quality Association to control the makeup of the light, sweet contract through added standards.

As new Canadian and U.S. production floods trading hubs, characteristics that have defined domestic blended grades for decades are changing. Blenders capturing a profit by mixing cheaper grades into more expensive oils, along with an increase in storage tanks and pipeline links, are adding to deviations in WTI-tied blends, members of the quality group said.

"What people have seen in WTI is the variations have started to grow more than they are comfortable with," said Randy Segato, a crude quality specialist for Calgary-based Suncor Energy Inc. (SU) and an adviser to the industry group. "As more pipelines grow and as more refiners grow, there is a tendency towards more variability. There are many marketers who have taken advantage of blending behind the scenes."

Tighter Testing – Some terminal operators have started more stringent testing. Plains All American Pipeline LP (PAA) has implemented additional standards for crude batches at its Cushing terminal, the company said. Enbridge Energy Partners LP (EEP) said it plans to "increase the scope" of testing at its Cushing storage tanks. The yield on some common stream blends erases the economic incentive to process them," said Paige Kester, vice president of refinery supply at Houston-based Frontier Oil Corp. (FTO), and a member of the quality association. "Blenders are hurting our economics, yet they are within the current specifications for domestic sweet crude."

Physical Settlement – "Right now refineries have to discount WTI in their systems compared to other available grades because there is a lot of variability," said Houston-based Anita Koval, a senior crude trader for Lion Oil Co., which operates an 80,000-barrel-a-day refinery in El Dorado, AK" **Western Select** – "If you get back to the point where you are buying a specific barrel from a specific lease it's going to be much more consistent," said Frontier's Kester. "We don't want people to blend for us, that's what we do right at the mouth of our crude units."

RECENT QUOTATIONS (2011)

29/3/11: Greg Meyer, Financial Times - Delta Air Lines shifts fuel hedges out of US benchmark:

'Delta Air Lines, one of the world's largest carriers, has shifted almost all its jet fuel hedges away from US crude in the latest sign that the benchmark has run into trouble as a tool to manage energy costs. Delta and other US airlines have traditionally purchased contracts for US benchmark crude oil to hedge volatile jet fuel costs. Jet fuel is refined from crude oil and usually tracks its price.

But this year the US crude benchmark, known as West Texas Intermediate, has lagged behind the 27 per cent rise in jet fuel, creating difficulties for US airlines. The rise in Brent, a European benchmark, has been more in line with the jet fuel trend.

"We've needed to restructure our hedge position," Ed Bastian, Delta president, told a conference last week. The airline spent \$7.6bn on fuel and related taxes in 2010.

"WTI, which is the instrument that many of us hedge in this market, has dislocated from Brent in terms of pricing."

Mr Bastian said Delta had "converted, over the course of the last 45 days, nearly all of our WTI positions" to Brent or heating oil. JetBlue Airways, Southwest Airlines and Virgin America have also raised concerns about the discrepancy between WTI and jet fuel."

24/3/2011: Florence Tan for Reuters Singapore: Petronas opts for Brent pricing:

'SINGAPORE, March 24 (Reuters) - Malaysian state oil firm Petronas is expected to announce a new pricing formula soon for its crude based primarily on European bellwether Brent, dropping a decade-old marker once commonly used to price Asia-Pacific crude, industry sources said on Thursday. The move would homogenise and simplify a fragmented pricing structure in Asia, user of a third of global crude, extending Brent's influence as a cross-continent price marker beyond the 70 percent of world supplies that now use it as a reference.

A Reuters survey in August last year showed traders expected Brent to replace regional benchmarks such as the Asia Petroleum Price Index (APPI) and Indonesia Crude Price (ICP) by 2012. Local markers suffer from low liquidity due to production decline at mature fields, with prices frequently diverging from global benchmarks, traders and analysts say. Australian crude and condensates are now sold on dated Brent after gradually moving away from APPI in 2009.'

RECENT QUOTATIONS (2011)

14/2/2011: Dennis Gartman, 'Market Wizard' interviewed on CNBC's 'Fast Money:

'It all has to do with Cushing – there's an awful lot of oil moving downhill (from Canada) – a huge inflow not flowing out of Cushing. There is up to 52 million barrels bidding for storage which is filling up fast. We are going to have to stop quoting WTI, it has lost all of its moorings as a marker crude. Brent is much better as a marker crude and that is what we should be looking at. (Presenter) Its not just Brent today that has this premium is it? – It's Bonny Light, Dubai, Urals- is this all a structural thing? Gartman: Yes, The infrastructure is not in place in Cushing, that's why refiners, truckers and so on are doing so well – it's not going away next week, next month, next year. Pick a number for what Brent-WTI can go to...3 months from now it's (Brent) going to be demonstrably more liquid than WTI. WTI is sending a bad signal to the American public about what oil prices are doing'

14/2/2011: Dr. Philip Verleger, from Notes at the Margin - Has Cushing become the Roach Motel?

'Cushing has become the roach motel for crude –"Roaches check in..but they don't check out!. "Oil flows south from Canada to Cushing but can go no further. The WTI cash spread to Brent widens...and traded for a time above \$16. The squeeze will occur repeatedly until new pipeline capacity is completed in 2012 [Recently delayed to 2013] to move additional volumes from Cushing to the Gulf unless Canadian or North Dakota oil producers cut output. A WTI cash price of \$50 per barrel might just bring about such cuts....Things could get even worse. If producers with high costs have hedged aggressively, prices could fall further – even if Brent stays at \$90 per barrel. This is a classic example of a serious, prolonged structural constraint that could reshape the oil market. The problem in Cushing results from North America being short of alternative means for moving crude oil. Every rail tank car is in use, including some that should have been retired in 1950'

3/2/2011 – David Shepherd, Reuters Analysis - London wrenches oil trade crown from New York – Reuters:

"Rising volume and open interest on Brent is a clear signal from the managed risk segment of the market that it's becoming 'the barrel of choice", says Michael Guido, director of hedge fund energy sales at Macquarie bank in New York. He expects more clients to favour it in the coming years.

Its key attractions are its physical peg and a direct link to Asian demand. And while ICE has benefited from the well publicized attraction to Brent crude as a better global benchmark than U.S. WTI contract, it has also gained from a huge rise in trade of its gas oil contract used for hedging (and speculating on) distillates such as diesel and jet fuel.

Soaring demand in Asia for industrial fuels helped boost gas oil trade by 45 percent on ICE in 2010 alone. ICE trade of Brent was also up 35 percent while its WTI contract volume rose 13 percent.'

APPENDIX: ADDITIONAL QUOTATIONS



Brent as perhaps more appropriate to manage their risk.'

RECENT QUOTATIONS (2011)

08/04/2011: Alejandro Barbajosa and Florence Tan, Thomson Reuters - Brent gains ground in oil's benchmark battle:

'From Kuala Lumpur to Atlanta, Brent crude is gaining momentum as the global oil pricing reference of choice for producers and consumers, bolstering the Intercontinental Exchange in a battle of benchmarks for the world's most widely traded commodity. Three months after a blowout in the premium for ICE's European Brent crude futures over the New York Mercantile Exchange's West Texas Intermediate (WTI) contract stoked speculation about a shift in liquidity, changes in the way companies hedge have emerged in both the East and the West.

Malaysia's Petronas this week dropped national crude Tapis as the benchmark for its exports in favour of ICE-related dated Brent. The move dealt a blow to the Dubai Mercantile Exchange (DME), part owned by NYMEX, which has pushed its Oman crude contract as a replacement.

Two weeks earlier, Atlanta-based Delta Air Lines announced it had swapped out its previous jet fuel hedges based on the WTI contract in favour of Brent, which has more closely reflected global gasoline and jet fuel price moves than the U.S. marker.

Trading volume -- a measure of a contract's health and liquidity -- tilted toward Brent, although the trend was masked by a slowdown in activity at the end of the first quarter. In the past 20 days, daily turnover in NYMEX crude futures exceeded that of ICE Brent futures by about 165,000 lots, the lowest figure since 2006. On Tuesday, ICE Brent traded more than NYMEX for only the ninth time since 2004, according to Reuters data from the exchanges.

If more Asian producers opt to swap the region's current benchmarks -- mostly viewed as disfunctional -- for Brent, the balance in the war for benchmark supremacy could swing more in ICE's favour.

"t seems to be part of a trend," said Mike Wittner, Americas head of commodities research at Societe Generale. More and more physical oil market participants, whether they are producers, consumers or refiners, are looking at

RECENT QUOTATIONS (2011)

Two-tiered Market –'t is too early to say whether volumes have been permanently sapped from WTI. In January and February, as global traders hit the panic button over unrest and war in Libya, WTI had some of its best days ever, several times exceeding Brent volume by more than 500,000 lots. But that changed dramatically as the quarter wound down.

"We have seen Brent volumes surge in the past and even exceed WTI from time to time, only to slip back again," said Olivier Jakob, managing director of consultants Petromatrix in Zug, Switzerland.

There has been a lot of debate about which contract is more representative of the international oil market and that will continue. WTI has sunk to record discounts against Brent, fuelling a discussion on whether Brent better reflects global fundamentals and the turmoil in the Middle East and North Africa. Brent was trading around a 32-month high above \$124 on Friday, with WTI around \$112.

Some say the strategic glut in landlocked U.S. crude has caused the NYMEX market to lose its link with global fundamentals. The disruption in Libyan exports as the country fights a civil war has clearly affected Brent most heavily. But the long-term cause for Brent's ascent is perhaps further east, where soaring demand from Asia is lifting requirements of Middle East, Mediterranean and West African crude, mostly priced in relation to the European marker.

Investors are helping Brent consolidate as a cross-continent marker for at least 70 percent of internationally traded crude because the structure of the ICE forward curve yields positive returns when rolling over positions every month, while for WTI the roll-over comes at a loss. Recently, one of the smartest ideas to enhance index return was to switch WTI for Brent," Goldman Sachs managing director for fixed income, currency and commodities Arun Assumall told Reuters in Singapore. "Many investors would prefer to be exposed to a more global oil price, such as Brent.'

The Asian Game – 'Malaysia's move to Brent may prompt other Asian producers to follow, including Vietnam and Indonesia, entrenching Brent's influence in the region and dampening efforts by the DME to draw Middle Eastern producers towards its Oman futures and away from Platts' Dubai/Oman assessments.

Still, Malaysia's crude is light and sweet, while much of the exports from the Middle East which the DME is eying are heavier and more sour. That may mean there is enough space for different markers to gain ground for the different grades. Brent is gaining favour as a benchmark for sweet crude in Southeast Asia, but how attractive it would be to price sour Middle East grades is another matter, said John Vautrain, director at Purvin & Gertz energy consultants in Singapore. Malaysia's move to Brent "illustrates the need and importance of reviewing pricing mechanisms used in East of Suez markets," the DME said in response to e-mailed questions.

"The current Dubai price assessment used for the majority of Middle Eastern crude exports into Asia suffers from a number of similar problems as Tapis as a benchmark," the DME said. The Dubai-based exchange said its Oman contract was the "most appropriate" marker.

The wave of unrest sweeping the Middle East this year also raises new challenges for Oman as concerns grow the country's oil output may be disrupted. Pricing agency Platts is accelerating talks with customers to find alternative crudes for delivery against its Oman benchmark, used to price more than 10 million barrels per day.

"Any event that adds urgency may play against the efforts of Oman proponents by providing them less time and a more stressful environment in which to make their case," said Vautrain.'

RECENT QUOTATIONS (2011)

10/2/2011: Dennis Gartman, 'Market Wizard', in the Gartman Letter:

'Those who've refused to acknowledge that something material has changed in the crude oil market... those who refuse to acknowledge that WTI has ceased being the world's marker crude and that Brent has become so... those who wish to stand in the way of this trade, are being bowled over and are losing vast sums of money. When Brent went to a \$2/barrel premium, we wrote that we'd learned the lessons of markets that move to supposedly impossible, untenable levels many years ago when we saw "muni" bond futures trade at a discount to the long US bond future, a circumstance many said was impossible. The impossible became even more and more impossible as munis fell to huge discounts to the long bond, carrying one after another of locals on the CBOT bond trading floor out.'

2/2/2011 Globe and Mail, Canada, Jeff Rubin: Which price is really the world benchmark for oil?

"...But West Texas Intermediate is trading at an all-time discount to other grades of oil. Last week, it was trading at a record \$12 per barrel discount to competing European Brent Crude. Until the Egyptian uprising captured the market's attention, the two prices were actually heading in opposite directions with WTI sinking to a two-month low of \$85 per barrel, while Brent was within a dollar of triple digits. The divergence is no mystery. Unlike Brent crude from the North Sea, which can be shipped to refineries pretty much anywhere in the world, oil in storage at Cushing can only be absorbed by refineries in the U.S. Midwest. With nowhere else to go, WTI is not even an accurate barometer for oil prices in the U.S. market, let alone the global market. For example, the price spread between it and Light Louisiana Sweet on the Gulf coast is as big as its spread with Brent. And by all accounts, the spread between WTI and Brent is going to become even bigger, rendering the former increasingly irrelevant as a global pricing benchmark.

It is largely new crude from the Alberta oil sands piling up at Cushing these days, often coming in much faster than local refineries can process it. And within a couple of months, there is going to be another 150,000 barrels a day of Alberta crude coming down Transcanada Corp.'s newly completed arm of its Keystone Pipeline that will connect Cushing with the flow of oil sand crude from Hardisty, Alberta. Until TransCanada can connect the ever-increasing flow of crude from the oil sands to refineries on the Gulf of Mexico (not likely before 2013), there is going to be a bigger and bigger disconnect between WTI and global crude demand as more oil piles up at Cushing. As that happens, the oil industry and the investment community will look to Brent as the new benchmark for global oil prices. Soaring purchases of Brent crude contracts have already driven the European oil benchmark to the highest level in five months against NYMEX oil futures contracts as more investors bet it is a better indicator of global demand.

So don't be fooled by bloated inventories of Canadian crude held in storage in the middle of nowhere. Check out the Brent March futures contract if you want to know where world oil prices are trading.

And when you do, you may just find you are already in a world of triple digit oil.'

RECENT QUOTATIONS (2010/1)

1/2/11 Joe Gorder, Chief Commercial Officer at Valero, Quoted by Argus Media:

'What we have to do perhaps is stop looking at WTI as the benchmark with which to compare things because it has become irrelevant'

26/1/11 Christian Schmollinger, Bloomberg: Brent Oil's Record Open Interest Threatens WTI:

'Brent crude contracts have driven...to the highest level in five months relative to New York futures as investors bet it's a better gauge of global demand. Open interest for Brent futures rose to a record 968,565 on Jan. 21, data from London-based ICE Futures Europe show. The ratio of the European marker to West Texas Intermediate oil positions on the New York Mercantile Exchange climbed to 65 percent, 15 percentage points above the five-year average and the most since Aug. 2, according to data compiled by Bloomberg. Investors are piling into Brent as new supplies from Canada build up at the U.S. oil hub in Cushing, Oklahoma, skewing its reliability as an indicator of demand because of the lack of pipelines to the sea. TransCanada Corp.'s Keystone link may pump as much as 156,000 barrels of crude to Cushing from next month, according to Vienna-based JBC Energy GmbH. Cushing is the delivery point for Nymex futures. "Nymex is challenged right now and continues to lose market share," said Stephen Schork, president of Villanova, Pennsylvania-based The Schork Group Inc., an energy consultant. The Brent market reflects more of the underlying fundamentals given that it's more indicative of demand." Brent is used to price two-thirds of global oil including North Sea grades such as Forties and Ekofisk and West African exports including Nigeria's Bonny Light and Angolan Nemba, which typically have a lower sulfur content and yield more diesel and gasoline than others.'

Rollover Profit

'Investors have bought Brent because of the discount, or backwardation, on prompt futures relative to later-dated supplies that's given traders a profit as they roll over their holdings from the first-month into later-delivery contracts. Front- and next-month futures were in uninterrupted backwardation from Dec. 20 to Jan. 17, Bloomberg data show. "An interesting thing has happened with new financial money flowing into Brent," said Akira Kamiyama, a derivatives trader at Mitsui & Co. in Tokyo. "The Brent curve is very supportive because of the backwardation. That's why the long positions are getting out of WTI and into Brent." Funds rolling over contracts from first- to second-month Brent would have gained 4 cents a barrel, according to Bloomberg data based on Jan. 24 prices.'

RECENT QUOTATIONS (2010/1)

13/12/2010 - Kenneth B. Worthington and Funda Akarsu for J.P.Morgan North America Equity Research Note

"ICE Brent Volumes Have Been Great in 2010 - What Gives?

'ICE volume has been very strong over the past two years in part due to an ongoing migration from OTC to listed trading. The transition started soon after the credit crisis in 2008 and our sense is that the shift has moved to the extreme, with OTC Brent oil trading a much smaller part of overall Brent trading volume.'

The Ongoing Secular Trend towards Brent / Gasoil Will Continue to Drive Greater Volumes:

'There has been meaningful media attention on the dramatic growth in Brent and Gasoil volumes relative to the US grades, WTI and Heating Oil. It is unintuitive that Brent can be gaining mind share as the global benchmark for oil, but that does seem to be happening. However, the challenge that WTI faces is that its delivery point is landlocked in Cushing, OK and that demand driven pricing of WTI is often overshadowed by challenges in delivering WTI via pipeline and the storage issues. While more storage seems to be coming on line for WTI, dissatisfaction over WTI pricing seems to be leading a view among some traders that the price of WTI is really based on a view of a 'local' market, while speculation on global oil is best made through Brent.'

WTI Per GPD Falls, While Brent per Capita Rises - Not an Issue of Substitution:

'Our conversations with energy traders supports the idea that Brent's and Gasoil's success is in fact being driven by changes in regional economic growth, rather than a switch by hedgers/traders from WTI to Brent. GDP of developing countries that ultimately use Brent as a benchmark, or use benchmarks that trade at a spread to Brent exceeds that of developed countries benchmarked to WTI, driving greater use of Brent." (Continues over)'

RECENT QUOTATIONS (2010/1)

Kenneth B. Worthington and Funda Akarsu for J.P.Morgan North America Equity Research Note (Cont):

'Furthermore, there is a multiplier effect, as the use of WTI per GDP is falling as developed countries get more efficient in their use of oil. For example, ethanol has been added to gasoline, which reduces consumption of oil. However, the use of Brent per capita in emerging markets is on the rise as their transportation and other needs increase. As a result of such growth dynamics, there has been a migration of refining capacity east – away from the US and towards Asia. With Asia grades of oil traded at a spread to Brent, there has been increasing use of Brent by hedgers and ultimately by speculators. Gasoil, is the same story, but as a refined product.

...There have been some examples, including Saudi Aramco, which left WTI for a blend of sour crudes and there have been launches of Brent-only commodities funds. .

Therefore, the migration towards Brent as the global benchmark is based on mix rather than a legitimate change in demand.. Furthermore, this seems to be a trend that is likely to continue as Global GDP in Emerging Markets and developed parts of Asia outgrow that of the US.'

Gasoil Shows the Same Trends as Does Brent – The Quest for a Global Benchmark:

'While much of our energy liquids discussion has focused on Brent, Gasoil has been a much bigger part of ICE's growth story in recent quarters. Just as Brent has grown to increasingly become the global benchmark for oil products, so too has Gasoil for refined products.'

RECENT QUOTATIONS (2010/1)

13/10/10 Olivier Jakob, Petromatrix (as reported by Bristol Voss, Platts 13/10/10):

'In fact, the new normal is that WTI trades below Brent, as a matter of course, and will continue to do so, at least for the near-term future according to analysts. Most of the WTI discount is due to supply issues surrounding WTI itself with fundamentals affecting Brent contributing to a lesser degree, said analysts. "On a fundamental basis we expect WTI to remain in a contango structure and at a discount to Brent into next year," said Olivier Jakob, an analyst with Petromatrix. "WTI is a landlocked oil and has not been delivered to the Gulf Coast in years, but there is little need for any foreign barrels of oil to come anywhere near where WTI has its physical delivery point in Cushing, Oklahoma," Jakob explained. "The US Midwest has received 1 million b/d of additional pipeline capacity this year from Canada and this will contribute to make the delivery hub of the WTI contract an island more and more isolated from the rest of the world," he said.'

13/10/10 Harry Tchilinguirian, analyst BNP Paribas, in a research note to clients, reported by Bristol Voss, Platts:

'Brent, unlike WTI, enjoys geographic "optionality".. It can be drawn "east or west depending on market conditions. Equally, it possesses a greater sphere of influence in establishing physical crude prices than WTI, ranging from the Atlantic Basin into the Far East," he said. Given that oil demand growth relies principally on emerging markets, and refinery runs remain strong in the East, other things equal, the "macro picture currently is more supportive of Brent than WTI,"

September 2010: Dr. Philip Verleger (from The Petroleum Economics Monthly):

'The shift in the marginal market to (price in) Europe should increase the relevance of European commodity futures and swap markets. European markets should benefit from this phenomenon with the directional shift in trade from west ... to east (the US to Europe). In coming years one should see increased use of futures contracts settled with delivery or final prices in European markets. The increase in open interest in the (ICE) gasoil futures contact relative to US heating oil may reflect this development. Open interest in the two contracts was essentially equal in December 2008. In the following 22 months, open interest in the ICE contract rose 150 percent, while open interest in the NYMEX CME New York Harbour contract went up only 50%.'