The World Bank

The Good, the Bad, and the Ugly

Washington, D.C. -- October 27, 2010
Section 1

The Bad

“My Mama always said, ‘Life was like a box of chocolates; you never know what you’re gonna get.’”

*(Tom Hanks, Forrest Gump (1994))*
THE BAD

Volatility
Equities + 1-mo Libor

Annualized Volatility (Year-to-date)
Units: 260-day Historical Volatility, as of October 21, 2010

Source: Morgan Stanley Commodities, NYMEX, ICE, LME, CBOT, Bloomberg

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THE BAD

Volatility
+ Metals

Annualized Volatility (Year-to-date)
Units: 260-day Historical Volatility, as of October 21, 2010

Source: Morgan Stanley Commodities, NYMEX, ICE, LME, CBOT, Bloomberg

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Volatility
+ Agriculture and Soft Commodities

**Annualized Volatility (Year-to-date)**
Units: 260-day Historical Volatility, as of October 21, 2010

Source: Morgan Stanley Commodities, NYMEX, ICE, LME, CBOT, Bloomberg

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Volatility
+ Energy

Annualized Volatility (Year-to-date)
Units: 260-day Historical Volatility, as of October 21, 2010

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THE BAD

Why Volatility?
1. Access to Information

- Increased access to information by market players can cause increased volatility in the futures markets.

Source: Morgan Stanley Commodities, Shutterstock

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Why Volatility?

2. Liquidity

**NYMEX WTI Combined Volumes for each business day in September 2010 – Nov-10 to Oct-11 contracts**

Units: Contracts

0
50,000
100,000
150,000
200,000
250,000
300,000
350,000
400,000
450,000


Source: Morgan Stanley Commodities, NYMEX

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**Why Volatility?**

3. Physical Nature

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**Hurricane Katrina and Hurricane Rita**

Units: $/bbl

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Source: Morgan Stanley Commodities, NYMEX, Platts, Shutterstock

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Why Volatility?

Oil Price since 1970
Units: Nominal US$/bbl

Source: Morgan Stanley Commodities, EIA
Section 2

The Good

“Show me the Money!”

(Tom Cruise, Jerry Maguire (1996))
Hedging

Source: Shutterstock, Wikipedia, Wikimedia
Hedging

Source: Shutterstock
Hedging

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Source: Shutterstock
Section 3

The Ugly

“Toto, I’ve got a feeling we’re not in Kansas anymore.”

(Dorothy, The Wizard of Oz)
Famous Derivatives Losses

**Orange County, California (1994)**
Loss of over $1.6 billion in bankruptcy

**Codelco (1993)**
Loss of over $200 million

**China Aviation Oil (2004)**
Loss of roughly $550 million

Section 4

…and the Beautiful

“I’m King of the World!”

(Leonardo DiCaprio, Titanic (1997))
Chesapeake Energy (CHK) Quarterly Realized Gains and Losses (1Q’01 – 2Q’10)

CHK’s hedging program has generated ~$5.4 billion in realized gains since inception in 2001


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Southwest Airlines (LUV)
Realized Fuel Price after Hedging

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Source: Morgan Stanley Commodities, Company Filings
Why Sovereign Hedging?

Why Hedge Commodities?

- Commodities have higher beta than interest rates
- Commodities are generally looked at by the same office which manages a nation’s budget
- Commodities are closely followed by the general public

- With greater public opinion shifting toward fiscal austerity, the adverse movement of an important public revenue generating commodity could not only damage sovereign image and budget plans, but also ripple out to affect sovereign credit and foreign investment

Source: Morgan Stanley Commodities
Guidelines for Sovereign Hedging

- Consider Similar Cases
- Evaluate Alternatives
- Prepare for Execution

- Implement an Action Plan
- Evaluate Strategies
- Execute

- Seek legal/financial advice
- Evaluate Alternatives
- Delay Execution

- Seek legal/financial advice
- Evaluate Strategies
- Prepare for Execution

Effect on Budget

Source: Morgan Stanley Commodities

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