**Explaining Credit Default Swaps**

Definition of Credit Default Swap (CDS): CDS are a financial instrument used for swapping the risk of debt default. Credit default swaps are available for government bonds, mortgage backed securities, corporate bonds and local government bonds. Credit default swaps were originated and first offered in 1997 by JPMorgan.

**How do CDS work?**

The buyer of a credit default swap pays a premium for effectively insuring against a debt default. The buyer receives a lump sum payment if the debt instrument is defaulted. Swaps pay the buyer face value should a borrower fail to adhere to its debt agreements. The buyer of a credit swap receives credit protection, whereas the seller of the swap guarantees the credit worthiness of the product. By doing this, the risk of default is transferred from the holder of the fixed income security to the seller of the swap.

CDS are quoted in basis points. A basis point equals $1,000 annually on a swap protecting $10 million of debt.

Credit default swaps are sold by banks, insurance companies and hedge funds. They are purchased by large institutional investors (e.g., pension funds) wishing to protect against the risk of default or by speculators (hoping to profit from a default event). Swaps are generally written and quoted for 5 year sovereign bonds.

**CDS Example**

On June 6, 2012, the 5-year CDS against Dubai default was quoted at 365 basis points (see CMA data on next page). If you were the buyer of this CDS, it would have cost you 365 basis points to buy this swap on the CDS market. In practical terms, if you had $10million in US dollar (or equivalent) denominated 5-year bonds issued by the Dubai government, you would pay $365,000 each year for the next 5 years for protection against default. If the Dubai government defaulted during the period, the swap buyer would receive $ 10 million (par value of the bonds). For example, the buyer of a credit swap will be entitled to the par value of the bond by the seller of the swap, should the Dubai government default.

The seller of a credit default swap receives monthly payments from the buyer (in the above Dubai example, $30,416.67 per month; $365,000/12 = $30,416.67).

**Sovereign Credit-Default Swap Data: June 6, 2012 and February 21, 2010**

Source of data: CMA (as a provider of data; not a market maker)

**Feb 21, 2011 June 6, 2012**

UNITED STATES 5-YR 46.40 48.00

GERMANY 5-YR 52.00 109.08

JAPAN 5-YR 80.00 98.45

SWITZERLAND 5-YR 40.70 54.78

ITALY 5-YR 172.60 551.00

IRELAND 5-YR 595.00 699.58

GREECE 5-YR 895.50 8816.61

SPAIN 5-YR 242.20 595.00

PORTUGAL 5-YR n.a.. 1150.00

AUSTRIA 5-YR 84.10 189.00

BELGIUM 5-YR 164.30 275.07

CHINA 5-YR n.a. 173.57

DUBAI 5-YR 448.00 365.00

DENMARK 5-YR 46.70 130.50

FINLAND 5-YR 37.20 85.50

FRANCE 5-YR 88.60 213.83

HUNGARY 5-YR 299.00 579.83

NETHERLANDS 5-YR 52.90 127.00

SWEDEN 5-YR 32.80 66.67

UNITED KINGDOM 5-YR 60.20 74.50

As Noted: The reported CDS is the price, in basis points, to insure $10 million in debt with each basis point equal to $1,000.

On June 6, 2012, the cost to insure $10,000,000 worth of United States Treasuries would be $48,000 per year, for 5 years, or $4,000 per month. This is the lowest rate among the major countries of the world, and also by comparison to the other three “safe-haven” countries.

Source of above data: <http://www.cnbc.com/id/38451750/>

**Signals from Credit Default Swaps**

Generally, we assume that a decline in CDS basis points signals improving perceptions of creditworthiness, while an increase suggests the opposite. Looking at the above data from February 21, 2011 to June 6, 2012, we can note that overall the market has become more concerned with creditworthiness (pay particularly close attention to the PIIGS). The one exception is Dubai where the basis points have actually declined.

**Credit Default Swaps and Bond Yields**

One question concerning Credit Default Swaps is whether changes in these swap prices impact on bond yields. If there is a “transmission” mechanism, theory would suggest it should run from changes in CDS to bond yields. The assumption is that changes in CDS signal changes in risk, which the market would then incorporate into required rates of return.

The Reuters illustration below shows the relationship of Greece sovereign CDS to bond spreads in the run up to the Greek debt crisis of 2010. The pattern suggests a close relationship.

