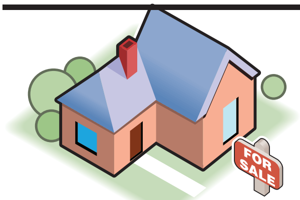
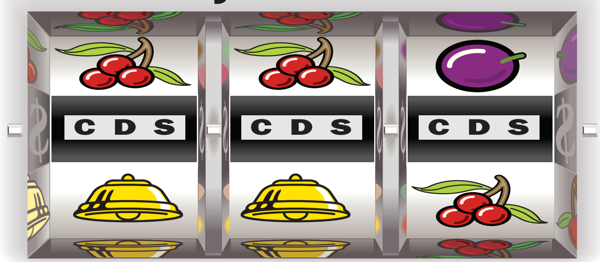
Anatomy of a meltdown





COLLATERALIZED DEBT OBLIGATIONS

Late 1970s: Mortgages are packaged together and sold to investors as CDOs. **By sharing risk, cost of borrowing falls and bank lending expands**

MORTGAGE-BACKED SECURITIES

1983: ***Larry Fink*** pioneers MBS market while heading Bond Department at First Boston Corporation

MBS divides packages of mortgages into different tranches of risk. Safest ***investment grade bonds*** receive lowest interest rate while riskiest tier – so-called ***toxic debt*** – is paid 2-3% higher interest. **Investor is now paid for accepting risk, not for lending money**

SUBPRIME MORTGAGES

1990s. Demand for MBSs results in lenders lowering interest rates and offering 100% subprime mortgages to individuals with questionable ability to pay. **Rising house prices protect these borrowers from defaulting**

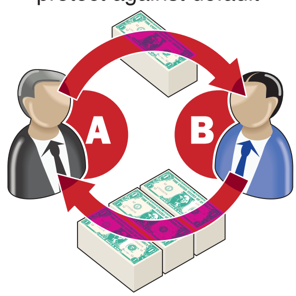
CREDIT DEFAULT SWAPS

JPMorganChase

1997: Invented by ***Blythe Masters*** at investment bank JPMorgan Chase. CDSs, or credit swaps, are insurance-like contracts intended to remove risk from companies' balance sheets. At this time swaps are regulated by International Swap and Derivatives Association

How credit swaps work:

Buyer A buys CDS, paying premium to ***Seller B*** to protect against default



In case of default, ***Seller B*** pays bond's full value to ***Buyer A***

Swaps average \$25 to \$50 million per transaction with premium costing 10% of bond, paid over five years. **With little risk of defaulting during booming economy, it means zero money down for seller and profit limited only by how many CDS contracts are sold**

SHADOW BANKING SYSTEM

Late 1990s. Swaps – now used to package everything from mortgages, business loans, credit card debt, and even student loans – are bought by unregulated speculators and hedge funds on behalf of insurance companies and pension funds worldwide. **Because deals are private, negotiated by e-mail, no one really knows what true risks are**

HOUSING BUBBLE

2000-03: U.S. Federal Reserve Chairman ***Alan Greenspan*** cuts federal funds rate from 6% to 1%. **With short-term borrowing now almost free, money lent by banks soars**

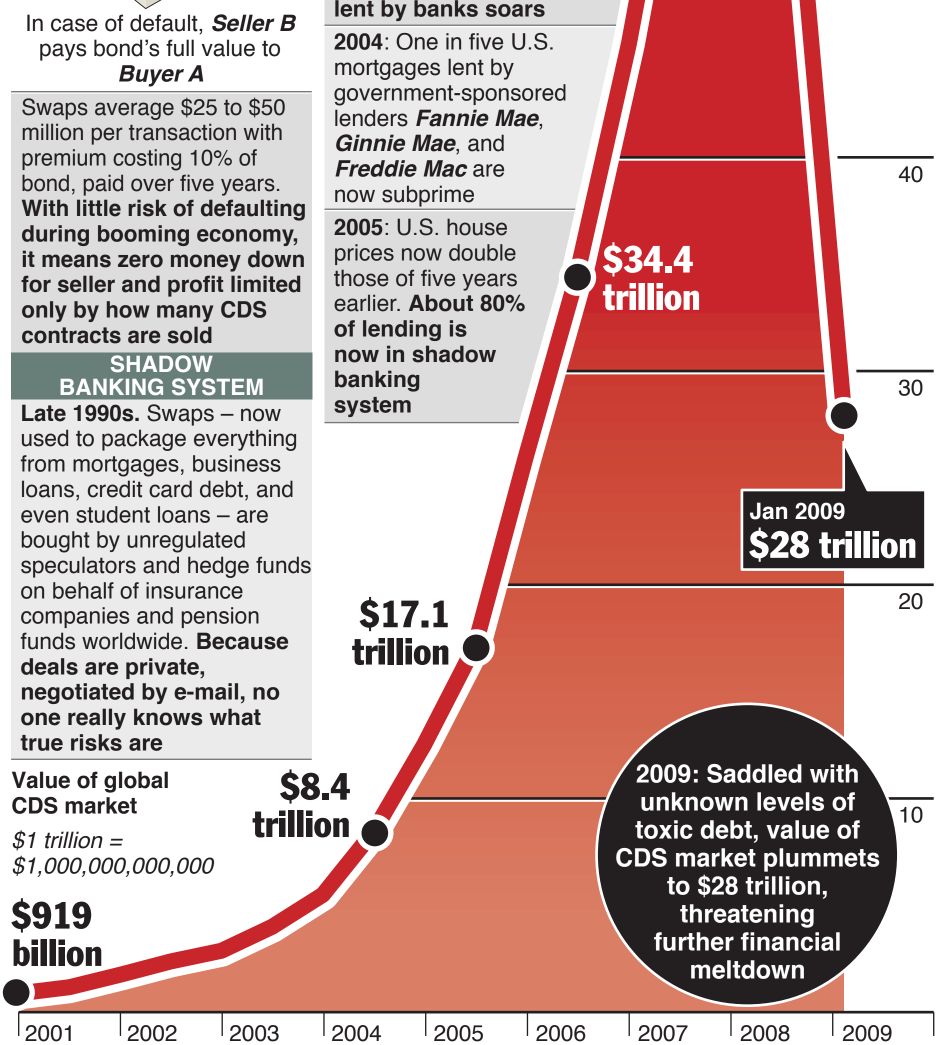
2004: One in five U.S. mortgages lent by government-sponsored lenders ***Fannie Mae***, ***Ginnie Mae***, and ***Freddie Mac*** are now subprime

2005: U.S. house prices now double those of five years earlier. **About 80% of lending is now in shadow banking system**

CREDIT CRUNCH

2006: Interest rate rises to 5.25%. Housing market begins to falter – one in five U.S. borrowers falls behind on mortgage payments

2007-08: Banks worldwide suffer huge losses and stop lending despite massive bail-outs by taxpayers



Sources: The Trillion Dollar Meltdown: Easy Money, High Rollers, and the Great Credit Crash by Charles R. Morris, International Swaps and Derivatives Association, World Bank, JPMorgan Chase

Pictures: Associated Press, Getty Images