# RiskyBondPricer 설명서

## DLL 경로를 찾을 수 없을 경우 1~3을 따라 세팅합니다.

- 이 모델은 신용위험이 존재하는 채권의 공정가격을 산출하는 모델입니다.
  - 1. 자신의 엑셀 bit수 확인

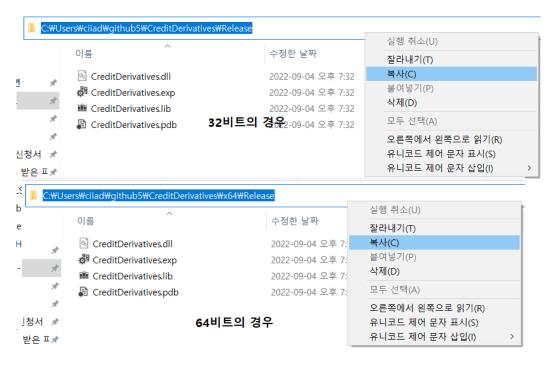
파일>계정>엑셀정보



- 2. Alt + F11로 VBA창 키기
- 3. VBA 모듈 들어가서 다음 순서에 따라 dll의 디렉토리 바꾸기 (현재 dll이 설치되어있는 디렉토리로 바꾸기)

또한 엑셀이 64bit일 경우 Declare Function -> Declare PtrSafe Function으로 선언해야함

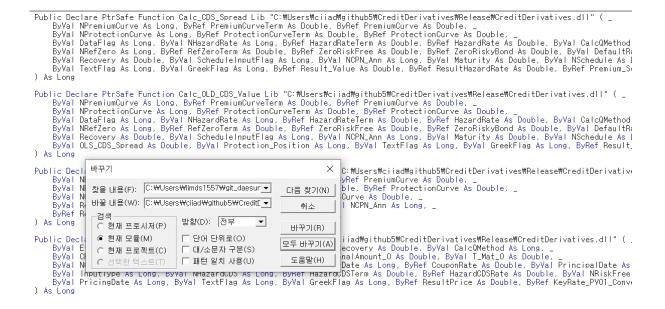
3-1. 엑셀 비트수에 따라 경로 복사



### 3-2. Ctrl + F로 복사된 위치로 한꺼번에 바꾸자

```
Public Declare PtrSafe Function Calc_CDS_Spread Lib "0:#Users#limds1557#git_daesun5#CreditDerivatives#Debug#CreditDerivatives.dll" (
ByVal NPremiumCurve As Long, ByRef PremiumCurveTerm As Double, ByRef PremiumCurve As Double, _
ByVal NProtectionCurve As Long, ByRef ProtectionCurveTerm As Double, ByRef ProtectionCurve As Double, _
ByVal DataFlag As Long, ByVal NHazardRate As Long, ByRef HazardRateTerm As Double, ByRef HazardRate As Double, ByVal NefZero As Long, ByRef RefZeroTerm As Double, ByRef ZeroRiskFree As Double, ByRef ZeroRiskSpond As Double, ByVal DefaultRa
ByVal Recovery As Double, ByVal ScheduleInputFlag As Long, ByVal NCPN_Ann As Long, ByVal Maturity As Double, ByVal NSchedule As L
ByVal TextFlag As Long, ByVal GreekFlag As Long, ByRef Result_Value As Double, ByRef ResultHazardRate As Double, ByRef Premium_Sc
) As Long
Public Declare
                                                                                                                                                                                                                              557#git_daesun5#CreditDerivatives#Debug#CreditDerivatives.dll"
            ByVal NPrem 바꾸기
ByVal NProt
                                                                                                                                                                                                                             PremiumCurve As Double, _
ByRef ProtectionCurve As Double, _
ByRef ProtectionCurve As Double, _
Term As Double, ByRef HazardRate As Double, ByVal CalcQMethod
Free As Double, ByRef ZeroRiskyBond As Double, ByVal DefaultRa
PN_Ann As Long, ByVal Maturity As Double, ByVal NSchedule As L
ByVal TextFlag As Long, ByVal GreekFlag As Long, ByRef Result_
             ByVal DataF
ByVal NRefZ
ByVal Recov
                                                 찾을 내용(F): C:₩Users₩limds1557₩git_daesur ▼
                                                                                                                                                                                    다음 찿기(N)
                                                 바꿀 내용(W): ithub5₩
                                                                                                                                                                ISE ▼
                                                                                                                                                                                                  취소
                                                   건색
〇 현재 프로시저(P)
             ByVal OLS_0
) As Long
                                                                                                                방향(D): 전부
                                                                                                                                                                                           바꾸기(R)
                                                                                                                                                                                                                            Jsers#limds1557#git_daesun5#CreditDerivatives#Debug#CreditDeri
f PremiumCurve As Double, _
, ByRef ProtectionCurve As Double, _
ye As Double, _
Public Declare
                                                    (● 현재 모듈(M)
                                                                                                                □ 단어 단위로(○)
                                                                                                                                                                                     모두 바꾸기(A)
             ByVal NPrem
ByVal NProt
ByVal NCDSC
                                                   ○ 현재 프로젝트(C)
○ 선택한 텍스트(T)
                                                                                                                      대/소문자 구분(S)
                                                                                                                                                                                    도움말(H) , ByRef Protection
ve As Double, _
Long, byvai NCPN_Ann As Long, _
                                                                                                               □ 패턴 일치 사용(U)
             ByVal Recovery as Double, byval mazardmatecalcriag as Long, by
ByRef ResultHazardTerm As Double, ByRef ResultHazard As Double
Public Declare PtrSafe Function Calc_RiskyCouponBond Lib "C:#Users#limds1557#git_daesun5#CreditDerivatives#Debug#CreditDerivatives.dl
ByVal EffectiveDate As Long, ByVal CPNInputFlag As Long, ByVal Recovery As Double, ByVal CalcQMethod As Long, _
ByVal OPNRate_O As Double, ByVal NCPN_Ann_O As Long, ByVal NotionalAmount_O As Double, ByVal T_Mat_O As Double, _
ByVal NCoupon As Long, ByRef CouponDate As Long, ByRef CouponPayDate As Long, ByRef CouponRate As Double, ByVal PrincipalDate As
ByVal InputType As Long, ByVal NHazardCDS As Long, ByRef HazardCDSTerm As Double, ByRef HazardCDSRate As Double, ByVal NRiskFree
ByVal PricingDate As Long, ByVal TextFlag As Long, ByVal GreekFlag As Long, ByRef ResultPrice As Double, ByRef KeyRate_PV01_Conve
) As Long
```

3-3. (64비트의 경우 CreditDerivatives₩x64₩Release₩CreditDerivatives.dll)



#### 4. 발행정보 및 파라미터 입력하기

발행'	일	2018-1	0-15					
쿠폰입력Flag		1		<u>쿠폰입력Flag가 0일 경우</u>		Coupon Rate 연 이자지급횟수 액면금액		3.8
RecoveryRate		0.4000						2
생존율계산방식		0						100
						만기	(년)	5
쿠폰입력Flag 1일 경우					HazardRate(o	r CDS Spread)	무위험	금리
	쿠폰스케줄		이그 ^	<b>계</b> 즈	입력데이터유형	0	무위험 개수	8
쿠폰개수	12		원금 스케줄		입력 개수	8		
쿠폰일	CouponRate	쿠폰지급일	원금지급일	원금	Term	Rate/y (or Spread)	Term	무위험금리
2019-04-15	3.80%	2019-04-18	2024-10-15	10000	0.25	1.00%	0.25	1.25%
2019-10-15	3.80%	2019-10-18			0.50	1.20%	0.50	1.50%
2020-04-15	3.80%	2020-04-18			1.00	2.00%	1.00	1.75%
2020-10-15	3.80%	2020-10-18			2.00	2.20%	2.00	1.87%
2021-04-15	3.80%	2021-04-18			3.00	2.30%	3.00	1.99%
	3.80%	2021-10-18			5.00	2.40%	5.00	2.11%
2021-10-15	5.0070							
2021-10-15 2022-04-15	3.80%	2022-04-18			7.00	2.50%	7.00	2.23%

### 5. 가격계산 매크로 실행

가격계산				
ResultCode	1			
CleanPrice	10204.711			
Accrued Interest	63.507			
Dirty Price	10268.217			