DOWNLOAD PDF COMMONEST MISTAKES IN QUANTITATIVE FINANCE

Chapter 1 : Frequently Asked Questions in Quantitative Finance - Paul Wilmott | calendrierdelascience.con

The Commonest Mistakes in Quantitative Finance: A Dozen Basic Lessons in Commonsense for Quants and Risk Managers and the Traders Who Rely on Them Introduction Judging by research papers and books on quantitative finance, and from conversations with thousands of practitioners, not to mention well-publicized modelling mistakes, I believe that.

Every divorce has unique characteristics making the experience different for each person. That said, there are a handful of mistakes we find are common occurrences in a divorce. My observation is that, at times, this need to focus on the present can result in analysis that ignores potential future events. Unfortunate events can occur at any point post-divorce and may include things like job loss, disability, changes in the health of your children or the substantial depreciation of an asset. For example, if college costs are to be split based on salary, what happens if you or your spouse becomes unemployed? Confirm that your attorney or financial adviser is considering these potential changes and suggesting ways to shield you from risks posed by unexpected circumstances. Unrealistic lifestyle expectations Decisions about who should keep the home, or if it should be sold, have very real, emotional, practical and often significant financial implications for both parties. Housing is just one of many lifestyle decisions faced when separation and divorce occurs. Unfortunately, too many divorcees expect to live a similar lifestyle in divorce. In doing so they may be ignoring the financial implications or trade-offs required to afford their lifestyle expenses. Another common challenge is parents wanting to maintain the same lifestyle for their children. Understandably, you may want to provide your children with their annual beach vacation, or lavish birthday celebration or may want to buy a car for your teenager. When parents compete through spending rather than co-parenting, one or both may find themselves busting their spending budget. Unfortunately, this cycle of guilt spending can last a lifetime. How does this choice meet the needs of my family now and in the next five years? If I make this choice, what might I be giving up in my other financial goals? Lengthy legal proceedings may require you to open up the details of your life. Whoever is paying the bills will need to keep an accurate record of the costs and request proper reimbursement from their ex-spouse. If interactions between ex-spouses are uncomfortable, sometimes one parent will decide to simply cover the costs on their own in order to avoid unpleasant confrontations. If this goes on over the course of many years, the financial outlay for costs that should have been shared could be significant. In our post-divorce checklist, we recommend several steps to help track child support or other payments: Set up all support payments on an automatic payment plan. Only accept support payments in a form that is documented and tracked i. Notify your employer if you owe any payroll deduction related support payments. Establish a record-keeping system to track all shared costs. Document any issues that arise with respect to payments. Reckless remarriages Many new divorcees are surprised to learn that the divorce rate in second marriages is higher than in first marriages! Unfortunately, this dynamic may strike later in life when partners are even closer to retirement and have less time to recover from the negative financial impacts of divorce. It may come as a surprise that prenuptial agreements are not just for wealthy parties but can be of benefit to you and your soon-to-be-spouse. These documents help couples consider what could or should happen if the marriage breaks up. Prenups certainly handle asset division but may also articulate rules for how long one party could remain in the marital house if they are asked to leave, or how long-term care expenses would be covered. With second marriage divorce rates topping 60 percent, we suggest that anyone contemplating remarriage consult with an attorney to discuss potential prenuptial agreements, as well as consider making changes to their existing estate plan. Lack of financial education One of the reasons these common mistakes occur during a divorce is that many women and men lack even a fundamental financial education. Basic financial literacy is normally learned through experience often mistakes rather than in an educational setting, like high school or college. If you do attempt to gain financial education through the vast number of internet resources, the sheer volume of data can result in confusion on exactly where to start. Another challenge is that some financial advice assumes traditional gender roles. Many retirement strategies assume a couple is married and aging together which may make the advice inappropriate for a divorcee who ages alone. Advice also may ignore the very real challenges that women breadwinners face, particularly those posed by the wage gap. Our suggestion to counteract these barriers to financial education is to start with one important task â€” create your personal balance sheet. This task can be as simple as handwriting a list of all your assets and liabilities or a more sophisticated project that uses electronic resources to link all your accounts to analyze your asset allocation and other metrics for insight into your finances. Those who take these steps while they are still happily married will have a big advantage if they ever find themselves in divorce negotiations. Having a solid understanding of your present financial situation and a reasonable outlook and goals for your future is the best way to avoid financial mistakes now and to be prepared should your circumstances change. This website is not intended for users located within the European Economic Area.

Chapter 2 : Frequently Asked Questions in Quantitative Finance : Paul Wilmott :

5 The Commonest Mistakes in Quantitative Finance: A Dozen Basic Lessons in Commonsense for Quants and Risk Managers and the Traders Who Rely on Them. 6 The Most Popular Probability Distributions and Their Uses in Finance.

I am an immutable class var, [], [] Derived1 class vars: I am an immutable class var, [], [] Derived2 class vars: I am an immutable class var, [1], [] Derived1 class vars: I am Derived1 class var, [1], [1] Derived2 class vars: I am Base class var, [1, 2], [2] Derived1 class vars: I am Derived1 class var, [1, 2], [1] Derived2 class vars: To catch both exceptions, right? Traceback most recent call last: Rather, In Python 2. As a result, in the above code, the IndexError exception is not being caught by the except statement; rather, the exception instead ends up being bound to a parameter named IndexError. Also, for maximum portability, use the as keyword. It is particularly common for this to trip up developers when using lists. Consider the following example: Why did foo2 bomb while foo1 ran fine? The answer is the same as in the prior example problem, but is admittedly more subtle. However, the value we are looking to assign to lst is based on lst itself again, now presumed to be in the local scope , which has not yet been defined. Modifying a list while iterating over it List comprehensions are particularly useful for avoiding this specific problem Confusing how Python binds variables in closures Considering the following example: You might expect the following output: So in the above code, whenever any of the returned functions are called, the value of i is looked up in the surrounding scope at the time it is called and by then, the loop has completed, so i has already been assigned its final value of 4. The solution to this common Python problem is a bit of a hack: Give an example A decorator is essentially a callable Python object that is used to modify or extend a function or class definition. One of the beauties of decorators is that a single decorator definition can be applied to multiple functions or classes. Much can thereby be accomplished with decorators that would otherwise require lots of boilerplate or even worse redundant! What are lambda expressions, list comprehensions and generator expressions? What are the advantages and appropriate uses of each? Lambda expressions are a shorthand technique for creating single line, anonymous functions. Their simple, inline nature often â€" though not always â€" leads to more readable and concise code than the alternative of formal function declarations. On the other hand, their terse inline nature, by definition, very much limits what they are capable of doing and their applicability. Being anonymous and inline, the only way to use the same lambda function in multiple locations in your code is to specify it redundantly. List comprehensions provide a concise syntax for creating lists. List comprehensions are commonly used to make lists where each element is the result of some operation s applied to each member of another sequence or iterable. They can also be used to create a subsequence of those elements whose members satisfy a certain condition. In Python, list comprehensions provide an alternative to using the built-in map and filter functions. As the applied usage of lambda expressions and list comprehensions can overlap, opinions vary widely as to when and where to use one vs. This is because calling a lambda function creates a new stack frame while the expression in the list comprehension is evaluated without doing so. Generator expressions are syntactically and functionally similar to list comprehensions but there are some fairly significant differences between the ways the two operate and, accordingly, when each should be used. In a nutshell, iterating over a generator expression or list comprehension will essentially do the same thing, but the list comprehension will create the entire list in memory first while the generator expression will create the items on the fly as needed. Generator expressions can therefore be used for very large and even infinite sequences and their lazy i. It is worth noting, though, that the standard Python list methods can be used on the result of a list comprehension, but not directly on that of a generator expression. Consider the two approaches below for initializing an array and the arrays that will result. How will the resulting arrays differ and why should you use one initialization approach vs. While both methods appear at first blush to produce the same result, there is an extremely significant difference between the two. Method 2 produces, as you would expect, an array of 3 elements, each of which is itself an independent 4-element array. In method 1, however, the members of the array all point to the same object. This can lead to what is most likely unanticipated and undesired behavior as shown below. How can you swap the values of two variables with a single line of

Python code? Python makes it possible to do the swap with a single line of code thanks to implicit tuple packing and unpacking as follows: In any closure in Python, variables are bound by name. Thus, the above line of code will print out the following: A workaround is to either create a separate function or to pass the args by name; e. Although Python 2 is formally considered legacy at this point, its use is still widespread enough that is important for a developer to recognize the differences between Python 2 and 3. Here are some of the key differences that a developer should be aware of: Text and Data instead of Unicode and 8-bit strings. The biggest ramification of this is that any attempt to mix text and data in Python 3. Moreover, the exception would happen at the combination point, not at the point at which the non-ASCII characters were put into the str object. This behavior was a common source of confusion and consternation for neophyte Python programmers. The print statement has been replaced with a print function xrange â€” buh-bye. Some examples of the ramifications of this include: Is Python interpreted or compiled? Python itself is nothing more than an interface definition as is true with any language specification of which there are multiple implementations. Specifically, with CPython, code is first compiled and then interpreted. More precisely, it is not precompiled to native machine code, but rather to bytecode. While machine code is certainly faster, bytecode is more portable and secure. The bytecode is then interpreted in the case of CPython or both interpreted and compiled to optimized machine code at runtime in the case of PyPy. What are some alternative implementations to CPython? When and why might you use them? Another is IronPython , written in C and targeting the. Another noteworthy alternative implementation is PyPy whose key features include: Large, memory-hungry Python programs might end up taking less space with PyPy than they do in CPython. PyPy is highly compatible with existing python code. It supports cffi and can run popular Python libraries like Twisted and Django. PyPy provides the ability to run untrusted code in a fully secure way. PyPy comes by default with support for stackless mode, providing micro-threads for massive concurrency. The unittest module provides classes that make it easy to support these qualities for a set of tests. A more recent addition to the unittest framework is mock. The value and power of mock are well explained in An Introduction to Mocking in Python. As noted therein, system calls are prime candidates for mocking: What are some key differences to bear in mind when coding in Python vs. The differences between Java and Python are numerous and would likely be a topic worthy of its own lengthy post. Below is just a brief sampling of some key differences between the two languages. The intent here is not to launch into a religious battle over the merits of Python vs. Java as much fun as that might be! Rather, the question is really just geared at seeing how well the developer understands some practical differences between the two languages. The list below therefore deliberately avoids discussing the arguable advantages of Python over Java from a programming productivity perspective. With the above two disclaimers in mind, here is a sampling of some key differences to bear in mind when coding in Python vs. Dynamic vs static typing. One of the biggest differences between the two languages is that Java is restricted to static typing whereas Python supports dynamic typing of variables. A static method in Java does not translate to a Python class method. In Python, calling a class method involves an additional memory allocation that calling a static method or function does not. In Java, dotted names e. Whereas Java requires explicit specification of multiple same-named functions with different signatures, the same can be accomplished in Python with a single function that includes optional arguments with default values if not specified by the caller. Whereas the use of single quotes vs. Getters and setters not! In Python, getters and setters are a waste of both CPU and programmer time. Whereas Java requires every function to be defined in the context of an enclosing class definition, Python has no such requirement. Indentation mattersâ€¦ in Python. This bites many a newbie Python programmer. What is Python particularly good for? Some of the more common valid answers to this question include:

Chapter 3 : 10 Common Personal Finance Mistakes

Getting agreement between finance theory and finance practice isimportant like never before. Frequently Asked Questions in Quantitative Finance BOOKD. sundry lists, the commonest mistakes.

People are very good at finding ways to screw up their finances. While the last few years have seen an increase in personal savings as people tighten their belts in the midst of a recession, the savings rate in general has been on a downward trend since the early 80s. It seems like a simple idea â€” to spend less than you make. The end result is a pile of debt and a negative net worth. Always finance big purchases: In the past people would save up and pay cash for big ticket items, even for a house in many cases. Never look into the future, live for today: Far too many people have an outlook that never seems to look past their next paycheck. They never have a plan to get ahead, and instead they just worry about making their next payday with money still in their bank account. Instead they should be trying to better themselves, get an education, and find a better path that allows them to get ahead. Always buy the newest and the best: Having the newest and the best has an allure â€" we all want to be on the cutting edge. Instead, buy things used, fully research your purchases, and hold off on buying things until they come down in price â€" or have depreciated to a more affordable cost. A mountain of debt quickly starts piling up. Instead pay cash, eschew debt and try to stay ahead of the game. Listen to your friends who know even less than you do: In some cases the advice is so bad that you wonder why they thought it was a good idea in the first place. Instead they should find a trusted financial advisor or mentor who can help them to make a financial plan. Working without a net: Too many people these days have been walking the financial high wire for far too long without a net. Instead they should be saving up an emergency fund of month of expenses at least , buying the necessary insurance and getting rid of as many debt obligations as they can. Minimize risk where you can. Never calculating total cost and value versus calculating payments: Too many people become monthly payment buyers, never actually calculating if they can afford something, but instead calculating if they have enough money during the month to make the payments. They do this with houses, cars and even TVs. Not creating a budget or tracking spending: They never track their spending or make a family budget. Instead they should be tracking their spending it can be eye opening , and then figuring out how much they need to spend, save and give â€" and then setting up a budget based on those values. Then follow through on the budget and actually follow it. In this day and age there is really no excuse for not being able to figure out your finances. There are a thousand and one educational resources online that can help you to get a hold of your financial situation, and much of it is common sense. Have you made some of these mistakes yourself? Tell us your thoughts in the comments!

Chapter 4 : Common Python Mistakes, Tricks, Questions | New Age Quantitative Finance

Frequently asked questions in quantitative finance: including key models, important formulÃ¦, popular contracts, essays and opinions, a history of quantitative finance, sundry lists, the commonest mistakes in quant finance, brainteasers, plenty of straight-talking, the Modellers' Manifesto and lots more.

It may not seem like a big deal when you pick up that double-mocha cappuccino, stop for a pack of cigarettes, have dinner out or order that pay-per-view movie, but every little item adds up. For more insight, see 15 Simple Tips to Save Money. Never-Ending Payments Ask yourself if you really need items that keep you paying every month, year after year. How to Trim the Fat. Living on Borrowed Money Using credit cards to buy essentials has become somewhat normal. Credit card interest rates make the price of the charged items a great deal more expensive. Credit, Debit and Charge: Sizing Up the Cards in Your Wallet. Buying a New Car Millions of new cars are sold each year, although few buyers can afford to pay for them in cash. However, the inability to pay cash for a new car means an inability to afford the car. After all, being able to afford the payment is not the same as being able to afford the car. Furthermore, by borrowing money to buy a car, the consumer pays interest on a depreciating asset, which amplifies the difference between the value of the car and the price paid for it. Worse yet, many people trade in their cars every two or three years, and lose money on every trade. Sometimes a person has no choice but to take out a loan to buy a car, but how much does any consumer really need a large SUV? Such vehicles are expensive to buy, insure and fuel. Unless you tow a boat or trailer, or need an SUV to earn a living, is an eight-cylinder engine worth the extra cost of taking out a large loan? Unless you have a large family, choosing a 6,square-foot home will only mean more expensive taxes, maintenance and utilities. Do you really want to put such a significant, long-term dent in your monthly budget? For more, see Mortgages: How Much Can You Afford? Refinancing and taking cash out on it means giving away ownership to someone else. It also costs you thousands of dollars in interest and fees. Smart homeowners want to build equity , not make payments in perpetuity. Many households are living paycheck to paycheck, and an unforeseen problem can easily become a disaster if you are not prepared. This is not the position you want to find yourself in when an economic recession hits. Loss of employment or changes in the economy could drain your savings and place you in a cycle of debt paying for debt. A three-month buffer could be the difference between keeping or losing your house. Not Investing If you do not get your money working for you in the markets or through other income-producing investments, you cannot stop working - ever. Making monthly contributions to designated retirement accounts is essential for a comfortable retirement. Understand the time your investments will have to grow and how much risk you can tolerate. Consult a qualified financial advisor to match this with your goals if possible. With the right mindset, borrowing from your retirement account can be a viable option, but even the most disciplined planners have a tough time placing money aside to rebuild these accounts. When the debt gets paid off, the urgency to pay it back usually goes away. It will be very tempting to continue spending at the same pace, which means you could go back into debt again. If you are going to pay off debt with savings, you have to live like you still have a debt to pay - to your retirement fund. People spend countless hours watching TV or scrolling through their social media feeds, but setting aside two hours a week for their finances is out of the question. You need to know where you are to know where you are going. Make spending some time planning your finances a priority. The Bottom Line To steer yourself away from the dangers of overspending, start by monitoring the little expenses that add up quickly, then move on to monitoring the big expenses. Finally, make saving some of what you earn a monthly priority, along with spending time developing a sound financial plan.

Chapter 5 : Frequently Asked Questions in Quantitative Finance eBook: Paul Wilmott: calendrierdelascienc

Frequently Asked Questions In Quantitative Finance including key models, important formulas, popular contracts, essays and opinions, a history of quantitative finance, sundry lists, the.

Chapter 6 : Frequently Asked Questions in Quantitative Finance - free PDF, FB2, FB3, RTF

Description. Paul Wilmott - FAQ in Quantitative Finance. Paul Wilmott, London UK is a researcher, consultant and lecturer in quantitative finance. He is founder of Wilmott Associates, a financial consultancy and training firm, from.

Chapter 7 : Wiley-VCH - Frequently Asked Questions in Quantitative Finance

Getting agreement between finance theory and finance practice is important like never before. In the last decade the derivatives business has grown to a staggering size, such that the outstanding notional of all contracts is now many multiples of the underlying world economy.

Chapter 8 : Frequently Asked Questions in Quantitative Finance (è±†ç“£)

There are sections on how to deriveBlack-Scholes (a dozen different ways!), the popular models,equations, formulae and probability distributions, critical essays,brainteasers, and the commonest quant mistakes.

Chapter 9 : Paul Wilmott - FAQ in Quantitative Finance

including key models, important formulae, popular contracts, essays and opinions, a history of quantitative finance, sundry lists, the commonest mistakes in quant finance, brainteasers, plenty of straight-talking, the Modellers' Manifesto and lots more.