ACF304 2024 SUMMER EXAM

2024 MOCK EXAM

29. Why has there been a trend towards passive vs active investment investment over the last several years? how to active managers argue they are still relevant and how are they strategically responding?

Active fund managers aim to outperform a specified index/benchmark by their individual investment style and stock selection identifying.
Passive funds management involves the investment in the basket of underlying assets tracking a specific market or section of the markets, often replicating the underlying index. Significant lower management cost. i.e. Exchange Traded Funds (ETFs) or Index Managed Funds
Passive products are on average four times cheaper than actively managed alternatives but Active Managers have a history of NOT outperforming Passive Managers in the same time, Just 19% of large-cap mutual fund managers achieved a return that exceeded their benchmark. Therefore, active managers are not justifying their higher fees hence the rise of passive investing
active manager Develop investment strategies and offer funds that are difficult to replicate in a passive format to responding e.g.Quantitative strategies or Infrastructure, property, private equity direct lending and so on.

30. what are the core features of a credit default swap? describe the motive of the protecting buyer and protecting seller.

A Credit Default Swap (CDS) is the most popular type of credit derivative, functioning as an insurance contract against the default of an underlying debt over a specified period. The most common maturities range from 1 to 10 years, with a notional principal representing the total face value of the underlying bonds. The protection buyer purchases a CDS contract to hedge against the default risk of a company or country, paying a premium (CDS spread) periodically to the protection seller. In the event of a default, the protection seller compensates the buyer with a cash payment equivalent to the loss given default, calculated as (1 - Recovery Rate%). The protection seller, in turn, takes on the credit risk of the underlying debt in exchange for the premium received.

31. explain why floating rate note(FRN) price volatility is typically significantly lass than for bonds with a fixed coupon rate.

Floating rate notes (FRNs) have variable interest rates linked to a benchmark rate, such as LIBOR plus a margin (e.g., LIBOR + 1%). This rate resets periodically, aligning the bond's interest payments with current market yields. In contrast, fixed coupon rate bonds have constant interest payments that do not change with market rates. When market rates rise, FRN coupon rates adjust upwards, maintaining their market value and attractiveness. Fixed rate bonds, however, become less attractive and decrease in value. This sensitivity to interest rate changes causes higher price volatility in fixed coupon rate bonds. The regular rate adjustments of FRNs result in significantly less price volatility, as their payments reflect current market conditions.

32. how did the structure of US Mortgage bonds instigate the 2008 financial crisis?

US Mortgage Bonds, known as asset-backed securities, were securitized by mortgage payments from individual homeowners. Many of these mortgages were subprime, meaning they were granted to borrowers with low credit quality who could not afford them. Despite this, the bonds were given AAA ratings, misleading investors about their true risk. The complex structures of these bonds made them difficult to accurately price. As defaults on these mortgages increased, the value of the bonds plummeted, causing massive institutional losses. This led to deleveraging, where financial institutions cut back on lending, exacerbating the financial crisis. The reduction in lending impaired the financial system's ability to address adverse selection and moral hazard, further deepening the crisis.

33. how does a flat yield curve represent a different interest outlook under the expectations theory vs liquidity preference theory?(2023)

Under the expectations theory, which assumes bonds of different maturities are perfect substitutes, a flat yield curve suggests that future short-term interest rates are expected to remain constant. The long-term bond rates reflect the average of these anticipated short-term rates, indicating no expected change in future interest rates.

Conversely, the liquidity preference theory posits that bonds of different maturities are not perfect substitutes, with investors favouring short-term bonds due to lower risk. To entice investors to hold long-term bonds, a liquidity premium is added. A flat yield curve under this theory implies that while future short-term rates are expected to decline, the liquidity premium compensates for the additional risk of holding long-term bonds, resulting in a flat overall yield.

34. explain how the problem of asymmetric information has led to the crucial role of financial intermediaries within the financial system(2023)

Asymmetric information, where one party lacks crucial information about another, leads to adverse selection and moral hazard. Adverse selection occurs when high-risk borrowers are more likely to seek loans, while moral hazard involves borrowers engaging in risky behavior after receiving a loan. Financial intermediaries, like banks, address these issues by using specialist results and economies of scale to screen and monitor borrowers effectively. This reduces the risks of adverse selection and moral hazard, ensuring the efficient flow of funds between savers and productive investments. Thus, intermediaries play a crucial role in maintaining financial market stability and functionality.

35. what is a REPO? How might a central bank use it as a tool of monetary policy?(2023)

REPO (repurchase agreement) is a short-term loan used in the money market where the seller agrees to buy back security at a specific time and a certain price. the seller pay a special interest rate known as the REPO rate. central banks often use REPOs to boost the money supply. buying treasury bills or other government paper from commercial banks so the banks can boost their reserves and selling paper back later, when the central bank wants to tighten the money supply, it sells paper first, and buys it back later, an agreement to lend securities rather than the fund, the party that selling securities is doing a REPO, and the party that buying is reverse REPO.

36. Why would 'haircut' on collateral increase sharply during a financial crisis?

Haircuts refer to the percentage reduction in the value of collateral accepted by lenders compared to its market value. It acts as a cushion against potential losses in case the value. it acts as a cushion agains potential losses in case the value of the collateral. During a financial crisis, asset prices fall, often very rapidly and unexpectedly. **1 mark** This leads to the expectation that asset prices may fall further in the future **1 mark**, and increases the uncertainty over the value of assets put up as collateral. **1 mark** As a result, firms accepting collateral assets require larger and larger haircuts, or discounts on the value of collateral in expectation of future lower values. **1 mark** This requires firms to put up increasingly more collateral for the same loans over time. **1 mark**

37. what is meant by the ' Yen Carry Trade', it's a viable investment option in the financial market today?

the yen carry trade involves borrowing Japanese yen at a low interest rate and investing in higher-yielding assets elsewhere, profiting from the interest rate difference
20 years ago, japan reached 0 interest rate, but the US interest rate was 6.5% in 2000, by holding their saving in different currencies to earn vastly more interest.
but In the wake of the 2008 financial crisis, the Yen soared above Yen 80 to $ and Yen 120 to Pound, wiping of years of accumulated interest and capital losses for many
While the yen is still at a low-interest rate and opening up foreign accounts, Japanese banks still offer foreign currency deposits but G7 rates are near zero now. not that viability than before. the viability today depends on current global interest rate differentials and exchange rate stability, which are influenced by economic conditions and central bank policies.

41. exchange-traded funds and their popularity with investors over the last several years.

exchange-traded funds (ETF) are recent innovations to help keep transaction costs down while offering derivatives, ETF is a wrapper that contains a basket of the stock bonds or derivatives .i.e.s&p500 index will be the underlying asset that investors invest.
Bought and sold the same way as stock(unlike the mutual funds which trade once a day), Authorized participants crate and redeem the baskets of security keeping the price aligned with the market value of underlying assets.
In recent years, ETF had large growth, etf AUM$7 trillion in 2019 compared to $ 300 billion in 2007. raise 1200%. About 40% us families hold at least one ETF, bur this number in Europe is 11%, and there is still have large growth potentiation.

42. how should gold theoretically behave in a financial crisis and why did gold struggle to perform well in 2022 (2023)

Gold is regarded as a ‘safe-haven’ investment. Gold does not pay any interest nor have obvious capabilities for capital appreciation however, investors theoretically buy gold when financial markets are falling or if there is a strain on the financial system.
But the gold price was struggling in 2022. because
1. The financial crisis in 2022 is over, the problem at 2022 is inflation, investor do not fear to take risks, but they need to beat inflation
2. gold is a non-interest bearing asset, in 2022 bond yield rose sharply which reduced the relative attractiveness of gold despite rising inflating

43. MiFID2 and its buy/sell side implications

MiFID2 (Markets in Financial Instruments Directive II) is a regulatory framework implemented in the European Union to enhance investor protection and market transparency but raises operational costs and complexities.

For the sell-side, investment banks must unbundle research costs from trading commissions, leading to decreased research revenues and increased transparency in pricing. They face higher compliance costs and must ensure the best execution for clients.

For the buy-side, asset managers now have to pay separately for research, often resulting in reduced reliance on external research and increased internal research efforts. MiFID II enhances investor protection and market transparency but raises operational costs and complexities.

Overall, the directive aims to create a fairer, more transparent financial market, improving trust and efficiency while imposing stricter regulatory requirements on all participants.

2020

1. what are closet index funds and why are they a concern for regulators?

Closet index Funds are supposed 'active' fund manager which 'hug' or try to stay close to their benchmark index instead of actively managing their funds. And then, potentially 1 in 7 of 2600 investment funds which ESMA (European Securities Regulator) investigated may be closer indexers.
They are a concern for regulators Because ①Closet index Funds are most misleading, it make investors think they are buying an activity manager fund. ②investor could put their money indelicated（专门的）index tracker at a fraction of the cost.

2. explain why interest rates on bank deposits can be negative. explain whether negative interest rates on depicts always have an expansionary effect.

Negative deposit rates are normally been a way to encourage banks to increase lend more rather than save and encourage families to spend (Because the cost of getting credit is lower), this is an extremely expansionary monetary policy tool in a difficult time. i.e ECB were has deposit interest rate after the global financial crisis.

First, expansionary effect refers to the impact certain economic policies or actions that stimulate economic growth and expansion.
But negative deposit interest Rate can not always have expansionary effect. Since commercial banks may prefer to hold cash then lend to risky clients. in addition, negative deposits rate decrease bank profits as banks still pay positive interest rate on deposits from people. this may cause banks to lend less and therefore have a contractionary effect.紧缩效应

3. how does the market segmentation theory of yield curve explain a ‘humped’ shaped yield curve?

The market segmentation theory of the yield curve posits that the shape of the yield curve is determined by the supply and demand for bonds within each maturity segment, as investors have specific maturity preferences. A "humped" yield curve occurs when there is high demand for medium-term bonds, driving their yields lower relative to short-term and long-term bonds. This results in a lower yield for medium-term maturities compared to both shorter and longer maturities, creating a hump in the yield curve. This shape indicates that investors prefer medium-term bonds due to factors such as risk, return expectations, and liquidity preferences, leading to a temporary imbalance in supply and demand across different maturity segments.

4. how did the structure of us mortgage bonds instigate the 2008 financial crisis?

US mortgage bonds, known as asset-backed securities (ABS), were securitized by mortgage payments from individual homeowners. Many of these bonds included subprime loans to low-credit-quality borrowers who ultimately could not afford their mortgages. Despite this, these securities were often given AAA ratings, misleading investors about their true risk. The complexity of these securities made it difficult to assess their risk accurately. As defaults increased, the value of these mortgage bonds plummeted, leading to massive institutional losses. Financial institutions, facing significant losses, began deleveraging, cutting back on lending. This contraction in lending disrupted the financial system’s ability to manage adverse selection and moral hazard, exacerbating the crisis and leading to a severe economic downturn.

5. explain why passive investment has overtaken active investment in terms of investor inflow over the last decade.

Passive management refers as strategies that track a specific market or section of the market by replicating the underlying assets index. normally them will use ETF and Index managed Funds. Active investment strategy is to get α(Alpha) who aim to outperform a specific index and benchmark.
The reasons of passive investment has overtaken. first, the performance of active investment is not as good as the image. 2016-2018 the S&P 500 index reture is9%. Just 19% of large-cap mutual fund exceeded their benchmark. Secondly, the fee of the active investment manager is 4 times higher than the passive format. e.g Infrasture, property and they also develop Quantitive strategies. Whereas by active managers run highly diversified, computer-driven portfolios that invest in a large number of stockers.

6. explain the main influences on the price of oil including consideration of the current covid-19 crisis.

Oil is a commodity, The major producer of oil is OPEC which consists of 15 countries and led by Saudi Arabia. it's mission is to control the price of oil , and Russia, China, u.s is also the major producers. But not in OPEC.
Several factors influence price of oil.
1. Technology. especially franking in the U.S. has had a major effect on the supply side. It sharply increase the effectiveness of oil production.
2. geo-politics 2017-2020, OPEC and Russia began capping supply to focus the price up.
3. during covid-19, Golba damand is down 1/3. But the level of us production remains robust despite storage tanks being just weeks away from reaching capacity.
and it also causes the WTI price to go down. Future contracts for us benchmark West Texas Intermediate for delivery next month (Future CME) tumbled to -$40 per barrel the first time.

7. explain the MiFID2 has addressed the issues of 'price transparency' and 'research unbundling'.

MiFID2 is the Market in Financial Instrument Directive, implemented Jan 2018 and focus on price transparency and reach unbundling.
1. Price transparency. before transaction (pre-trade) – trading venues and market-makers to publish offered, executable quotes before a trade is complete. then, post-trade: all-trade must be immediately included in the trade report. containing the volume and price must be published to the market. Post-trade transparency requires the timely publication of trade date to All Approved Publication Arrangement (APA)
2. reacher unbundling: the side of sell can no longer provide research for free to the Buy side.
and should provide 'Best Execution' to make sure the customer not been 'cheated'.

8. explain how treasury STRIPS are created and what prevents arbitrage with normal treasury securities. why might a private investor buy STRIP rather than coupon US treasury bonds?(2023)

Treasury strips (Separate Trading of Registered Interest and Principal Securities) is the coupon and principal payments are "stripped" fromat-Bond and sold as individual zero-coupon bonds.

Arbitrage is prevented because the combined market value of the STRIPS equals the value of the original Treasury bond. Any significant price discrepancy would be quickly corrected by traders, maintaining price alignment through arbitrage activities.

Private investors might buy STRIPS instead of coupon Treasury bonds for several reasons: the certainty of a known payment at maturity without reinvestment risk, suitability for matching future liabilities, and their appeal for tax-deferred accounts since interest is accrued but not paid until maturity.

A) Fixed Income Liquidity Risk and implications for investors.

老师给的答案

It is the risk that an investor will have to sell the bond below its market value. 1 mark The primary measure of liquidity is the size of the bid-offer spread. 1 mark Corporate Bonds are more likely to be more illiquid than Government Bonds. 1 mark

Investors dealing in large size trades may be more attracted to Government bonds than Corporate bonds due to the larger size and more liquid Government bond issues. 1 mark . Since Govt bonds are more liquid than Corporate bonds, investors will find it easier to trade Govt bonds electronically 1 mark Even with Corporate Bonds investors will choose larger size issues rather than smaller size issues due to the better liquidity they offer 1 mark

b) exchange-traded funds and their popularity with private investors over the past several years.

Exchange Traded Funds known as ETFs represent a way of passive investment. ETF is a wrapper that contains a basket of shocks, bonds or derivatives. An ETF S&P 500 you investing in the underlying securities Brought and sold the same way as stock (Unlieg Mutual Funds which trade once a workday) Authorized Participants create and redeem the baskets of securities keeping ETF prices aligned with the market value of underlying assets. ETF has been popular for the past several years. ETF AUM $7 trillion in 2019 compared to $300 million in 2017, it is +120% growth in 2 years. And U.S. is the largest ETF market in the world. 40% of U.S. households own ETFs. But this number is 11%. In European, it means ETFs have large growth potential at European.

8)What does it mean when a bond is referred to as a convertible bond?Would a convertible bond be more or less attractive to a bond holder than a non-convertible bond?

Convertible bonds are bonds that may be exchanged for another security of the issuing firm such as common stock at the discretion of the bond holder. 1 mark If the market value of the securities the bond holder receives with the conversion exceeds the market value of the bonds, the bond holder will return the bonds to the issuer in exchange for the new securities and make a profit. 1 mark If the price of the underlying equity goes up, ‘all other things being equal’, the price of the convertible bond will also increase. 1 mark Convertible bonds gives investors an investment opportunity that is not available with non-convertible bonds in allowing bondholders to gain exposure to equity investments. 1 mark As a result, the yield on a convertible bond is lower than a non-convertible bond. 1 mark A Fixed Income Fund Manager may or may not have the authority to buy such bonds. 1 mark

c) The Dodd Frank and Basle 3 regulations and how the latter limits Investment Banking trading capabilities.

The Dodd-Frank Act and Basel III regulations were implemented to increase the stability and transparency of financial systems post-2008 crisis. Dodd-Frank introduced stricter oversight, requiring higher capital reserves and the Volcker Rule, which limits proprietary trading by banks to reduce risky behavior.

Basel III further restricts trading capabilities by increasing capital requirements, introducing liquidity coverage and leverage ratios. These measures ensure banks have enough high-quality liquid assets to survive financial stress. Consequently, investment banks face reduced leverage and higher costs of holding trading assets, limiting their ability to engage in extensive proprietary trading. This shift aims to mitigate systemic risks but also reduces profitability and market-making activities for banks, affecting their overall trading strategies.

d) Gold as an alternative investment asset. How would you theoretically expect gold to behave in the current Covid-19 crisis and why?

2022

6) Why is there a Corporate Bond Liquidity problem today that didn't exist before the 2008 Financial Crisis?(2023)

The corporate bond liquidity problem refers to the difficulty in quickly buying or selling corporate bonds without significantly affecting their price.
The corporate bond liquidity problem today stems from several factors that emerged post-2008 Financial Crisis. Compared to stocks, there are far more types of corporate bonds, often issued in various currencies and over different time periods, making them harder to trade quickly. For instance, Toyota has over 700 bonds outstanding compared to its stock listed in eight places. Post-crisis regulations, notably Basel III, increased capital requirements for banks holding these bonds, reducing their balance sheets. Consequently, banks find it more difficult to conduct large trades. This results in a market where finding immediate buyers or sellers for corporate bonds is challenging, causing higher transaction costs and increased price volatility.

7) What do corporate bond ratings represent? How do they relate to corporate bond risk premium, yield and overall risk?

Corporate bond ratings, assigned by agencies like Moody's, S&P, and Fitch, evaluate the creditworthiness of a corporation's debt. These ratings indicate the likelihood of the issuer defaulting on its obligations. Higher ratings (e.g., AAA) suggest low credit risk, while lower ratings (e.g., BBB or below) indicate higher risk.

risk premium is defined as the return in excess of the risk-free rate of return that an investment is expected to yield. Lower-rated bonds offer higher risk premiums to compensate investors for increased default risk, leading to higher yields compared to higher-rated bonds. Thus, bond ratings directly reflect overall risk, with lower ratings indicating higher risk and potential for default, influencing investor demand and pricing.

9) What is meant by the Eurodollar market? Why is it an important source of financing?

The Eurodollar market consists of banks that accept deposits and make loans in currencies other than those in their own country. **1 mark** The modern Eurodollar market evolved from special circumstances of the post-World War II international finance system. **1 mark** Early in this period, many foreigners found it convenient to deposit dollar balances with banks in Europe. **1mark**
The primary reason for the expansion of the Eurodollar market is that it reduces the costs of international trade by offering traders an efficient means of economising on transaction balances in a world where most trade is denominated and transacted in U.S dollars. **1 mark**

Since Eurodollar deposits are located outside the United States, **1 mark** they are not subject to reserve requirements set by the Federal Reserve.**1 mark**

a) The significance of US Non-Farm Payroll data

The US Non-Farm Payroll (NFP) data measures monthly changes in employment, excluding the farming sector, and is a key economic indicator. When NFP data exceeds predictions, it signals strong economic recovery, increasing the likelihood of inflation and higher interest rates. This results in higher bond yields, lower prices for existing bonds, and potentially lower stock prices due to concerns about higher financing costs. The US dollar typically strengthens. Conversely, if NFP figures are below forecasts, it suggests economic weakness, leading to lower interest rates and a weaker USD. The NFP announcement significantly impacts trading activity across financial markets, influencing investor decisions and monetary policy expectations.

Explain ECB Quantitative Easing? (5 marks)

Unconventional monetary policy of the ECB. **1 mark**
Involves ECB purchasing of bonds from banks. **1 mark**
If a customer (ECB) buys a bond he is providing funds to bond seller. **1 mark**
Banks are then meant to lend such funds out into the economy. **1 mark**
To stimulate economic growth. **1 mark**
The ECB finished its monthly €2.5tn QE stimulus programme December 2018 but restarted QE Nov 2019 due to European/Global growth slowdown concerns. Now Covid-19 related**.1 mark**

How does the Federal Reserve control interest rates on Fed Funds?

Definition of the Fed funds rate
The Federal Reserve cannot directly control interest rates on Fed Funds. **1 mark**
It can, and does, indirectly influence them by adjusting the level of reserves available to banks in the financial system. **1 mark**
The Fed can increase the amount of money in the system by buying securities, **1 mark** thus lowering demand for excess reserves and the fed funds rate. **1 mark**
Alternatively, the Fed can remove reserves by selling securities, **1 mark** and hence increase demand for excess reserves and increase the fed funds rate. **1 mark**
Repurchase agreements can also affect the supply and demand for reserves but on a temporary basis **1 mark**

Increasing/decreasing the reserve requirements ratio?

The Fed can increase the amount of reserves (and hence the money supply) by buying securities, **1 mark** thus lowering the demand for excess reserves and the Fed Funds rate **1 mark** Alternatively, the Fed can remove reserves by selling securities, **1 mark** and then increasing demand for reserves and increase the Fed Funds rate **1 mark** Repurchase agreements can also affect the supply and demand for reserves but on a temporary basis

Arguments for and against FOMC releasing minutes immediately after 6 weekly meeting? 5 marks

Argument for releasing them immediately is that it makes the Fed much more accountable and increases transparency within the market i.e. the process of knowledge sharing. Argument against releasing the FOMC meeting minutes immediately is that it keeps congress off the Fed's back thus enabling the Fed to pursue an independent monetary policy that is less subject to inflation. Due to the inflationary bias which happens with government pressure and government intervention.

Why might eliminating the central bank's independence lead to a more pronounced political business cycle? 5 Marks

The lack of independence of a central bank means that instead of focusing on long term public interest, the central bank decisions are grounded in a political cycle. **1 mark,**Board members are appointed based on their connections with the government instead of their high expertise and performance. **1 mark,** Accordingly, they are accountable for their decisions on a short-term perspective to the current government**. 1 mark** Their decisions will not protect the economy against long-term large deficits. **1 mark** The expected consequence in democracies is a change of the party in charge of power. It is usually believed that increased long-term responsibilities of central banks need more independence to be successful, **1 mark** but there is no evidence against it**.1 mark**

Provide a concise definition of a REPO agreement. 5 marks

A repurchase agreement, or repo for short, is a short-term loan much used in the money markets**. 1 mark** whereby the seller of the security agrees to buy it back as a specified price and time. **1 mark** The seller pays an interest rate, called the repo rate, when buying back the securities. **1 mark** Central Banks often use repos to boost money supply, buying Treasury bills or other government paper from commercial banks so the bank can boost their reserves, and selling paper back at a later date **1 mark.** When the central bank wants to tighten money supply, it sells paper first, and buys it back later **1 mark** -this is called a reverse repo, an agreement to lend securities rather than funds. **1 mark**

What is commercial paper?

• Commercial paper is an unsecured note/security **1-mark** issues by corporations **1 mark** with a maximum maturity date of 270 days **1 mark.**

• The market is essential since many foreign contracts call for payment in U.S. dollars due to the stability of the dollar, relative to other currencies **1 mark**

Explain the main influences on the price of oil

What is oil, how it priced ($ per barrel), major producers and their current agreement, interesting price implications e.g. supply and demand, COVID-19, negative WTI, fracking, geo-politics.
Oil got a more physical deliver factor than gold (can sell the oil you own otherwise have to store it), also too many factors influencing price of oil e.g. politics, fracking so gold a greater commodity for hedging inflation.

Oil, priced in dollars per barrel, is a critical global commodity with its price influenced by various factors. Major producers, like OPEC and Russia, have agreements to control supply to stabilize prices. The supply and demand balance heavily impacts oil prices; for example, during the Covid-19 pandemic, reduced demand led to plummeting prices, including a brief period of negative WTI prices due to storage shortages.

Fracking has significantly increased U.S. oil production, affecting global supply dynamics. Geopolitical events, such as conflicts in the Middle East, can disrupt supply and cause price spikes. Unlike gold, oil has physical delivery requirements, necessitating storage if not sold immediately, adding to its price volatility. Consequently, oil prices are subject to numerous influences, making them more volatile compared to gold, which is often used as a hedge against inflation due to its stability.