UNIVERSITY OF BATH

Andreas Krause


# ES52064 Financial markets

*Seminar problems*

The problems provided as part of this module are designed to apply the theories learned to practical and realistic scenarios, allowing students to apply their knowledge and practice their ability to explain real-world events using economic theories in plain English. Seminars are dedicated to discussing these problems, but we are not able to discuss all problems due to time constraints. Having additional problems allows students to practice their knowledge in preparation of the assessment; they can compare their solutions with the indicative answers provided and for any additional clarifications attend the office hours.

The below table gives an indication about the problems to be discussed in class for each topic. At times it will be not be possible to discuss each problem and at other times it might be possible to discuss an additional problem if time permits. It is expected that students are prepared to discuss all problems in each seminar.

| | **Seminar problems** |
|---|---|
| Topic 1 | 1, 4 |
| Topic 2 | 5, 7 |
| Topic 3 | 10, 11 |
| Topic 4 | 14, 16 |
| Topic 5 | 17, 20 |
| Topic 6 | 21, 24 |
| Topic 7 | 25, 27 |
| Topic 8 | 29, 30 |
| Topic 9 | 34, 35 |
| Topic 10 | 38, 40 |

The difficulty of problems will vary, as the difficulty of questions in the exam will vary, to allow for an assessment of the degree to which the learning outcomes have been met and the final mark to reflect the standards achieved. The questions discussed in the seminar will therefore be a mix of more easy and more difficult questions. Furthermore, some problems will require the application of more than one model for a complete answer, but these are not necessarily more difficult than problems requiring the use of only a single model.

# Topic 1

## Problem 1

Tillmann Uhrmacher did sell his shares in Avancia plc a few days ago and has now noticed that the price has increased by nearly 15% since his sale. Looking at the reason for the increase in the price he discovers that it was due to information being made public by the company on agreeing a joint venture with a company in Malendia, a market they had sought to enter for a long time and which is projected to increase their profits significantly. Malendia is a large country with a young and increasingly wealthy population, but its financial system is significantly underdeveloped and has no established stock market or tradition of investments into stock markets. Tillmann Uhrmacher is surprised that the announcement caught even the most knowledgeable traders by surprise as press comments showed. Upon investigating the case further, he finds that a day prior to him selling his shares, a brief note was published in the print edition of a local newspaper at the location of the new joint venture, mentioning the arrival of a delegation from Avancia plc for negotiations with a local company.

Why was this information not picked up by traders at the time?

## Problem 2

Lech Szobomir is occasionally investing small amounts of his savings into local stocks, unlike his friend Mariusz Zawenski who has become a part-time trader. Lech Szobomir has not much experience and his knowledge about the stock market is very limited; he struggles to interpret financial information as this is not his professional background. Whenever he decides to invest into the stock market, he follows some tips from his friend Mariusz Zawenski. In some of their discussions, Mariusz Zawenski tells his friend repeatedly that he should follow the financial press more and then he could make more profits and improve on his salary. Lech Szobomir replies that there is no point in doing so as he just does not understand it. Unlike Mariusz Zawenski, he only has a small amount to invest and his friend's knowledge is far superior to his own.

Is it rational for Lech Szobomir to not seek additional information about stocks, while for Mariusz Zawenski it is?

# Problem 3

Grammatica Bank manages the wealth that a friend inherited three years ago from a relative as he has no knowledge of investment strategies. Every quarter the bank provides him with a report in which they outline the investments they have made, on what basis they made their decisions, and how the investments performed. In their most recent report, they claim that their investment strategy has yielded him a return of 2.7% p.a. above the market return and 3.4% p.a. above the benchmark return, which is adjusted for the risk the bank has taken for these investments; the volatility of the investments was 24% p.a. The report also contains general information on the market itself, which yielded a return of 2.9% and a volatility of 8% in the last quarter, compared to yields on government bonds of 1.4% p.a.

a. Looking at these figures you immediately claim that the bank underperformed by 2.4% p.a. How did you obtain this result?

b. How do you explain the difference in the bank claiming a return of 3.4% above the benchmark, while your assessment shows the bank underperforms by 2.4%?

# Problem 4

An investment has yielded a return of 17% and the volatility has been 32%, compared to a return of a broad market index of 13%, which had a volatility of 22%. Your investment had a correlation with this market index of 0.85 and you could have invested into government bonds yielding 3%.

a. Evaluate your performance relative to the market using two risk measures, one taking into account all risks and the other taking into account systematic risk only.

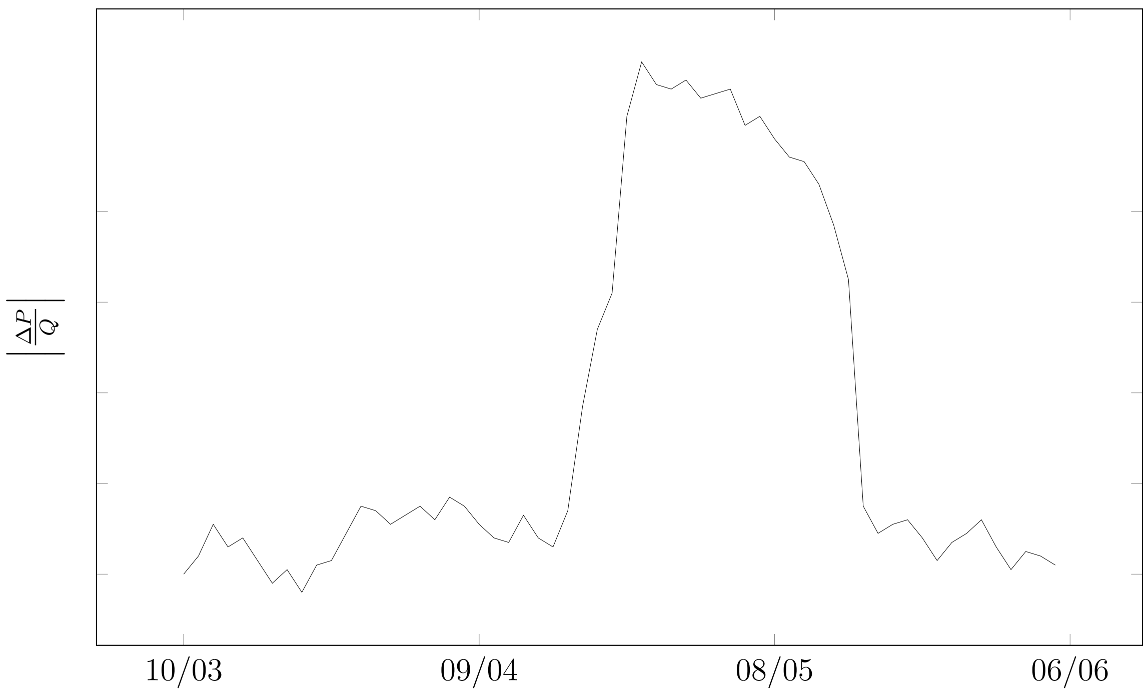
b. Explain the differences (if any) between the results of the two performance measures.

c. Which performance measure would you choose?

# Topic 2

## Problem 5

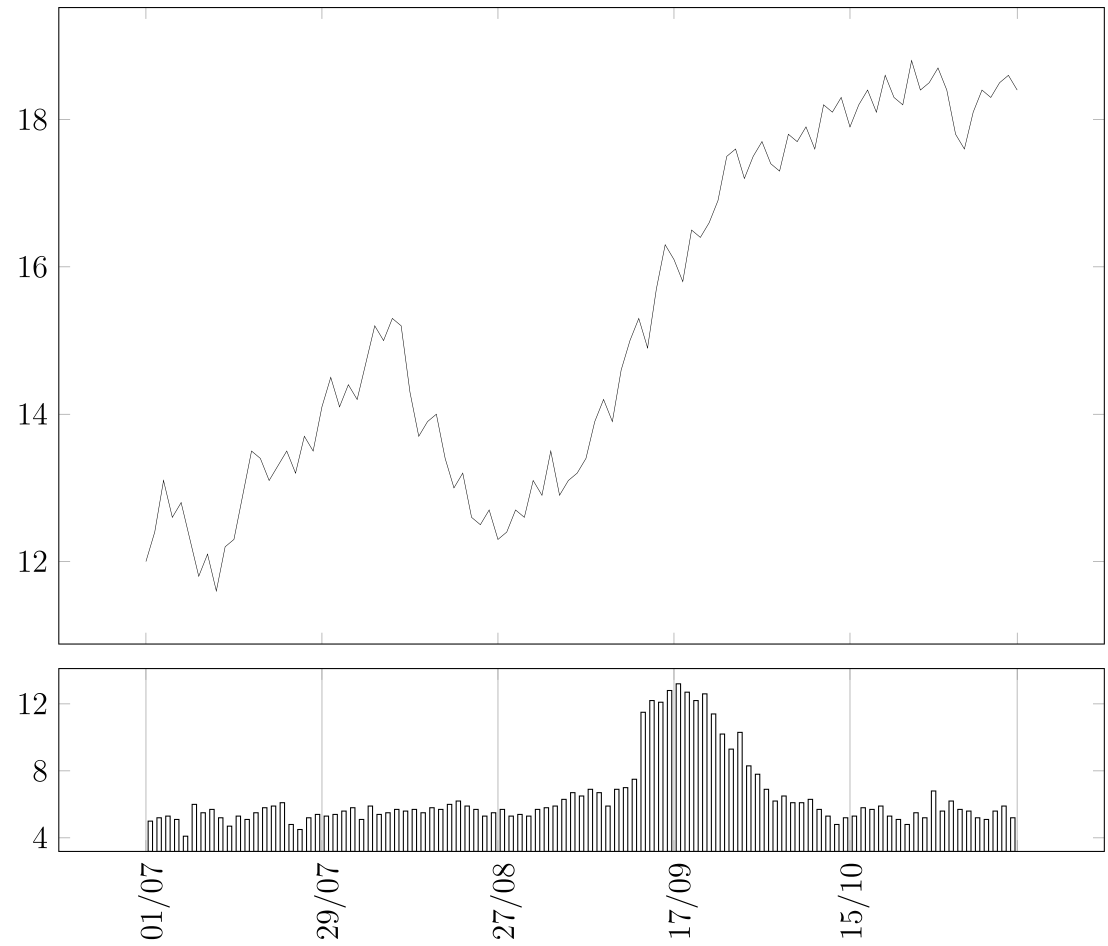
The below graphic shows the absolute value of the ratio of the price change of a stock, $\Delta P$, and the trade size, $Q$, for each trading day during a 60 day time period.




How can you explain this graph?

## Problem 6

You are given the following chart of a stock, where the top panel shows the daily closing stock price and the bottom panel the daily trading volume (in million shares) over 100 trading days.




What information can you extract from this graph? Focus in particular on the rise and fall of the stock price in July/August and then the increase during September and explain any differences you might observe.

# Problem 7

The Ammaya Stock exchange investigates its trading rules with the aim of improving the quality of the market for all investors and attracting new investors. As part of its investigation it hears of retail investors complaining that the market often moves considerably when they submit even modest orders, making buying and selling stocks unnecessarily expensive; furthermore the prices seem to be not very informative, it looks like that very few informed traders are present in the market who ensure that stock prices reflect the current market consensus. As a possible barrier to a better market quality the stock exchange identifies its arcane rule that traders may only submit 5 orders for shares during each trading day. It suggests to abolish this rule and expects the market quality to improve.

Would this measure of allowing traders to submit as many orders as they like improve the market quality?

## Problem 8

Enzio Frabrici observes that the trading volume of a stock he follows closely has increased significantly in recent days. In discussion with his colleague Natalya Klimatova he claims that this will be due to a large number of traders having obtained some sort of information that he has not been able to uncover. Natalya Klimatova doubts that this is the case as she knows that both of them would have heard about this information as they are quite well connected. Instead, she suggests, it probably will be that a small group of traders has obtained some very specific piece of information that has eluded them and most other traders.

Who is right in their assessment of the cause of the higher trading volume?

# Topic 3

## Problem 9

In recent months, the bond market of Ulanda has seen significant volatility, which was uncharacteristic for this usually very calm market. The volatility was fuelled by expectations of interest rate rises by the central bank, which then did not materialise during a number of meetings of its monetary policy committee, including some emergency meetings due to the volatility of the bond market. A public debate has begun about this episode of high volatility and how to prevent a reoccurrence in the future. A leading commentator on economic affairs of the popular newspaper Ulanda Star, Christian Mbewe, blames 'out-of-control speculators' for the instability of the bond market and suggests that such speculation should be banned to protect genuine investors.

Would such a ban on speculation, however enforced, be beneficial?

## Problem 10

Jongil Kim has come across a local newspaper report that suggests Steinman plc will soon announce a major breakthrough in the development of a new drug. This information seems not to have been shared widely in the market and the market is overall neutral about the prospects of the company, although some traders have started a selling off of the shares due to the delay in announcing any major developments from their research department. To the surprise of his colleagues, Jongil Kim does not start buying shares in Steinmann plc, but instead joins the selling off of shares with other investors. He is called irrational for selling rather than buying shares.

Is there a rational explanation for his behaviour?

# Problem 11

The market in a number of smaller stocks at the Pollinta Stock Exchange has been characterised as a casino by many experienced market observers. It seems that in many of the small stocks that are listed, traders catch on to spurious bandwagons which seem to have no relation to the value of the stocks, only to abandon this bandwagon and jump on another one, often reversing past price trends. The rationale given for the bandwagons are dismissed by most market professionals as being without merit, but they seem not to be able to break any such trends. As a consequence of the behaviour of quite a large fraction of traders in these stocks, the stock prices have seen large swings from time of high valuations to time of low valuation, and back again, without any relationship to their fundamental values.

a. How do you explain the characteristics of the market in these stocks and why do traders participate?

b. Would measures to curb the influence of these traders be beneficial?

# Problem 12

You compare the properties of markets in small and not well known stocks with that of larger and widely held stocks. One observation you make is that smaller stocks are much more subject to large price swings than larger stocks. In larger stocks, price trends are much less common and frequently reversed after brief periods of time, while for small stocks these price trends can last for a considerable time and are much more frequently observed. You also observe that information on small stocks is made public much less frequently than for larger stocks, which benefit from more disclosures by the companies themselves but also information provided by the financial press. Finally, large stocks seem to attract a higher proportion of professional investors following these stocks' information closely.

How can you explain that small stocks are more frequently seeing price trends and that these price trends are lasting longer than for large stocks?

# Topic 4

## Problem 13

As a long-time stock market investor you are well used to stock markets exhibiting bubbles from time to time, have become adapt at recognising them, and take measures to not suffer losses from the bubble bursting unexpectedly. You have recently expanded your investments to stocks listed overseas and have gained a good understanding of these markets. As your investment strategies often involve taking loans to make additional investments to exploit any market inefficiencies you have discovered, you are sensitive also to the interest charged on your loans. As the interest rates in your overseas market is lower than in your home market you have started taking out loans overseas, denominated in a foreign currency. Even though you belief that your currency is currently slight undervalued, you calculate that even a correction of this undervaluation will not wipe out the lower interest you are charged. To your surprise you observe over the coming weeks and months that the undervaluation of your currency increases ever more, making the repayment of your loan more and more expensive. A friend who is more familiar with the foreign exchange market explain to you that it is just a bubble and will correct itself sometime soon. You are confused how a bubble like this can be sustained; all bubbles you have experienced in stock markets had led to an overvaluation of the stocks, never an undervaluation, while here your currency is undervalued.

How can you explain that an undervaluation of the currency can be a bubble?

## Problem 14

The Financial Regulatory Agency (FRA) is, amongst other duties, responsible for the orderly functioning of the stock exchange. The stock market has recently seen a large influx of investments that has seen prices increase and while the prospects of companies are looking well, many investors start to become nervous about the high valuation stocks currently have. Many investors have started to consider the risks of stock prices falling back and the number of put options contracts agreed in the market has increased significantly. The FRA suggests to limit the sale of put options as a measure to stabilise the market.

What is the rationale behind the suggestion of the FRA?

## Problem 15

The price of Atalanta plc has recently seen a significant increase without any new information becoming available or meaningful rumours being spread. More and more new traders have been investing into Atalanta plc and as the price was rising, many seasoned investors have warned that the stock is significantly overpriced, but to no avail. In light of the warnings, however, more and more traders become concerned about the rise in the price and fear they are investing into a bubble that may burst anytime. For this reason, many traders hedge their position and seek to avoid losses from a sudden drop in the stock price.

Can a sudden drop in the stock price of Atalanta plc be prevented by hedging?

## Problem 16

Stock prices have been rising steadily over months with more and more traders buying stocks, while existing traders cash in their profits by selling up. The recent traders are aware that the stock price has been increasing recently and many traders have hedged their positions at the level they entered the market. Hedging demand has therefore increased significantly in the last months.

Does the high hedging demand increase the likelihood of a stock market crash?

# Topic 5

## Problem 17

You are holding a portfolio worth £100,000 consisting two stocks, Arifa and Belusa, with weights of $\frac{2}{3}$ and $\frac{1}{3}$, respectively. Arifa stocks have shown an annual return of 10% and an annual volatility of 25%, while Belusa has an annual return of 14% and an annual volatility of 35%; their correlation you found to be 0.74. You seek to avoid losses exceeding £10,000 over any 10-day time period, but are willing to accept larger losses in 1% of cases.

a. How would you have to change your portfolio to achieve this aim?

b. Is the change you seek in part a. realistically achievable?

## Problem 18

For the investments into Arifa and Belusa in problem 17, you want to ensure that the value of your investment never falls by more than 5% below its current value. In addition to the investment into the portfolio, you have the ability to invest into a government bond yielding 4% p.a.

Using Constant Proportion Portfolio Insurance, how much of your initial wealth of £100,000 would you invest into the risky portfolio and the government bond, respectively?

## Problem 19

Catherine Johansson is managing a portfolio of stocks on behalf of her client, Simon Holder, which was originally invested into government bonds yielding 4% p.a.; she will review the portfolio again in a month's time. The investment portfolio under her management has been valued at \$10m and she has determined that her investments give a 95% Value-at-Risk of \$2.4m over a month. She advises her client that even if the market turned completely against them, he would at least have a portfolio worth \$7.6m in a month time.

a. Is her assurance to Simon Holder correct?

b. Which method would you suggest to ensure that Simon Holder holds a portfolio worth at least \$7.6m in a month's time?

c. How would your approach differ from that of Catherine Johansson?

# Problem 20

Sami Mattikaiinen manages a trading desk at Lapland Bank and has been assessing a breach of the Value-at-Risk limit of one of the traders under his management. While the breach was a minor exceedence of the maximum risk the trader was allowed to take, neither he nor his trader understand how it came about. The breach occurred as the trader was selling parts of a corporate bond holding and replaced it with a bond of comparable qualities, but with the issuer in a different industry. The total amount invested did even reduce slightly and the risks associated with the new bond was not higher than with the bond he partially sold.

How can you explain the breach of the risk limit in these circumstances?

# Topic 6

## Problem 21

The shares of Trafalgar plc. trade at 431p and you are seeking information whether it is advisable to invest into this company. When collecting information about the company you establish that it has paid a dividend of 13p during the last year, having grown its dividend by 4% each year in the past and you believe that the company will able to maintain this growth for the foreseeable future. You have further determined the volatility of the shares as 22% p.a. and its correlation with a broad market index is 0.82. This market index is expected to increase by 8% p.a. and has shown a variance of 0.04 and treasury bills yield 3.5% p.a.

a. Would you recommend to purchase shares of Trafalgar plc.?

b. Would your answer change if the dividend were to grow at 5% each year?

c. How do you explain that such a small difference between the growth rates affects your results significantly?

## Problem 22

Jones & Co. seek to expand their business and have drawn up three possible avenues for investment:

- Expanding their current business in the domestic market would require an investment of £100m and they expect to generate profits giving a return on investment of 11% each year for the foreseeable future. Having discussed this investment with their bank, the bank has agreed to grant a loan of £60m at a loan rate of 8% p.a.
- They could expand in an overseas market, investing £70m, which would generate an initial return on investment of 7%, but their profits are expected to grow by 4% every year. Their bank would provide a loan of £35m at a loan rate of 9% p.a.

- The final investment opportunity would be to diversify their business by expanding into new markets, which would require an investment of £110m, to which the bank would lend £65m at a loan rate of 9.5% p.a. The investment is expected to yield a return of 11.5% p.a. for the foreseeable future.

For these investments they are able to raise up to £100m in equity.

If Jones & Co. face equity costs of 12% p.a., what would be your advice on their investments?

# Problem 23

You observe that after an increase in the stock price the next price change of the stock is more likely to be positive than negative. After a decrease in the stock price, you find that the next price change is more likely to be positive than negative. You conclude that the market cannot be efficient as whatever the last observation of the price change, the price is more likely to increase than decrease.

a. Is your conclusion correct, assuming you have performed appropriate statistical test supporting your observation?

b. If instead, you observed that after a decrease in the stock price the next price change is more likely to be negative than positive, would your conclusion hold?

# Problem 24

You have two companies that compete in the same market, facing comparable competitive forces. Despite them being so similar, the profits of the listed company Pillmeyer AG has grown at a rate of 4% p.a., while Hertig KG, which is privately owned, has only grown at 3% p.a. With the current owners of Hertig KG seeking to sell their company, they need to determine its value to be able to set an appropriate price. As Pillmeyer AG is listed on the stock exchange, they know that its value is €117m and according to their latest annual report they generated profits of €4.5m. Internal numbers show that Hertig KG showed profits of €1.7m.

What is the value of Hertig KG?

# Topic 7

## Problem 25

You observe the following term structure on government bonds:

| Maturity (years) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Yield (% p.a.) | 3.24 | 3.31 | 3.57 | 3.82 | 4.13 | 4.41 | 4.93 | 5.02 | 5.52 | 5.97 |
| Maturity (years) | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Yield (% p.a.) | 6.08 | 6.12 | 5.86 | 5.68 | 5.52 | 5.35 | 5.27 | 5.22 | 5.20 | 5.19 |

a. What is the expected yield of a 3-year bond in 4 years' time?

b. How do you explain the change of the yield the 3-year bond experiences, given your answer to part a.?

c. In how many years' time do you expect short-term yields to decline?

d. In how many years' time do you expected the yield 5-year bonds to decline?

## Problem 26

A bank has obtained deposits to the amount of \$50m from a wealthy individual and agreed to pay interest of 5.5% p.a. for a period of 2 years, while the current level of interest rates for all maturities is 5.25%. It can grant loans at the current level of interest to companies with repayments to be scheduled in 5 years. In order to completely eliminate any interest rate risk, how much loans do they need to provide to companies?

## Problem 27

As an intern at Khalili Bank in the country of Avar, you are asked to provide a brief statement for a client meeting on the likely economic conditions in the next few years.

You have only recently moved to Avar and are very much unaware of the economic situation. However, you observe that the yield curve has an inverse hump shape, i. e. it initially decreases and from year 4 onwards increases again.

What would be your conclusions?

# Problem 28

A pension fund has long-term liabilities due to commitments of future pension payments. It determines the value of these commitments by discounting at the currently prevailing interest rate for 25-year government bonds. Until pension payments have to be made, the pension fund has invested a considerable part of their reserves into Treasury Bills and comparable short-term debt instruments. They valued the instant access these investments guaranteed, without being too much affected by changing interest rates. The yields on long-term bonds have been falling recently and the pension fund made considerable losses as a consequence.

a. Why does the pension fund suffer losses as long-term interest rates fall?

b. How can the pension fund reduce the risk of losses from future decreases in the long-term interest rate?

# Topic 8

## Problem 29

Helgo Holdings plc is a property company that holds a large number of residential and commercial properties, all partially mortgaged by banks or pledged against a bond they have issued. Recent rises in the interest rate on mortgages combined with a saturated market for commercial property has made the company much less profitable than it used to be. In order to conduct maintenance work on their properties, they have traditionally relied on unsecured loans. As one of the few companies on which credit default swaps are traded, you have seen a significant increase in the CDS spread over the last few months from 0.0225 to 0.0312.

a. One of the bonds issued by Helgo Holdings plc, maturing in 11 years, is featuring a coupon of 6.75% and trades at 94.38% of its face value when government bonds of the same time to maturity yield 5% p.a. A few months ago before the CDS spread increased, you had assessed the probability of default of Helgo Holdings plc as 3% per year, in line with the wider market consensus, and using this probability of default had obtained a value for this bond of 88.91% of its face value. How can you explain this difference between the price at which the bond is traded and your calculation of its value?

b. Re-evaluating Helgo Holdings plc after the rise of the CDS spread, you assess the probability of default to have risen to 3.5% per year. How do you reconcile this change in your assessment of the default rate with the CDS spread? Provide an economic explanation for this change.

## Problem 30

You compare the yield of the senior tranches of two collaterised debt obligations. Your assessment suggests that the unsecured loans included in both CDOs have approximately the same probabilities of default, but CDO A has a significantly lower yield than CDO B. The only difference you can find is that for CDO A the borrowers whose loans are included into the CDO are spread around the country, while for CDO B the loans included are mostly given to inhabitants of Molton, a large town which is dominated by the mining company Lubrica Ltd. as the main employer.

How do you explain the higher yield of CDO B compared to CDO A?

# Problem 31

Arito Yamasaki observes the trading prices of a senior and a junior tranche of the same collaterised debt obligation. She is initially puzzled by observing that over the last year the yield of the senior tranche has decreased while that of the junior tranche has increased.

How can Arito Yamasaki explain her observation?

# Problem 32

You have been assigned the task of mentoring a new placement student at your bank, where you are working in structured finance developing securities that meet your clients requirements to transfer risks. As a building block to such securities you explain the concept of a credit default swap to your mentee. When you explain the idea behind its valuation, he is confused by your statement that the CDS spread does not depend on the time to maturity of the underlying bond. He asks for clarification because he has learnt that with options the premium increases with time to maturity, and surely a CDS is similar to an option.

a. How do you respond?

b. In glee your mentee points to the quoted prices of credit default swaps for a company, which shows that the spread for this company is actually increasing for credit default swaps with longer maturities. How do you explain that this is not a contradiction to the statement that the CDS spread does not depend on the time to maturity?

# Topic 9

## Problem 33

Evaluating the purchasing power partity, you notice that explaining even long-run changes of the exchange rate using differences in inflation between countries does not yield a strong relationship. In passing, a colleague remarks that obviously it does not work if you use as your measure of inflation the consumer or retail price index as this includes all the services that can only be bought locally and taxes are a problem as well.

How can you use these remarks to explain that purchasing power parity seems to not work and what would be a better test of its validity?

## Problem 34

The current exchange rate between the Canadian dollar and the Swiss Franc is 0.6405 CHF/CAD. For both countries you have the following term structure of government bond yields:

| Time to maturity (years) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Switzerland (% p.a.) | 2.10 | 2.20 | 2.25 | 2.24 | 2.23 | 2.22 | 2.24 | 2.25 |
| Canada (% p.a.) | 1.35 | 1.97 | 2.35 | 2.74 | 3.81 | 4.26 | 4.59 | 5.02 |

What are the expected exchange rates for the coming 8 years?

## Problem 35

Conducting monetary policy leads to an initial overshoot of the exchange rate as prices for goods and services in an economy are not adjusting sufficiently fast; but as prices start to adjust, the exchange falls back to its long-term equilibrium. This result is explained with the observation that prices for goods and services in an economy only adjust slowly, but prices in financial markets adjust quickly. However, an economy has not only the exchange rate that can adjust quickly, but also interest rates.

How will interest rates behave during this time of adjustment to the long-term equilibrium?

# Problem 36

Constantin Nicolescu works as a foreign exchange trader at Steaua Bank. As he mainly trades currencies of developed countries, the main events that affect exchange rates are monetary policy decisions. While well anticipated decisions by central banks do not solicit much of an immediate reaction in the foreign exchange markets, he observes a persistent adjustment of the exchange rates in the weeks after major policy announcements. Those anticipated policy decisions commonly move the exchange rate and then after the official announcement, this movement is partially reversed over the coming weeks. He attributes this observation to the inefficiency of the foreign exchange market. His colleague Ariana Popescu, on the other hand, claims that it is a sign of destabilising speculation as the result of traders herding and either overestimating the effect of the monetary policy decision or overestimating the monetary policy decision itself.

Can you agree with either of these positions?

# Topic 10

## Problem 37

The exchange rate of the Beluga Krona relative to the US Dollar has remained stable for a long period of time. The independent central bank did manage to ensure that the exchange rate fluctuated only in a narrow band around 4.2 Beluga Krona per US Dollar. It was a long-term commitment of the government to maintain a stable currency and they presented it as a major achievement of their administration. This policy has been criticised heavily by opposition parties who claim that the overvaluation of the Belugan Krona imposes significant costs on the economy by hurting exports and making imports too cheap for domestic suppliers to compete with. With elections being called and opinion polls forecasting a win for the opposition parties, the central bank suddenly announces that it will not support the currency any longer as this has become unsustainable and imposes too big costs on the economy; in response the exchange rate changes to 6.4 Beluga Krona per US Dollar. The ruling party sees this as a political move in support of the opposition parties.

How can you explain this sudden change in the policy of the central bank?

## Problem 38

Armenda and Cosapon are neighbouring countries that share many economic and political characteristics, although Cosapon has recently embarked on a government-initiated investment into green technologies for which substantial amounts were raised through the issue of bonds, mostly held by domestic investors. Both have maintained stable exchange rates against the US Dollar for many years and against each other. Armenda maintained an exchange rate of approximately 14.5 Armenda Shilling per US Dollar and the exchange rate to the Cosapan Dinar was close to 1. As part of an attempt to liberalize their economies, both country's central bank coordinated their decision to abandon the management of the exchange rate and let it float freely against the US Dollar and against each other. On the day after this announcement, the exchange rates are 18.2 Armenda Shilling per US Dollar, 23.7 Cosapan Dinar per US Dollar, and 0.77 Armenda Shilling per Cosapan Dinar.

How do you explain that despite the otherwise similar economic conditions in both countries, the exchange rates to the US Dollar now differ substantially?

# Problem 39

Coledum has developed its economy considerably over the last few years and its standard of living has increased substantially. They have seen the development of a domestic industry producing a wide range of consumer goods and have reduced their reliance on exports for economic growth. Many of the investments required for this transformation of their economy have been provided through loans raised internationally, but the debt burden is generally seen as sustainable. Although Coledum is seen as a politically stable country, it is located in a region of the world that is overall seen as politically unstable. This has lead on many occasions in the past to a situation where capital flows have been reduced unexpectedly in response to political instability in neighbouring countries. This has never affected Coledum's economy much as the capital flows would resume once the main uncertainty in the region had subsided. The last such regional crisis was experienced quite a few years ago before the recent development drive. New political turmoil in its two neighbouring countries has again let to a drastic reduction in capital flows towards Coledum; this time however, Coledum faces an economic crisis, its exchange rate has drastically reduced and its starts to feel the consequences of a currency crisis.

Compared to previous times of political instability in the region, why is Coledum more affected during this time of political instability in the region?

# Problem 40

Radu Michalski works as consultant for developing countries and advises them on strategies of economic development. He has noticed that countries with very low levels of economic development rarely face economic crises, especially no currency crises, unless they are politically unstable or involved in armed conflicts. The same is true for well developed countries. It is, however, that countries developing and achieving rapidly improving living standards are most often affected by currency crises. He has looked at many such countries and could find no signs of poor economic decisions being taken by governments, central banks, or other agencies that could account for the emergence of such crises. When a crisis occurs and who is affected seems to be random and he could not detect any patterns for the emergence of currency crises.

Is the threat of a currency crisis part of a country developing its economy?



Andreas Krause
Department of Economics
University of Bath
Claverton Down
Bath BA2 7AY
United Kingdom
E-mail: mnsak@bath.ac.uk