

# Universität Siegen

## Fachbereich 5 – Wirtschaftswissenschaften Univ.-Prof. Dr. Jan Franke-Viebach

Klausur „International Financial Markets“  
Sommersemester 2010  
(1. Prüfungstermin)

Bearbeitungszeit: 60 Minuten

### Zur Beachtung:

1. Die Klausur umfasst 12 Seiten (einschl. dieses Deckblatts). Bitte prüfen Sie die **Vollständigkeit** der Klausur.
2. Benutzen Sie für Ihre Ausführungen die vorgesehenen Lösungsfelder. Reichen diese nicht aus, benutzen Sie die Rückseiten der Blätter. Mit **Bleistift** angefertigte Lösungen werden nicht bewertet.
3. Hilfsmittel: nichtprogrammierbarer Taschenrechner
4. **ACHTUNG:** Die Variablen-Namen haben die gleiche Bedeutung wie in der Vorlesung. Sofern Sie ebenfalls für die Variablen die Symbole aus der Vorlesung verwenden, brauchen Sie sie nicht zu definieren.

Question	1	2	3	4	5	Sum	Mark
Points achievable	15	5	11	18	11	60	
Points achieved							

**Problem 1: Arbitrage**

You specialize in cross-rate arbitrage. You notice the following quotes:

Euro / US dollar: 0.8625 € / \$

Yen / US dollar: 110.40 Y / \$

Yen / euro: 124.76 Y / €

- a. Ignoring transaction costs, check by an appropriate calculation and explain whether there is an arbitrage opportunity based on these quotes.

[6 points]

b. If there is an arbitrage opportunity, what steps must you take to make an arbitrage profit? [4 points]

c. How much would your profit be if you had \$ 1,000,000 available for this purpose? Please show your calculations. [5 points]

**Problem 2:**

Please list the four criteria that determine if a financial market can be classified as an international financial market. [5 Points]

**Problem 3: Regulation**

There are several purposes why the financial system is subject to regulation.

- a) One objective is the promotion of efficiency of the financial system. Please define this objective. [5 points]

b) Explain how regulation contributes to achieving efficiency of the financial system.  
[3 points]

c) Besides efficiency, there are three other objectives of regulation of the financial system. Which are these?  
[3 points]

**Problem 4: Financial Accounts**

a) The financial accounts are a set of statistics describing the financial sphere of an economy. They comprise two sorts of statistics: [8 points]

a<sub>1</sub> What are they called?

a<sub>2</sub> What do they show?

b) The following questions refer to the tables on pp 9 - 10. The tables show data for Germany for the year 2007.

b<sub>1</sub> Was the sector “Central, state and local government” a net debtor or a net lender at the end of 2007? By which amount? [3 points]

b<sub>2</sub> What was the most important form of debt of this sector by the end of 2007? In what amount? [3 points]

b<sub>3</sub> In what amount did the sector raise new funds in 2007? [2 points]

b<sub>4</sub> Besides incurring new liabilities, there are other reasons why the sector's total debt position may have changed in 2007? Please give one such reason. [2 points]



## Klausur im SS 2010: „International Financial Markets“ (1.Prüfungstermin)

## XIII Financial assets and liabilities of the sectors in 2007

End-of-year level; € billion

Item	Domestic non-financial sectors						Total
	Households and non-profit institutions serving households	Non-financial corporations	General government			Total	
			Total	Central, state and local government	Social security funds		
<b>Financial assets</b>							
Monetary gold and special drawing rights	.	.	.	.	.	.	.
Currency and deposits	1 620.8	477.0	197.4	140.6	56.7	2 295.1	
Currency and transferable deposits	649.3	230.0	28.2	20.5	7.7	907.6	
Time deposits <sup>3</sup>	328.4	237.5	166.3	117.6	48.7	732.2	
Savings deposits	550.1	3.7	1.4	1.3	0.1	555.1	
Savings certificates	93.0	5.8	1.5	1.3	0.2	100.3	
Money market paper	1.7	29.7	0.4	0.4	.	31.8	
Bonds	350.9	80.1	11.7	10.1	1.6	442.7	
Financial derivatives	.	.	1.7	1.7	.	1.7	
Shares	375.3	1 066.1	52.9	52.7	0.2	1 494.4	
Other equity	171.8	281.4	126.0	126.0	.	579.1	
Mutual funds shares	545.6	109.5	22.5	3.1	19.4	677.6	
Loans	.	176.3	o 61.4	61.4	0.5	237.7	
Short-term loans	.	130.1	4.5	4.5	.	134.6	
Longer-term loans	.	46.2	o 56.9	56.9	0.5	103.1	
Claims on insurance corporations <sup>2</sup>	1 187.9	43.8	0.7	0.7	.	1 232.4	
Short-term claims	80.8	43.8	0.7	0.7	.	125.3	
Longer-term claims	1 107.1	.	.	.	.	1 107.1	
Claims from company pension commitments	255.1	.	.	.	.	255.1	
Other claims	42.6	500.4	71.6	71.8	- 0.2	614.6	
<b>Total</b>	<b>4 551.7</b>	<b>2 764.3</b>	<b>o 546.2</b>	<b>468.5</b>	<b>78.2</b>	<b>7 862.2</b>	
<b>Liabilities</b>							
Currency and deposits	.	.	6.9	6.9	.	6.9	
Currency and transferable deposits	.	.	6.9	6.9	.	6.9	
Time deposits <sup>3</sup>	.	.	.	.	.	.	
Savings deposits	.	.	.	.	.	.	
Savings certificates	.	.	.	.	.	.	
Money market paper	.	36.5	38.7	38.7	.	75.3	
Bonds	.	82.2	1 113.9	1 113.9	.	1 196.1	
Financial derivatives	.	.	.	.	.	.	
Shares	.	1 564.3	.	.	.	1 564.3	
Other equity	.	663.6	.	.	.	663.6	
Mutual funds shares	.	.	.	.	.	.	
Loans	1 538.5	1 405.9	o 425.6	424.5	1.6	3 370.0	
Short-term loans	78.9	396.5	54.8	54.3	0.5	530.2	
Longer-term loans	1 459.6	1 009.4	o 370.7	370.1	1.1	2 839.7	
Claims on insurance corporations <sup>2</sup>	.	.	.	.	.	.	
Short-term claims	.	.	.	.	.	.	
Longer-term claims	.	.	.	.	.	.	
Claims from company pension commitments	.	215.5	.	.	.	215.5	
Other liabilities	8.7	432.6	3.6	3.6	.	444.9	
<b>Total</b>	<b>1 547.2</b>	<b>4 400.5</b>	<b>o 1 588.8</b>	<b>1 587.7</b>	<b>1.6</b>	<b>7 536.4</b>	
<b>Net financial assets <sup>4</sup></b>	<b>3 004.6</b>	<b>- 1 636.1</b>	<b>- 1 042.6</b>	<b>- 1 119.2</b>	<b>76.6</b>	<b>325.8</b>	

1 Credit institutions including the Deutsche Bundesbank, building and loan associations and money market funds. — 2 Including private pension funds as well as occupational pension schemes and supplementary pension

funds. — 3 Including deposits with building and loan associations. — 4 Financial assets less liabilities. — o Sum-totals do not include intra-sectoral flows.

## Klausur im SS 2010: „International Financial Markets“ (1.Prüfungstermin)

## XII Capital and financial accounts of the sectors in 2007

€ billion

Item	Domestic non-financial sectors					
	Households and non-profit institutions serving households	Non-financial corporations	General government			Total
			Total	Central, state and local government	Social security funds	
<b>Acquisition of non-financial assets and saving</b>						
Net capital formation	42.25	45.44	- 2.52	- 2.17	- 0.35	85.17
Gross capital formation	150.29	250.37	35.61	35.09	0.52	436.27
Consumption of fixed capital	108.04	204.93	38.13	37.26	0.87	351.10
Acquisitions less disposals of non-financial non-produced assets	0.96	0.47	- 1.43	- 1.43	-	0.00
Saving and capital transfers	178.81	54.92	- 8.11	- 18.16	10.05	225.62
Saving	167.14	41.69	19.53	9.43	10.10	228.36
Capital transfers (net)	11.67	13.23	- 27.64	- 27.59	- 0.05	- 2.74
Net lending / net borrowing <sup>3</sup>	135.60	9.01	- 4.16	- 14.56	10.40	140.45
Statistical discrepancy <sup>4</sup>	.	50.38	.	.	.	50.38
<b>Acquisition of financial assets</b>						
Monetary gold and special drawing rights	.	.	.	.	.	.
Currency and deposits	85.90	72.03	10.66	0.58	10.09	168.59
Currency and transferable deposits	38.17	10.08	1.16	1.26	- 0.09	49.42
Time deposits <sup>5</sup>	57.07	62.61	10.21	- 0.22	10.42	129.88
Savings deposits	- 29.91	- 0.42	- 0.62	- 0.53	- 0.08	- 30.94
Savings certificates	20.56	- 0.24	- 0.09	0.07	- 0.16	20.23
Money market paper	- 0.28	- 20.27	- 0.21	- 0.21	.	- 20.77
Bonds	- 50.16	- 109.65	1.82	1.30	0.51	- 157.99
Financial derivatives	.	45.24	- 0.21	- 0.21	.	45.03
Shares	- 16.50	56.86	- 5.69	- 5.75	0.06	34.67
Other equity	2.94	24.13	0.20	0.20	.	27.27
Mutual funds shares	24.81	- 3.21	0.37	- 2.31	2.68	21.97
Loans	.	- 1.30	o - 0.53	- 0.64	0.11	- 1.82
Short-term loans	.	- 5.63	- 0.31	- 0.31	.	- 5.94
Longer-term loans	.	4.34	o - 0.22	- 0.33	0.11	4.12
Claims on insurance corporations <sup>2</sup>	69.40	1.01	0.02	0.02	.	70.44
Short-term claims	1.10	1.01	0.02	0.02	.	2.13
Longer-term claims	68.31	.	.	.	.	68.31
Claims from company pension commitments	4.34	.	.	.	.	4.34
Other claims	- 4.12	96.50	0.30	3.54	- 3.23	92.68
Total	116.33	161.35	o 6.74	- 3.48	10.21	284.42
<b>External financing</b>						
Currency and deposits	.	.	0.51	0.51	.	0.51
Currency and transferable deposits	.	.	0.51	0.51	.	0.51
Time deposits <sup>5</sup>	.	.	.	.	.	.
Savings deposits	.	.	.	.	.	.
Savings certificates	.	.	.	.	.	.
Money market paper	.	18.60	1.38	1.38	.	19.98
Bonds	.	- 11.36	29.13	29.13	.	17.77
Financial derivatives	.	.	.	.	.	.
Shares	.	6.77	.	.	.	6.77
Other equity	.	26.70	.	.	.	26.70
Mutual funds shares	.	.	.	.	.	.
Loans	- 18.89	46.38	o - 23.12	- 22.94	- 0.19	4.37
Short-term loans	- 1.21	16.82	2.49	2.76	- 0.28	18.10
Longer-term loans	- 17.67	29.56	o - 25.61	- 25.70	0.09	- 13.73
Claims on insurance corporations <sup>2</sup>	.	.	.	.	.	.
Short-term claims	.	.	.	.	.	.
Longer-term claims	.	.	.	.	.	.
Claims from company pension commitments	.	1.26	.	.	.	1.26
Other liabilities	- 0.38	13.62	3.00	3.00	.	16.23
Total	- 19.27	101.96	o 10.90	11.08	- 0.19	93.59
Net acquisition of financial assets <sup>6</sup>	135.60	59.38	- 4.16	- 14.56	10.40	190.82

<sup>1</sup> Credit institutions including the Deutsche Bundesbank, building and loan associations and money market funds. — <sup>2</sup> Including private pension funds

as well as occupational pension schemes and supplementary pension funds. — <sup>3</sup> Saving and capital transfers (net) less net capital formation and

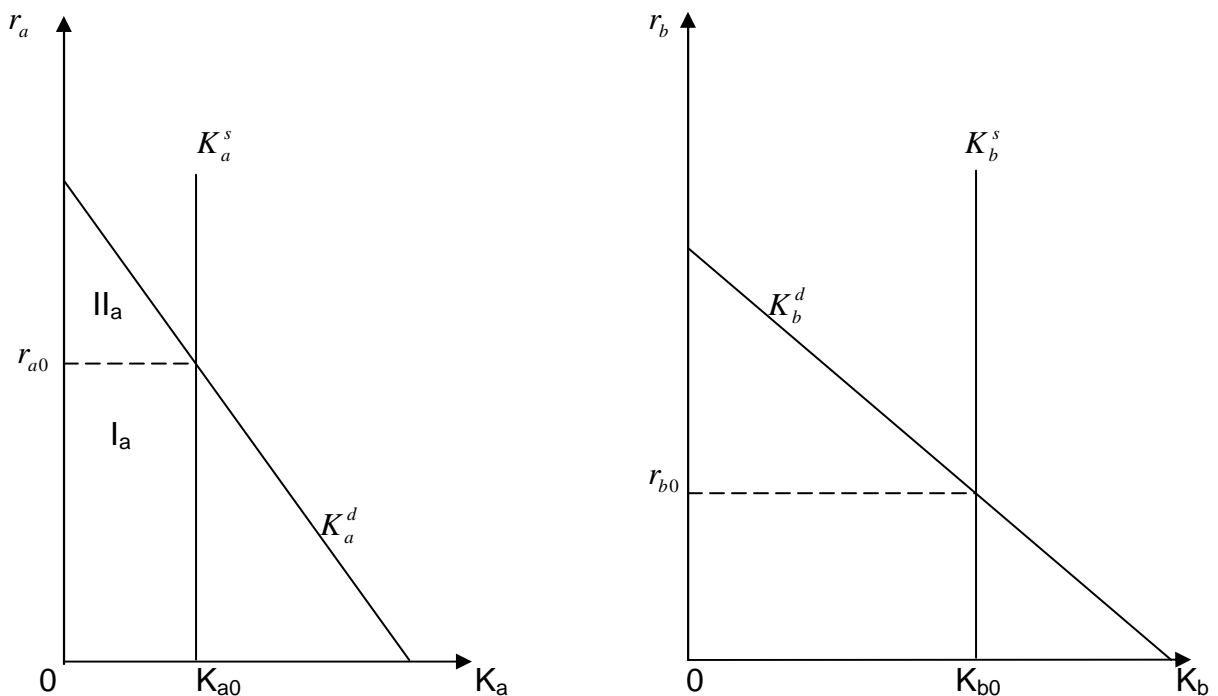
**Problem 5:**

The following graph shows the capital markets of the countries A and B with perfect competition. The two markets are completely separated, i. e. there are no capital movements between the two countries.

$r_a, r_b$ : real rates of interest,

$K_a^s, K_b^s$ : supplies of capital,

$K_a^d, K_b^d$ : demand for capital



a) Please interpret the following area of country A:  $I_a$

[2 points]

b) Now, suppose that capital movements between the two countries are completely liberalized. We neglect transaction costs.

b<sub>1</sub> Which country exports capital? Why? [3 points]

b<sub>2</sub> What will happen with the interest rates in both countries? [3 points]

b<sub>3</sub> What will happen to the level of capital income of capital owners in country B? Explain! [3 points]