

# International Economics

## Non-graded Problem Set - Part 3

### Solutions guide

Spring 2024

#### Record of transactions in the Balance of Payments. Exercise 1

Make the accounting entries in the Balance of Payments of Spain for the following operations. All values are expressed in millions of Euros. All payments, except where specified, are in cash.

1. Export of oranges for €36. Total payment received in cash

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 36:	€ 0:
Movement in Reserves	-	€ 36:
<b>Balance of Payments</b>	<b>€ 36:</b>	<b>€ 36:</b>

2. Export of oranges for €36. Half of the payment received in cash, half of the payment through 5-year credit.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 36:	€ 0:
<i>Financial Balance</i>		
Other Capital: commercial credits	€ 0:	€ 18:
Movement in Reserves	-	€ 18:
<b>Balance of Payments</b>	<b>€ 36:</b>	<b>€ 36:</b>

3. Import of oil for €80, of which €8 correspond to insurance and freight costs. Payment is made through 2-year credit.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Imports	€ 0:	€ 72:
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Imports	€ 0:	€ 8:
<i>Financial Balance</i>		
Other Capital: commercial credits	€ 80:	€ 0:
Movement in Reserves	-	€ 0:
<b>Balance of Payments</b>	<b>€ 80:</b>	<b>€ 80:</b>

4. Reception of tourists on a cruise who spend €2. On the cruise there are Spanish residents who spent €1 on the Italian coast. All expenses were made in cash.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Exports	€ 2:	€ 0:
Imports	€ 0:	€ 1:
Movement in Reserves	-	€ 1:
<b>Balance of Payments</b>	<b>€ 2:</b>	<b>€ 2:</b>

5. Residents in Spain spent €5 on Spotify subscriptions. Payments made by credit card. They exported computer services to the Rest of the World for €32. They received payment in equivalent deposits in US dollars.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Exports	€ 32:	€ 0:
Imports	€ 0:	€ 5:
Movement in Reserves	-	€ 27:
<b>Balance of Payments</b>	<b>€ 32:</b>	<b>€ 32:</b>

6. Venezuelan immigrants residing in Spain were paid €8 in cash for their work in Spanish territory for Spanish companies, and €4 for their work in Spanish territory for US companies. They sent half of their income to help their families in Venezuela.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Labor Income	€ 4:	€ 0:
<i>Current Account Balance</i>		
<i>Current Transfers Balance</i>		
Remittances	€ 0:	€ 2:
Movement in Reserves	-	€ 2:
<b>Balance of Payments</b>	<b>€ 4:</b>	<b>€ 4:</b>

7. Spanish residents earned €2 as employees in the ski resorts of Andorra. Argentine residents charged €1 for the same concept.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Labor Income	€ 2:	€ 0:
Movement in Reserves	-	€ 2:
<b>Balance of Payments</b>	<b>€ 2:</b>	<b>€ 2:</b>

## Record of transactions in the Balance of Payments. Exercise 2

Make the accounting entries in the Balance of Payments of Spain for the following operations. All values are expressed in millions of Euros. All payments, except where specified, are in cash.

1. Export of clothing for €24. Payment of €20 received in cash, remaining payment through 2-year credit.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 24:	€ 0:
<i>Financial Balance</i>		
Other Capital: commercial credits	€ 0:	€ 20:
Movement in Reserves	-	€ 4:
<b>Balance of Payments</b>	<b>€ 24:</b>	<b>€ 24:</b>

2. Import of computers for €100, of which €10 correspond to insurance and freight costs. Payment is made through 3-year credit.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Imports	€ 0:	€ 90:
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Imports	€ 0:	€ 10:
<i>Financial Balance</i>		
Other Capital: commercial credits	€ 100:	€ 0:
Movement in Reserves	-	€ 0:
<b>Balance of Payments</b>	<b>€ 100:</b>	<b>€ 100:</b>

3. Reception of tourists who spend €20. All expenses were made in cash.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Exports	€ 20:	€ 0:
Movement in Reserves	-	€ 20:
<b>Balance of Payments</b>	<b>€ 20:</b>	<b>€ 20:</b>

4. Spanish consultant exported services for €32. She received half of the payment in trade credits, and the other half in financial instruments.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Exports	€ 32:	€ 0:
<i>Financial Balance</i>		
Other Capital: commercial credits	€ 0:	€ 16:
Portfolio Investments: fin. inst.	€ 0:	€ 16:
Movement in Reserves	-	€ 0:
<b>Balance of Payments</b>	<b>€ 32:</b>	<b>€ 32:</b>

5. Portuguese residents were paid €5 for their work for Spanish companies. Spanish residents earned €2 as employees in Portuguese companies.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Labor Income	€ 2:	€ 5:
Movement in Reserves	-	€ -3:
<b>Balance of Payments</b>	<b>€ 2:</b>	<b>€ 2:</b>

6. Glovo, a company resident in Spain, receives income from its foreign subsidiaries of €75.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Property Income	€ 75:	€ 0:
Movement in Reserves	-	€ 75:
<b>Balance of Payments</b>	<b>€ 75:</b>	<b>€ 75:</b>

7. A German company acquires a Spanish start-up for €16.

	Inc./CFL	Exp./CFA
<i>Capital Balance</i>		
Capital Transfers	€ 16:	€ 0:
Movement in Reserves	-	€ 16:
<b>Balance of Payments</b>	<b>€ 16:</b>	<b>€ 16:</b>

8. The Spanish government donates materials to the Philippines worth €1.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Current Transfers Balance</i>		
Donations	€ 0:	€ 1:
Movement in Reserves	-	€ -1:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

9. The Spanish government receives €20 in regional development funds from the European Union.

	Inc./CFL	Exp./CFA
<i>Capital Balance</i>		
Capital Transfers	€ 20:	€ 0:
Movement in Reserves	-	€ 20:
<b>Balance of Payments</b>	<b>€ 20:</b>	<b>€ 20:</b>

10. British residents buy land in Alicante worth €3.

	Inc./CFL	Exp./CFA
<i>Capital Balance</i>		
Acquisition of land and intangibles	€ 3:	€ 0:
Movement in Reserves	-	€ 3:
<b>Balance of Payments</b>	<b>€ 3:</b>	<b>€ 3:</b>



11. Determine the balances of the Balance of Payments of Spain, and interpret.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 24:	€ 0:
Imports	€ 0:	€ 90:
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Exports	€ 52:	€ 0:
Imports	€ 0:	€ 10:
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Labor Income	€ 2:	€ 5:
Property Income	€ 75:	€ 0:
<i>Current Account Balance</i>		
<i>Current Transfers Balance</i>		
Donations	€ 0:	€ 1:
<i>Capital Balance</i>		
Capital Transfers	€ 36:	€ 0:
Adquisition of land and intangibles	€ 3:	€ 0:
<i>Financial Balance</i>		
Direct Investments	€ 0:	€ 0:
Portfolio Investments	€ 0:	€ 16:
Other Capital	€ 100:	€ 36:
Movement in Reserves	-	€ 134:
<b>Balance of Payments</b>	<b>€ 292:</b>	<b>€ 292:</b>

The balance of Movement in Reserves (*MRE*) is € -134:.. This implies a surplus in

the Balance of Payments and an increase in the sum of International Reserves ( $RE$ ) and Foreign Financial Assets ( $FFA$ ).

The Net Balance Abroad is €-24:. This implies a deficit in the balance of goods and services. The country's production does not satisfy National Demand and imports to cover the shortage.

The Current Account Balance is €47:. This implies a current account surplus. The Capital Account Balance is €39:. This implies a capital account surplus. This implies a joint current and capital account surplus (€86:). Gross capital formation was less than available capital resources. The economy has had the capacity for external financing, using surplus resources to finance abroad.

### Record of transactions in the Balance of Payments. Exercise 3

Make the accounting entries in the Balance of Payments of Spain for the following operations. All values are expressed in millions of Euros. All payments, except where specified, are in cash.

1. German residents buy land on the outskirts of Paris for €8.

	Inc./CFL	Exp./CFA
<i>Capital Balance</i>		
Adquisition of land and intangibles	€ 0:	€ 0:
Movement in Reserves	-	€ 0:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

2. Spanish company acquires the right to use the 'Pepsi' brand from the American company 'PepsiCo' for a value of €120.

	Inc./CFL	Exp./CFA
<i>Capital Balance</i>		
Adquisition of land and intangibles	€ 0:	€ 120:
Movement in Reserves	-	€ -120:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

3. Spanish residents obtain profits worth €4 for their participation in the capital of the Italian company 'Bialetti'.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Property Income	€ 4:	€ 0:
Movement in Reserves	-	€ 4:
<b>Balance of Payments</b>	<b>€ 4:</b>	<b>€ 4:</b>

4. Japanese residents buy Spanish State bonds worth €46.

	Inc./CFL	Exp./CFA
<i>Financial Balance</i>		
Portfolio Investments: bonds	€ 46:	€ 0:
Movement in Reserves	-	€ 46:
<b>Balance of Payments</b>	<b>€ 46:</b>	<b>€ 46:</b>

5. Spanish residents buy US government bonds worth €72.

	Inc./CFL	Exp./CFA
<i>Financial Balance</i>		
Portfolio Investments: bonds	€ 0:	€ 72:
Movement in Reserves	-	€ -72:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

6. The Spanish company 'Glovo' acquires 20% of the share of the Canadian company 'SkipTheDishes' for a value of €150.

	Inc./CFL	Exp./CFA
<i>Financial Balance</i>		
Direct Investments	€ 0:	€ 150:
Movement in Reserves	-	€ -150:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

7. Dutch residents buy 3% of the shares of the Spanish company 'Idealista' for €86.

	Inc./CFL	Exp./CFA
<i>Financial Balance</i>		
Portfolio Investments: stocks	€ 86:	€ 0:
Movement in Reserves	-	€ 86:
<b>Balance of Payments</b>	<b>€ 86:</b>	<b>€ 86:</b>

8. Argentine residents make deposits in Spanish banks for a value of €58. Venezuelan residents make deposits in Spanish banks for a value of €79.

	Inc./CFL	Exp./CFA
<i>Financial Balance</i>		
Other Capital: deposits	€ 137:	€ 0:
Movement in Reserves	-	€ 137:
<b>Balance of Payments</b>	<b>€ 137:</b>	<b>€ 137:</b>

9. Olive oil exports to China worth €20.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 20:	€ 0:
Movement in Reserves	-	€ 20:
<b>Balance of Payments</b>	<b>€ 20:</b>	<b>€ 20:</b>

10. Import of apples for €7, of which €1 correspond to insurance and freight costs.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Imports	€ 0:	€ 7:
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Imports	€ 0:	€ 1:
Movement in Reserves	-	€ -8:
<b>Balance of Payments</b>	<b>€ 0:</b>	<b>€ 0:</b>

11. Determine the balances of the Balance of Payments of Spain, and interpret.

	Inc./CFL	Exp./CFA
<i>Current Account Balance</i>		
<i>Trade Balance</i>		
Exports	€ 20:	€ 0:
Imports	€ 0:	€ 7:
<i>Current Account Balance</i>		
<i>Service Balance</i>		
Imports	€ 0:	€ 1:
<i>Current Account Balance</i>		
<i>Primary Income Balance</i>		
Property Income	€ 4:	€ 0:
<i>Capital Balance</i>		
Adquisition of land and intangibles	€ 0:	€ 120:
<i>Financial Balance</i>		
Direct Investments	€ 0:	€ 150:
Portfolio Investments	€ 132:	€ 72:
Other Capital	€ 137:	€ 0:
Movement in Reserves	-	€ -57:
<b>Balance of Payments</b>	<b>€ 293:</b>	<b>€ 293:</b>

Movement in Reserves (*MRE*) balance is €57:. This implies a deficit in the Balance of Payments and a fall in the sum of International Reserves (*RE*) and Foreign Financial Assets (*FFA*).

The Net Balance Abroad is €12:. This implies a surplus in the balance of goods and services. The country's production satisfies National Demand and exports the surplus.

The Current Account Balance is €16:. This implies a current account surplus. The Capital Account Balance is € -120:. This implies a capital account deficit. This im-

plies a joint current and capital account deficit (€ -104:). Gross capital formation was greater than available capital resources. The difference has been covered with external financing.