International Economics and Trade

Master Course „International Management“

Summer term 2024

Prof. Dr. Malte Krüger

General information

This module is divided in two parts:

- A part with focus on trade by Erich Ruppert
- A part with a focus on international monetary economics by myself

At the end of the term there will be a joint exam of 120 minutes.

I shall assume that everybody is familiar with a basic textbook such as Mankiw, Economics

General information

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Suggested textbooks:

Robert C Feenstra; Alan M. Taylor: International Economics, third Edition, Macmillan, 2015.

Henk Jager, Catrinus Jepma: Introduction to International Economics, 2nd edition, Palgrave Macmillan, 2011.

Krugman, Paul R.: Obstfeld, Maurice; Melitz, Marc J.: International economics : theory and policy, 10. ed., Boston, Mass.: Pearson 2015.

Blanchard, Olivier; Amighini, Alessia; Giavazzi, Francesco (2013): Macroeconomics: A European perspective, 2. ed., Harlow

Unfortunately, there is no electronic access to these books. But the library has quite a few copies, in particular of the Krugman/Obstfeld(Melitz) and Feenstra/Taylor.

Further references will be provided during the lectures.

A lot of this material will be provided via Moodle.

General information

This is a Master Course and we cannot start from scratch.

In order to be able to start from a minimum level of knowledge in economics, please have a look at the following questions and try to find the solutions.

Test yourself

1. You are investing 100 EUR for 3 years at 12% p.a.. What is the value of your capital after these 3 years?

2. The current interest rate is 3%. What is the present value of 100€ which you will be receiving in 3 years?

3. For 5 years in a row, the German inflation rate is equal to 5%. By how much have prices been rising over the entire period?

4. ABC-Land has the following inflation rates

2012	3%
2013	4%
2014	1%
2015	6%

By how much has the price level risen over these 4 year?

Test yourself

5. You are investing 100EUR in Turkey at an interest rate of 20%. After 1 year, the Turkish Lira has depreciated by 15%. What is the EUR-value of your investment after one year?

6. In Germany interest rates for real estate loans in Euro are 5%. In Switzerland interest rates for similar loans in Swiss Francs are just 1%.
   A German households decides to finance a house purchases in Swiss Frances (SFR). Suppose, a household has borrowed SFR one year ago and has to repay the loan today. Given the exchange rates below, do you think it was a good idea to borrow SFR rather than Euro? (In other words: Was it cheaper to borrow Swiss Francs?)

Exchange rate 1 year ago	1.14 SFR/EUR
Exchange rate today	1.06 SFR/EUR

Test yourself

7. The exchange rate of the US-dollar over the past 5 years [USD/EUR]:

2014	1.45
2015	1.30
2016	1.32
2017	1.18
2018	1.09

   a. Calculate an exchange rate index with a value of 100 for the year 2014.
   b. Calculate an exchange rate index with a value of 100 for the year 2016.

Test yourself

If you have problems finding the solutions you should consult a text book on math for economists. In Aschaffenburg, the math textbooks all seem to be in German. But some important topics such as discounting are also explained in finance textbooks such as

Megginson / Smart / Lucey : Introduction to corporate finance

Brealey / Myers: Principles of Coporate Finance

Bodie / Kane / Marcus: Investments and Portfolio

1. The Balance of Payments (BoP)

Literature:
Feenstra/Taylor, Chapter 16
Robert J. Carbaugh, International Economics, Chapter 10.
Krugman/Obstfeld(Melitz), International Economics
+Gandolfo, Giancarlo: International Finance and Open-Economy Macroeconomics (2^{nd} ed.), Berlin, Heidelberg: 2016, Chapters 6 and 7.
Any other International Economics textbook will also have a chapter on the BoP.
General Economics textbooks such as, for instance
Mankiw/Taylor, Economics
Krugman/Wells, Economics
+Hubbard/O'Brien, Economics, ch. 19

+: Online access via TH-library

Ch. 1: BoP

tagesschau

The New York Times

"Balance of payments" – that sounds rather boring, something for accountants.

Interestingly, the balance of payments, or certain components of it, receive quite a lot of attention in the media and by economic policy makers.

Let's look at some examples!!!

DER SPIEGEL

Ch. 1: BoP

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STUTTGARTER-ZEITUNG.DE

KOMMENTAR Exportweltmeister Deutschland

„Deutschland trotzt den Krisen"

Von Thomas Thieme 09. Februar 2016 - 17:32 Uhr

Deutschland hat 2015 seine Position als Exportweltmeister ausgebaut. Um sich angesichts der Krisen weiter zu behaupten, sind die Unternehmen auf positive Überraschungen bei den Abnehmerländern angewiesen, meint Thomas Thieme.

Germany: The world's champion in exports

ZEIT ONLINE WIRTSCHAFT

DEUTSCHE EXPORTE

Niemand ist gezwungen, deutsche Produkte zu kaufen

Deutschland für seine Exportstärke zu kritisieren, ist wenig geistreich. Sie ist ein Zeichen für die Wettbewerbsschwäche der USA.

VON Holger Görg | 21. November 2013 - 10:58 Uhr

Strength in exports: that shows how competitive we are - and how weak the US is.

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Forbes

http://onforb.es/1MjVlli

Raoul Ruparel Contributor

I write about the Eurozone, EU, macroeconomics and central banks.

Opinions expressed by Forbes Contributors are their own.

A prominent economist who used to be the president of the US central bank (the Federal Reserve Bank)

7/22/2015 @ 6:36AM | 3.293 views

No, Ben Bernanke: The German Trade Surplus Is Not A Problem For The Eurozone

Former Federal Reserve Chairman Ben Bernanke has once again weighed in on issues around Germany's trade surplus,

EurActiv

Brussels renews criticism of German trade surplus

7. Mrz. 2014 (updated: 28. Mrz. 2014)

In its latest macro-economic survey, the European Commission again pointed the finger at Germany's high export surplus. Serious imbalances were also detected in Italy and France, EurActiv.de reports. Significant economic imbalances exist in 14 EU member states, according to the Commission’s latest in-depth review of macroeconomic imbalances, presented on Wednesday (5 March).

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CENTRE FOR EUROPEAN REFORM

www.washingtonpost.com 4:09 AM

March 1 by Ana Swanson

Trump criticizes the trade deficit, but leaves out an important figure

In his speech, President Trump once again criticized the trade deficit, mentioning that the U.S. trade deficit in goods with the world last year was nearly $800 billion. The trade deficit has long been one of his favorite targets. During the campaign, he criticized countries like Mexico, China, Germany and Japan for exporting more to the United States than they import.

https://www.washingtonpost.com/politics/2017/live-updates/trump-white-house/real-time-fact-checking-and-analysis-of-trumps-address-to-congress/trump-criticizes-the-trade-deficit-but-leaves-out-an-important-figure/?utm_term=.1d79a18084af

US trade deficit narrows much more than expected in a win for Trump

- The U.S. trade deficit fell to $49.3 billion in November, the first decline after five straight months of increases.
- But on a year-over-year basis, the gap rose by 10.4 percent.

Jeff Cox | @JeffCoxCNBCcom
Published 8:59 AM ET Wed, 6 Feb 2019 Updated 3:51 PM ET Wed, 6 Feb 2019 CNBC.com

https://www.cnbc.com/2019/02/06/us-trade-deficit-narrows-much-more-than-expected-in-a-win-for-trump.html

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Back to basics!

The BoP and national and international accounts

The BoP is part of the statistics of the aggregate activity of an economy: the national and international accounts.

In the aggregate statistics, the economy is divided into large sectors
- the state
- housholds
- companies
- **the rest of the world**

National and international accounts

There are various ways to summarize the value of economic activities within a country.

We can add up

- all **expenditures** for goods and services (=receipts of sellers)
- all **value added** that has been produced
- all **income** that has been earned

In a closed economy we would always end up with the same figure.

National and international accounts

Expenditures: Gross National Expenditures (GNE)

GNE = C + I + G
C: private consumption, I: investment, G: government consumption

= total spending of the domestic sectors (households, companies, state) } **also known as „absorption“**

In the closed economy total expenditure is equal to total receipts.

If you spend 100€, somebody else is earning just these 100€.
The same is true if the government or a company spends 100€.
It is also true – no matter what products are bought.

National and international accounts

Value added: Gross Domestic Product (GDP)

$$GDP = C + I + G + (Ex - Im) = GNE + \underbrace{(Ex - Im)}_{\textbf{trade balance}}$$

Ex: Exports, Im: Imports

If the economy is open, some expenditures are directed towards foreign goods (imports) and there are expenditures for local goods that come from foreigners (exports).

Thus, the **value of national production (GDP)** differs from the value of national expenditure by (Ex–Im). If we are making net sales to other countries **(Ex>Im) our income is higher than our expenditure**.

National and international accounts

Income: Gross National Income (GNI)
(formerly Gross National Product)

$$GNI = GDP + (Ex_{fs} - Im_{fs}) = GNE + \underbrace{(Ex - Im) + (Ex_{fs} - Im_{fs})}_{\textbf{current account (CA)}}$$

Ex_{fs}: Export of factor services,
Im_{fs}: Import of factor services

If value-added is created, this value is belonging to somebody. It forms the income of somebody. Therefore, in a closed economy, GDP is equal to GNI. But in an open economy, **income created at home may go to foreigners and domestic residents my have income created abroad.** Typically, the difference is not very large.

But there are examples when the difference is relatively large. See “Celtic Tiger or Tortoise?”, in Feenstra/Taylor, ch. 16.2.

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National and international accounts

Other concepts

There are more concepts, like for instance, Gross National Disposable Income (GNDI) which we will ignore.

Which concept should be used?

Both GDP and GNI can be seen as measures of the welfare of the inhabitants of a country. In international economics, GNI is usually used.

However, if net factor income is zero,

- the CA is equal to the trade balance and
- GDP and GNI, are equal.

Therefore, in textbooks we often find statements like CA = Ex – Im

To simplify matters we will use GDP.

German GDP, GNI and GNE

2016, EUR billion

GDP	C	G	I	Ex-Im
3 132,67	1 679,16	616,11	598,65	238,75

GNI
3 197,31

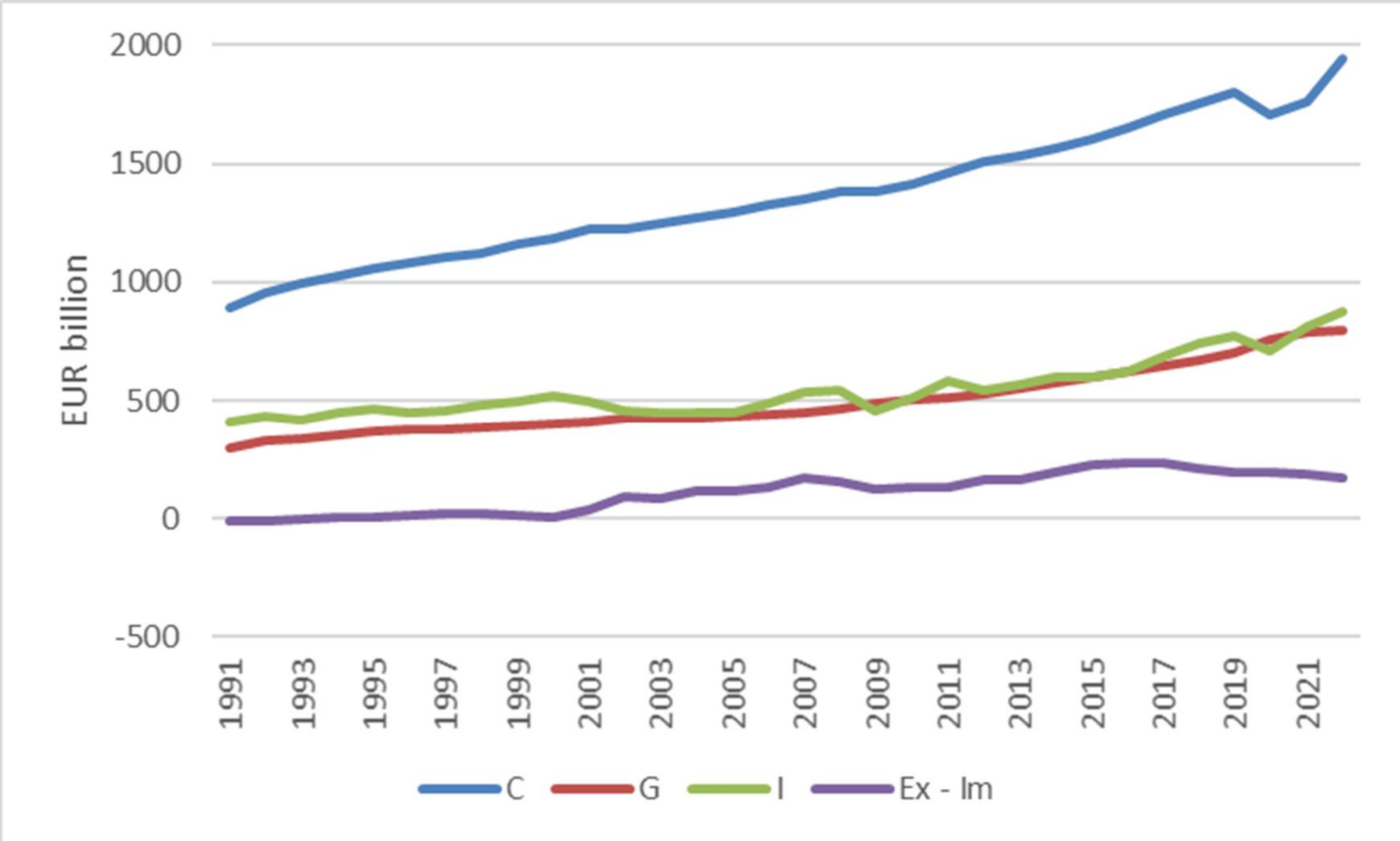
GNE
2893,92

In Germany GDP and GNI have been fairly close. So we will treat them as equal.

Something to keep in mind: Investment seems large. However, depreciation is also large (552 bill. EUR in 2016). Thus net investment, that is the increase of the capital stock, was quite small, only 47 bill. EUR.

Ch. 1: BoP

Components of German GDP (1991-2022)



I: Gross investment incl. changes in inventory

Source: Sachverständigenrat Wirtschaft

We have seen how the BoP fits into the national income accounts.

We have also seen that items of the BoP such as current account deficits or surpluses are triggering strong political statements.

A proper assessment of these judgements requires a closer look at the balance of payments.

Ch. 1: BoP

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The Balance of Payments (BoP)

“The balance of payments is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world.

Transactions, for the most part between residents and nonresidents, consist of those involving goods, services, and income; those involving financial claims on, and liabilities to, the rest of the world; and those (such as gifts) classified as transfers, which involve offsetting entries to balance—in an accounting sense—one-sided transactions.”
IMF, BoP Manual

Ch. 1: BoP

To make this a long short, we can say that
the BoP records economic transactions between residents and non-residents.

Residents are people or institutions that are based within a country.
So, residency is not the same as nationality.

Examples:
A professor from a partner university who stays in Aschaffenburg for a week is a non-resident (foreigner).
Ford Germany is a resident company.
A student with a foreign passport who permanently lives in Germany is a resident.

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The structure of the Balance of Payments

Current Account

- Goods
- Services
- Income
- Current Transfers

Capital Account

Financial Account

- Direct Investments
- Portfolio Investments
- Financial Derivatives
- Other Investments
- Reserve Assets

Errors and Omissions

The current account

credits	Current Account debits
Exports - Goods - Services Income received Transfers received	Imports - Goods - Services Income paid Transfers given

Foreign income is also addressed as „Primary income“
Foreign transfers are also addressed as „Secondary income“

Examples
("A" is a local transactor (a firm, an individual, the government) and "B" is a foreign transactor)
A sells 1,000€ worth of shoes to B
A receives 500,000€ as development aid from B
B hires a lawyer from A who receives a 10,000$ fee
A transfers 10 million $ interest and dividends to B

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The capital account (Vermögensänderungsbilanz)

credits — Capital Account — debits

Receipts	Expenditures

The major components of the capital account are

- capital transfers and
- acquisition/disposal of non-produced, non-financial assets.

Capital transfers:

- general government (debt forgiveness and other), and
- other (migrants' transfers, debt forgiveness, and other transfers).

Acquisition / disposal of non-produced, nonfinancial assets: intangibles—such as patented entities, leases or other transferable contracts, goodwill, etc.

The capital account

Please note!!!!!!!!!!!!!

In the past, the term “capital account” was used for what is now the “financial account”.

Even today, terms like “capital import/export” or “capital flows” refer to items of the financial account – not the capital account. To make a clear distinction, Feenstra and Taylor speak of export and import of assets.

In German:
the “Capital account” is called “Vermögensänderungsbilanz” and the “Financial account” is called “Kapitalbilanz”.

Since we find that, for developed countries, the items that are now entered into the “capital account” are relatively small, **we will simply ignore the capital account.**

The financial account (Kapitalbilanz)

Financial Account

credits	debits
Capital Imports (money flowing in) - Increase in Foreign Liabilities - Decrease in Foreign Assets Divided into: • Direct Investment • Portfolio investment • Derivatives investment • Other investment • Investment in reserve assets	Capital Exports (money flowing out) - Increase in Foreign Assets - Decrease in Foreign Liabilities Divided into: • Direct Investment • Portfolio investment • Derivatives investment • Other investment • Investment in reserve assets

Capital Imports:
Locals raise money by selling local or foreign assets to foreigners.

Capital Exports:
Locals use funds to buy local or foreign assets from foreigners.

Be aware of the correct sign when recording capital account transactions! For instance: An increase of foreign assets is equal to an outflow of funds (i.e. a capital export). Therefore, an increase of foreign assets of 1,000€ will enter as a debit of minus 1,000€.

Unfortunately, in some official statistics the sign is wrong!!!

The financial account

Examples of financial account transactions
("A" is a local transactor (a firm, an individual, the government) and "B" is a foreign transactor)

- A sells A-bonds to B
- A sells B-bonds to B
- B buys a house from A
- A borrows 1,000€ from B-bank and buys B-bonds from B

Some more BOP-Accounting

Problems to solve.

1. German tourists spending 6m EUR on holidays in Florida
2. Germany receives 1m EUR from the UN heritage fund
3. A German buys a house in Spain financed 100% by a loan of a Spanish bank
4. A German works for a hotel in Mallorca during the holidays
5. A German company pays for advice of a French lawyer
6. A German buys an apartment in Greece
7. A German bank pays back a loan from a French bank
8. An American hedge fund purchases Lufthansa shares at the Frankfurt stock exchange
9. A German student pays tuition fees in the US
10. A German student receives a loan from a Canadian uncle
11. A German tourist is eating lunch in a restaurant in Greece

BOP-Accounting and the Double-Entry Principle

For the BoP as a whole, debits are of equal magnitude as credits:

$$\sum \; debits \quad = -\sum \; credits$$

So, **for the entire BoP, there never is a surplus or deficit.** It is always balanced. This is due to the double-entry principle. In theory, each transaction should be recorded twice.

<u>Example:</u>
A German importer buys computer chips in Korea (worth €10 million). Suppose, he has to pay 2 months after delivery.
So, when the goods are delivered, there is a German import of €10 million. At the same time, there is a capital import of €10 million (the importer’s foreign debt is rising by €10 million.)
Thus: -€10 million in the trade balance and +€10 million in the financial account.

BOP-Accounting and “Errors and omissions”

$$\sum \ debits \quad = -\sum \ credits$$

If this equation is always true, **why are there errors and omissions?**

There are gaps in the recording of transactions. In practice, statisticians are not able to record the two transactions that belong together.

For instance, at the border, statisticians will record the value of goods that are crossing the border. But they will not know how these trade transactions were financed.

Much of the information on cross-border financial flows comes from banking statistics.

In the end, the two sides never match exactly. There is always a gap. This gap is called **“Errors and Omissions”.** Unfortunately, it can be quite large.

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Getting the stats right: It ain‘t easy!

The bilateral current account balance of Europe and the US - according to US figures (BEA) and European figures (Eurostat)(2017, EUR billiones).

	der EU		der Eurozone	
	nach BEA	nach Eurostat	nach BEA	nach EZB
Güter	135,4	165,4	118,9	132,2
Dienstleistungen	-45,4	12,8	-31,0	-22,2
Primäreinkommen	-94,1	-10,9	-69,3	-10,5
Sekundäreinkommen	-8,5	-13,4	-2,9	-15,0
Current account	**-12,6**	**153,8**	**15,8**	**84,6**

Quelle: Bureau of Economic Analysis (BEA), Eurosta… Daten des BEA wurden mit dem

Jahresdurchschnittswechselkurs der Bundesbank umgerechnet. A… Zahlen (19. November 2018).

Trump was worried about the US current account deficit with Europe. Well, accoriding to US statistics there was no CA deficit. Apparently, he believed more in European stats than in US stats.

Letter of the Board of Academic Advisors to the Federal Minister for Economic Affairs and Energy, 19 January 2019.

Sub-balances of the BoP

While it is always true that total debits are equal to (minus) total credits, this does not hold for sub-balances. As we have seen, these sub-balances are receiving a lot of attention in the media.

Current Account

credits	debits
Exports Income received Transfers received	Imports Income paid Transfers made
	Current Account Surplus

In the CA there can be a surplus or a deficit. The same is true for the FA. But as we will see below, both sub-balances are firmly tied together.

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The Balance of Payments

Current Account of Germany

€ million

Zeit	Current Account: Total	Goods: Total	Goods: of which: Supplementary trade items [1]	Services	Primary income	Secondary income
2006	+ 137,674	+ 160,965	− 4,687	− 31,777	+ 40,499	− 32,014
2007	+ 171,493	+ 201,728	− 1,183	− 32,465	+ 35,620	− 33,390
2008	+ 144,954	+ 184,160	− 3,947	− 29,122	+ 24,063	− 34,147
2009	+ 142,744	+ 140,626	− 6,605	− 17,642	+ 54,524	− 34,764
2010	+ 147,298	+ 160,829	− 6,209	− 25,255	+ 51,306	− 39,582
2011	+ 167,340	+ 162,970	− 9,357	− 29,930	+ 69,087	− 34,787
2012	+ 195,712	+ 199,531	− 11,388	− 30,774	+ 65,658	− 38,703
2013	+ 184,352	+ 203,802	− 12,523	− 39,321	+ 63,284	− 43,413
2014	+ 210,906	+ 219,629	− 14,296	− 25,303	+ 57,752	− 41,172
2015	+ 260,286	+ 248,394	− 15,405	− 18,516	+ 69,262	− 38,854
2016	+ 266,689	+ 252,409	− 19,921	− 20,987	+ 76,199	− 40,931
2017	+ 254,936	+ 255,077	− 13,613	− 23,994	+ 74,629	− 50,776
2018	+ 264,156	+ 224,584	− 22,682	− 17,410	+ 105,694	− 48,713
2019	+ 258,627	+ 216,523	− 31,760	− 20,653	+ 111,191	− 48,434
2020	+ 234,408	+ 190,022	− 8,907	+ 3,471	+ 92,497	− 51,582

Source: Deutsche Bundesbank, Monthly Report

Ch. 1: BoP

The Balance of Payments

Financial and Capital Account of Germany

€ million Zeit	Balance of capital account 2		Financial account 3 Total		of which: Reserve assets		Errors and omissions 4	
2006	–	1,328	+	157,142	–	2,934	+	20,796
2007	–	1,597	+	183,169	+	953	+	13,273
2008	–	893	+	121,336	+	2,008	–	22,725
2009	–	1,858	+	129,693	+	8,648	–	11,194
2010	+	1,219	+	92,757	+	1,613	–	55,760
2011	+	419	+	120,857	+	2,836	–	46,902
2012	–	413	+	151,417	+	1,297	–	43,882
2013	–	563	+	226,014	+	838	+	42,224
2014	+	2,936	+	240,258	–	2,564	+	26,416
2015	–	48	+	234,392	–	2,213	–	25,845
2016	+	2,142	+	261,123	+	1,686	–	7,708
2017	–	2,936	+	276,709	–	1,269	+	24,710
2018	+	676	+	246,544	+	392	–	18,288
2019	–	526	+	203,799	–	544	–	54,302
2020	–	4,771	+	231,103	–	51	+	1,466

Please note:
Use of „+“ and „-“ is inconsistent in the official statistics:

Financial account:
„+“ = increase in net foreign wealth.
So this is an outflow of money.

Source: Deutsche Bundesbank, Monthly Report

Ch. 1: BoP

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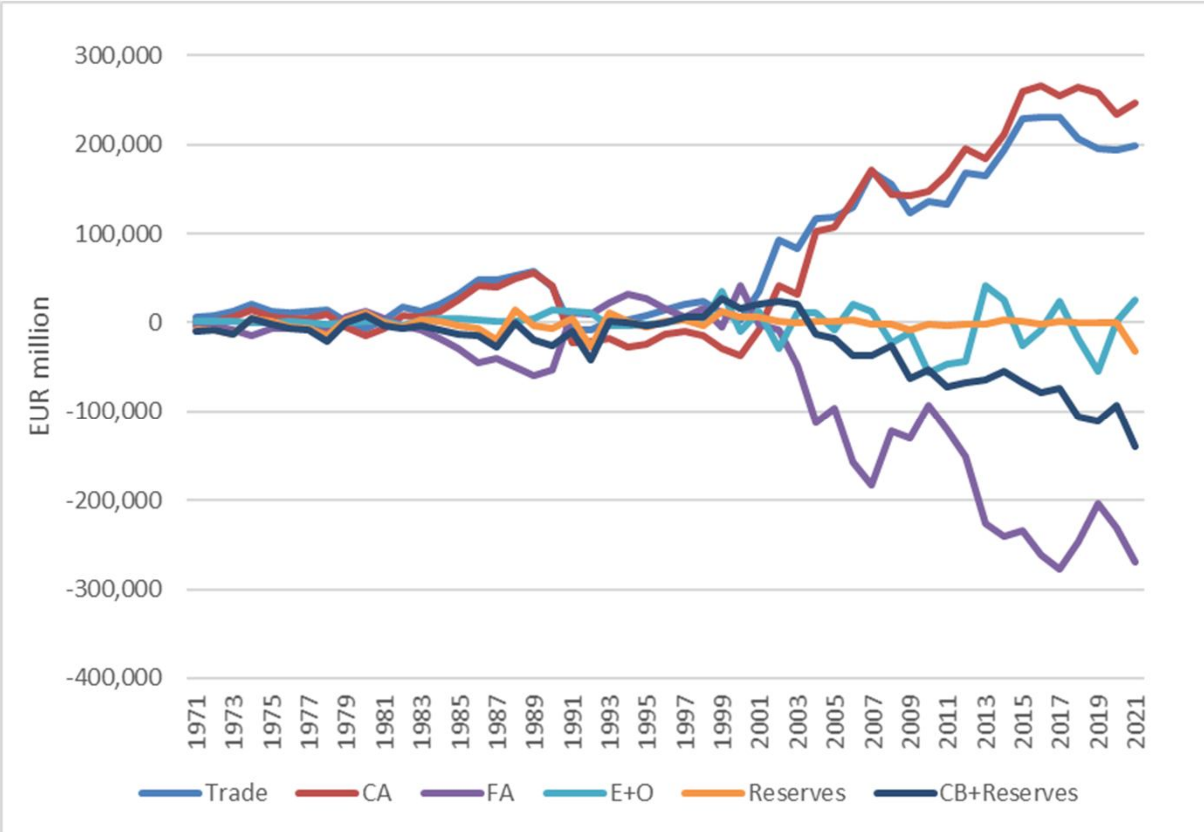
The German Balance of Payments (1971-2021)



FA: financial account excl. CB+reserves

Source: Deutsche Bundesbank

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Germany‘s balance of payments

1. Deficits and surpluses of current account and financial account have become **very large**.

2. The current account and the financial account are more or less **a mirror of each other**.

Observation 2 simply follows from the principles of BoP accounting.

But observation 1 is **an interesting observation** that applies to many countries.

We will take a deeper look into this issue.

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Deficits and surpluses

We have seen that there can be **large current account or financial account deficits or surpluses**.

Such deficits and surpluses receive a lot of attention in the media and it is constructive to get a better understanding of the relationship between these two sub-accounts of the balance of payments.

The Balance of Payments: A simplified version

Leaving out the „capital account“ (it is small anyway) and „errors and omissions“ (which would be zero in an ideal world)

Current Account

- Goods
- Services

Very often, this is summarised as „exports minus imports“. (Leaving out income and transfers)

Financial Account

- Direct Investments
- Portfolio Investments
- Financial Derivatives
- Other Investments

Non-reserve financial account Leaving out the transactions of the central bank (which are special and will be dealt with separately) .

National accounting identity

In the open economy

$$Y = C + I + G + CA$$

or, assuming that net foreign income is zero

$$Y = C + I + G + Ex - Im$$

where Y = GDP = GNI

The open economy equation states that not all local income is spent on local goods, a fraction is spent on imports. At the same time, not all spending on local goods comes from locals, a fraction comes from foreigners (exports).

Usually CA $\neq$ 0

If the CA is negative it is often said that

"a country spends more than it earns"

or

"it lives above its means".

In the terms of the accounting identity:

$$\underset{\text{Gross income}}{Y} - \underbrace{(C + I + G)}_{\text{Gross spending}} = CA$$

Gross income minus gross spending equals the balance on current account.

So indeed a current account deficit means that <u>spending is higher than income.</u>

But is this bad ?

A look from a different point of view:

Recall the identity $Y = C + I + G + CA$

Subtracting (C + G) on both sides:

$$Y - (C+G) = I + CA$$

Note: In economics, "saving" is defined as income that is not consumed by households and the government.

Thus: $Y - (C+G) = S$ (the income earned that is not consumed)

So, we can write:

$$S = I + CA$$

or:

$$CA = S - I$$

The balance on current account equals the difference between saving and investment:

$$\boxed{CA = S - I}$$

Separating the government and the private sector:

$$CA = (S_g + S_p) - (I_g + I_p)$$

or

$$CA = (S_g - I_g) + (S_p - I_p)$$

Since: $(S_g - I_g) = T - G - I_g$ = government budget surplus

We get:

CA = government surplus
+ excess of private savings over private investment

Ch. 1: BoP

Box: notations and definitions

Note:

$CA = (S_g - I_g) + (S_p - I_p)$

$S_g = T - G$ (taxes minus government consumption)

Thus, we can write:

$CA = (T - G - I_g) + (S_p - I_p)$

This can be re-written as

$CA = (T - G) + (S_p - I)$ $[I = I_g + I_p]$

This equation can also be found in many textbooks.

(Sometimes „S“ is used; but then it should be understood as <u>private</u> saving.)

$$CA = (Ex\text{-}Im) = (S_p - I_p) + (T - G - I_g)$$

Thus, a current account surplus goes hand in hand with
- relatively high private savings and/or
- relatively low private investment and/or
- a government surplus

Capital flows out

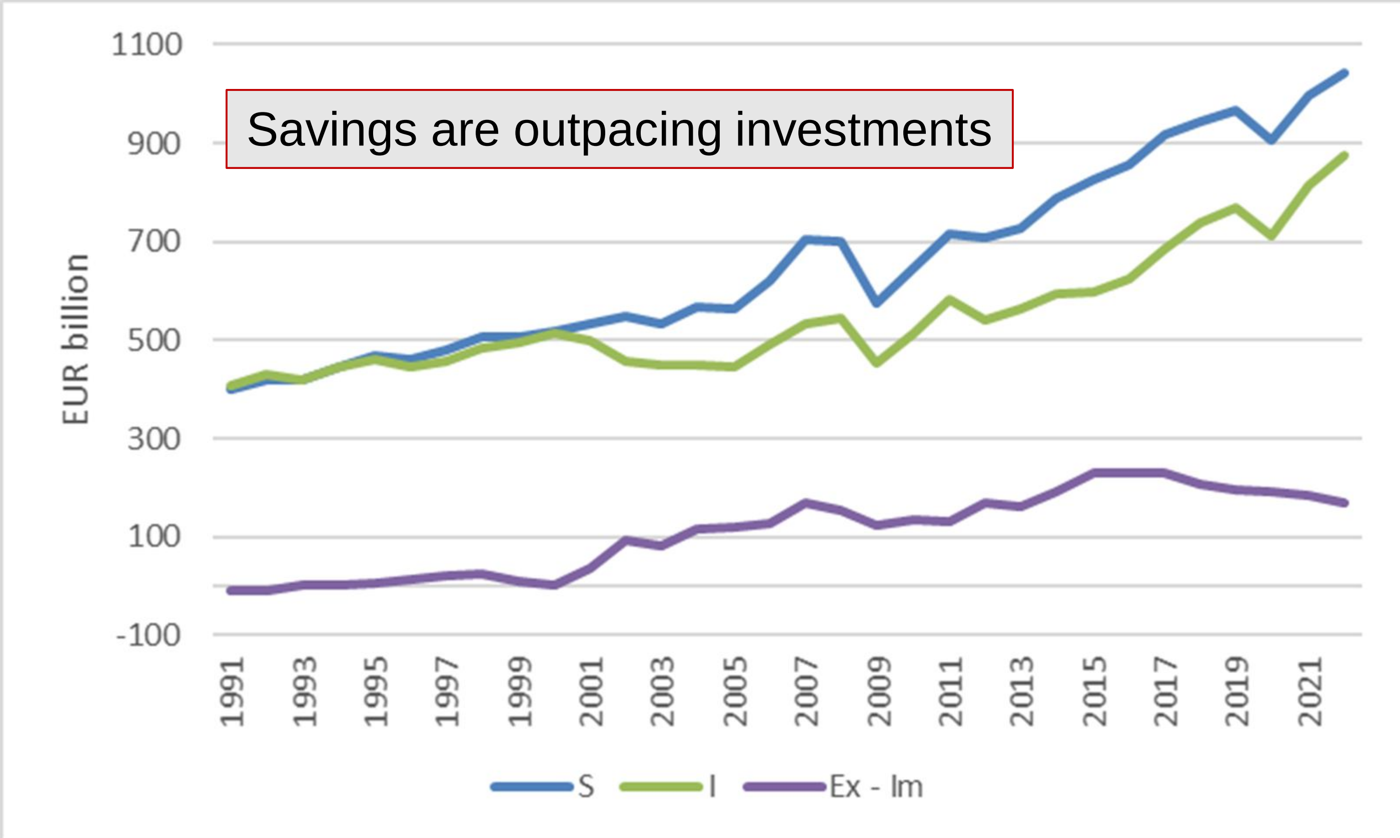
Equally, a deficit goes hand in hand with
- relatively low private savings and/or
- relatively high private investment and/or
- a government deficit

Capital flows in

So, is a surplus good, a deficit bad?

Ch. 1: BoP

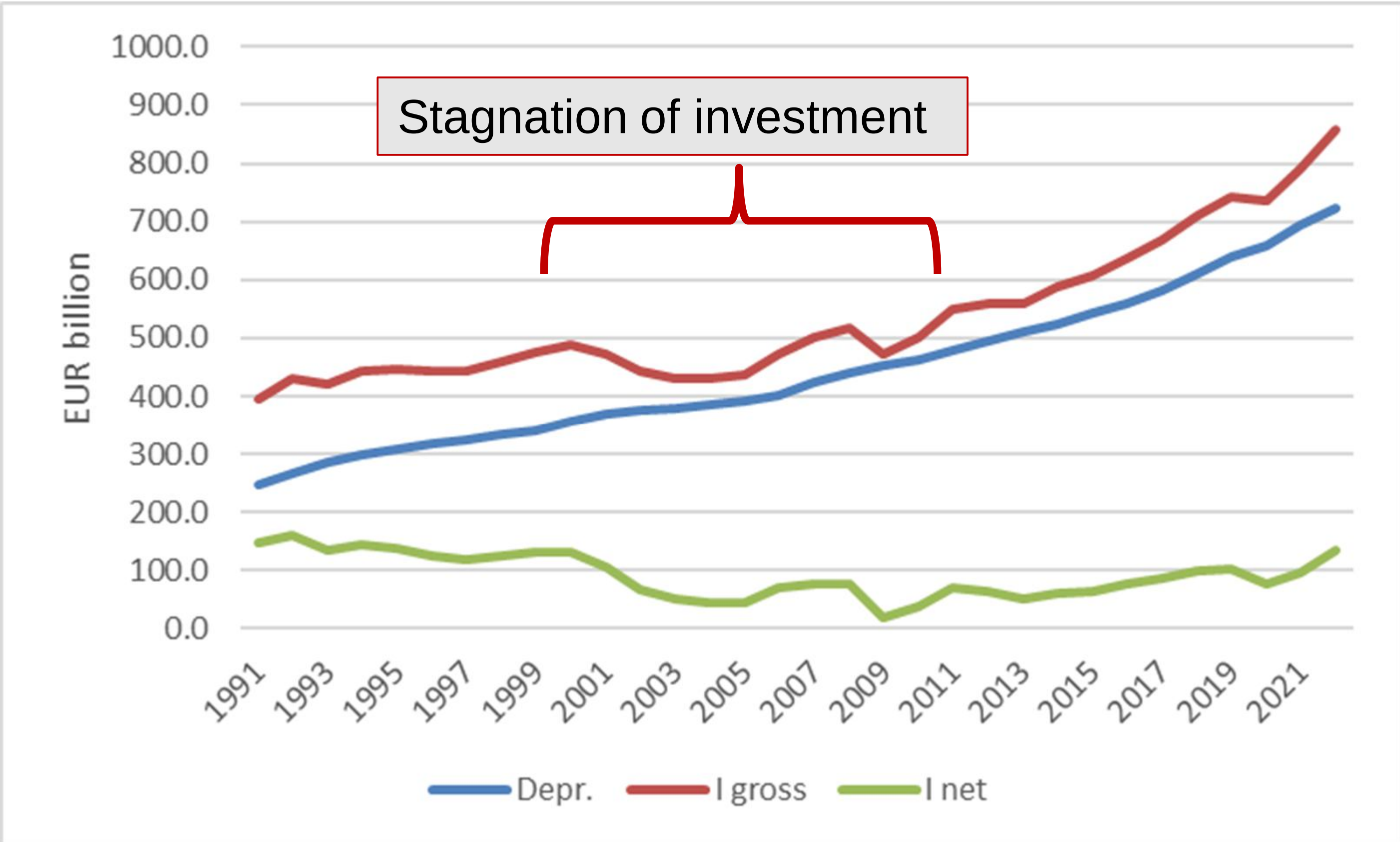
The case of Germany



Source: Sachverständigenrat Wirtschaft

Ch. 1: BoP

The case of Germany



Source: Sachverständigenrat

What can we learn from the German experience?

$$CA = (Ex\text{-}Im) = (S_p - I_p) + (T - G - I_g)$$

Equations such as the one above are **true by definition**. They do not imply any causality.

But when looking at the two charts above, it becomes plain that for many years **investment has been very sluggish in Germany**.

This may well have been one of the drivers of the observed high current account surplusses.

Looked at form this point of view, Germany‘s current account **surplusses have not been an indicator of a strong economy** but rather of a weak one with only a few good investment opportunities.

Ch. 1: BoP

Problems to solve.

Exercises

1. What are the main components of the balance of payments (including sub-balances)?

2. Assuming that the capital account is balanced and that there are no errors and omissions: What is the relationship between the current account and the financial account?

3. Show that CA = S – I

4. During the 1980s, the US experienced “twin deficits” in the current account and government budget. Do government budget deficits lead to current account deficits? Identify other possible sources of the current account deficits. Do current account deficits necessarily indicate problems in the economy?