German balance of payments in 2020

In 2020, during the coronavirus pandemic, the German economy's current account surplus decreased by ½ percentage point to 7% of nominal gross domestic product (GDP). As a result of the global shock caused by the pandemic, the current account surplus collapsed to less than 5% of GDP in the second quarter, but quickly rebounded in the second half of the year. During the year under review, the pandemic was reflected in lower surpluses in goods trade and primary income, while the balance of the services account, which traditionally runs a deficit, moved marginally into positive territory. The broadly based slump in foreign demand as well as composition effects had a considerable negative impact on Germany's exports, whilst imports fell to a lesser extent. The deep recession in the global economy depressed import prices, especially for crude oil, which dampened the decline in the balance of foreign trade. The surplus on primary income declined substantially as a result of lower earnings from German direct investment, in particular. The services account was affected especially by the lower deficit in travel. Aggregate net lending/net borrowing relative to GDP fell due to the sharp decrease in aggregate savings, which exceeded the cyclically-induced decline in investment. The fall in saving was triggered by the government budget's turnaround into a deficit, which was primarily a reflection of the comprehensive government assistance measures. By contrast, there was a surge in household saving.

The saving and investment behaviour of an economy is also reflected in its capital flows. In terms of cross-border investment and funding decisions, the increasing diversification of investments, the continuing globalisation within the corporate sector, and the changing political risks and monetary policy measures in particular played key roles in this context. This also holds true for German capital flows. Furthermore, the coronavirus pandemic and its evolution were of great significance in 2020. In addition, the withdrawal of the United Kingdom from the European Union (Brexit) left its mark on Germany's capital flows. Financial corporations relocated certain financial services that had previously been conducted in the United Kingdom to group entities in Germany, which primarily impacted the gross figures for individual items in the balance of payments.

Overall, Germany's net capital exports totalled €227½ billion and were thus higher than in the preceding year (€204 billion). Securities transactions as well as other investment and financial derivatives recorded outflows of funds on balance. With regard to other investment, Germany's TARGET2 claims vis-à-vis the European Central Bank (ECB) rose considerably over the course of the year. Direct investment saw marginal net capital imports for the first time since 2003.

Current account

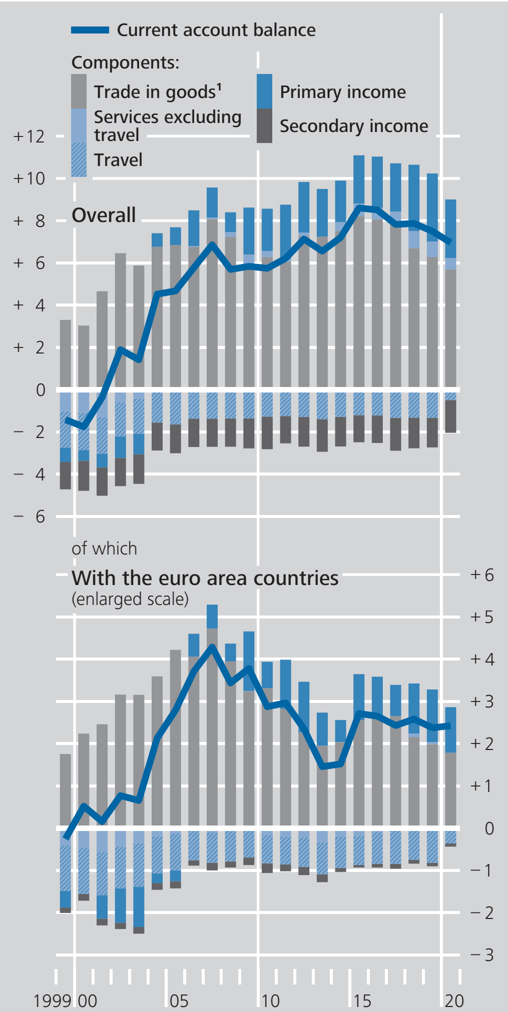
Underlying trends in the current account

Current account surplus down significantly

In 2020, Germany's current account surplus went down by €26½ billion to €232 billion.[1] In relation to nominal GDP, this corresponded to a decline of ½ percentage point to 7%.[2] The coronavirus pandemic and the measures taken to contain it triggered unusual fluctuations in Germany's current account over the course of the year. Due to the global shock caused by the pandemic, the current account surplus collapsed from more than 7% to less than 5% of GDP in the second quarter. In the second half of the year, it quickly rebounded and stood at more than 8% of GDP in the fourth quarter.

Germany's current account

As a percentage of GDP



1 Special trade according to the official foreign trade statistics, including supplementary trade items, with freight and insurance costs also being deducted from imports.

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Smaller surpluses in goods trade and primary income; services account supports surplus

The sub-accounts of the current account balance were, in some cases, pushed in opposing directions by the coronavirus pandemic. The surplus in goods trade declined considerably in the reporting year. This was chiefly attributable to the lower surplus in foreign trade. By contrast, receipts and expenditure in the services account, which traditionally runs a deficit, were almost balanced; this supported the surplus. The lower deficit in foreign travel was decisive here and reflected the restrictions to cross-border travel resulting from the pandemic. The surplus in primary income recorded a considerable decrease mainly due to lower earnings from German foreign direct investment against the backdrop of pandemic-related recessions in most of the countries of domicile. The deficit in the secondary income balance rose slightly.

Recovery in the current account surplus at year-end obscures partially countervailing crisis-related developments in the sub-accounts

These tendencies largely continued until the end of the year. Consequently, the one-off developments in the sub-accounts did not fully normalise, even though the total fourth-quarter balance slightly exceeded the prior-year figure.

In 2020, German enterprises were faced with a global economic recession on a remarkable scale. According to figures from the World Trade Monitor published by the Centraal Planbureau, the volume of global trade dropped almost as sharply as it had during the collapse

1 Owing to the measures taken to contain the coronavirus pandemic, public life has at times been subject to considerable restrictions since mid-March 2020. These restrictions had no noticeable negative impact on the process of preparing the balance of payments and thus on the overall quality of the results. However, the data sources for the items "travel" and "income from direct investment" are more limited or subject to greater uncertainty than usual. These items could therefore potentially undergo significant revision going forward.
2 The threshold of 6% of GDP set by the European Commission as part of the procedure for preventing and correcting macroeconomic imbalances thus continued to be exceeded. In its in-depth review as part of the 2021 European Semester, the European Commission once again classified Germany as having macroeconomic imbalances. See European Commission (2021).

Unfavourable underlying conditions around the world in light of recession in global economy and considerable decline in global trade

in trade during the global financial crisis. The fall in international goods trade was, however, significantly faster and the subsequent recovery took hold more quickly than it had back then, which meant that global trade exceeded its pre-crisis level by the end of the year. While the trade shock hit virtually all of Germany's partner countries at the same time, China, for example, saw a stronger and faster recovery in demand for imports than other countries due to its early and seemingly radical measures to contain the pandemic. In light of the magnitude of the demand shock, the slight appreciation of the euro in the reporting year is likely to have had hardly any bearing. Significant declines in the prices of intermediate goods and commodities, especially crude oil, provided relief for the German economy. A barrel of Brent crude oil cost an average of just over US$42 in 2020 – roughly one-third less than in the previous year.

Weak global demand and composition effects reduced Germany's foreign trade surplus; countervailing price effects

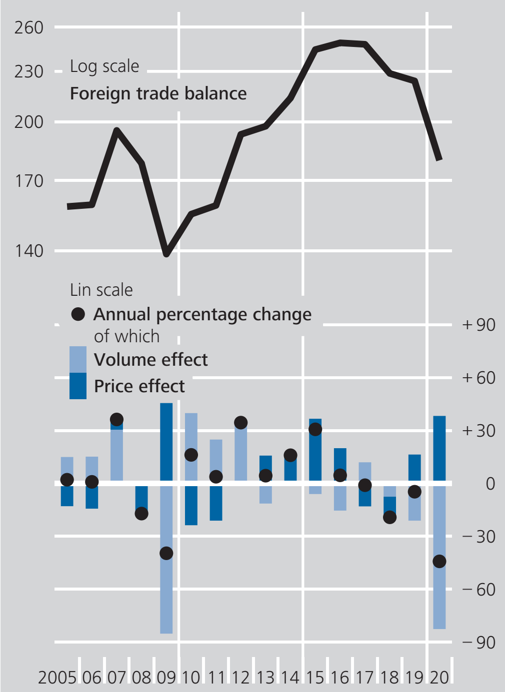
Goods exports declined sharply as a result of the collapse in global demand as well as the temporary business closures and disruptions to international supply chains. In addition, composition effects weighed on German export sales, as the global recession hit the capital goods sector particularly hard. Imports likewise fell, but to a lesser extent than exports. On balance, the foreign trade surplus decreased by €44 billion to €180 billion in 2020. In this context, price effects resulting from more favourable import prices significantly dampened the volume-related decline.

Surplus position declining vis-à-vis third countries, but unchanged vis-à-vis euro area countries

In regional terms, the decrease in the current account surplus was attributable to a decline in the balance vis-à-vis countries outside of the euro area (from 5% to 4½% of GDP). Here, the decreases in the goods trade balance and primary income balance were larger than the increases in the services account. At the same time, the current account balance vis-à-vis euro area countries remained almost unchanged at 2½% of GDP, as countervailing crisis-related developments in the sub-accounts largely balanced each other out.

Price and volume effects on the German foreign trade balance*

€ billion



Source of unadjusted figures: Federal Statistical Office. * Decomposed using the Shapley-Siegel index.
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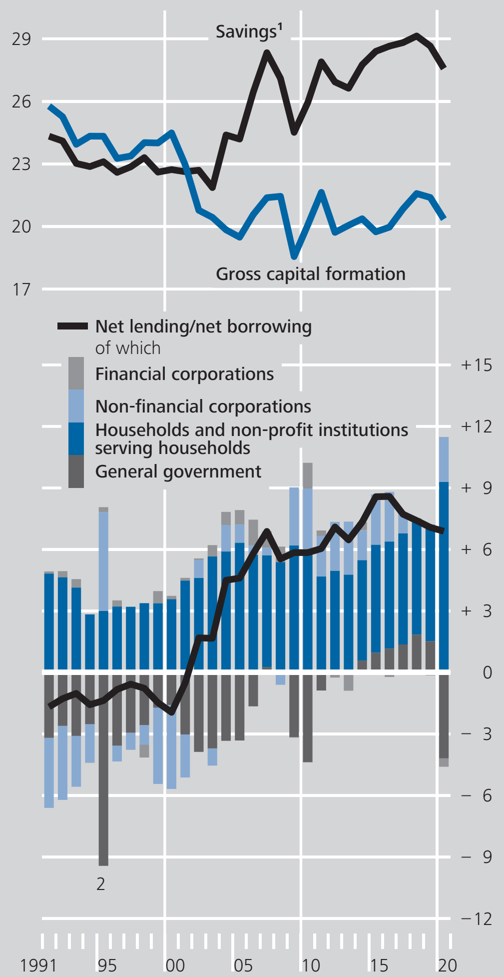
Considerable declines in investment and aggregate savings

The decline in the current account balance is also reflected in the developments in domestic saving and investment. Although investment in Germany decreased, domestic saving fell to an even greater extent.[3] Highly heterogeneous changes between sectors were also observed in this context. Enterprises' investment in machinery and equipment dropped massively in light of both the collapse in demand as well as the uncertainty surrounding the economic outlook. By contrast, private housing investment and government investment proved to be robust. In the reporting year, there was a surge in household saving, as consumer expenditure fell considerably more sharply than disposable income. Here, the key factor was that certain opportunities for consumption were either unavailable or not utilised by consumers due to

3 As in previous years, the comments in this Report are based on revised figures from the balance of payments for the past four years. The figures on the fiscal balance from the national accounts do not yet factor in these revisions.

Savings and investment in the German economy

As a percentage of GDP



1 Including consumption of fixed capital. 2 One-off effect caused mainly by assumption of Treuhand debt by general government.

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the risk of infection.[4] At the same time, saving among non-financial corporations remained largely unchanged. However, the government budget posted a strong deficit after having recorded a surplus the year before. The government deficit is, alongside the impact of the automatic stabilisers, primarily attributable to the comprehensive government measures aimed to support the healthcare system, households, and enterprises.[5] On balance, net lending by households and non-financial corporations rose to a very significant degree, while the general government fiscal balance fell considerably.

Goods flows and balance of trade

Foreign trade sees very sharp decline in first half of the year, followed by strong recovery

In the first half of 2020, German foreign trade activities declined massively due to pandemic-related containment measures and changes in behaviour both in Germany and abroad. The sharp downturn was fuelled by the fact that, in addition to sales channels being affected, the goods supply experienced disruptions at times as a result of business closures and missed deliveries. At the low point in the second quarter, goods exports and goods imports were around one-quarter and one-eighth below their respective pre-crisis levels in price-adjusted terms. As coronavirus containment measures were eased, exports and imports of goods caught up quickly in the summer and continued to recover during the autumn despite the renewed tightening of pandemic-related restrictions. In this context, a key role was played by the rising industrial activity in Germany and its partner countries at this time. In the final quarter of the year, exports still fell short of their pre-crisis level in real terms by around 4%, whilst imports had already surpassed their pre-crisis level.

Exports more strongly diminished than imports on average in 2020

On average over the year, goods exports in 2020 were down 8¾% on the year in price-adjusted terms. With a price-adjusted decline of 3%, goods imports fell to a lesser extent than exports. Here, a contributing factor was the fact that, compared to exports, the range of imported goods is less strongly focused on certain capital goods such as machinery or motor vehicles; international trade in these goods decreased especially sharply. Furthermore, there was increased domestic demand for computer and telecommunications technology as well as for specific consumer goods such as pharmaceutical products and textile protective equipment, which were increasingly sourced from abroad.

4 See Deutsche Bundesbank (2020a).
5 See Deutsche Bundesbank (2021).

Very sharp decline in exports to the euro area and to sales regions outside of the euro area

In regional terms, German exporters saw their revenue fall in practically every euro area country. In this context, especially hard hit were deliveries to France – which was chiefly due to the decline in other transport equipment – Spain, and Portugal.[6] After price adjustment, exports to countries outside of the euro area decreased almost as sharply as those to euro area countries. Revenue from sales to the United Kingdom experienced a particularly strong decline, with both the relatively sharp drop in UK demand as well as composition effects playing a part. Export business with the United States likewise contracted sharply. In addition, there was a very steep decline in deliveries to commodity-exporting countries such as Russia and the OPEC countries, with their more limited scope for expenditure from their sales of oil and gas likely being a contributing factor. Heterogeneous developments were observed in export business to Asian countries. While deliveries to the emerging market economies in South and East Asia as well as to Japan saw relatively sharp declines, sales to China almost reached the previous year's level. These sales benefited from the fact that the Chinese economy had already passed the peak of the pandemic in the first quarter of 2020 and subsequently saw a considerable recovery, which meant that goods exports to China in the final quarter were markedly up on the year.

Exports of capital goods and intermediate goods negatively impacted

Among the exports of intermediate and capital goods, exports of motor vehicles, trailers and semi-trailers contracted especially sharply in the previous year in price-adjusted terms. In this context, a role was played by the fact that production and sales were, at times, almost brought to a standstill in the spring due to sluggish deliveries from within Germany and from abroad as well as due to the government-mandated closures of businesses and showrooms. A very considerable downturn was ex-

6 Germany's foreign trade in other transport equipment comprises, in particular, ships, railway locomotives and rolling stock, as well as – especially for bilateral trade with the countries involved in the joint European manufacturing arrangement – aircraft and spacecraft.

Foreign trade by region

%

Country/ group of countries	Percentage share	Annual percentage change		
	2020	2018	2019	2020
Exports				
Euro area	36.6	4.5	0.0	– 10.4
Other countries	63.4	2.1	1.3	– 8.6
of which:				
United Kingdom	5.6	– 3.8	– 3.6	– 15.5
Central and eastern European EU countries[1]	12.6	6.7	2.6	– 6.2
Switzerland	4.7	0.2	4.3	– 0.1
Russia	1.9	0.5	2.6	– 13.1
United States	8.6	1.4	4.7	– 12.5
Japan	1.4	4.6	1.1	– 15.9
Newly industrialised economies in Asia[2]	3.1	0.7	– 2.4	– 1.6
China	8.0	8.0	3.2	– 0.1
South and east Asian emerging market economies[3]	2.2	13.0	– 0.7	– 17.5
OPEC	1.6	– 16.2	– 2.7	– 13.9
All countries	100.0	3.0	0.8	– 9.3
Imports				
Euro area	36.4	7.2	1.0	– 9.0
Other countries	63.6	4.7	1.7	– 6.0
of which:				
United Kingdom	3.4	0.6	3.7	– 9.6
Central and eastern European EU countries[1]	14.5	6.3	2.7	– 4.6
Switzerland	4.4	0.5	– 0.2	– 0.9
Russia	2.1	14.7	– 13.1	– 29.9
United States	6.6	4.2	10.6	– 5.0
Japan	2.1	3.3	0.8	– 11.0
Newly industrialised economies in Asia[2]	2.7	6.0	– 3.0	– 7.7
China	11.3	4.2	3.8	5.6
South and east Asian emerging market economies[3]	3.9	2.3	0.3	– 3.4
OPEC	0.5	21.5	– 4.8	– 48.4
All countries	100.0	5.6	1.4	– 7.1

1 Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania. 2 Hong Kong, Singapore, South Korea, Taiwan. 3 India, Indonesia, Malaysia, Philippines, Thailand, Vietnam.

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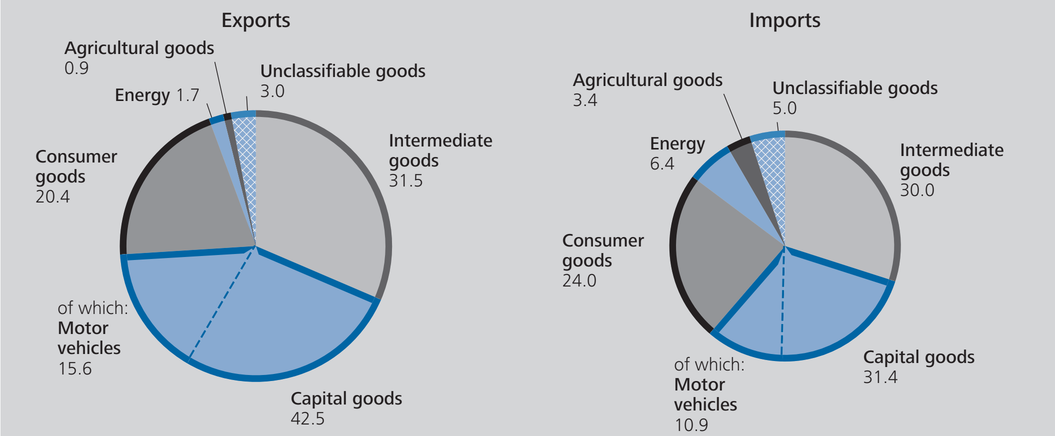
Foreign trade by selected categories of goods in 2020

Percentage share



Source of unadjusted figures: Federal Statistical Office. May not add up to 100% due to rounding.
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perienced by exports of other transport equipment, such as aircraft, which suffered under the highly depressed outlook for global travel resulting from the pandemic. In addition, significant cutbacks had to be made by exporters of traditional capital goods such as machinery, as the acquisition of these goods was especially curtailed due to the elevated uncertainty; at the end of the year, deliveries still fell considerably short of the previous year's level. Less strongly affected were deliveries of computer, electronic, and optical products as well as metals and fabricated metal products as a whole, electrical equipment and chemicals to foreign countries. At the same time, among consumer goods, global demand for German pharmaceutical products rose.

Imports of capital goods and intermediate goods in decline, imports of consumer goods see sharp rise due to pharmaceuticals and protective equipment

In terms of deliveries to Germany, manufacturers of machinery and equipment and, in particular, manufacturers of motor vehicles, trailers and semi-trailers abroad recorded sharp downturns on average in 2020, though their receipts were practically at pre-crisis levels in the final quarter. In the reporting year, there was a considerable fall in imports of other transport equipment. The losses suffered by manufacturers of metals and fabricated metal products as a whole and manufacturers of chemicals were less severe. By contrast, there was noticeable expansion in deliveries of electrical equipment as well as computer, electronic, and optical products to Germany. In this context, the greater expenditure for imports of computer and telecommunications technology is likely to have been attributable to the increased digitalisation of work and telework activities as a result of the coronavirus pandemic. Imports of consumer goods saw strong growth, which was fuelled in part by the considerable expansion in deliveries of pharmaceutical products and textile protective equipment (such as face coverings).

Strong decline in demand for imports from euro area and third countries; significant rise in imports from China

In regional terms, there were declines in goods imports from almost all of Germany's major partner countries, with euro area producers suffering more than manufacturers in other countries from the fall in German demand. A notable exception was China, which recorded strong growth in revenue from business with Germany. The most important factor in this regard was that China supplied the majority of Germany's coronavirus-related import demand for textile protective equipment, such as face coverings.[7] In addition, a large proportion of the increased imports of computer and peripheral equipment also originated from China. Excluding China, imports from third countries fell almost as sharply in terms of value as those

7 See Deutsche Bundesbank (2020b).

from the euro area. In this context, other major suppliers from South and East Asia as well as central and eastern European EU Member States, the United Kingdom and the United States suffered significant declines in their sales to Germany. Revenue among major energy suppliers such as Russia and the OPEC countries experienced very considerable contraction, with the fall in the prices of energy products playing a role.

Supplementary trade items see strong increase on balance, net receipts in merchanting trade slightly lower

The other components of goods trade – which comprises supplementary trade items, net goods exports in merchanting trade, and trade in non-monetary gold – had a countervailing effect overall on the decline in the balance of foreign trade. In 2020, the balance of goods trade fell by €27 billion in net terms and thus less sharply than the balance of foreign trade. The decisive factor here was the lower negative balance in the supplementary trade items, which, amongst other things, was attributable to the subdued activities in contract processing. At the same time, there was a slight decrease in net receipts from merchanting trade, as sales declined to a greater extent than purchases overall. The automotive industry contributed to this as it generally comprises a large proportion of these transactions. The balance of trade in non-monetary gold remained essentially unchanged.

Invisible current transactions

Turnover in services down massively, with traditionally large deficit giving way to slim surplus

Cross-border trade in services was impaired by the pandemic to an even greater extent than trade in goods. In comparison with the decline in the wake of the financial and economic crisis of 2008-09, the fluctuations in 2020 were also greater. Receipts from the export of services fell by nearly 14% on the year, whilst expenditure on services from abroad fell by nearly one-fifth. The balance of the services account, which traditionally runs a large deficit in Germany, recorded a slight surplus last year, following a deficit of €20½ billion in the year prior to the pandemic.

Sharp contraction in travel account deficit

The main reason for the large deficit in the services account in the past was the high expenditure on travel abroad by German residents. In connection with the travel warnings and restrictions to contain the pandemic – including border closures in some cases – this position shrunk by more than half from over €83 billion in 2019 to €36 billion last year. Whilst expenditure on trips to Germany’s neighbours was down by nearly one-half, which is already a huge fall, expenditure on long-haul journeys plummeted by more than three-quarters. Furthermore, travel receipts from non-residents also fell by nearly half to €19½ billion. For trips to Germany, a large role was played by the sharp decline in travel for trade fairs, events and business trips. Overall, the deficit in the travel account fell from €46 billion to €16½ billion in 2020, and thus to the lowest level since German reunification.

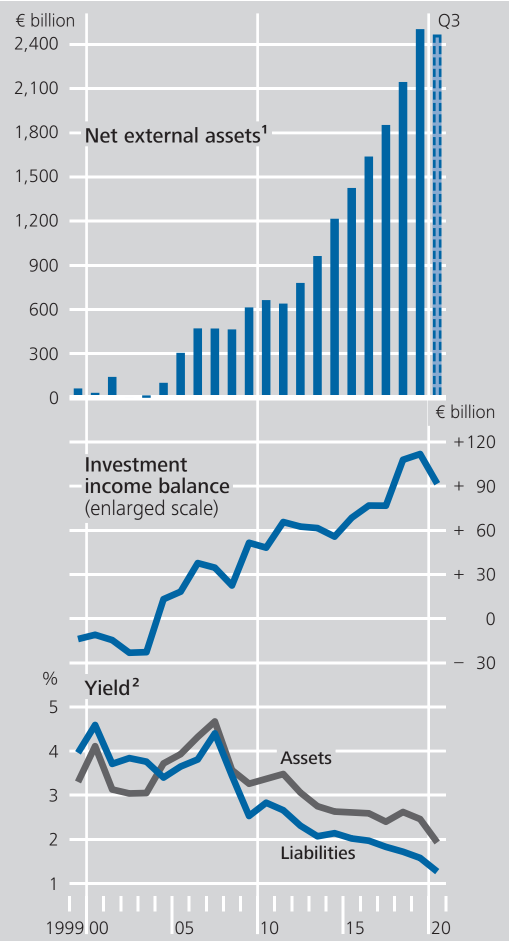
For transport services, fall in expenditure outstripped by fall in receipts

Due to the slump in economic activity last year in Germany and abroad, turnover fell in nearly all other sub-items of the services account. As a result of the decline in the trade in goods, both receipts for and expenditure on transport services fell considerably. In contrast to the balance in the travel account, the balance in the transport services account had the effect of considerably reducing the surplus, as receipts in this position fell by €14½ billion, which was significantly greater than the fall in expenditure. Other sub-items of the services account related to the trade in goods, such as manufacturing, maintenance and repair services, recorded only marginal changes in the balance compared to 2019, though turnover here was likewise lower.

Contraction in volume of knowledge-based and business services, with overall balance virtually unchanged

Trade in knowledge-based services and other business services also suffered a setback in the reporting year, following years of strong growth in the international division of labour. Nonetheless, the large surplus in the use of intellectual property remained virtually unchanged. Stable earnings from cross-border communication and IT services coupled with simultaneously falling expenditure led to a con-

Key indicators of the cross-border investment income balance



1 Direct, portfolio and other investment and reserve assets. Excluding financial derivatives. **2** Yields shown in terms of investment income/expenditure as a percentage of the annual average levels of foreign assets and liabilities. IIP as at the end of Q3 2020.

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traction of nearly €3 billion in the deficit in this sub-account. However, the deficit in other business services grew by €2 billion, as earnings from abroad from research and development, professional, technical and commercial services, as well as management consultancy services fell to a greater extent than expenditure in these categories.

Expansion in financial services

While most positions in the services account contracted, financial services constituted an exception. There were barely any changes on the year for insurance activities, either on the receipts or the expenditure side. Nonetheless, receipts for financial services grew by €2 billion and expenditure by €3 billion, causing a slight decline to the surplus in this sub-account.

Considerable fall in investment income surplus

Germany's primary income from abroad exceeded its corresponding payments to the rest of the world by €92½ billion in the reporting year. As in previous years, cross-border investment income accounted for the lion's share of primary income, while flows of employee compensation led to a slight surplus and flows of other primary income resulted in a slight deficit. The coronavirus pandemic also had a considerable impact on cross-border investment income in the year under review. The surplus fell by €20 billion and, according to provisional calculations, totalled €91½ billion, after having risen very substantially in the preceding years.[8] In this context, income to residents from their investments abroad plummeted by one-sixth to €175½ billion. However, payments to investors and capital donors from abroad fell less strongly, down by one-seventh to €84 billion. In arithmetical terms, the fall in net receipts is fully attributable to the lower net earnings from direct investment.[9]

Marginally higher deficit in secondary income balance

Cross-border secondary income – which consists of unilateral transfers – saw its deficit rise by €3 billion in the reporting year to €51½ billion. This was mainly attributable to increased payments to the rest of the world. General government payments increased by €4 billion, around half of which was attributable to current transfers relating to international cooperation and the other half to contributions to the EU budget. One factor in this was that Germany's payment obligations increased as a result of the United Kingdom's departure from the

8 Final figures for direct investment income are not available until three years after they have been received and the reports they are based on have been examined – currently, this means they are available up to and including 2017.
9 The 2020 annual figure for income from direct investment is based on two basic methodological changes required by Eurostat, with retroactive effect from 2017. For one thing, direct investment now includes not only the reinvested earnings of direct investments, but also the retained earnings of indirect investments. Furthermore, expenditure on research and development and associated depreciation and write-downs are taken into account in the earnings.

Update of the international standards for external sector statistics and the system of national accounts

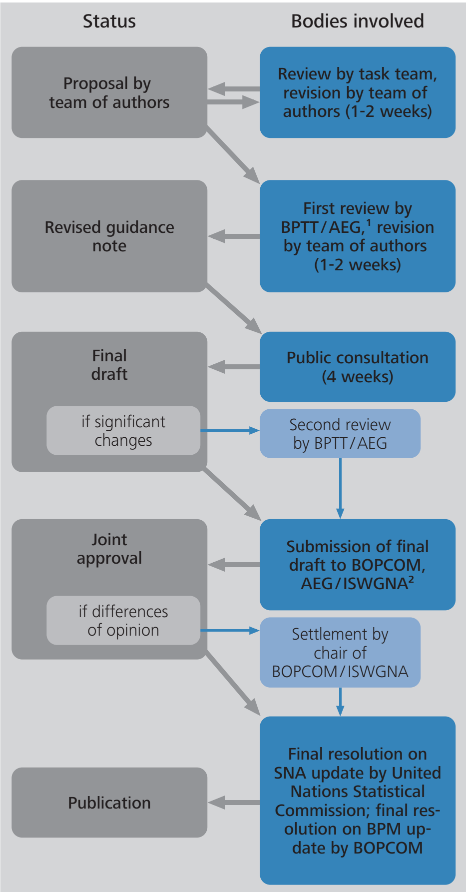
The external sector statistics and the system of national accounts provide key macroeconomic indicators, such as the current account balance, net international investment position and gross domestic product, which can be used to assess a country's economic and financial situation. They form an indispensable foundation for monetary and economic policy decision-making, enterprises' business policy considerations, and also analysis and forecasting in research and academia. As, in the world of today, economic relationships between individual economic agents as well as between entire national economies are in a constant state of flux, the underlying statistical measurement concepts and methodologies behind these indicators must be reviewed on a regular basis in order to determine, for example, whether the increasing development of international production chains by multinational enterprise groups is being correctly captured and appropriately reflected in the macroeconomic core indicators. In March 2020, the International Monetary Fund (IMF) and the United Nations Statistical Commission initiated a comprehensive update of the underlying macrostatistical framework, which is formed by the Balance of Payments and International Investment Position Manual (BPM6) and the System of National Accounts (SNA 2008).[1,2] These international statistical standards are subject to extensive updates of this kind around every 20 years.

The overarching aim is to enable the external sector statistics and the system of national accounts to more accurately depict more recent and increasingly relevant macroeconomic developments such as globalisation, digitalisation, fintech, and sustainability. At the same time, the gaps and ambiguities that have become apparent since the last revision process are intended to be rectified. In order for this to be achieved, existing concepts (model assumptions) need to be reassessed and adjusted if necessary, and the data collection and estimation methodologies must be expanded and refined.[3]

The update process is divided into two phases. In Phase I, which will run until the spring of 2022, task teams of international experts recruited from national central banks and statistical offices as well as international organisations around the world are developing proposals for adjustments,

1 These international manuals set out statistical concepts and methodologies. The principal document governing the balance of payments and international investment position is the IMF's Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6). See International Monetary Fund (2009). The framework governing the national accounts is the United Nations' System of National Accounts (SNA 2008). See European Commission et al. (2009).
2 For EU Member States, the statistical reporting requirements based on these are laid down in regulations adopted by the European Commission (Regulation (EC) No 184/2005 of 12 January 2005 and amending regulations, most recently (EU) 2016/1031 of 8 June 2016). Moreover, the reporting requirements for Eurosystem national central banks vis-à-vis the European Central Bank (ECB) are stipulated in detail in an ECB guideline. As of March 2021, reporting requirements are governed by Guideline (EU) 2018/1151 of the European Central Bank of 2 August 2018 amending Guideline ECB/2011/23 on the statistical reporting requirements of the European Central Bank in the field of external statistics (ECB/2018/19).
3 With regard to the respective national practices for producing external sector statistics, it should be taken into account that the international manuals as well as the EU Regulation and ECB Guideline are conceptual parameters for the respective statistical output ("output orientation"). The question of which data collection methods provide the conceptually desired information in each individual case is a matter for each national producer of official statistics and their own statistical expertise and depends not least on the economic structures of the respective country.

The procedure from draft to approval of a guidance note



1 Advisory Expert Group on National Accounts. Guidance notes from the DITT are also reviewed by the Working Group on International Investment Statistics (WGIIS). 2 Intersecretariat Working Group on National Accounts.

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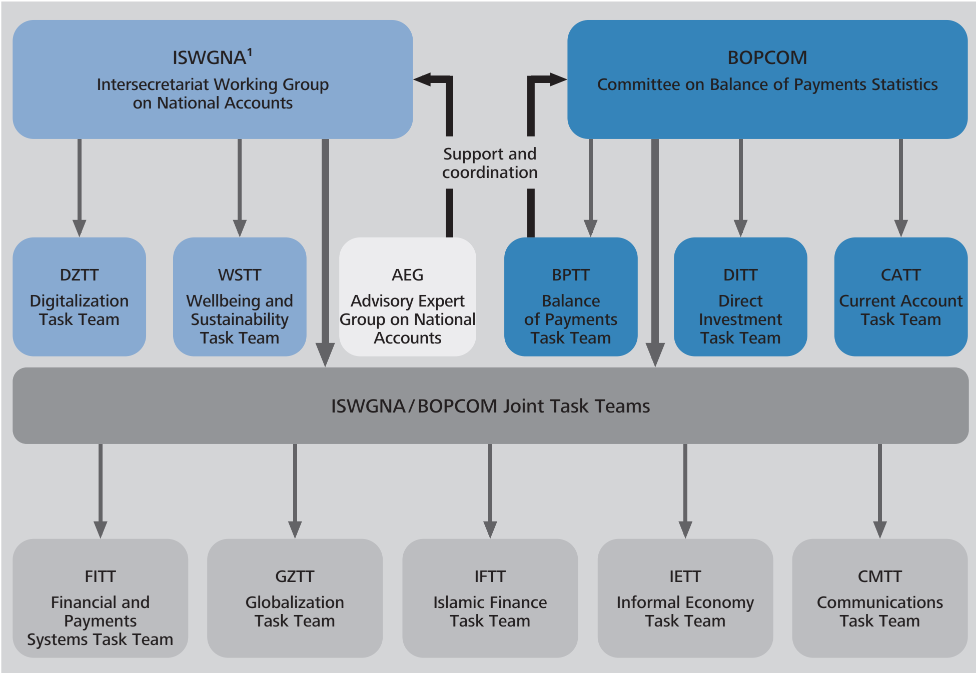
amendments and additions to each manual. The guidance notes drawn up by these task teams will then undergo a multi-stage approval process, which also includes a public consultation period in which all stakeholders can participate via the IMF website.[4] Phase II will involve incorporating the approved guidance notes into the draft versions of the new manuals as well as conducting additional rounds of consultation; this phase is scheduled to be completed in spring 2025. In the years thereafter, European data reporting requirements will be adjusted and, finally, the German external sector statistics will be switched over to the new system. The complex organisational structure and the approval process in the current update cycle are intended to ensure extensive consistency between the external sector statistics and the system of national accounts. This will be crucial for amalgamating and comparing statistical results at both the national and international levels.

The variety of topics identified over recent years have been divided into a number of blocks. The three topic areas that primarily concern the external sector are the responsibility of the IMF Committee on Balance of Payments Statistics (BOPCOM).[5] Due to the thematic overlap with the national accounts, statisticians from both fields are represented in five additional task teams.[6] The Bundesbank also participates in these committees and task teams.

The Balance of Payments Task Team (BPTT) is responsible for overarching conceptual issues concerning external sector statistics. In particular, additions to the international investment position aim to improve its analytical potential, including with regard to assessing a country's asset and debt pos-

4 See https://www.imf.org/en/Data/Statistics/BPM. Comments can be submitted via the websites of the individual task teams. A public consultation period of four weeks, which will begin at different times depending on the progress of the work, is scheduled for each guidance note.
5 The committee, which was established in 1992, advises the IMF on methodological and conceptual issues in the context of balance of payments and international investment position statistics. At present, its membership consists of 15 external sector statisticians from national central banks and additional representatives from international organisations. For more information, see https://www.imf.org/external/bopage/bopindex.htm.
6 Alongside the BOPCOM, these five task teams also work in conjunction with the Intersecretariat Working Group on National Accounts (ISWGNA). The ISWGNA is an interagency body set up by the United Nations Statistical Commission in the early 1980s which coordinates the statistical work of international organisations. The five members of the ISWGNA are the European Commission, the IMF, the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN), and the World Bank.

Committees and task teams in the update process



1 Joint committee consisting of the European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations and World Bank.

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itions. A detailed account explaining balance sheet changes in the international investment position is envisaged as a new standard component of the statistics and, at the international level, is intended to be incorporated into the IMF's External Sector Report, amongst other publications. While this is already standard practice in most European countries, the Bundesbank expects that valuable analytical insight will be gained from regularly publishing these data in other countries as well. Furthermore, for the first time, the new balance of payments manual will discuss the introduction of a standardised definition of net international reserves as well as how these are reported. Net international reserves are a metric that also play a major role in the context of IMF lending programmes. The goal is to more transparently capture the international reserves actually available to a given country. The task team is also investigating the possibilities of recording "sustainable financing instruments" separately in the accounting systems. This is part of a topic area that the Bundesbank is working on with high priority at various levels.

The Current Account Task Team (CATT) provides consultation on issues including how global phenomena – such as the growing cross-border activities of what are known as "factoryless goods producers" – can be measured more effectively. Likewise, the multifaceted impacts of globalisation and digitalisation have necessitated, amongst other things, clearer delineation between trade in goods and trade in services as well as an expanded depiction of trade according to enterprise characteristics in order to better identify the role of multinational groups. As the current account reflects the global production structures of these agents and their corresponding repercussions on national value added, there is broad crossover with the Globalization Task Team

(GZTT) in this subject area. In light of Germany's significant degree of interconnectedness in global trade and international value chains, the treatment of these topics plays a key role for the Bundesbank since they have an impact on Germany's macroeconomic results and indicators as well.

A major challenge facing the Direct Investment Task Team (DITT) is establishing a clearer distinction between foreign direct investment flows and foreign direct investment stocks with regard to business objectives. This comprises topics such as the definition and identification of the country of ultimate ownership of a corporate association or the actual country of investment, differentiated treatment of direct investment for the purpose of creating new production capacity as compared with pure corporate restructuring, and the statistical recording of corporate inversions of multinational groups. Alongside improved possibilities for analysis, this also presents potential repercussions on real economic indicators – such as the current account (via income flows) – that must likewise be taken into consideration and weighed up appropriately.

Of the approximately 75 total guidance notes that need to be drawn up by the various task teams, around 20 have been submitted at present. The guidance notes that have already been subject to discussion illustrate the fact that the authors mostly do not want to change the conceptual principles of the statistical accounting system, but would prefer to maintain the existing framework, including the territorial system and the measurement of transfers of economic ownership. Instead, they are proposing additions and adjustments to the breakdowns that need to be reported in order to meet new analytical requirements. From the Bundesbank's perspective, this is a fundamentally welcome development, as the existing conceptual principles continue to be analytically relevant despite the more recent phenomena mentioned above. However, care must be taken to avoid overloading the macroeconomic accounting systems with excessively detailed requirements. In this regard, the Bundesbank believes that the relevant data should be taken from the baseline statistics, such as the foreign trade statistics or trade in services statistics, or that adjustments should be made to those statistics instead, if necessary.

EU. By contrast, there was a slight decline in private payments to the rest of the world, despite somewhat higher remittances from immigrants to their countries of origin. Transfers from the rest of the world to general government fell slightly due to a decline in the tax collected on non-residents' income and assets.

Capital movements

Underlying trends in capital movements

Germany's net capital exports higher than in previous year

In 2020, Germany's current account surplus was mirrored by net capital exports of €227½ billion.[10] In portfolio investment, purchases of foreign assets by residents outweighed purchases of German securities by non-resident investors. Transactions in financial derivatives and other investments also led to outflows of funds, while direct investment saw inflows and outflows of funds in roughly equal measure. Alongside the fundamental economic factors that determined the current account balance to some extent, the pandemic-related uncertainty in particular had an impact on German capital flows over the course of the year. This uncertainty was very high in the first half of the year in particular. Following the strong economic downturn in the second quarter, massive monetary policy interventions and extensive government support measures – alongside subsequent progress in the development of vaccines – led to the resumption of positive tendencies in economies and the financial markets.[11] In the German financial account, these factors had an impact not only on portfolio investment, but also on other investment, with

Major items of the balance of payments

€ billion

Item	2018r	2019r	2020r
I. Current account	+ 264.2	+ 258.6	+ 231.9
1. Goods	+ 224.6	+ 216.5	+ 189.4
Receipts	1,292.9	1,304.7	1,190.4
Expenditure	1,068.3	1,088.2	1,001.0
Memo item:			
Foreign trade[1]	+ 228.7	+ 224.0	+ 179.8
Exports	1,317.4	1,328.2	1,205.1
Imports	1,088.7	1,104.1	1,025.4
2. Services	− 17.4	− 20.7	+ 1.6
of which:			
Travel	− 44.5	− 45.9	− 16.5
3. Primary income	+ 105.7	+ 111.2	+ 92.5
of which:			
Investment income	+ 107.9	+ 111.8	+ 91.6
4. Secondary income	− 48.7	− 48.4	− 51.6
II. Capital account	+ 0.7	− 0.5	− 4.8
III. Financial account balance[2]	+ 246.5	+ 203.8	+ 227.6
1. Direct investment	+ 20.5	+ 76.1	− 0.6
2. Portfolio investment	+ 153.6	+ 73.4	+ 42.7
3. Financial derivatives[3]	+ 22.5	+ 24.5	+ 99.1
4. Other investment[4]	+ 49.5	+ 30.3	+ 86.5
5. Reserve assets	+ 0.4	− 0.5	− 0.1
IV. Errors and omissions[5]	− 18.3	− 54.3	+ 0.5

1 Special trade according to the official foreign trade statistics (source: Federal Statistical Office). 2 Increase in net external position: + / decrease in net external position: –. 3 Balance of transactions arising from options and financial futures contracts as well as employee stock options. 4 Includes, in particular, loans and trade credits as well as currency and deposits. 5 Statistical errors and omissions resulting from the difference between the balance on the financial account and the balances on the current account and the capital account.

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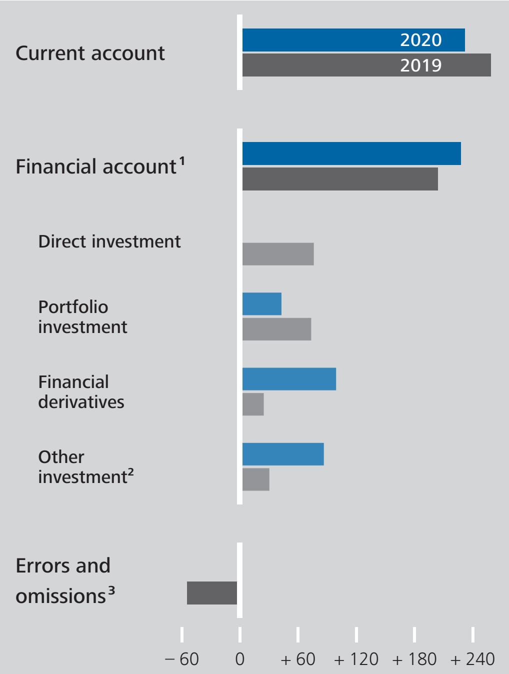
10 Germany's net capital exports rose slightly last year in spite of the fall in Germany's current account surplus. Divergent developments in current and financial transactions can result from different recording and reporting systems and from reporting errors. Potential discrepancies are recorded in errors and omissions. While these had been markedly negative in 2019, they were vanishingly small in 2020.
11 On the effect of the pandemic containment measures of foreign governments on Germany's cross-border capital flows, see the box on pp. 33 ff.

Major items of the German balance of payments

Balances in € billion



1 Net capital exports: +. 2 Includes, in particular, loans and trade credits as well as currency and deposits. 3 Statistical errors and omissions.

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German TARGET2 claims once again rising markedly, following a decline in the previous year.[12]

In addition, the Brexit-related intra-group relocation of financial sector business segments from the United Kingdom to Germany also had an impact on Germany's financial account.[13] However, this was largely limited to gross cross-border capital flows, with balances being only marginally affected.

Portfolio investment

On balance, resident investors boosted their acquisitions of equities and mutual fund shares …

In 2020, portfolio investment saw net capital exports of €42½ billion, which was the lowest value since 2011 (2019: €73½ billion). This decline has to be seen in the context of sharply increasing capital flows in both directions. The main reason for the net capital exports was that domestic investors boosted their holdings of foreign securities by €186½ billion on balance, following a rise of €137 billion in the previous year. Resident investors purchased foreign equities and mutual fund shares in extraordinarily large volumes amounting to €66 billion and €64½ billion respectively. The fact that some foreign financial markets, such as the stock markets in the United States and China, outperformed those in Germany may have played a part in this. In addition to purchasing equities from the United States – which accounted for more than one-third of all net purchases – residents also purchased large quantities of European corporate equities.

… as well as debt securities

Furthermore, resident investors purchased foreign debt securities totalling €56 billion in net terms, of which €54 billion were bonds. The acquisition of bonds from foreign issuers thus roughly matched the level of the previous year, but the focus changed from euro-denominated paper to foreign currency bonds. One motive for the changed investor behaviour is likely to be the comparatively high bond yields in some third countries. However, the appreciation of the euro against many other major currencies, such as the US dollar, the yen and the pound sterling in the course of 2020 as a whole had a negative impact on the yields converted into euro. Roughly mirroring purchases of foreign equities, approximately one-quarter of total investments in foreign bonds was in US paper. By contrast, money market paper did not play a major role in German investment abroad, with acquisitions amounting to €2 billion. The main purchasers of foreign debt instruments were enterprises – which also include investment companies and insurance corporations, for example – and households.

12 On the significance of the asset purchases on the development of TARGET2 balances, see Deutsche Bundesbank (2020c, 2017a).
13 The United Kingdom exited the EU on 31 January 2020. The withdrawal agreement stipulated that the United Kingdom would remain in the single European market until at least the end of 2020, by which point a trade and cooperation agreement was to be negotiated – which was indeed concluded shortly before the year drew to a close.

Significant rise in gross portfolio capital flows due to Brexit

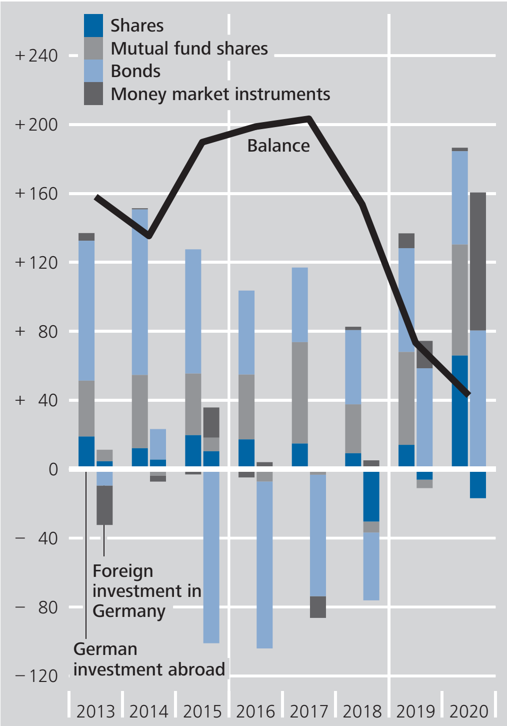
Last year, foreign securities trading was again perceptibly impacted by the United Kingdom's exit from the EU. This primarily concerned gross bilateral flows with Germany, while the balance remained largely unaffected. In order to ensure that financial services that were previously performed in London's financial centre could continue to be carried out for the EU after the UK left the bloc in January 2020 and after the subsequent transitional period until the end of 2020, financial corporations based in London relocated parts of their securities activities to their subsidiaries and branches abroad, for example to those in Germany, and German enterprises moved similar activities out of their London branches. This resulted in a marked rise in transaction volumes in the German financial account. The annual turnover of foreign interest-bearing securities and equities rose from €6 trillion in 2018 to €11½ trillion in 2019, followed by €17½ trillion in 2020.

Inward portfolio investment in Germany dominated by transactions in structured financial products

Inward portfolio investment in Germany in 2020 recorded a balance of €144 billion, which was a huge jump in demand from the previous year (€63½ billion). Non-resident investors acquired domestic bonds in the amount of €79½ billion. Of this, €70 billion was attributable to structured products (warrants and certificates), which have been classified as securities under certain conditions since 2007. The high inflows of funds in this area are predominantly attributable to intra-group sales of these securities by domestic issuing houses to their non-resident parent and affiliated companies.[14] In return, domestic units acquired external assets in the form of economically equivalent derivatives or fixed-term deposits, which are recorded under financial derivatives and other credit transactions respectively. In addition, foreign investors purchased additional private bonds in the amount of €5 billion, and in comparison to 2019 shifted funds out of bank bonds and into corporate bonds. Net investments in public sector bonds were comparatively low at €1 billion. The purchases by foreign investors stood in contrast to cross-border purchases of securities by the Bundesbank in the context of the

Portfolio investment in the German balance of payments

€ billion



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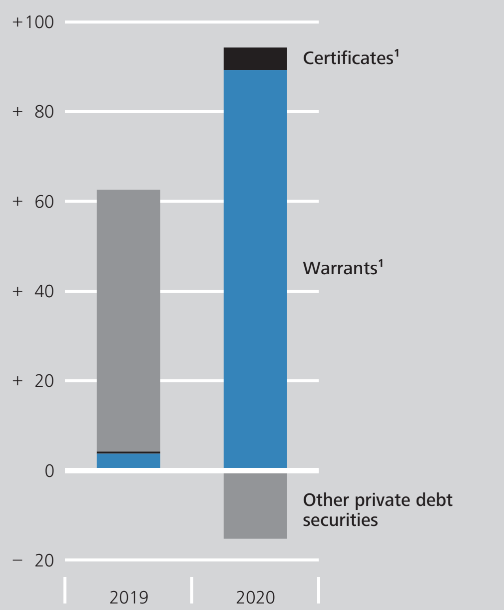
Eurosystem's asset purchase programmes.[15] This led to some "carousel transactions" in which foreign credit institutions first purchased newly issued bonds from the Finance Agency on the primary market and then later sold these

14 Overall, as much as €94½ billion in debt securities was attributable to warrants and certificates, as long-dated paper was supplemented by corresponding short-dated paper in the amount of €24 billion. This business model already played an important role in portfolio flows in Germany's balance of payments even before the financial crisis (see Deutsche Bundesbank (2008)). In the last two years, the cross-border settlement of underwriting business in structured products increased again considerably. One of the main reasons for the surge in the reporting year was, in particular, the restructuring measures carried out by key market participants. In addition, alongside the efficient technical conditions for securities issuance in Germany, the implementation of the new EU Prospectus Regulation in Germany in 2019 is likely to have contributed to the pick-up in this market segment. For example, with the "European passport", a single approval of the securities prospectus by the national competent authority is sufficient for the security to be listed on various EU exchanges.

15 The resumption of net purchases under the expanded asset purchase programme (APP) at the turn of the year 2019/2020 and, in particular, the introduction of the pandemic emergency purchase programme (PEPP) in March 2020 took place in response to the drastic worsening of the economic situation.

Net purchases by non-residents of German private debt securities by type of security

€ billion



1 Securities that were classified as warrants or certificates in the centralised securities database "Wertpapiermitteilungen" and are legally debt securities pursuant to Section 793 of the German Civil Code.

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on to the Bundesbank. On balance, there was comparatively high demand from abroad for money market paper (€80 billion), with foreign investors adding almost exclusively public sector bonds to their portfolios. This reflects the high issuance by the Federal Government in this segment in connection with the coronavirus pandemic and the government support measures. On balance, non-residents only marginally increased their holdings of private money market paper (€½ billion). They also disposed of shares issued by German enterprises, while purchases and sales of mutual fund shares more or less balanced each other out.

Net capital exports of financial derivatives dominated by intra-group transactions

Financial derivatives, which are aggregated to form a single item in the balance of payments, recorded net capital exports of €99 billion in 2020. This is a significant increase compared to 2019 (€24½ billion). This expansion can be explained for the most part by intra-group countertrades in the form of OTC options on the aforementioned transactions involving certificates and warrants of issuing houses.[16] In comparison, forward contracts, which had previously been the dominating position, increased by a much smaller amount in 2020. Cross-border forward and futures contracts relating to electricity and gas, which are also recorded under financial derivatives, resulted in net capital imports totalling €3 billion.

Direct investment

UNCTAD diagnoses significant decline in global foreign direct investment flows in 2020

The coronavirus pandemic left a considerable mark on foreign direct investment (FDI) the world over in 2020. The United Nations Conference on Trade and Development (UNCTAD) estimates that global FDI flows last year fell by 42% compared with 2019.[17] According to UNCTAD's assessment, the decline affected all forms of FDI: mergers and acquisitions (M&As), planned relocations of firms (greenfield projects) and international project finance. Divergent developments in individual countries and regions were behind this decline. The developed countries were hit particularly hard: according to UNCTAD data, FDI flows to this group of countries were down by 69% on the year. One factor was that multinational enterprises significantly reduced new equity investments on balance and, in some cases, even repatriated previously committed loans. At around 12% according to UNCTAD data, FDI flows to developing countries did not fall as precipitously. Here, too, there were great differences according to country and region.

Direct investment flows from and to Germany nearly equally high

Despite the difficult framework conditions, FDI flows from and to Germany have remained relatively buoyant. However, surveys point to the high burdens on German enterprises

16 There have been net outflows of funds for financial derivatives in most years since 2012. In the year under review, as in previous years, the bulk of the outflows attributable to futures contracts was constituted by settlement payments in connection with interest rate swaps concluded by domestic credit institutions to hedge fixed-income securities against interest rate risk.
17 See UNCTAD (2021).

How are foreign pandemic response measures affecting Germany's cross-border capital flows?*

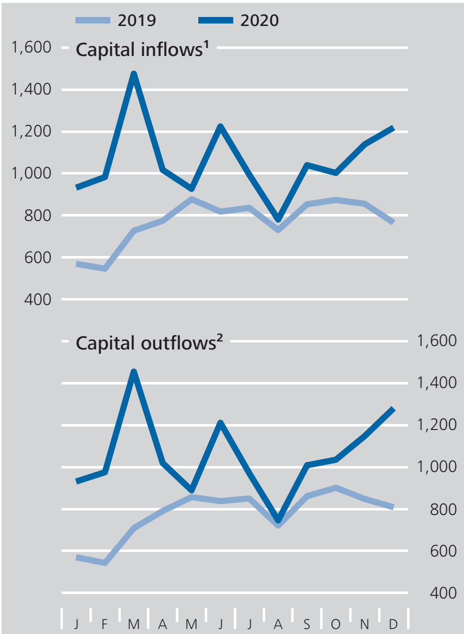
Since early 2020, the COVID-19 pandemic has been having a major impact on economic activity. Across the globe, countries temporarily took drastic measures to slow the spread of the virus, such as border closures and national lockdowns. The macroeconomic repercussions of the pandemic are far-reaching. The International Monetary Fund estimates that global economic growth fell by around 3.5% in 2020.[1] The World Trade Organization expects a drop in world trade of around 10%.[2] The impact of the pandemic on cross-border capital flows is less clear. At the onset of the crisis, some countries experienced massive outflows of capital as foreign investors withdrew capital or domestic market participants transferred capital abroad. However, the volume of these outflows was no higher than in earlier periods of stress. The flight to safe havens such as Germany was also only temporary. This was due, not least, to the massive monetary policy interventions by most central banks. Lane (2020) argues that it was primarily the Eurosystem's pandemic emergency purchase programme (PEPP) that substantially supported the financial markets from April 2020 onwards. Other central banks in advanced economies also responded vigorously to the outbreak of the pandemic. However, in addition to this unprecedented provision of global liquidity, government measures – which differed widely in some cases – are likely to have affected cross-border capital flows. This study investigates how the policy measures of foreign governments in response to the coronavirus pandemic affected bilateral financial flows with Germany.[3]

The analysis combines information from two datasets. Data on Germany's cross-border capital flows are drawn from the balance of payments statistics, using monthly figures from January 2019 to December 2020. On average, this dataset includes around 26,000 reports and around 4,000 reporting entities per month.

The chart below maps Germany's capital inflows from and outflows to the rest of the world and compares the figures for 2019 and 2020. Capital inflows are defined as the

Germany's capital flows

€ billion



1 Sale of foreign assets by German investors and purchase of German assets by foreign investors. **2** Purchase of foreign assets by German investors and sale of German assets by foreign investors.

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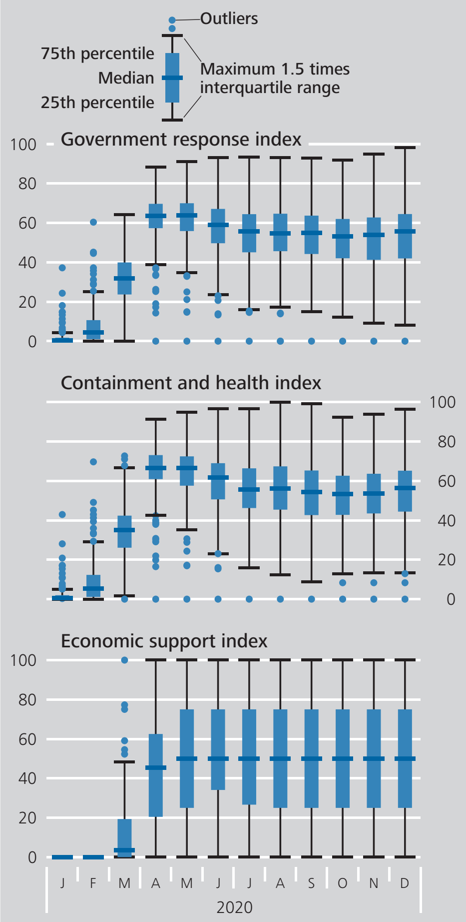
* This analysis is based on a research paper by Goldbach and Nitsch (2021), Covid-19 and Capital Flows: The Responses of Investors to the Responses of Governments, Deutsche Bundesbank Discussion Paper, forthcoming.
1 See International Monetary Fund (2021).
2 See World Trade Organization (2020).
3 This study focuses on measures taken by foreign governments. The measures adopted by Germany affect all bilateral transactions with its various partner countries in the same way, which means that they cannot be analysed using this data structure.

Composite indicators of the OxCGRT*



Source: Oxford COVID-19 Government Response Tracker. * The indices measure the response of foreign governments in 188 countries (excluding Germany) to the COVID-19 pandemic. A higher value means that a country is more active.
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sale of foreign assets by German investors and the purchase of German assets by foreign investors, while capital outflows are defined as the purchase of foreign assets by German investors and the sale of German assets by foreign investors. It seems that Germany's gross capital flows (in both directions) showed a year-on-year increase in every month of 2020.[4] However, the chart also shows that, having been high in March, capital flows fell sharply in April and May 2020. They then recovered and rose again perceptibly from August onwards.[5]

The balance of payments data are supplemented with a second dataset containing information on how Germany's partner countries responded to the pandemic. This analysis uses the Oxford COVID-19 Government Response Tracker (OxCGRT).[6] This database systematically collects publicly available information on policy measures taken by governments in response to the COVID-19 pandemic, and encompasses a total of 19 indicators. These are divided into three categories: containment and closure policies (eight indicators), health system policies (seven indicators) and economic support policies (four indicators). In addition, the dataset contains composite indicators that map general developments in the three aforementioned categories. These have values between 0 and 100.[7] The data are available at a daily frequency beginning in January 2020, for a total of 188 countries.

The adjacent chart presents boxplots of the three composite indicators.[8] The indicator at the top (government response index) combines 15 individual measures into one value. The middle indicator (containment and health index) aggregates the data from 13 individual measures intended to contain

4 This is partly due to the United Kingdom's withdrawal from the European Union. Banks domiciled in the United Kingdom relocated parts of their international business to EU countries (including Germany). This led to a dramatic increase in bilateral turnover between Germany and the UK in the trading of securities from third countries. In addition, from November onwards, positive news regarding vaccines may have reduced uncertainty and stimulated cross-border capital flows.
5 In 2020, Germany's capital flows showed a distinct seasonal pattern, with comparatively high figures recorded in the last month of each quarter. This may have been related to institutional investors' final end-of-month transactions. These are taken into account in the following estimates through time-specific fixed effects.
6 The dataset is available at https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker.
7 The higher the value of the indicator, the more stringent the containment measure or the more substantial the intervention in the health system. A higher value for the economic support indicators indicates greater support.
8 The composite indicators do not show all individual measures but only the measures recorded ordinally.

The effect of the pandemic containment measures of foreign governments on Germany's cross-border capital flows

Item	Baseline			Including control variables		
	Outflows (ln)	Inflows (ln)	Total flows (ln)	Outflows (ln)	Inflows (ln)	Total flows (ln)
Government response index (index, 0-1)	– 0.765* (0.444)	– 0.763 (0.541)	– 0.754 (0.469)	– 0.819* (0.448)	– 0.833 (0.543)	– 0.821* (0.473)
Containment and health index (index, 0-1)	– 0.844* (0.441)	– 0.930* (0.521)	– 0.881* (0.459)	– 0.872* (0.446)	– 0.969* (0.526)	– 0.916* (0.465)
Economic support index (index, 0-1)	0.149 (0.143)	0.259** (0.143)	0.237 (0.145)	0.111 (0.135)	0.267* (0.132)	0.194 (0.135)
Observations	771	771	771	771	771	771
Adjusted R^2	0.967	0.971	0.973	0.967	0.971	0.973

** Significance at the 5% level, * significance at the 10% level. Time-specific and country-specific fixed effects are included but not reported. Robust standard errors (clustered over months and countries) in parentheses.
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the virus and strengthen the health system. The third index (economic support index) comprises two measures aimed at supporting economic activity. The chart shows that, as COVID-19 spread from April 2020 onwards, measures were expanded considerably. In addition, the boxplots show a wide spread, which indicates a high degree of variation among the countries. Another factor is that the pandemic affected the countries to varying degrees at different points in time. The boxplots of the individual measures, which are not depicted here, point in the same direction.

The empirical study uses the monthly variation at country level to identify the effect of pandemic containment measures on cross-border capital flows. The bilateral financial relationships of countries with extensive measures are compared with those that reacted less strongly to the pandemic. A panel model with country-specific and time-specific fixed effects is estimated

$$
\begin{aligned}
\mathit{financial\ activity}_{ct} = \alpha &+ \beta \mathit{government\ response}_{ct} \\
&+ \gamma \mathit{controls}_{ct} \\
&+ \sigma_t + \pi_c + \varepsilon_{ct},
\end{aligned}
$$

where $\mathit{financial\ activity}_{ct}$ is a (logarithmised) measure of German capital flows (outflows from Germany, inflows to Germany or Germany's total capital flows) with country c in month t; $\mathit{government\ response}_{ct}$ is the response of country c to the pandemic in month t; $\mathit{controls}_{ct}$ is a vector of additional control variables; σ_t stands for time-specific fixed effects, while π_c represents country-specific fixed effects.

The original values of the explanatory indices are between 0 and 100. For the estimation, these are normalised between zero and one.

The above table provides the estimation results of the three composite indicators. These results include all countries for which the composite leading indicator of the Organisation for Economic Co-operation and Development (real economic measure) and the monthly growth rate of the central bank balance sheet (monetary policy measures) are available as control variables.[9] These control variables are not yet included in the baseline (columns one to three); for

9 These are Australia, Austria, Belgium, Brazil, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Indonesia, Ireland, Israel, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Turkey and the United States. For euro area countries, the monthly growth rate for the respective national central bank balance sheet is used.

The effect of economic support measures on different asset classes

Item	Outflows (ln)	Inflows (ln)	Total flows (ln)	Outflows (ln)	Inflows (ln)	Total flows (ln)
	Bonds			Money market paper		
Income support (index, 0-2)	0.197** (0.080)	0.241*** (0.068)	0.266*** (0.087)	0.438*** (0.154)	0.324** (0.157)	0.454*** (0.156)
Debt/contract relief (index, 0-2)	0.053 (0.077)	0.100 (0.073)	0.136 (0.089)	0.450*** (0.146)	0.428** (0.157)	0.622*** (0.156)
Fiscal measures (US$, ln)	0.016 (0.010)	0.020** (0.007)	0.022** (0.010)	0.049* (0.026)	0.020 (0.022)	0.035 (0.031)
International support (US$, ln)	0.042* (0.023)	0.027 (0.019)	0.035* (0.020)	– 0.242 (0.161)	– 0.214 (0.203)	– 0.299 (0.215)
	Equity			Investment certificates		
Income support (index, 0-2)	0.194** (0.078)	0.202** (0.082)	0.208** (0.079)	0.138 (0.091)	– 0.038 (0.098)	0.087 (0.106)
Debt/contract relief (index, 0-2)	0.175*** (0.062)	0.186** (0.076)	0.233*** (0.077)	0.207*** (0.066)	– 0.002 (0.069)	0.157** (0.072)
Fiscal measures (US$, ln)	0.005 (0.011)	0.021* (0.012)	0.009 (0.014)	– 0.006 (0.024)	0.002 (0.024)	– 0.005 (0.025)
International support (US$, ln)	0.034 (0.029)	– 0.008 (0.029)	0.015 (0.024)	0.049 (0.059)	0.035 (0.041)	0.034 (0.064)
	Foreign direct investment			Other investment		
Income support (index, 0-2)	0.272* (0.134)	0.063 (0.123)	0.471*** (0.129)	0.087 (0.115)	0.009 (0.104)	0.133 (0.100)
Debt/contract relief (index, 0-2)	0.170 (0.108)	0.164* (0.093)	0.310*** (0.091)	0.171 (0.108)	– 0.132 (0.120)	0.129 (0.119)
Fiscal measures (US$, ln)	0.014 (0.020)	0.030 (0.022)	0.051*** (0.015)	0.015 (0.015)	0.009 (0.025)	0.008 (0.023)
International support (US$, ln)	0.021 (0.028)	– 0.060 (0.100)	0.051 (0.031)	– 0.059* (0.033)	0.028 (0.058)	0.022 (0.040)

*** Significance at the 1% level, ** significance at the 5% level, * significance at the 10% level. Time-specific and country-specific fixed effects are included but not reported. Robust standard errors (clustered over months and countries) in parentheses.

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comparison, columns four to six show the estimation results including the control variables.

Both the government response index and the containment and health index tend to have a weak negative influence on Germany's bilateral capital flows. International investors may possibly perceive them as risk indicators for the country in question. By contrast, it appears that economic support measures tend to increase bilateral capital flows.[10] The results of the baseline regressions and the variation including control variables are very similar. It therefore seems that the two control variables did not have a substantial impact on capital flows. The control variables are therefore omitted from the analysis below. This makes it possible to include all of Germany's partner countries that are recorded in the German balance of payments.

In a second step, the influence of the adopted measures on the different categories of capital flows is investigated: bonds, money market paper, equities, investment

10 Estimates that do not extend to December 2020 but only include the period up to August 2020 show economic support measures to have more strongly significant effects on cross-border capital flows. This suggests that such measures tend to have a greater impact when they are first taken and that their effect on the intensity of capital flows weakens over time.

certificates, foreign direct investment, and other investment. The analysis is limited to the four economic support measures because they are especially suitable for an economic evaluation. The table on p. 36 illustrates the estimation results. Unlike the previous results, several measures show highly significant effects on the individual asset classes. Above all, cross-border capital flows involving equities, bonds and money market paper appear to benefit from foreign pandemic response measures – in both directions. This is not unusual: they are liquid investments with holders that respond particularly quickly to new circumstances, which is reflected in cross-border capital flows. By contrast, investment certificates, foreign direct investment and other investment largely do not respond, or respond only weakly, to the measures.[11]

The aim of this study was to investigate whether pandemic response measures taken by foreign governments influence Germany's bilateral capital flows. The results suggest that most of the measures to contain the pandemic or strengthen health protection tend to have a slight negative impact on Germany's financial relationships. By contrast, it appears that economic support measures, particularly income support, tend to support capital flows. This holds true, above all, for equities, bonds and money market paper.

11 As a robustness check, all estimates were also performed excluding the United Kingdom to take account of the possible impact of Brexit on Germany's capital flows. This did not change the results.

abroad caused by the pandemic.[18] To wit, German enterprises' outbound FDI, too, fell distinctly in 2020 compared with the previous year, whereas foreign enterprises' FDI flows to Germany were higher than in 2019. Inflows and outflows were, on balance, nearly neck and neck in the past year (balance: -€½ billion). A year earlier, FDI recorded net capital exports of €76 billion.

Not only long-term adjustments but also short-term operations could be a factor in direct investment

Direct investment is normally geared more to the long term, which means that adjustments also tend to be more longer-term in nature. Nonetheless, shorter-term operations between affiliated enterprises also impact on FDI flows. This can be the case, for instance, if an affiliate in a country renders certain financial services across national borders for affiliates in other countries. Some such cross-border relocations of business activity could be seen in the past few years in connection with the United Kingdom's exit from the EU. This contributed to higher – in some cases short-term – direct investment flows from and to Germany.

German enterprises once again expanded their equity investments, in particular, …

In 2020, German enterprises invested €96½ billion abroad, and thus €39½ billion less than a year previously. They once again expanded, in particular, their equity investments in foreign branches, by €79 billion. Foreign direct investment via equity capital in the narrower sense was more than three times higher than that conducted via reinvested earnings, most of which, admittedly, is still an estimate. In the past year, around 46% of equity capital invested abroad originated from firms in the manufacturing sector and around 44½% from

18 A special survey of German enterprises operating abroad on the impact of the pandemic conducted by the Association of German Chambers of Commerce and Industry in the summer of 2020 (DIHK (2020)) provides a detailed picture of this. Given the far-reaching restrictions imposed by the pandemic, 83% of the responding enterprises expected a decrease in revenue, and 56% of enterprises were planning to invest less. The impact on firms of the restrictions vary depending on the sector and where the enterprises are located abroad.

Financial account

€ billion

Item	2018r	2019r	2020r
Financial account balance[1]	+ 246.5	+ 203.8	+ 227.6
1 Direct investment	+ 20.5	+ 76.1	− 0.6
Domestic investment abroad[2]	+ 156.1	+ 136.3	+ 96.6
Foreign investment in the reporting country[2]	+ 135.6	+ 60.2	+ 97.2
2 Portfolio investment	+ 153.6	+ 73.4	+ 42.7
Domestic investment in foreign securities[2]	+ 82.6	+ 136.9	+ 186.5
Shares[3]	+ 9.3	+ 14.1	+ 65.9
Investment fund shares[4]	+ 28.4	+ 53.9	+ 64.4
Short-term debt securities[5]	+ 2.0	+ 8.6	+ 2.0
Long-term debt securities[6]	+ 43.1	+ 60.2	+ 54.1
Foreign investment in domestic securities[2]	− 71.0	+ 63.4	+ 143.8
Shares[3]	− 30.4	− 6.1	− 16.8
Investment fund shares	− 6.4	− 4.9	+ 0.9
Short-term debt securities[5]	+ 5.1	+ 15.9	+ 80.2
Long-term debt securities[6]	− 39.4	+ 58.5	+ 79.5
3 Financial derivatives[7]	+ 22.5	+ 24.5	+ 99.1
4 Other investment[8]	+ 49.5	+ 30.3	+ 86.5
Monetary financial institutions[9]	+ 85.8	+ 19.5	− 112.9
Short-term	+ 72.9	+ 12.1	− 71.3
Long-term	+ 12.9	+ 7.4	− 41.6
Enterprises and households[10]	+ 20.2	− 13.3	+ 55.5
Short-term	+ 13.4	− 5.5	+ 22.4
Long-term	+ 6.8	− 7.8	+ 33.1
General government	− 11.6	− 4.6	+ 11.6
Short-term	− 9.9	− 1.3	+ 12.7
Long-term	− 1.7	− 3.3	− 1.1
Bundesbank	− 44.8	+ 28.6	+ 132.2
5 Reserve assets	+ 0.4	− 0.5	− 0.1

1 Increase in net external position: + / decrease in net external position: −. **2** Increase: +. **3** Including participation certificates. **4** Including reinvestment of earnings. **5** Short-term: original maturity of up to one year. **6** Long-term: original maturity of more than one year or unlimited. **7** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **8** Includes in particular loans and trade credits as well as currency and deposits. **9** Excluding the Bundesbank. **10** Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households.

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firms which provide financial and insurance services.[19] In terms of volume, cross-border acquisitions by firms domiciled in Germany played a significantly greater role last year than in 2019.[20]

… but also provided credit to affiliated enterprises

By way of intra-group lending, enterprises in Germany provided €17½ billion worth of funding to affiliated enterprises abroad in 2020, only slightly less than a year earlier. Financial loans accounted for the vast majority of such lending. They were divided roughly equally between affiliated enterprises abroad and German subsidiaries of foreign parent enterprises. Loans from subsidiaries to their parents are referred to as reverse investments. This expression illustrates the fact that the loans are granted across borders in the opposite direction to the actual direct investment relationship. On the other hand, redemptions predominated significantly among loans previously granted by parents domiciled in Germany to their foreign subsidiaries.

Europe and USA key destinations of German direct investment

In the past year, too, German enterprises invested in many countries and regions. Just over two-thirds of FDI flows were directed, on balance, to other European countries, with €49 billion alone invested in other euro area countries. Particularly large amounts were invested in the Netherlands and Luxembourg, two countries where holding companies often set up shop. Moreover, within Europe, affiliates in the United Kingdom and Sweden were provided with comparatively large amounts. The United States was the main non-European destination of extensive direct investment (€28½ billion).

19 The shares relate only to decipherable net transfers used to augment equity capital.
20 According to the Thomson Reuters database (REFINITIV), roughly €57 billion was used to finance takeovers of companies domiciled abroad and previously under foreign ownership – where the German stake after the transaction is at least 10%. That was significantly more than 2019, for which a takeover value of €33½ billion was reported. The time at which mergers and acquisitions are captured in the balance of payments can, however, differ from that recorded by Thomson Reuters, meaning that the reported figures are not directly comparable.

Capital inflows primarily in the form of intra-group lending

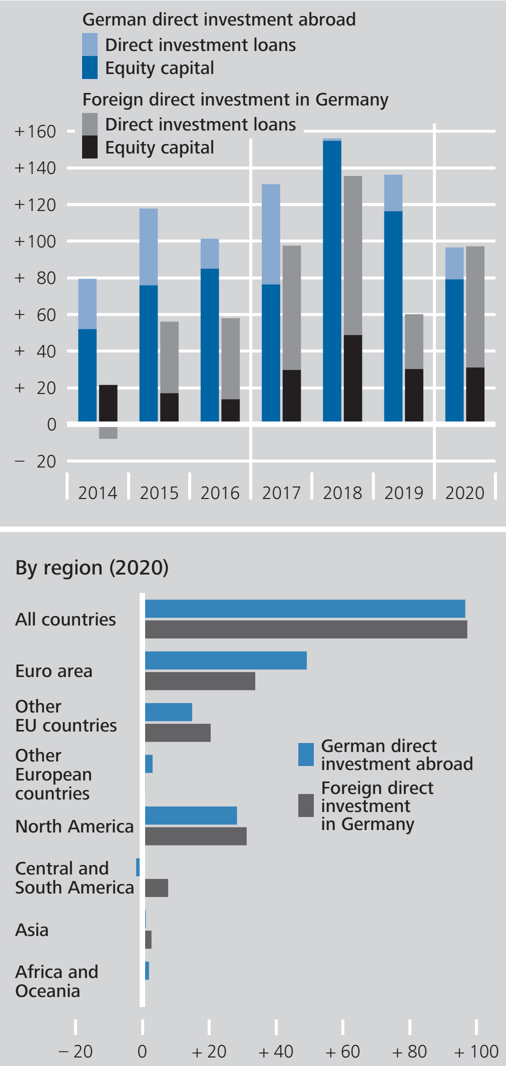
Foreign firms increasingly provided direct investment funds to domestic enterprises last year. They channelled net inflows of €97 billion to them, up by €37 billion from the previous year. Foreign parent enterprises provided €66 billion of these funds through intra-group loans, chiefly in the form of financial loans. Reverse investments, whereby foreign subsidiaries grant loans to their German parent companies, were a major factor here as well. These reverse flows are often the result of capital market transactions involving German enterprises' financing subsidiaries in which securities are issued abroad and the proceeds are passed on to their parent companies in Germany. Moreover, foreign owners also boosted the equity capital they provided to German branches by €31 billion.

Large inflows to Germany from some countries

The regional structure of FDI in Germany shows that firms from many countries around the globe make entrepreneurial investments in Germany. In the past year, a particularly large share of direct investment funding originated from US firms (€30½ billion). In addition, relatively large amounts of FDI flowed to Germany from Luxembourg, the United Kingdom and Sweden.

Direct investment

€ billion



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Other investment

Net capital exports in other investment

Other investment, comprising financial and trade credits (where these do not constitute a part of direct investment) as well as bank deposits and other assets, resulted in net capital exports of €86½ billion in 2020, up from €30½ billion in 2019.

Considerable increase in the Bundesbank's assets

This was mainly because net assets via the Bundesbank's accounts increased by €132 billion. Gross assets were even up by €243 billion after having fallen a year earlier. These mainly reflect changes in the Bundesbank's TARGET2 claims on the ECB. The renewed sharp rise was triggered by the increased APP and PEPP asset purchases. A close relationship between the evolution of the Bundesbank's TARGET2 claims and asset purchases by Eurosystem central banks had already been visible in previous years.[21] The Bundesbank's TARGET2 claims on the ECB increased by €241 billion net last year.

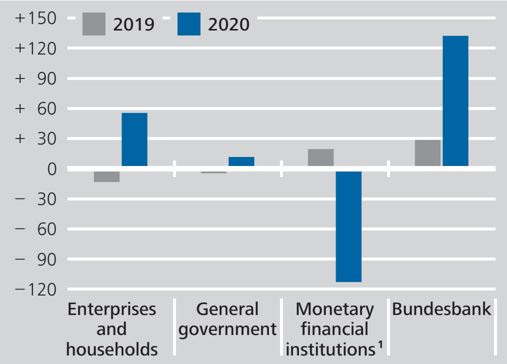
Bundesbank's liabilities up considerably as well

The Bundesbank's liabilities to non-residents likewise rose considerably in 2020, by €111 billion. The Bundesbank's liabilities arising from the allocation of euro banknotes within the Eurosystem sector increased by €37½ billion last year. As in previous years, though, (end-of-period) transactions by foreign counterparties

21 See Deutsche Bundesbank (2020c, 2019, 2017a, 2017b, 2016).

Other investment[*] broken down by sector

Balances in € billion



* Includes in particular loans and trade credits as well as currency and deposits; net capital exports: +. 1 Excluding the Bundesbank.

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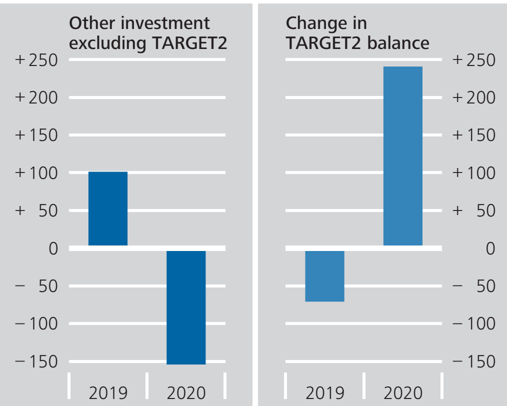
TARGET2 and other investment excluding TARGET2[*]

€ billion



* Net capital exports: +.

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were responsible for the lion's share of the increase in external liabilities: at the end of a given year, the deposits of non-euro area residents at the Bundesbank often temporarily record a significant increase, and 2020 was no different.

Other MFIs record net inflows of funds

In other investment transactions, a quite significant net inflow of funds amounting to €113 billion was recorded in 2020 via the accounts of the other monetary financial institutions (MFIs). This was attributable primarily to higher deposits by foreign institutions, especially from group-affiliated banks. Deposits of non-resident enterprises and individuals at German MFIs rose, too, albeit to a lesser extent. In lending business, domestic credit institutions likewise recorded capital imports. Although they granted more financial loans to non-resident enterprises and individuals, this was not enough to offset the decline in their deposits at foreign banks.

Non-banks' transactions led to net capital exports

In other investment, transactions by non-banks led to outflows of funds abroad (€67 billion). It was particularly net capital exports by enterprises and individuals (€55½ billion) which made themselves felt here. These parties, in particular, augmented their deposits held at foreign commercial banks considerably. This reflected, in some cases – as was the case for financial derivatives – counterpart entries of transactions with structured securities issued in Germany. Operations by general government, too, led on balance to net capital exports (€11½ billion). These operations primarily included repayments of loans taken out across borders.

Reserve assets

Reserve assets: nearly no changes through transactions

In 2020, there were virtually no transaction-related changes to the Bundesbank's reserve assets.

Market price effects push up book value

However, the international reserve holdings are also influenced by balance sheet adjustments which, in compliance with internationally agreed accounting standards, are not recognised in the balance of payments. The end-of-year revaluation of the reserve assets resulted in an increase of nearly €20 billion in 2020, due particularly to the rise in gold prices. As at the reporting reference date of 31 December 2020, the value of Germany's reserve assets stood at €219 billion.

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