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Statistical Yearbook 2021

Brussels, 19th May 2022

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I Foreword

2021 was the year of relief. As the vast majority of Europeans got vaccinated against the corona virus and fatality rates fell, a return to normal or close to normal business activities was possible. Many small businesses that were still in lockdown over the winter 2020/2021 could open again in the course of 2021 and **guarantee institutions could finally switch from crisis to recovery support**. Luckily, the fearfully awaited insolvency wave did not happen, but companies remain highly indebted. These **high levels of debt threaten to dampen investment and growth**.

Another threat for a robust economic recovery comes from the Russian invasion of Ukraine, which besides being a huge humanitarian tragedy, endangers Europe's energy supply and jeopardises the already distressed supply chains. As a consequence of both, the Covid-19 crisis and the war in Ukraine, prices are soaring, and economic uncertainty remains at an extremely high level.

In this difficult situation, AECM members are at the side of SMEs in Europe. They are continuing to implement innovative solutions in order to support small businesses in these exceptional times.

A comprehensive overview of the support measures adopted by AECM members in response to the covid crisis can be found in the updated version of our AECM brochure: SME support in the covid crisis – the role of Guarantee Institutions.

The publication of this year's edition of the **AECM Statistical Yearbook** is of keen interest since it provides insights in how the guarantee business developed in the first year of relative recovery.

According to the **AECM Scoreboard survey**, the outstanding guarantee volume with regard to guarantees originated from and implemented by AECM members passed its peak in 2020 but remained at an exceptionally high level in 2021. **Following the 200% increase in 2020, the total outstanding volume decrease by 5.9% in 2021 to reach the amount of bEUR 311.7**. It is important to note that still large parts of the outstanding volume are fully counter-guaranteed by the respective governments via dedicated covid support programmes.

The development of the volume of newly granted guarantees indicates a normalisation of the activity already in 2021. The new production in 2021 is 67.5% below the flow in 2020, but still 2.3x the pre-pandemic flow. **During the past year, guarantee institutions issued new guarantees worth bEUR 90.9**.

Contrary to the development of the volumes, the number of SMEs benefitting from support by AECM members continued to increase but on a much lower scale (+13.9% after +80.9% in 2020). **As of end-2021, 5.9 million small and medium-**

sized enterprises were in the portfolios of AECM members. More details on the results of the AECM Scoreboard are delivered in section III.

The results of our **Guarantee Activity Survey** show that for the first time the **share of AECM members that expect the guarantee activity to increase in the ongoing year is below 50% (47.5%).** This points to a normalisation following the huge increase of the activity during the first year of the pandemic. The results of the survey furthermore show that the share of members that observed an increase of **default rates in 2021 was far below the 2020 expectation and that ESG factors are largely expected to become more important in 2022**. The detailed analysis of the results can be found in section IV.

The spring 2022 economic forecast of the European Commission draws an overall optimistic picture reflecting the post-lockdown re-openings as well as public growth support. **In 2021, the EU gross domestic product increased by substantial 5.4%**. The EU economy is expected to continue its rebound – albeit at lower pace - with a **GDP increase of 2.7% in 2022 and 2.3% in 2023**. Of course, these predictions are still subject to high uncertainty due to the war in Ukraine and its impact on energy prices as well as on supply chains.

Despite the cost of public measures to cope with the war in Ukraine and its economic and social consequences, the **government deficit** in the EU is expected to decline to 3.6% in 2022 and 2.5% in 2023, mostly due to the phase out of Covid-19 support measures. The **debt-to-GDP ratio** is set to decrease to 87% in 2022 following its historic peak of 92% in 2020. The situation on the EU labour markets is very positive with **unemployment rates** forecast to decrease to 6.7% in 2022 and 6.5% in 2023. Prices are soaring in the EU with an expected **inflation rate** of 6.1% in 2022 (which represents a sizable upward revision of the winter forecast) and of 2.7% in 2023. **Business bankruptcy rates** are - according to Eurostat data – carefully increasing, but remain on a lower than pre-crisis level.

This publication will inform you about the development of AECM's membership base (section II), most recent developments in the European guarantee sector (sections III and IV), about expectations for the future development of guarantee institutions' activities (section IV) as well as about recent research on the impact of guarantee schemes (section V). The methodological and editorial note (section VI) as well as the glossary and the "about us" page offer complementary information on this publication.

We wish you a pleasant reading !

Your AECM team

Brussels, 19th May 2022

II AECM members

During the year 2021, AECM welcomed the Network of Swiss Guarantee Institutions (NSGI/CH) as a new member. The number of members therefore increased to 48 at 2021 year-end. Furthermore, AECM gained a new partners in 2021, the Euro-Mediterranean Guarantee Network (EMGN). AECM has a long-standing excellent cooperation as well as overlapping members with EMGN. As EMGN joined AECM as a partner, AECM reciprocally became a partner of EMGN.

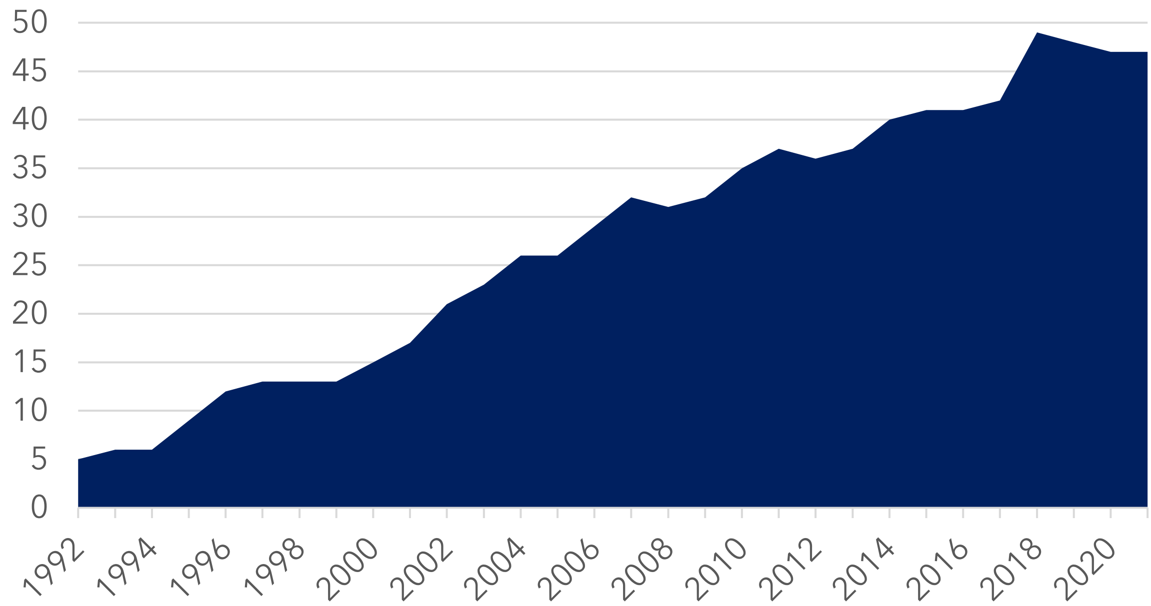
In late summer 2021, our Czech member CMZRB changed name and logo and became the National Development Bank of Czechia (NRB).

In 2022, prior to the publication of this edition, the AECM General Assembly decided on the recommendation of the Board of Directors to exclude the Russian guarantee institution FSECA from the association.

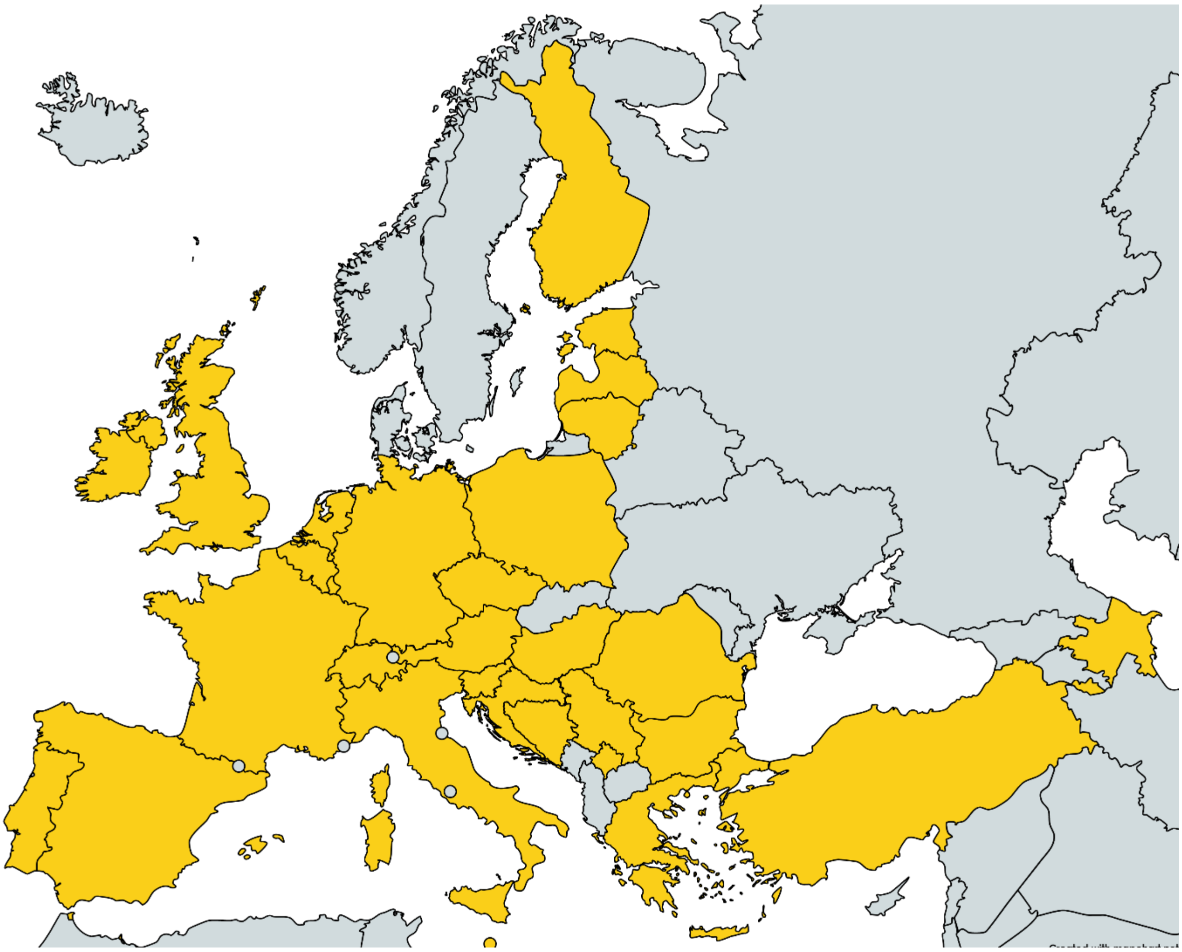
As of end-2021, 29 AECM members were public institutions, ten had a mixed ownership structure and eight members were private institutions (including mutual). One member is undefined.

The development of the membership base can be seen in graph 2.1 below. A detailed timeline of accession dates is available on our website under this link. A list of all current 47 members (as of 05/2022) and a map can be found on the next page.

Graph 2.1 : Development of the number of AECM members at year-end[1]



[1] AECM was founded in 1992 by ten guarantee organisations from five countries. Five of them merged in the early 2000s which is the reason why they are counted as one from the beginning.



AT	aws
	NÖBEG
AZ	MCGF
BE	Fonds Bruxellois
	PMV/z Waarborgen
	SOWALFIN
BA	GF Srpska
BG	NGF
	MGFSME
HR	HAMAG BICRO
CZ	NRB
EE	KredEx
FI	Finnvera
FR	Bpifrance
	EDC
	SIAGI
	SOCAMA
DE	VDB
GR	HDB
	TMEDE
HU	AVHGA
	Garantiqa
	MVA
IE	SBCI
IT	Assoconfidi
	ISMEA
XK	KCGF
LV	ALTUM
LT	Garfondas
	INVEGA
LU	MC
	MPME
MT	MDB
NL	RVO
PL	BGK
PT	BPF
RO	FGCR
	FNGCIMM
	FRC
RS	GF Vojvodina
SI	SEF
	SRDF
ES	CESGAR
CH	NSGI
TR	KGF
	TESKOMB
UK	BBB

AECM members as of May 2022

III Scoreboard Survey

i. Recent Developments – 2021

Total outstanding guarantee volume

bEUR 312

Number of supported SMEs

5.9 million

The average guarantee size

kEUR 48

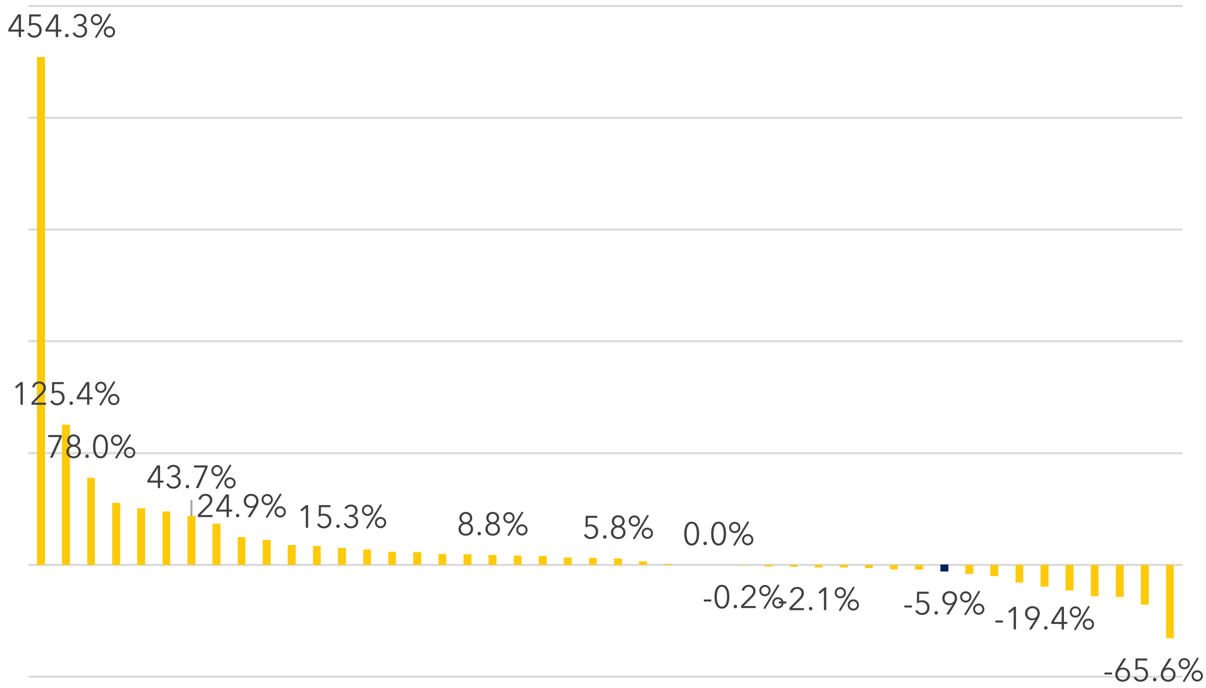
Outstanding Guarantee Volume

According to our Scoreboard Survey, AECM members, taken as a whole, experienced a decrease of guarantee volumes which reflects the phase out of the extensive Covid-19 support programmes as well as the early reimbursement of no more needed emergency loans. **AECM member organisations all together were supporting SMEs with a total amount of bEUR 311.7 of guarantees in 2021**. Compared to the year 2020, this represents a **decrease of 5.9%.** Around 60% of the outstanding guarantee volume is attributed to Bpifrance/FR, the implementing institution of the French government's PGE (prêt garanti par l'Etat) programme and to the British Business Bank in its role as implementer of the extensive support programme set up by Her Majesty's Treasury (HMT).

While a majority of 26 members still registered increases of their portfolios in 2021, 17 members observed a decrease.

The decrease of the outstanding guarantee volume was strongest during the first semester 2021 (-4.8%), followed by a slight decrease of 1.2% over the second semester. The average annual growth rate was 18.6% and the more expressive median growth rate was at 6.2%. It is interesting that both the average and the median growth rates are significantly positive while the overall growth rate is negative. This can be explained by the fact that the almost entirety of the decrease is due to the development of the activity of two large institutions. One of them already experienced a large scale reimbursement of emergency loans and the volume of the other strongly decrease in euro terms due to a sharp depreciation of its national currency.

Graph 3.1 : Distribution of growth rates



The highest percentual year-by-year increases were registered by SBCI/IE (+454.3%), KCGF/XK (+125.4%) and FNGCIMM/RO (+78.0%)[2]. The strongest absolute increases could be observed for volumes of BBB/UK (+bEUR 25.2), BGK/PL (+bEUR 3.1), FNGCIMM/RO (+bEUR 2.0) and Garantiqa/HU (+bEUR 1.7).

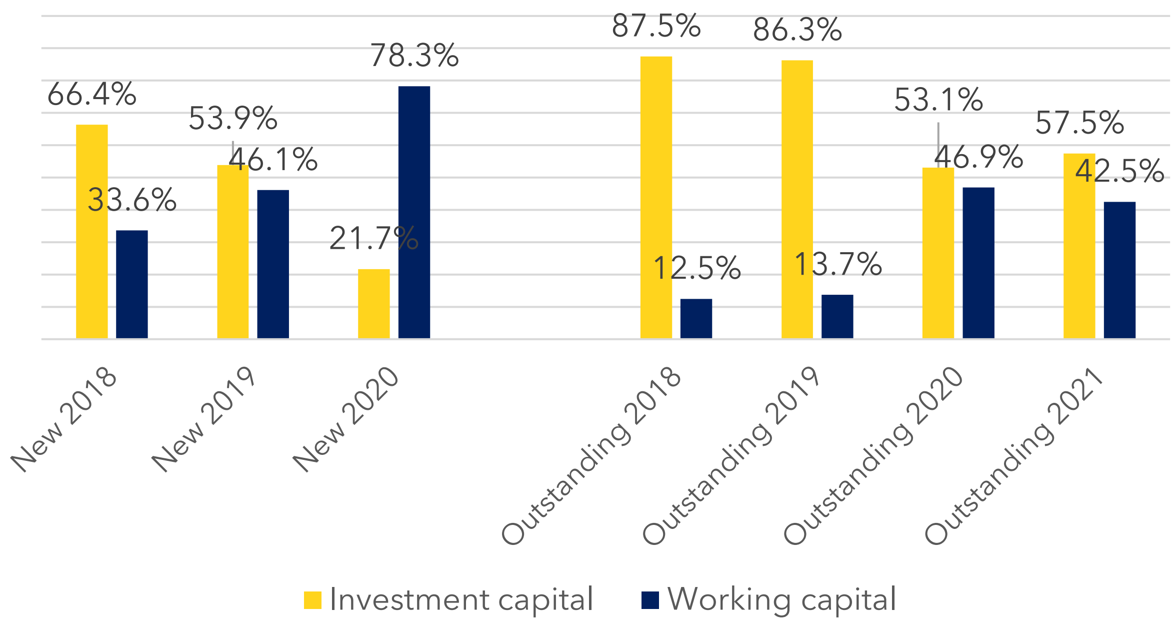
Since the enormous increase of its volumes in response to the Covid-19 pandemic, Bpifrance/FR is AECM's largest member in terms of outstanding guarantee volume, followed by BBB/UK and ISMEA/IT.

The average outstanding guarantee volume decreased by 7.8% to bEUR 6.5 and the median outstanding guarantee volume increased by 163.3% to mEUR 926.0.

We asked our members to distinguish the part of the outstanding guarantee volume that covers working capital loans and the part that covers investment capital loans. 23 out of 43 respondents - representing 16.5% of the volume – reported on this distinction. As a result, 57.5% of the distinguished volume covered investment capital loans (53.1% in 2020 and 86.3% in 2019) and the remaining 42.5% covered working capital loans (46.9% in 2020 and 13.7% in 2019). The significant shift towards working capital that happened during the pandemic reflecting the difficult situation of crisis-torn SMEs was therefore confirmed in 2021.

[2] As in the case of Bpifrance and BBB, the large volume of FNGCIMM resulted from the implementation of an extensive government programme.

Graph 3.2 : Development of the share of working/investment capital guarantees



Some AECM members specified in their responses to our Scoreboard Survey which are the drivers behind the development of their respective outstanding guarantee volumes. These are presented in the following:

- More than 70% of **aws'/AT** outstanding guarantee volume can be attributed to guarantees under the Covid-19 bridge financing.
- Over the past year, **PMV/z Waarborgen/BE** has seen an increase of its outstanding volume. The institution has reached an absolute record high of new guarantee amount, combined with a low default amount.
- **NRB/CZ** reported about the substantial influence of covid-related measures.
- During last semester, **TMEDE/GR** observed an increase in performance guarantees (in terms of volume) that will produce income on the long-term in accordance with the institution's strategy and a decrease in tender guarantees is expected due to the Covid-19 pandemic following the gradual restart of the economic activity.
- **Garantiqa's/HU** portfolio has been steadily growing as a result of the Covid-19 crisis relief programmes. Demand was entirely determined by the Garantiqa Crisis Guarantee Programme. Since the launch of the programme in 2020, the demand for Garantiqa's other guarantee products has shifted to this product range.
- Covid-19 measures increased the need for financing and thus the activity of **AVHGA/HU**. AVHGA's Crisis Guarantee Programme is still in progress as long as this is possible according to the Temporary Framework.

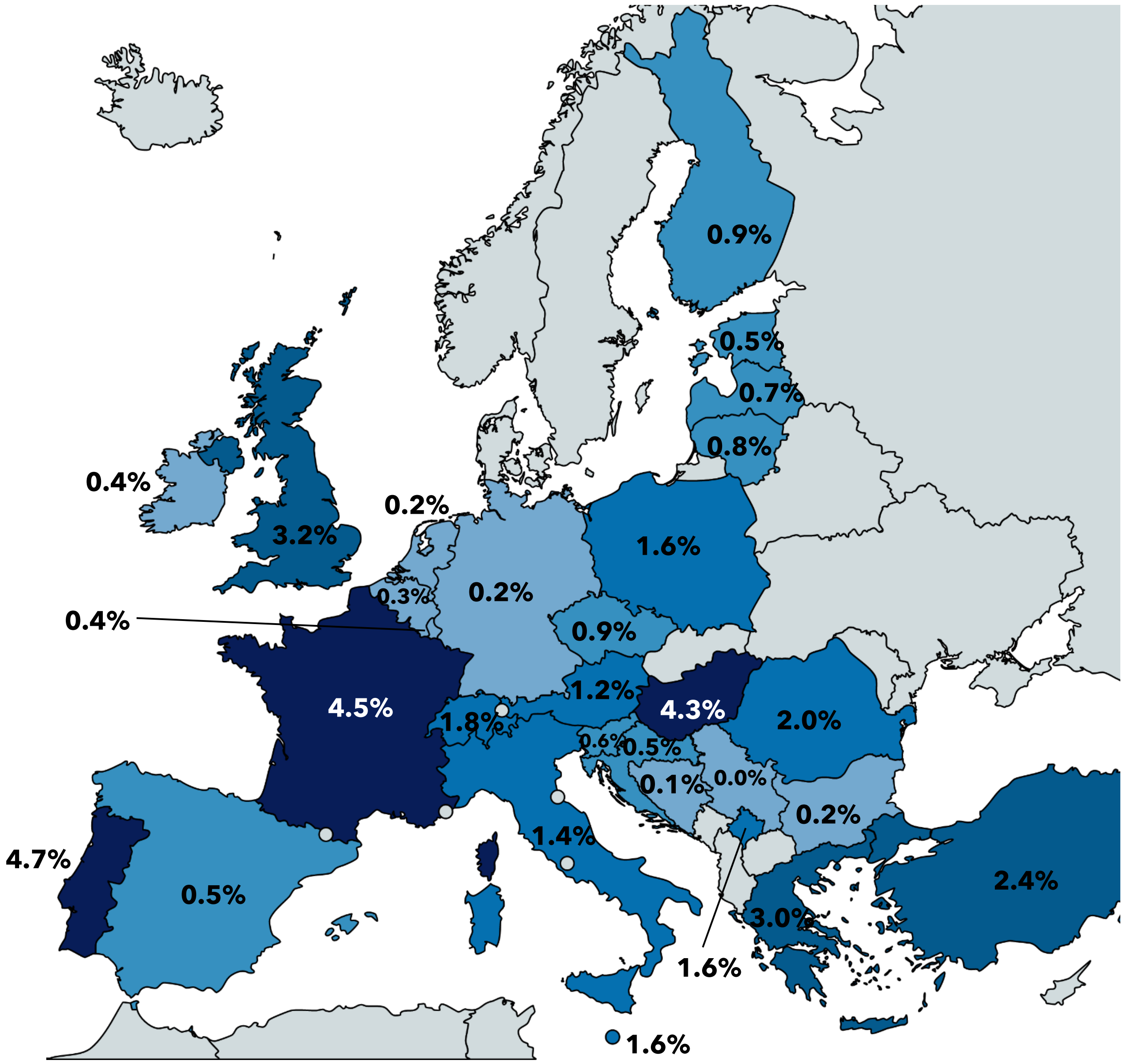
- The **KCGF/XK** outstanding guarantee portfolio grew rapidly over the last year. The flow of the positive development was driven by an increased level of issued guarantees and increased lending activity supported by the launch of the new windows under the Economic Recovery Package with specific conditions such as an increase of the guarantee rate, and a subsidy of the guarantee fee by the Government of Kosovo as a response to the pandemic situation from Covid-19.
- **MPME/LU** reported that the increase of the total volume and working capital figures is due to unused facilities.
- Despite decreasing from 2020, demand for the Covid-19 guarantee instruments remained the main driver of **MDB's/MT** guarantees.
- At the end of 2021 compared to the end of 2020 and compared to the first half-year 2021, **BGK/PL** observed a permanent increase in the volume of guarantees due to the pandemic situation and the need for debt financing, in particular for current activity.
- In 2021, **BPF/PT** observed a negative evolution of the outstanding guarantees volume, when comparing with the previous year. This evolution can be explained by the end of the public moratorium that has been implemented since March 2020 but also by the expected lower demand for new Covid-19 guarantees.
- The achieved results show that in 2021, compared to 2020, **SEF/SI** approved fewer projects, but these projects were of higher value, which is a result of higher investments in investment projects.
- **BBB/UK** reported that the growth in outstanding guarantee volumes was far lower than the previous full-year scoreboard survey due to the closure of the Covid-19 emergency response schemes (BBLS, CBILS, CLBILS) on 31/03/21.

Share of GDP

In an attempt to measure the relevance of AECM members' activity for their respective national economies, we calculated the percentage of the outstanding guarantee volume as a share of GDP. After the strong GDP decrease in 2020, the European economies recovered in 2021 and reached a GDP well above the pre-pandemic level. In the same time, support programmes started to phase out which already led to a moderate decrease in the total outstanding guarantee volume. **The share of the overall AECM members' outstanding guarantee volume in the combined GDP of AECM countries consequently decreased from 2.2% in 2020 to 1.8% in**

2021[3]. This is still far above the pre-pandemic level of around 0.7%. We observe the highest share with 4.7% in Portugal (down from 4.9%), followed by 4.5% in France (down from 6.7%), 4.3% in Hungary (up from 3.3%) and 3.2% in the United Kingdom (up from 2.6%). The map below illustrates the results for the individual countries.

Graph 3.3 : Intensity map – share of outstanding guarantee volume in GDP



[3] Since at the moment of editing this report, Eurostat did not provide any GDP data for Azerbaijan, Bosnia and Herzegovina as well as for Russia, we could not calculate this ratio for these three countries.

Number of outstanding guarantees

Contrary to the development of the outstanding volume, the number of outstanding guarantees continued to increase in 2021. **At the end of 2021, AECM members had almost 6.5 million guarantees in their portfolios**, which is 20.1% more than in 2020.

The strongest expansion in absolute terms was registered by Bpifrance/FR (+233k units), followed by BBB/UK (+119k units). The highest percentual increase occurred in Ireland (+303.2% for SBCI). The highest number of outstanding guarantees is held in the portfolio of BBB/UK (1.6 million units), followed by Bpifrance/FR (1.3 million units) and KGF/TR (0.8 million units).

The average size of outstanding guarantees started its descend from last year's peak, down to kEUR 48.2. The highest average amount could be observed for MDB/MT with kEUR 293.7. The lowest average guarantee amount is in the portfolio of TESKOMB/TR (kEUR 7.2). Graph 3.8 on page 18 gives an overview of the development of the average guarantee size by stock and flow.

Volume of newly granted guarantees

The volume of newly granted guarantees in 2021 is with bEUR 90.9 much lower than its 2020 crisis level of bEUR 279.8, but still well above its pre-pandemic level of bEUR 38.8 in 2019. The new production is almost evenly distributed between the first and the second semester 2021. The highest absolute year-to-year increases of the new guarantee volume with respect to 2020 were registered by Garantiqa/HU (+mEUR 891.7) followed by SBCI/IE (+mEUR 401.0).

A few members commented on the development of newly granted guarantees:

- 64% of **aws'/AT** newly granted guarantees were standard guarantees and the rest were Corona-bridge-financing guarantees.
- **PMV/z Waargborgen/BE** observed more demand for guarantees for working capital (as a result of the current crisis) as well as a significant demand for prolongation of credits and guarantees.
- **HAMAG-BICRO/HR** reported that banks were more active in using ESIF portfolio guarantees for investment capital and for working capital for micro clients.
- The slight decrease of **Garantiqa's/HU** new production in the second semester 2021 with respect to the first semester is mainly explained by external demand reasons. In the second half of 2021, the National Bank of Hungary stopped the refinancing of subsidised loan programmes.

- One of the boosters of the evolution of the newly granted guarantees during the last semester, was the launch of the new windows within Economic Recovery Package, as a response to the pandemic situation from Covid-19. The new windows with special conditions such as increase of the coverage rate from 50% to 80% and subsidy of the guarantee fees by the government, ensured confidence to the partner financial institutions, hence, increased access to finance for the MSMEs through the guarantee scheme of the **Kosovo Credit Guarantee Fund/XK**.
- **Invega's/LT** volume of newly granted guarantees increased due to the higher need for debt financing (demand for higher loan amounts, more active borrowers), as well as a need to obtain a valuable collateral following a change in borrower's risk assessment.
- **MDB/MT** reported that demand for Covid-19 assistance has decreased in H2 when compared to H1.
- **BGK/PL** observed a slight increase compared to the first half of 2021inter alia due to the launch of a new guarantee product for leasing transactions.
- The achieved results show that in 2021, compared to 2020, the **SEF/SI** approved fewer projects, but these projects were of higher value, which is a result of higher investments in investment projects on this product.

Number of newly granted guarantees

Finally, we have a look at the number of newly granted guarantees. The development here is very similar to the one for the volume of newly granted guarantees. Following a strong increase in 2020, the number of newly granted guarantees is almost back to the pre-pandemic level. **In 2021, more than 1.3 million new guarantees were granted by AECM members (-63.7%).**

The average size of guarantees newly granted in 2021 decreases with respect to the pandemic year 2020, as can be seen in graph 3.8 on page 18. It reaches kEUR 68.3 which is well above the pre-pandemic level of around kEUR 40.

Number of supported SMEs

The **number of SMEs supported by AECM members continued its increase (albeit much slower than in 2020) and reached a level of almost 5.9 million (+13.9%)**. 1.6 million SMEs are supported by BBB/UK and 1.1 million SMEs by Bpifrance/FR. These two members also registered the strongest increases in the number of supported SMEs (Bpifrance/FR: +286.4k; BBB/UK: +170.6k).

Number of newly supported SMEs

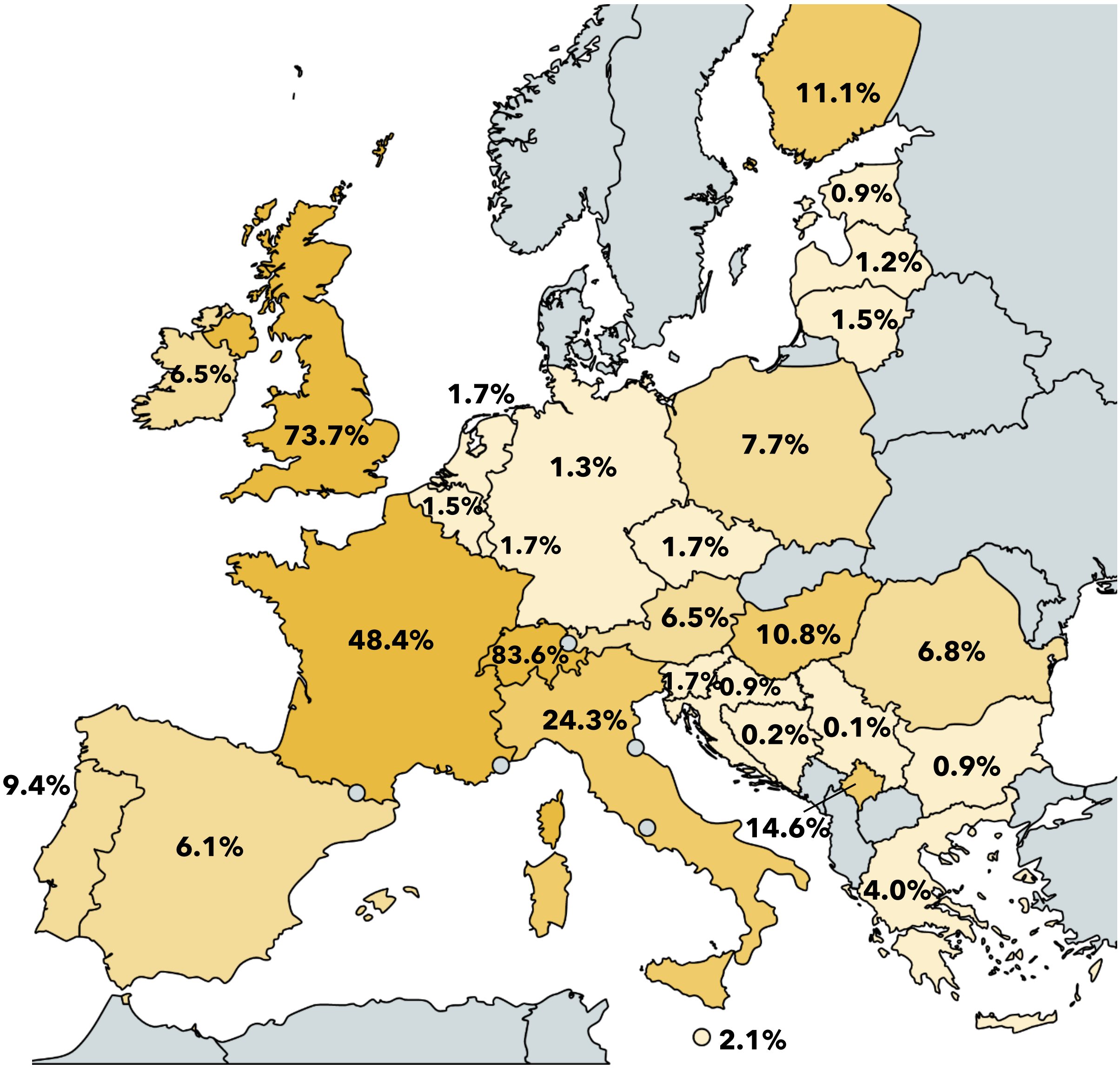
In parallel to the development of the number and volume of newly granted guarantees, the **number of newly supported SMEs decreased significantly over the previous year (-67.5%) to reach the level of a bit less than 1 million**, which is still well above the pre-pandemic level.

SME outreach

In the following, we calculated the share of SMEs benefitting from a guarantee of AECM members in the overall SME population of their respective countries. As a result, the highest outreach could be observed on an axis from the United Kingdom to Italy, passing by France and Switzerland. While the members of NSGI/CH reached out to 83.6% of Swiss SMEs and British Business Bank to almost 3/4 of the UK SME population, our four French members Bpifrance, EDC, SIAGI and the National Federation of SOCAMA have currently 48.4%% of French SMEs in their books. In Italy, Assoconfidi members and ISMEA are serving around ¼ of SMEs. **AECM members all together reached out to 24.2% of the total SME population in covered countries**[4]. The map below shows the exact results.

[4] Turkey and Azerbaijan are not considered here, since Eurostat does not provide data on the number of SMEs in those countries.

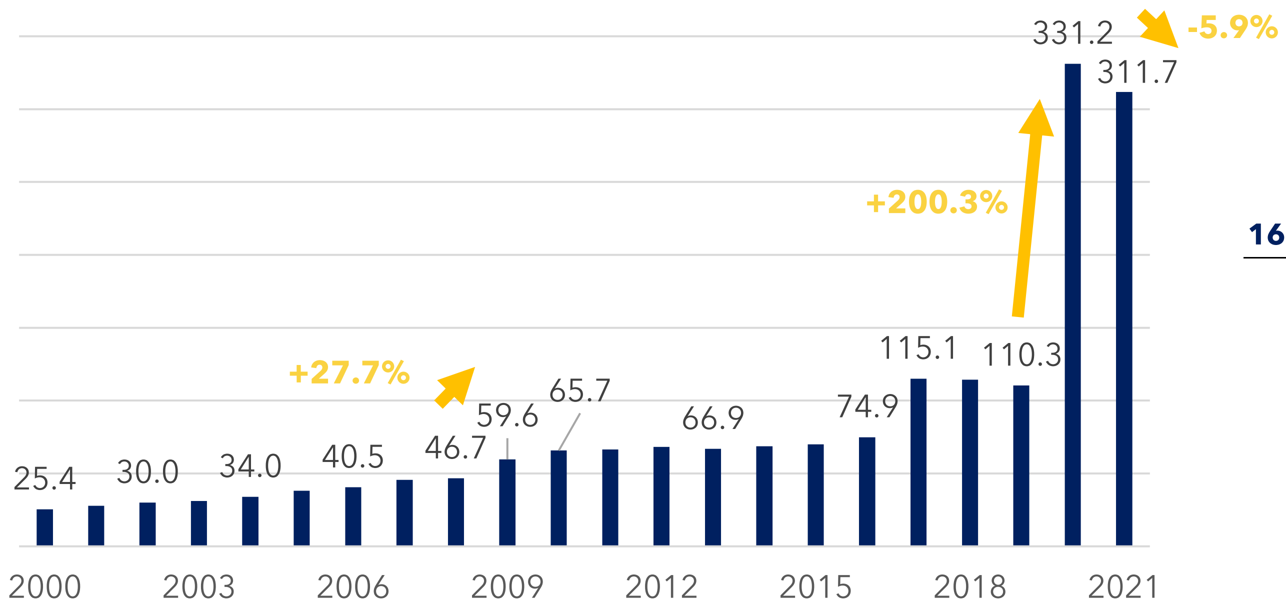
Graph 3.4 : Intensity Map – SME outreach



ii. Long-term Development

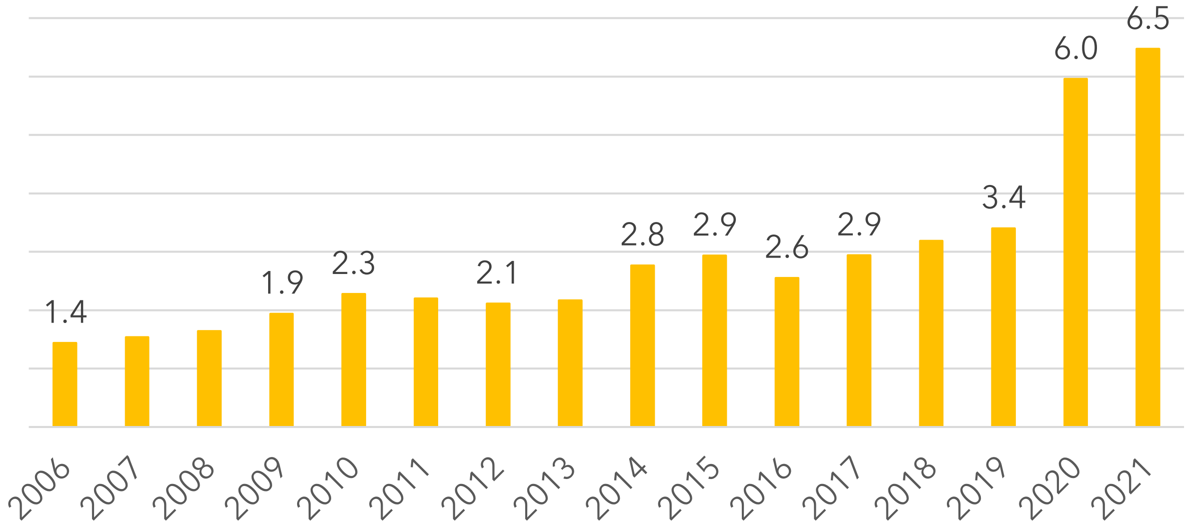
A look at the **long-term development of total outstanding guarantee volumes reveals that after having reached its peak during the pandemic year 2020, the volumes already started their descent in 2021**. While most members still continued to grow in 2021, the decline in the total outstanding volume is mostly driven by the phase out of short-term covid supported under the French governmental programme PGE as well as by the strong devaluation of the Turkish lira leading to a strong decline of the volumes of Turkish members in euro terms. Graph 3.5 shows the development of the outstanding guarantee volume since the start of data collection in 2000. Retrospectively, the strong increase during the financial crisis in the noughties is barely visible anymore. The strong increase in 2017 corresponds to the exceptional policy-driven expansion of the guarantee volume of KGF/TR.

Graph 3.5 : Long-term development of the outstanding guarantee volume (in bEUR)



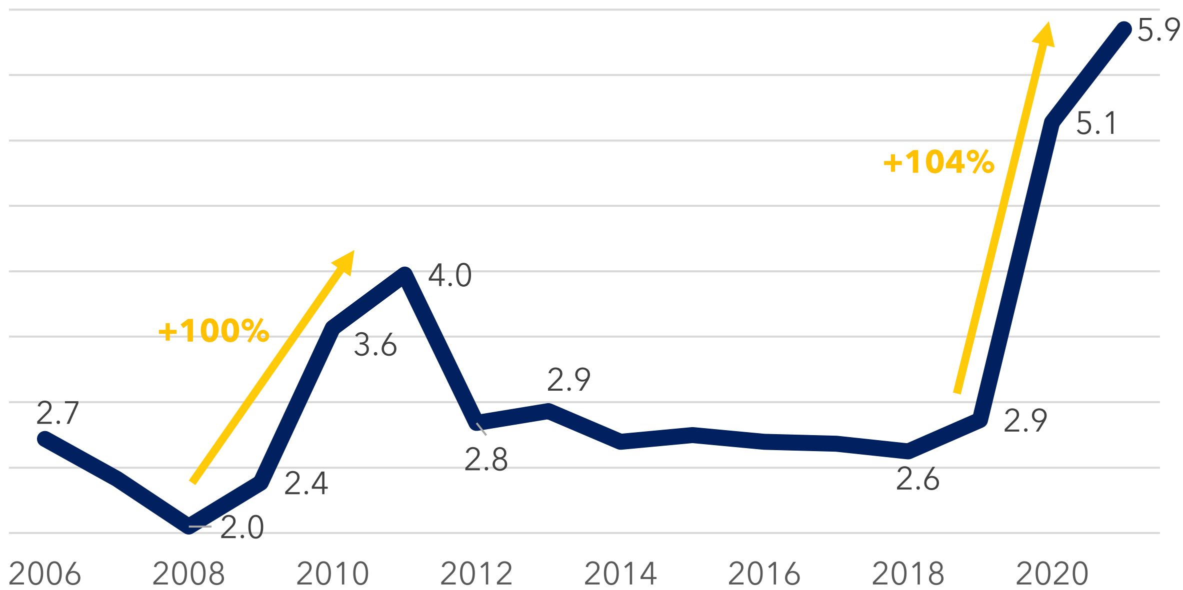
Regarding the **number of outstanding guarantees**, we have been able observe a steady increase since our first data collection in 2006 and an extraordinary expansion in 2020, reflecting the enormous roll-out of supporting measures for SMEs suffering from the economic consequences of the pandemic. **In 2021, the increase continued but at much lower pace than in 2020.**

Graph 3.6 : Development of the number of outstanding guarantees (in million units)



The development of the **number of SME beneficiaries** shows the **anti-cyclical role of guarantee institutions** even more impressively than the development of the outstanding guarantees does. During the world financial crisis, the SME portfolio of AECM members doubled (over three years). **During the pandemic, a 100% increase was already experienced within two years**. The development between the two crises was very stable, as can be seen in graph 3.7 below.

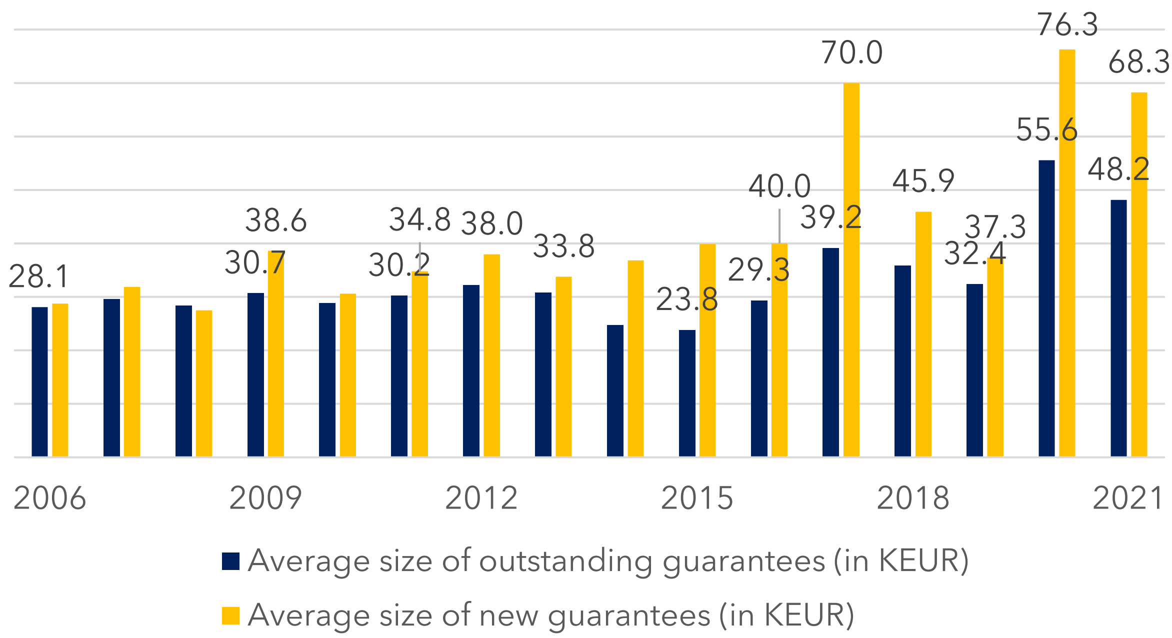
Graph 3.7 : Long-term development of the number of supported SMEs (in million units)



The comparison of the development of outstanding volumes and numbers of supported SMEs suggests that during the financial crisis a considerable number of SMEs soke assistance from guarantee institutions but that their liquidity needs were much lower than during the current crisis. This appears logical since in the current pandemic, small companies are in the epicentre of the crisis whereas during the financial crisis they were hit by second round effects. Nonetheless, as the number of outstanding guarantees as well as of supported SMEs continues to increase while the outstanding volume already started its decrease, this points to a reduction of liquidity needs. This goes in parallel with the lifting of covid restrictions and the resumption of full economic activity. It will be interesting to see how these parameters will develop over the year 2022 which on the one hand promises a further recovery from the pandemic, but that might on the other hand be still difficult due to the economic consequences of the Russian aggression in Ukraine.

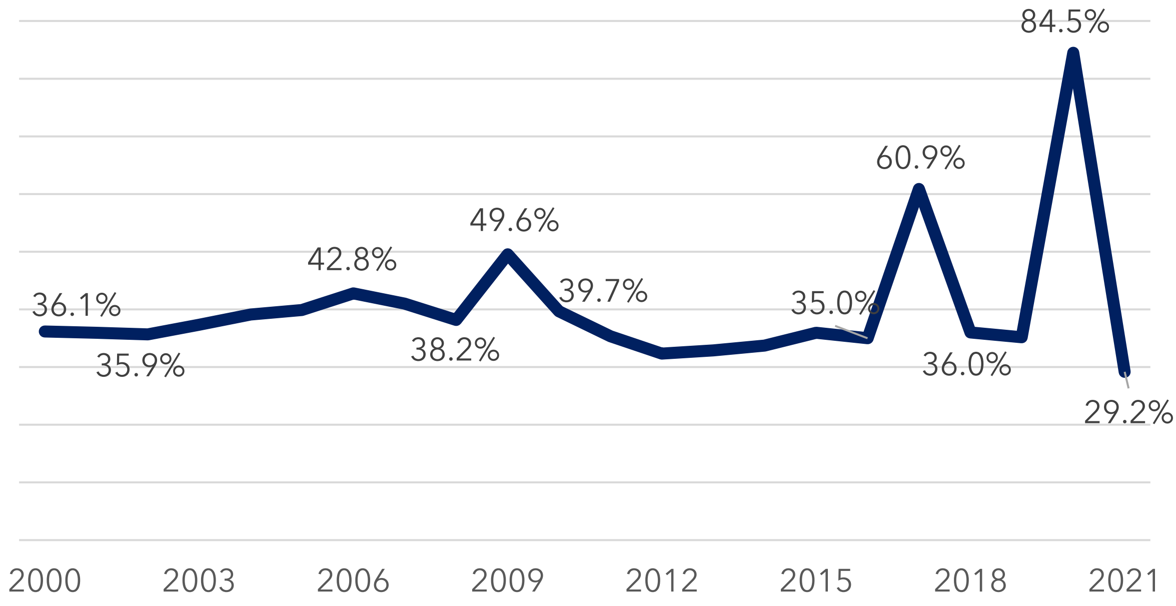
In 2021, we observe **a slight decrease of both the average size of newly granted guarantees from kEUR 76.3 to 68.3 and the average size of outstanding guarantees from kEUR 55.6 to 48.2**, which is still well above its pre-pandemic level.

Graph 3.8 : Development of the average size of outstanding and of new guarantees (in kEUR)



The last point to be mentioned in this sub-section on long-term developments is the **share of newly granted guarantees in the overall portfolio**. This share is usually around 1/3 of the outstanding volume with the notable exceptions of the financial crisis in 2009, the exceptional increase of the KGF/TR volume in 2017 and now the Covid-19 crisis. After each peak, the share decreased significantly and after both crises even below the pre-crisis level. In 2021, the share of newly granted guarantees in the total volume of guarantees in portfolio is with 29.2% back at its usual level. The exact development can be seen in graph 3.9 below.

Graph 3.9 : Development of the share of new guarantees in the overall portfolio



iii. Development of counter-guarantees

Total outstanding counter-guarantee volume

bEUR 13.0

Volume growth rate of

0.9%

The average counter-guarantee size

kEUR 49.9

<u>Outstanding counter-guarantees</u>

Eleven AECM members[5] from nine countries granted counter-guarantees in 2021. The **combined outstanding counter-guarantee volume of these members remained stable in 2021 after a strong increase in 2020. It reached a level of bEUR 13.0 which represents a growth rate of 0.9%**. 2/3 of the increase can be attributed to BPF/PT. The share of our members on the Iberian peninsula represents 96% of the total outstanding counter-guarantee volume (more than bEUR 8.6 is in the portfolio of BPF/PT and around bEUR 3.9 is in the books of CESGAR member CERSA/ES). The strongest increase was experienced by CESGAR (+18.1%).

The **number of outstanding counter-guarantees conversely decreased (by 5.5%). In 2021, AECM members had around 260,900 units** of counter-guarantees in their portfolios. The **average size of a counter-guarantee increased from kEUR 46.8 to 49.9**.

<u>New counter-guarantees</u>

The **volume of newly granted counter-guarantees is far below its 2020 level, but remains well above the pre-covid amount. In 2021, a volume of bEUR 2 was newly issued by AECM members**. The **number of newly granted counter-guarantees descended almost exactly to its pre-pandemic level of 34,000 units**, which represents a decrease of 69.3%. As a consequence, the **average size of newly granted counter-guarantees decreased from kEUR 82.1 to 58.5**.

[5] SOWALFIN/BE, Finnvera/FI, Bpifrance/FR, EDC/FR, SIAGI/FR, MVA/HU, SBCI/IE, BPF/PT, FRC/RO, FSECA/RU, CESGAR/ES.

iv. EU Financial Instruments

Total outstanding guarantee volume issued under EU financial instruments

bEUR 10.2

Most heavily used programmes

ERDF and COSME

At least 29

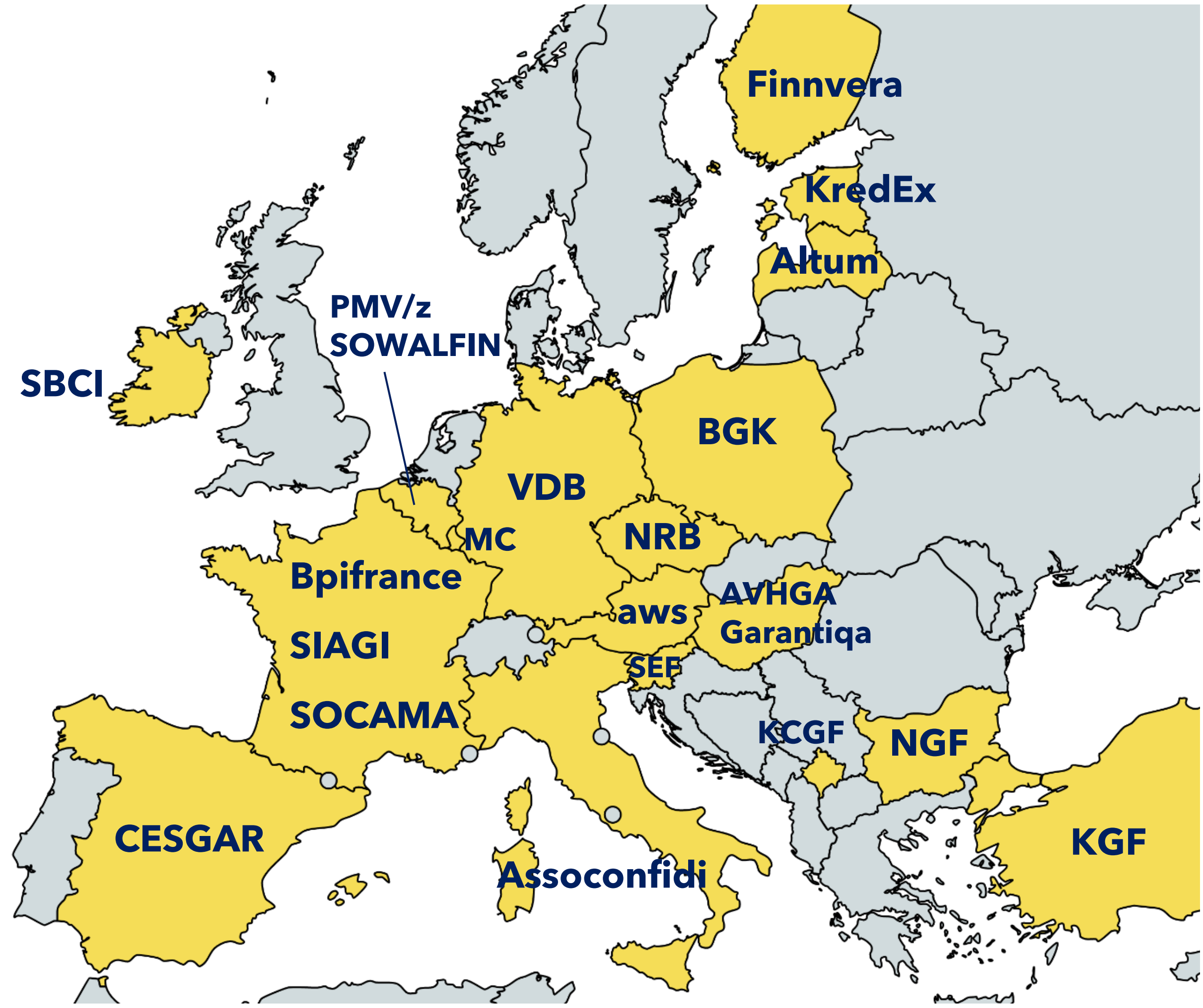
AECM members are intermediating EU Funds

The use of EU funds by AECM members has now been registered over four consecutive years. Following a continuous increase of the **total outstanding volume under EU programmes, we observed a decrease of 19.0% in 2021. As of 31st December 2021, the outstanding volume of EU supported guarantees amounted to almost bEUR 10.2**, of which 44.2% are under COSME and 44.5% under ERDF. The remaining volumes are financed under InnovFin, EGF, EAFRD, CCS, EaSI and ESF. The decrease in the volume is due to the phase out of EU programmes under the previous Multiannual Financial Framework (2014-2020) and the delayed start of programmes under the new MFF (2021-2027). In the following, we will have a more detailed look at the individual programmes.

COSME

COSME LGF is the European programme that most AECM members intermediate. 22 members have at least one COSME contract with the European Investment Fund (EIF). **The EU guarantee is used to counter-guarantee a volume of bEUR 4.5**. This represents a decrease of 25.5% vis-à-vis outstanding COSME guarantees in 2020. The largest COSME users are CESGAR/ES (bEUR 1.3), followed by NRB/CZ (mEUR 793.5) and SOCAMA/FR (mEUR 611.0). The biggest percentual increases were registered by aws/AT (+53.8%), KCGF/XK (+29.3%) and SEF/SI (+17.2%). The map below lists those AECM members that participate in the COSME programme.

Graph 3.10 : Map of AECM members participating in the COSME programme



InnovFin

InnovFin SMEG is used by eleven AECM members[6]. **Guarantees under InnovFin amount to at least mEUR 469.9** (not all members reported their InnovFin volumes, especially members using InnovFin as direct guarantees did not report the volumes). This represents a significant increase of 7.9% with respect to 2020. Largest volumes of guarantees counter-guaranteed by InnovFin were registered by aws/AT (mEUR 167.5) and CESGAR/ES (mEUR 165.8). The strongest percentual increases could be observed for Altum/LV (+805.3%) and aws/AT (+33.8%).

[6] aws/AT, PMV/z Waarborgen/BE, SOWALFIN/BE, Bpifrance/FR, VDB/DE, SBCI/IE, Assoconfidi/IT, ALTUM/LV, RVO/NL, CESGAR/ES, BBB/UK.

Other centrally managed programmes

Five AECM members are using the **Cultural and Creative Sector (CCS) programme**[7], two of them as a direct guarantee and three of them as a counter-guarantee. The guarantee volume that the three AECM members using **CCS as a counter-guarantee provide to SMEs amounts to mEUR 155.9** which is an increase of 25.3% with regard to the previous year.

In 2021, SEF/SI strongly increased the volume of guarantees issued under the **EaSI pogramme (+1,323.8%). It amounts to mEUR 43 at year-end.**

The **European Guarantee Fund (EGF)** started in 2020 and first operations have been guaranteed by the fund in 2021. At that moment, **five members**[8] **reported their outstanding volumes under EGF with a total amount of mEUR 171.9**. The strongest user of EGF at year-end 2021 was CESGAR/ES.

European Regional Development Fund (ERDF)

Nine **AECM members**[9] **channel the ERDF in form of guarantees at an amount of bEUR 4.5**. This represents a decrease of 21.3% compared to 2020. With a guarantee volume of bEUR 1.8, HDB/GR is the AECM member with the largest portfolio under ERDF, followed by new-user BPF/PT with a volume of mEUR 890.2 and NRB/CZ with a volume of mEUR 874.8.

Other funds under shared management

Two AECM members[10] made use of the **European Agricultural Fund for Rural Development (EAFRD)** and had a **combined outstanding guarantee volume of mEUR 296.5** (up from mEUR 202.5 in 2020) under this programme.

The **European Social Fund (ESF)** is currently only used by MDB/MT and BPF/PT with an outstanding volume of mEUR 11.5.

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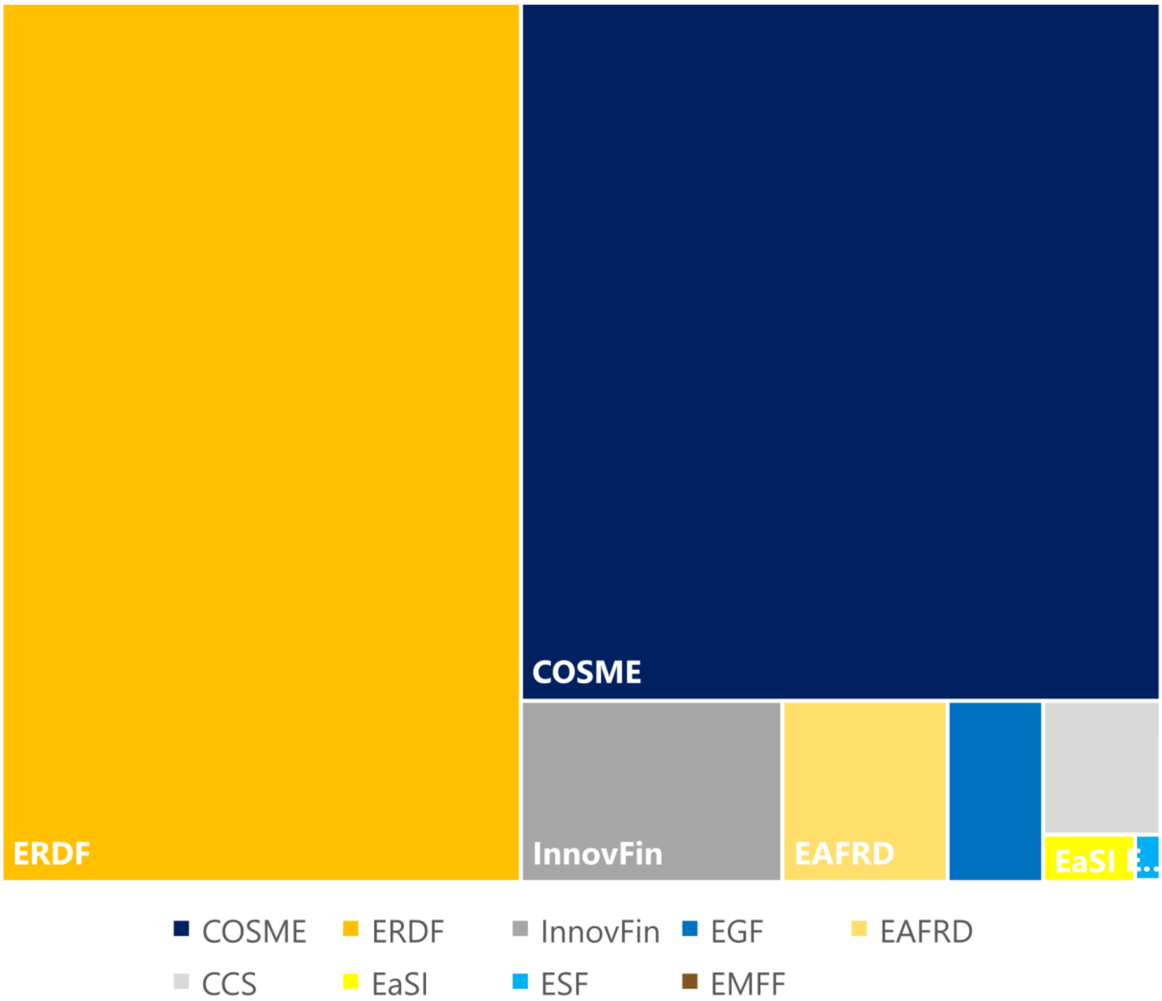
[7] PMV/z Waarborgen/BE, Bpifrance/FR, MVA/HU, BGK/PL, CESGAR/ES.
[8] SIAGI/FR, Invega/LT, BGK/PL, SEF/SI and CESGAR/ES.
[9] HAMAG-BICRO/HR, NRB/CZ, KredEx/EE, Bpifrance/FR, HDB/GR, ALTUM/LV, INVEGA/LT, BGK/PL, BPF/PT.
[10] BGK/PL, FGCR/RO.

Graph 3.11 : EU Programmes used by AECM members



v. Agricultural Guarantees

Total outstanding agri guarantee volume

More than bEUR 20

Number of total agri-SME beneficiaries

204.1k

Volume of newly granted agri guarantees

bEUR 2.8

21

Members active in the agricultural sector

5

Agriculture-oriented guarantee schemes

This section of the Statistical Yearbook provides a snapshot of the agriculture guarantee activities undertaken by AECM members during the year of 2021 and the agriculture SME finance trends in the past years.

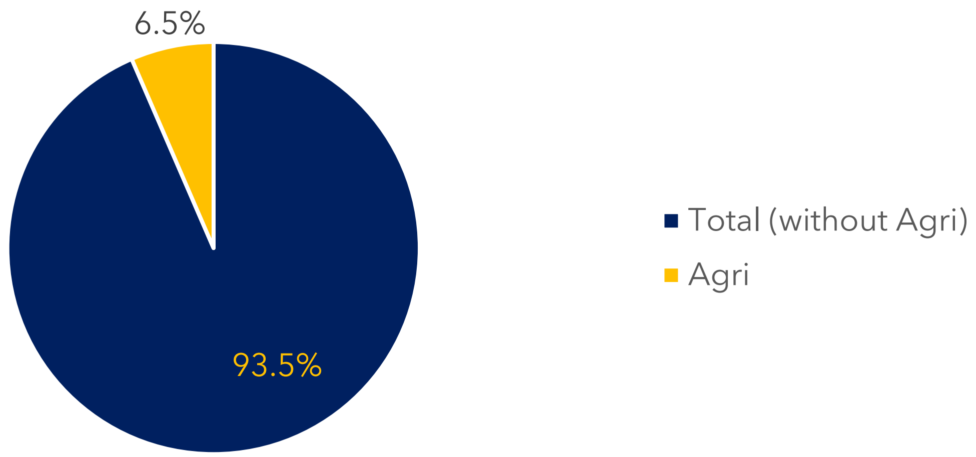
According to the AECM Scoreboard survey, **in 2021 AECM members committed a total volume of outstanding agricultural guarantees worth bEUR 20.3. The statistical data indicate that after having reached historical highs in 2020, the agricultural guarantee activities of AECM members plunged in 2021, yet remained comfortable above pre-pandemic levels**. This trend is valid for both, volumes and numbers of outstanding agricultural guarantees. The tendency among AECM members is however non-uniform: some members experienced an increase in lending volumes compared to 2020, while others registered a decrease. The highest percentual increases were registered by BGK/PL (138.4%), KCGF/XK (128.4%), GF Srpska/BA (69.5%) and AVHGA/HU (55.6%).

In case of BGK/PL, this impressive increase is due to their product enhancement related to the Covid-19 pandemic. BGK's guarantees for the agricultural sector are provided under the Rural Development Programme for Poland, supported by the European Agricultural Fund for Rural Development (EAFRD). Guarantees cover investment loans as well as working capital loans eligible in accordance with the

EAFRD rules. In 2020, the rules of the instrument were amended in order to better support farms and agri-food enterprises affected by the crisis. As such, the possibility to obtain guarantees on working capital loans not linked to investment operations has been introduced, together with a grant in the form of an interest rate subsidy on working capital loans, combined in one transaction (in accordance with Art. 37(7) of the Common Provisions Regulation). Final recipients have immediately shown high interest in the instrument.

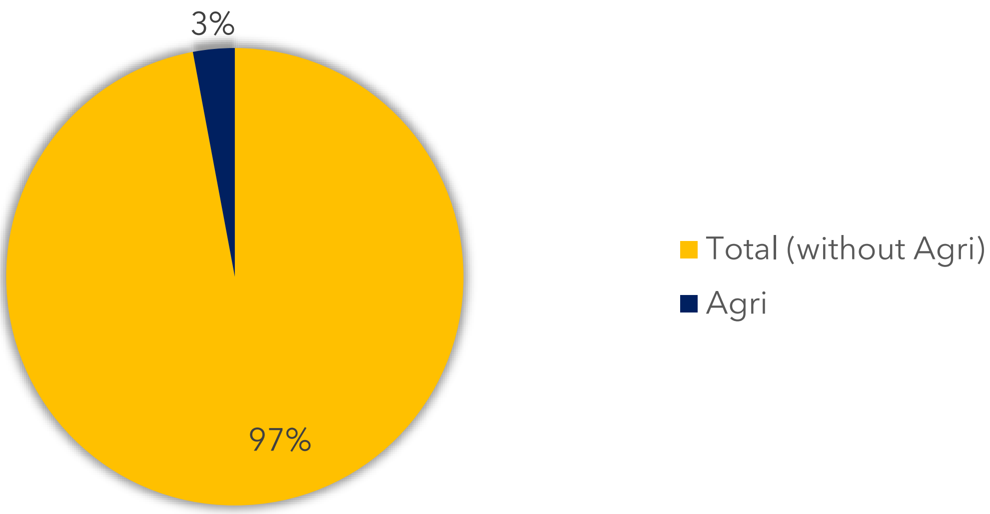
Graph 3.12 below depicts the volume of outstanding agricultural guarantees as a share of the overall outstanding guarantee volume per 2021, with positive growth in 8 out of 24 guarantee schemes for which data are available. The graph shows that, **the part of the outstanding agricultural guarantees is more than bEUR 20, which represents 6.5% of the overall volume of outstanding guarantees. If compared to 2020, the volume of outstanding agricultural guarantees declined by 4.8% yet**, remained higher than the volumes registered for the periods prior to the Covid-19 crisis.

Graph 3.12 : Volume of outstanding agricultural guarantees as a share of the overall outstanding guarantee volume



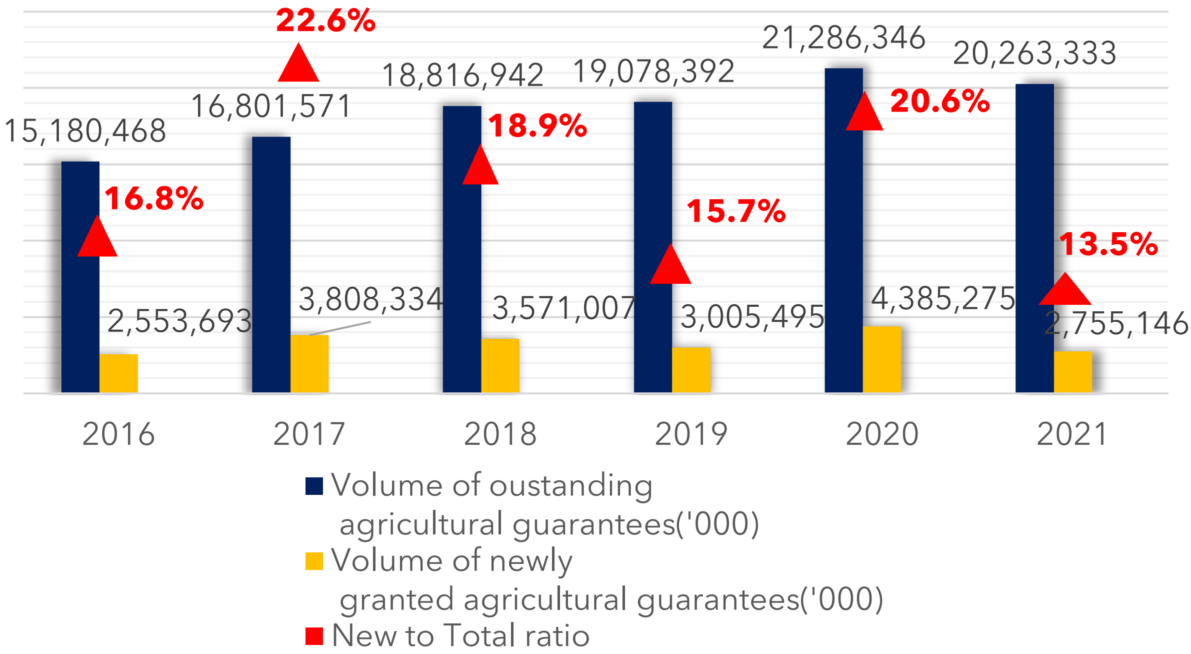
In 2021, the **newly granted agricultural guarantees** declined in exactly half of guarantee institutions for which comparable data are available. As graph 3.13 below shows, the **total volume of the newly granted agricultural guarantees amounts to bEUR 2.8, representing 3% of all granted guarantees**. This is to say that the total volume of the newly granted guarantees decreased by 37.2% in comparison to the year 2020 and hit the lowest amount registered since 2016. Similarly, the **number of the newly granted agricultural guarantees decreased by 46.3% in comparison to the previous year, reaching a total number of 38,094**. The fall in numbers is however higher than the one in volumes. The drop in the take-up of new guarantees is evidenced by the strong rise in guaranteed lending volumes that occurred during the initial phase of the containment period (+45.9% in 2020), which suggests that the demand for liquidity support were higher during the first wave of the pandemic, in contrast to the second and later waves of the Covid-19 pandemic.

Graph 3.13 : Volume of newly granted agricultural guarantees as a share of the overall volume of newly granted guarantees



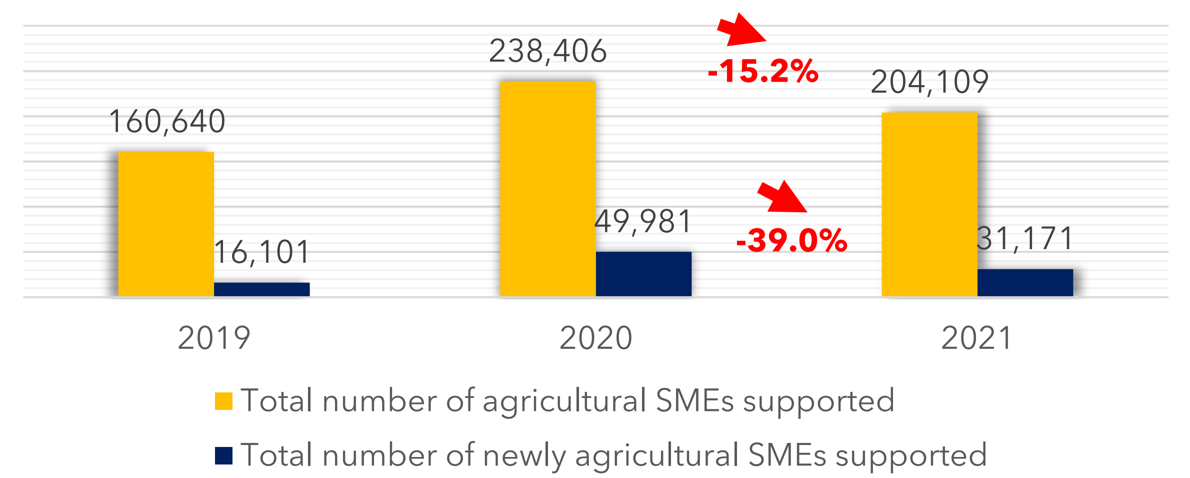
Further, graph 3.14 on the **evolution of agricultural data since 2016 shows that the volumes of the outstanding agricultural guarantees had increased by 8.9%** on overage between 2016 and 2020 and stood at a record bEUR 21.3 in 2020 before declining by 4.8% in 2021. By contrast, the newly granted guarantees, registered a rather fluctuating trend between 2016 and 2021. Aside from an uptick in 2017 which was mostly due to the increase in figures of SIAGI/FR (134.0%) and VDB/DE (59.5%) and the one in 2020 at the start of the Covid-19 crisis, the volumes of the newly granted guarantees have been declining and reached bEUR 2.8 in 2021. This can be explained in part by the substantial decrease in the new guarantee activity of one large member. However, despite the historic highs of the total and newly granted guarantees reached in 2020, the new to total ratio remained highest in 2017.

Graph 3.14 : Volume of outstanding agricultural guarantees and newly granted guarantees compared to year-to-year progression



Speaking in terms of **SME beneficiaries, during the year of 2021, AECM members supported a total number of 204,109 SMEs, out of which 31,171 were new SMEs beneficiaries.** This is to say that the total number of SMEs supported during the year of 2021 decreased by 15.2% in comparison to 2020, whereas the number of newly supported SMEs decreased by 39.0%. This clearly denotes that the Covid-19 pandemic was a strong driver of demand for finance in the agriculture sector in the first wave of the pandemic and the year of 2021 witnessed rather a transition towards recovery.

Graph 3.15 : Number of outstanding and newly supported agricultural SME beneficiaries



Turning to the **agriculture-oriented guarantee institutions** (AVHGA/HU, ISMEA/IT, Garfondas/LT, Agrogarante[11]/PT and FGCR/RO), the graph below shows the breakdown of total portfolio by each of these AECM members.

For 2021, three agricultural-oriented guarantee institutions for which statistical data are available registered a decrease of their portfolios, with the exception of **AVHGA/HHU** which increased its total volume of guarantees granted.

In 2021, **Agrogarante/PT** observed a negative evolution of the outstanding guarantees volume if comparing with the previous year. This trend is due to the expiry of the public moratorium that has been implemented since March 2020 based on the Temporary Framework for State aid measures, which more than doubled its outstanding guarantee volume (+135.2%) during 2020, as well as due to the expected lower demand for new Covid-19 guarantees.

AVHGA/HU indicated an increase in guarantee activity of 55,6% compared to the year 2020. The aforementioned growth was driven by the implementation of the so-called Crisis Agricultural Guarantee Programme rolled out in accordance with the Temporary Framework and intended to facilitate access to finance for agriculture-oriented SMEs for their investments and working capital needs. AVHGA's Crisis Agricultural Guarantee Programme is still running and is foreseen to be operational until the expiry of the Temporary Framework for State aid measures on 30 June 2022.

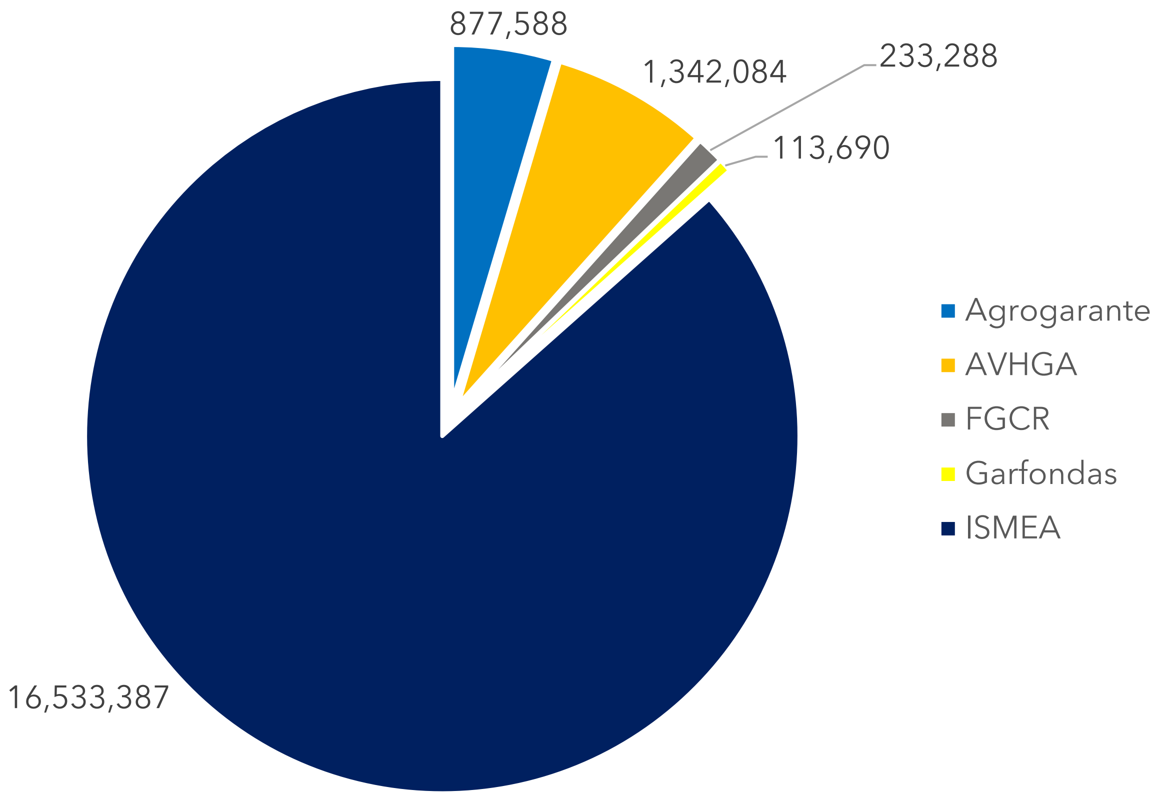
Similarly to the above mentioned agricultural-oriented guarantee schemes, also **Garfondas/LT** has set up dedicated schemes to support SMEs to overcome the consequences of the Covid-19 pandemic. Their guarantee activity went well during the year 2021. However, in the absence of any data received per 2020, no evolution assessment of their guarantee activity was possible.

Like in previous years, **ISMEA/IT** remains the biggest agriculture-oriented scheme, accounting for 86.5% of the guarantee volume of the five agriculture-oriented guarantee institutions. Yet, in 2021, it registered a lower degree of activity with volumes declining by 4.3%. This trend is considered to be normal given the significant increase in outstanding volume that occurred in 2020.

During 2021, **FGCR/RO** continued to support Romanian agricultural businesses through its regular programmes. The Fund decreased its guarantee activity by 15.9% compared to the previous year. However, the total guarantee volume of the Romanian Fund is expected to increase during the first semester of 2022 as a result of the set-up of the so-called RURAL INVEST Programme implemented under the Temporary Framework for State aid measures and aiming at financing investments as well as working capital.

[11] Agrogarante is the agricultural guarantee scheme integrated in AECM member BPF/PT.

Graph 3.16 : Volume of Outstanding Guarantees of the agriculture-oriented guarantee schemes at 2021 year-end



Agriculture-oriented guarantee institutions play a pivotal role in helping agro-SMEs to get access to finance, which unlike other businesses have specific features. The general characteristics of the sector with low and fluctuating profit margins and cash flow, combined with the risks intrinsic to agriculture production – related to animal diseases, climate and weather-related fluctuations, and market crises – lead banks to be more hesitant in providing financing to farmers. In addition, a low level of financial literacy, knowledge, and confidence of agricultural producers, as well as a lack of accountancy and business records among small-sized farms also limit the access to finance. Small-sized farms, young farmers and new entrants find it harder to access financing. Therefore, the guarantees offered by the guarantee schemes represent an important step in filling the financing gap of SMEs.

In fact, according to a report undertaken by fi-compass in 2020[12], for the vast majority of the 24 Member States analysed in the study, it has been recommended to the national authorities to set aside further resources from the rural development programme (RDP) in the programming period 2021- 2027 to support credit guarantee

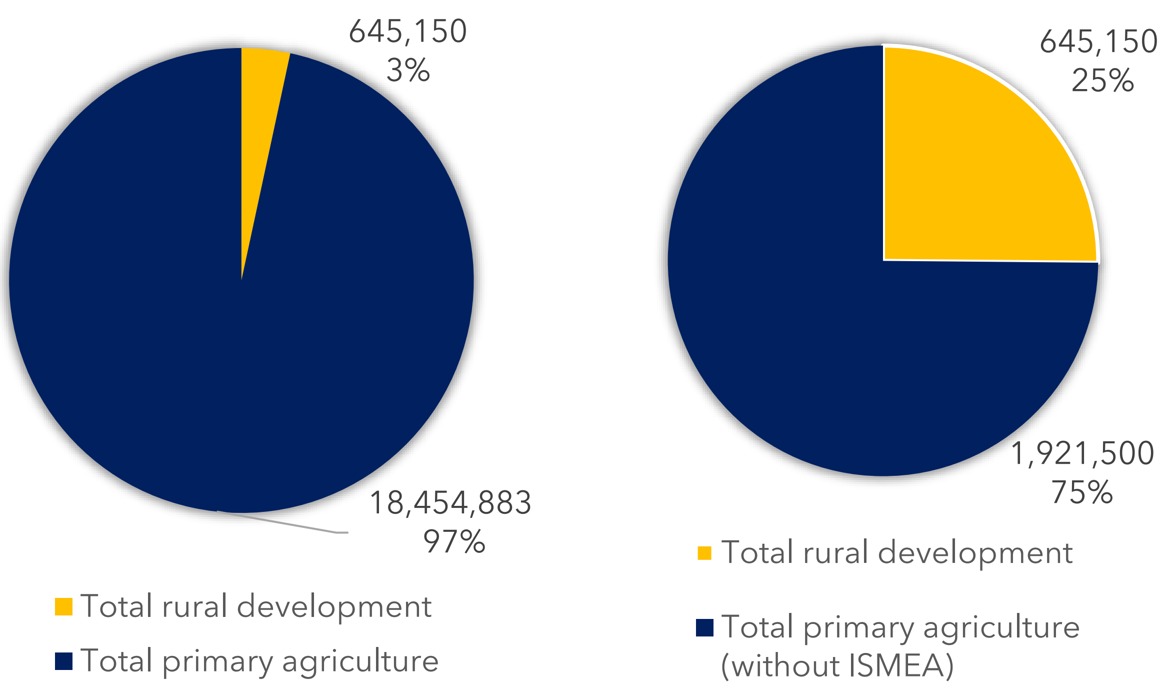
[12] https://www.fi-compass.eu/eafrd/fi-compass-study-financial-needs-agriculture-and-agri-food-sectors-24-eu-member-states

instruments. This is intended to facilitate access to finance for farmers who cannot access loans because they are considered too risky, and/or because they cannot provide sufficient bankable collateral. The products recommended to be guaranteed are primarily investment loans with long-term maturities as well as guarantees for working capital loans and credit lines.

Turning back to agriculture-oriented guarantee institutions, it is worth mentioning that four out of five agriculture-oriented guarantee institutions (AVHGA/HU, Garfondas/LT, Agrogarante/PT, FGCR/RO), apart from financing primary agricultural production of food and non-food products (from crops, livestock, fisheries, forestry and aquaculture), the production of food of non-agricultural origin (e.g. synthetic meat), they also promote rural development activities, by granting guarantees for different activities aiming at maintaining the economic and social infrastructure of rural areas. They have a key role in achieving a balanced territorial development of rural economies and communities including the creation and maintenance of employment.

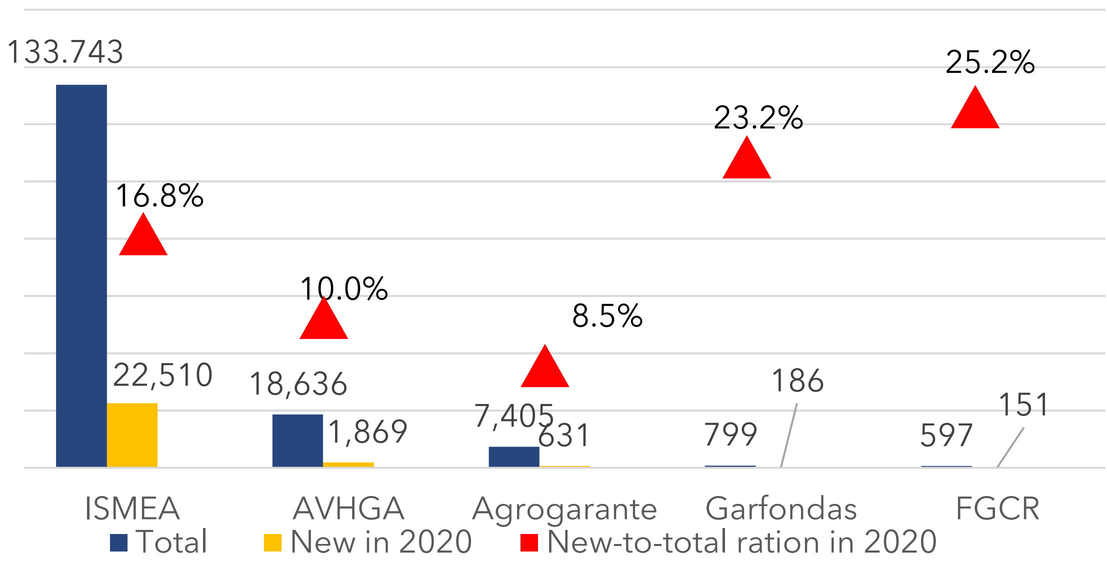
As indicated in the graph below, the total volume of guarantees for **rural development** activities in 2021 amounted for more than kEUR 645,150 representing 3% of the total volume of the aggregated portfolio of the five agriculture-oriented guarantee institutions. In comparison to the year 2020, the total volume of guarantees granted in the area of rural development decreased by 59,1% and are at historic low in 2021. This is mainly explained by the decrease of guarantees granted for rural development activities by Agrogarante/PT.

Graph 3.17 : Distinction between outstanding guarantee volume in the area of agriculture and in the area of rural development (left) and the same distinction without ISMEA/IT (right)



Turning to **SME beneficiaries, during 2021, the five agricultural-oriented guarantee institutions supported a total of 161,180 SMEs**. Out of these SMEs, 25,347 were new SME beneficiaries. Survey data indicate that the number of the supported SMEs, both old and new ones, declined in 2021, yet remaining comfortable above or close to pre-pandemic levels. Out of 5 agricultural-oriented institutions, only AVHGA/HU increased the number of supported SMEs, while FGCR/RO is the only institution who registered an increase in the newly supported SMEs.

Graph 3.18 : Total (at year-end) and newly included (during 2021) agricultural SME beneficiaries (in units)



vi. Coverage Rate

Unweighted average coverage rate

68.1%

Average maximum coverage rate

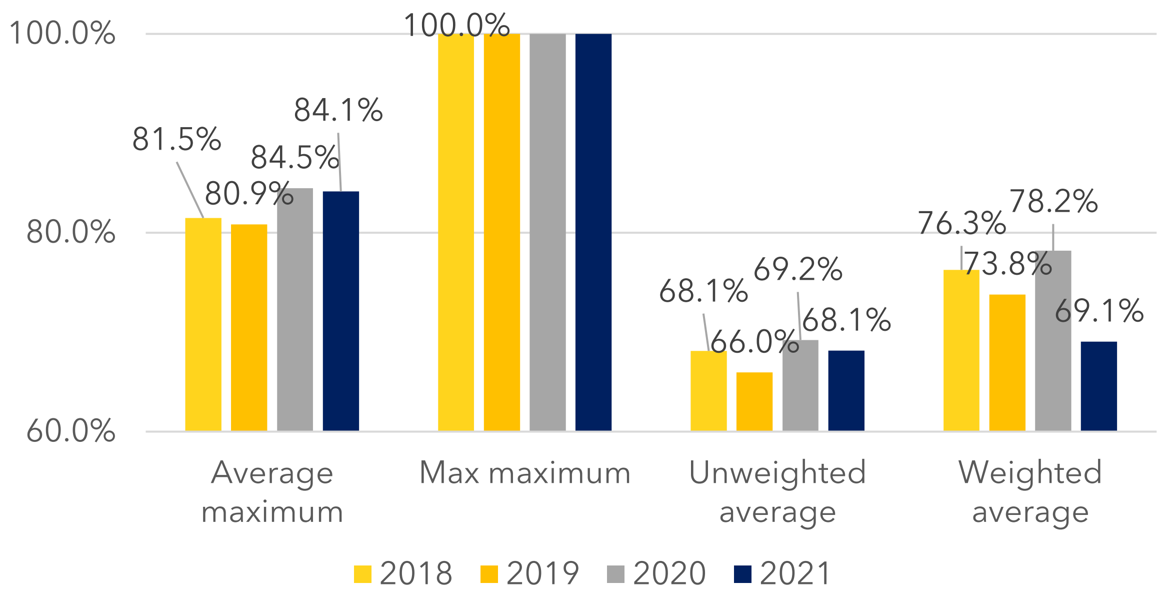
84.1%

7 members offer a maximum **coverage rate of 100%**

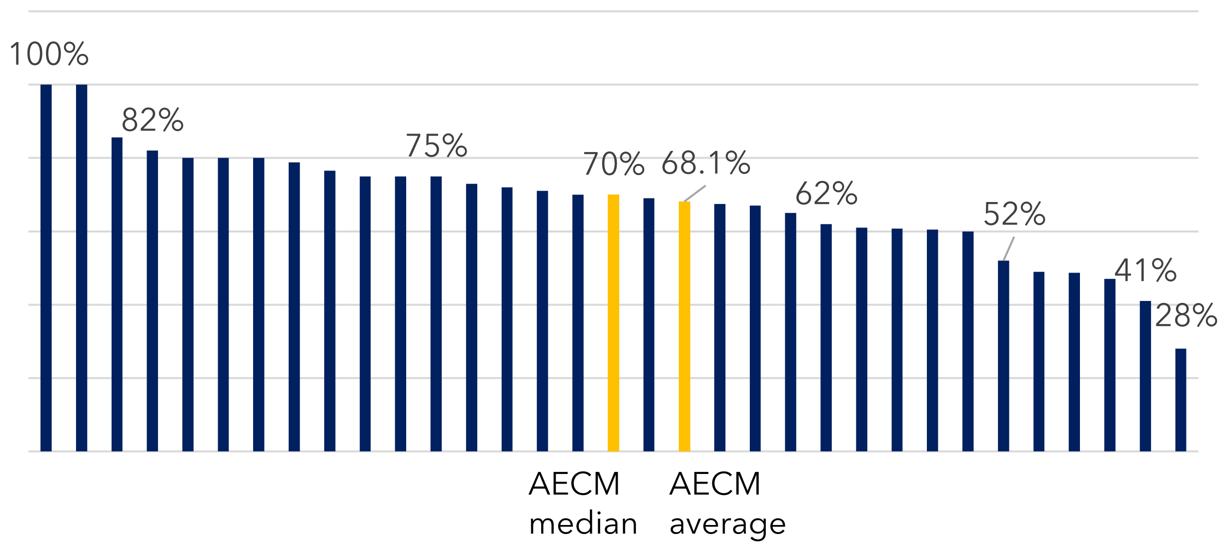
The shares of SME loans that are covered by our respective members remained relatively stable over the previous four years. The **maximum coverage rates** ranged from 50% to 100% with an **AECM average that peaked in 2020 at 84.5% and levelled down to 84.1% in 2021**. Two members increased the maximum coverage rate for their guarantees and three of them decreased it. The number of members that offer 100% guarantees (as a maximum, not necessarily as a rule) decreased from 11 in 2020 to 7 in 2021 in accordance with the gradual phase out of crisis programmes.

The **unweighted average coverage rate decreased from its 69.2% peak in 2020 to 68.1% in 2021, still well above its pre-pandemic level**. Average rates ranged from 28 to 100%. **The AECM average of average coverage rates weighted by the volume of newly granted guarantees amounted to 69.1%, down from 78.2% in 2020**. However, it is important to treat these numbers with caution as coverage rates are not communicated by all members. Especially in the case of average coverage rates, data is not available for several large members. The following graphs give an overview of the development of coverage rates over the past four years and of the distribution across members.

Graph 3.19 : Development of coverage rates between 2018 and 2021



Graph 3.20 : Average coverage rates in 2021



vii. Further Enquiries

As every year, we asked our members a couple of additional questions of current relevance. For 2021, we were interested in the use of different state aid regimes as well as in the market share that our members hold for their respective products and markets.

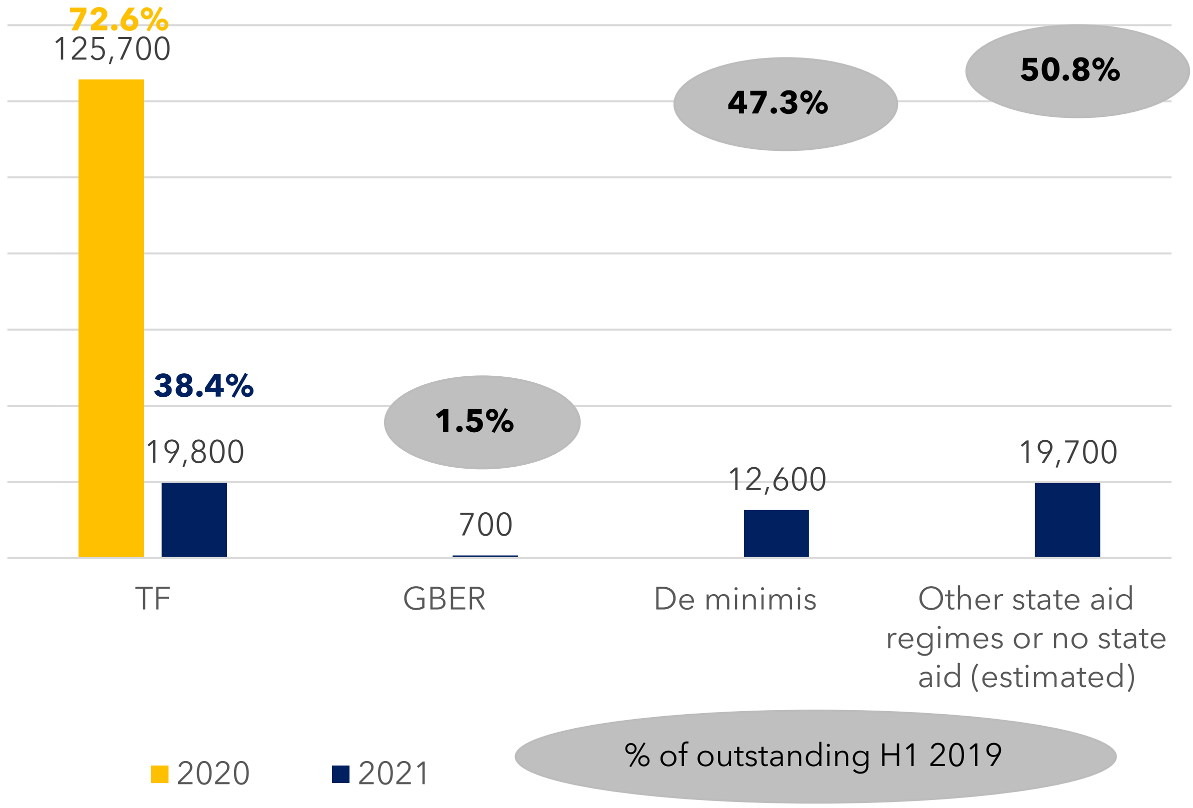
State aid

The phase out of pandemic support measures was most visible in the reduction of the share of newly granted guarantee volume under the Covid-19 Temporary Framework (TF). Whereas in 2021, **72.7%[13] of the volume of new guarantees was granted under the TF (bEUR 125.7), this was only the case for 38.4% of the 2021 new production**. Almost ¼ of the 2021 flow volume was granted under de minimis and 1.3% under GBER. We estimate that 38.2% were not subject to state aid. Last time, we asked about the state aid regime (in H1 2019), almost half of the outstanding volume was issued under de minimis and the other half was no state aid or issued under another state aid regime.

As the Covid-19 TF will expire in June 2022, the share of new production under the Covid-19 TF is likely to further decrease in 2022. However, the Commission established a TF for the Ukraine crisis and we will need to wait for 2022 data in order to see the extent to which this Ukraine TF will be used. We furthermore expect GBER to be used more heavily in upcoming years, for this regime was dedicatedly adapted to the InvestEU Fund that many of our members will use to (counter-)guarantee their operations.

[13] The share is calculated only on the volume of newly granted guarantees from members that responded to the state aid questions. It refers to around 62% of newly granted volume in 2020 and to 57% of the newly granted volume in 2021.

3.21 : Volume of newly granted guarantees per state aid regime (in mEUR), share of total newly granted volume (in %)



We furthermore enquired about the newly granted volume that can be attributed to Covid-19 crisis or recovery measures. As a result, **60.3% (bEUR 31.1) of the newly granted volume of those members who replied to this question was labelled as crisis or recovery measure**.

Market share

On the request of the AECM Board of Directors, we asked our members which market share they have in the geographical area that they cover with respect to their guarantee products. Twelve members replied to this question and seven of them reported about a 100% market share. For the others, the market share ranges between 28 and 81%.

IV Guarantee Activity Survey

The 2021/2022 Guarantee Activity Survey was undertaken in between two major crises. While the Covid-19 crisis seemed slowly getting under control and the recovery phase was picking up, a new profound shock hit Europe in form of the Russian invasion of Ukraine. As both crises have important negative impacts on the European economy, it is of utmost interest to see how guarantee institutions evaluate the development of their activity in 2021 and especially what their projections are for the year 2022.

Despite the high level of uncertainty, 41 out of 47 members replied to the survey which corresponds to a response rate of more than 87%.

It goes without saying, that both crises had and will have a strong impact on the results of our survey. While **more than 3/4 of respondents observed an increase in the guarantee activity in 2020, this share plummeted to barely 44% in 2021 and the share of members expecting an increase in the activity in 2022 drops below 50% for the first time in the history of this survey. At the same time, SMEs' access to bank financing slightly improved and is expected to further improve according to AECM members.**

Let us in the following have a closer look at the observed and expected developments in the guarantee sector.

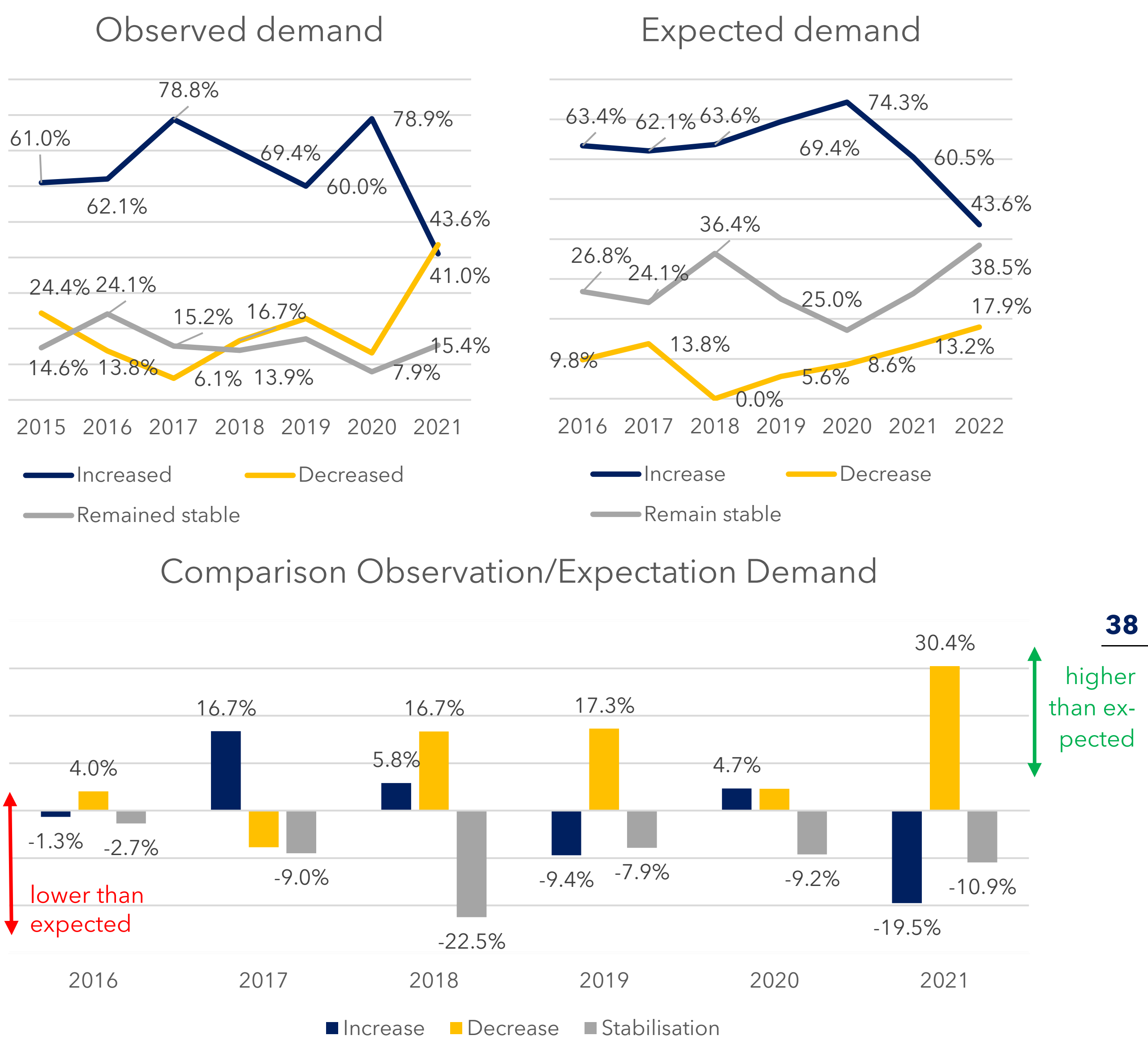
i. Demand for guarantees

In 2021, the share of members that observed an increase in the demand for their guarantees fell dramatically from the record 78.9% to a mere 41.0%. In the same time the share of members that observed a decrease in demand are now in majority. This result reflects the situation in which small companies enter the recovery phase and are no more dependent on acute crisis support.

This development somewhat comes as a surprise as the decrease in demand is more than 30% higher than expected and the increase is almost 20% less than previously expected.

For the year 2021, members are much more cautious. Only 43.6% of the respondents are expecting the demand for guarantees to increase (after 60.5% in the previous year). This significant drop mirrors the fact that guarantee institutions are already reaching out to a large share of the SME population following the extensive support measures during the covid pandemic and that some SMEs might approach a situation where additional debt is not sustainable anymore. Please see the detailed results below.

Graph 4.1 : Observed (left) and expected (right) demand for guarantees as well as the comparison (below) of expectation with the respective effective observation



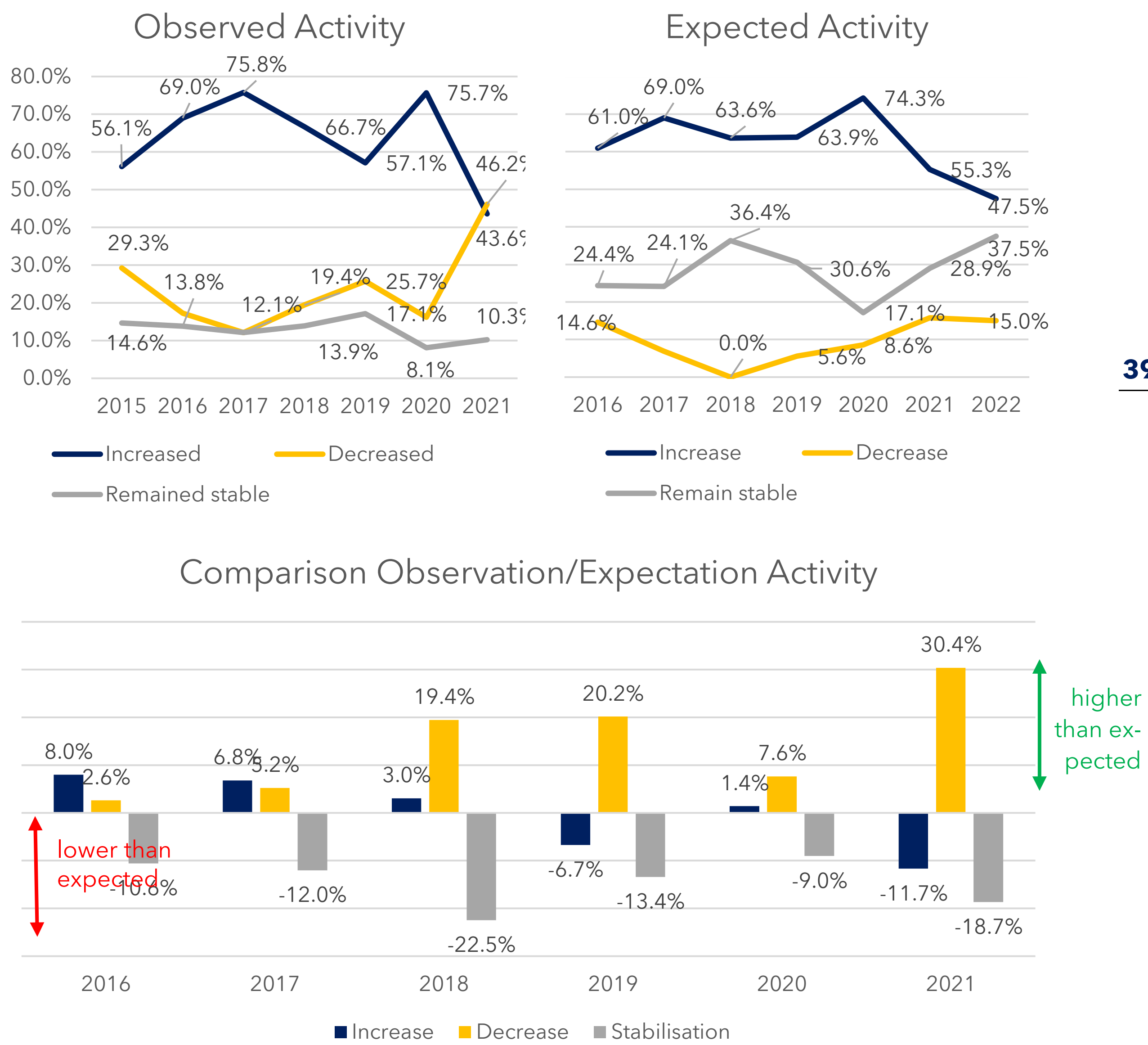
ii. Guarantee activity

The picture for the activity looks very similar to the one for the demand. **The number of respondents that observed an increase in their respective activities was for the first time slightly below the share of members that observed a decrease**. Both camps account for around 45% of respondents. 10% of members indicated that the development of their guarantee activity in 2021 was stable.

As for the demand, decreases were 30% more frequent than expected in the case of the activity. However, increases are only 10% below expectation in contrast to the 20% in the case of demand.

Concerning the **expectation for 2021, we see a continuation of the remarkable decrease of the share of respondents that expects an increase in the guarantee activity.** It seems that the guarantee activity reached or passed the peak which can be confirmed by the Scoreboard data presented in the previous section. Please find the detailed results below.

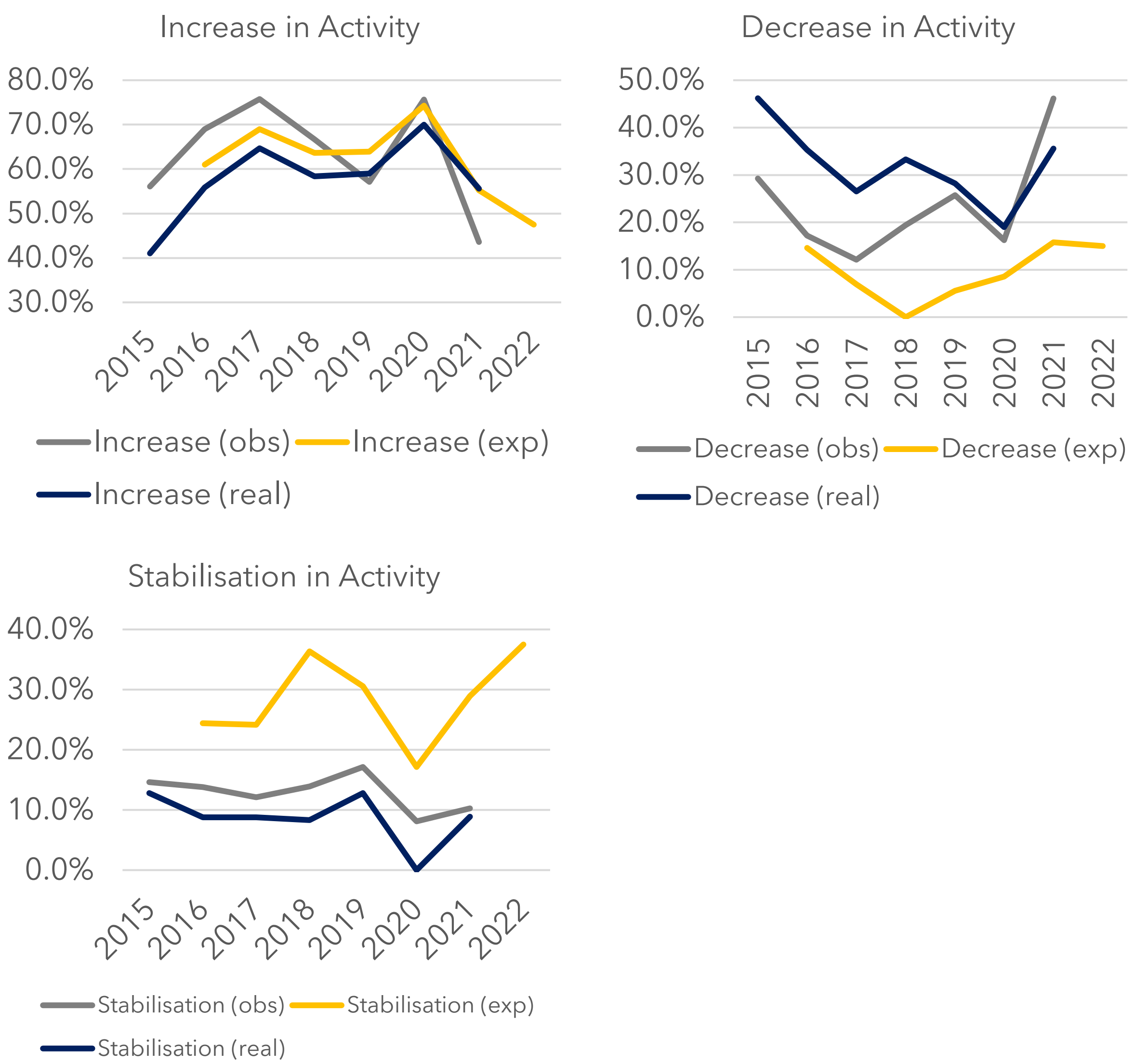
Graph 4.2 : Observed (left) and expected (right) guarantee activity as well as the comparison (centre) of the expectation with the respective effective observation



Graph 4.3 compares the observations and the expectations for the activity in a specific year with the real outcome according to the Scoreboard survey. Whereas the real increase was always very close to the observed and the expected increase, real

decreases were usually higher than the observations and the expectations. For stabilisations, the real outcomes were always close to the observations but far below expectations.

Graph 4.3 : Comparison of expected and observed developments in the guarantee activity with the effectively measured developments

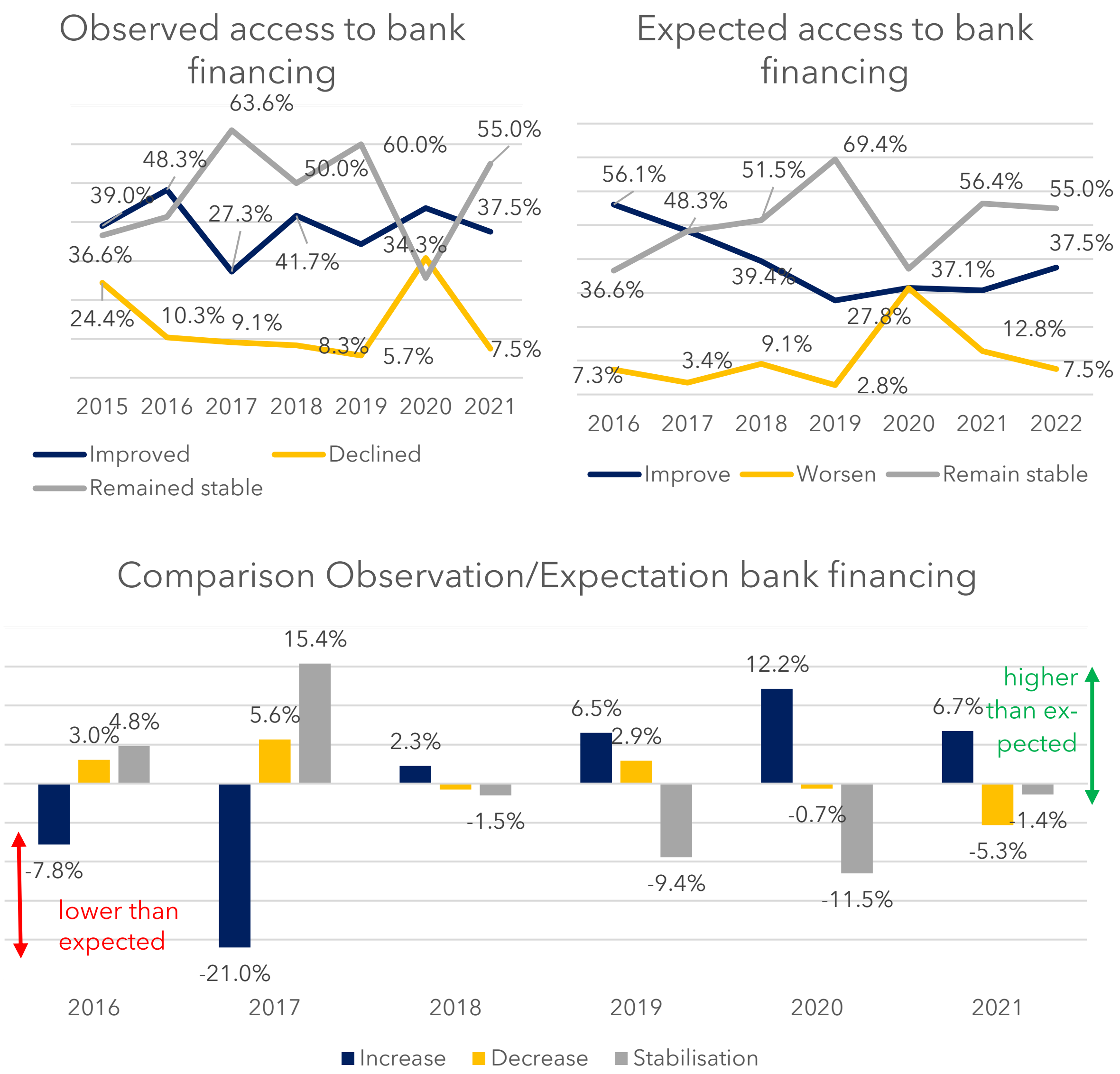


iii. Bank Financing for SMEs

In 2021, the number of respondents that observed an improved access to finance slightly increased but stayed at the same level as in previous years. The good news is that the number of guarantee institutions that observed a deterioration in SMEs' access to bank financing dropped strongly reaching its usual level below 10%. The high share registered in 2020 can therefore be seen as an ephemeral crisis observation. The number of members that observed a stabilisation of the access to bank finance more than doubled.

For 2021, AECM members' assessment is very similar to the observation, but slightly more optimistic. While expectations for an improved access to bank financing increases to 37.5%, the share of members that expect a deterioration of the access to finance decreased. Have a look at the detailed results in graph 4.4 below.

Graph 4.4 : Observed (left) and expected (right) access to bank financing for SMES as well as the comparison (centre) of the expectation with the respective effective observation



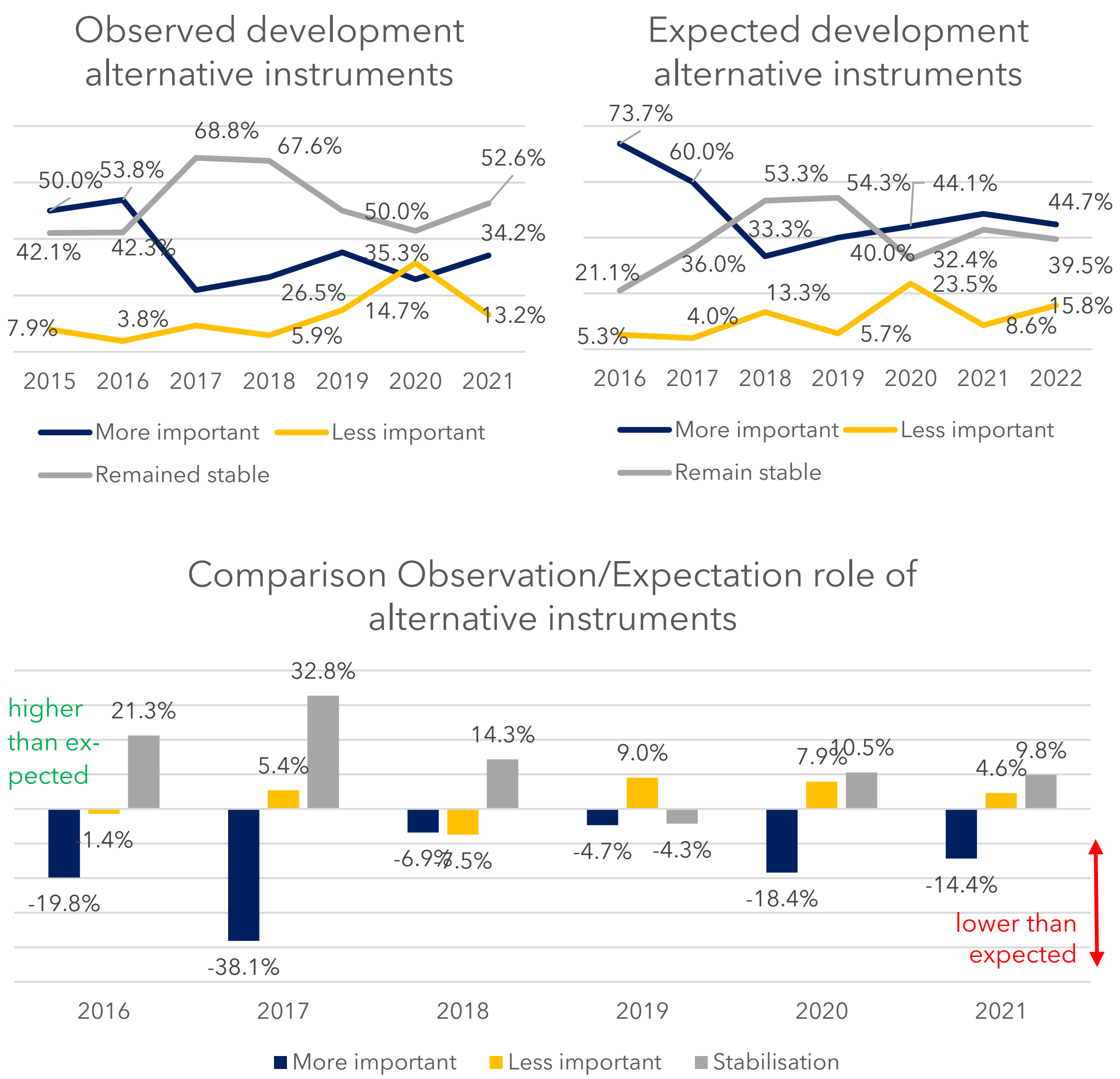
When comparing expectations with observations for 2021, we notice that access to finance for small and medium-sized enterprises was slightly better than expected. However, expectations were broadly met.

iv. Alternative Financing Instruments

The use of alternative financing instruments such as business angel financing or crowdfunding seems to be back on track since last year. **While in 2020 the share of members that observed a loss of importance was higher than the share of those that saw an increase in importance, we are back to the pre-crisis assessment, with a majority of members observing a stabilisation and 13.2% observing a loss of importance of alternative financing instruments.**

However, when comparing expectations and observations, we can see that for 2021, the number of observed increases in importance was again significantly lower than expected. Nonetheless, expectations differ only slightly from those of last year. The development of observations and expectations since 2015 respectively 2016 as well as the comparison of both can be seen in the graphs below.

Graph 4.5 : Observed (left) and expected (right) use of alternative financing instruments as well as the comparison (centre) of the expectation with the respective effective observation



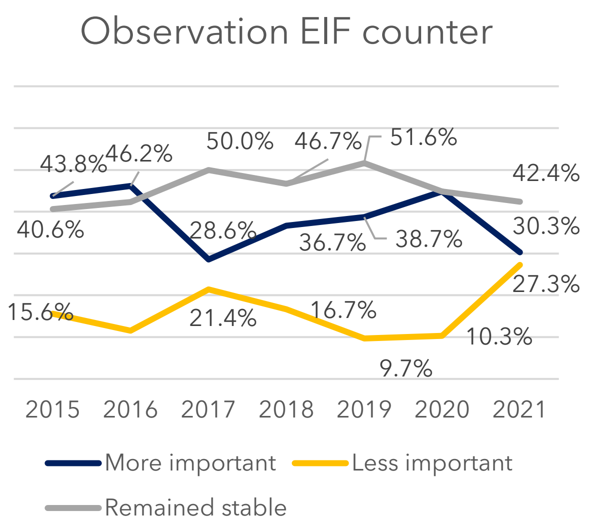
v. EIF Counter-Guarantees

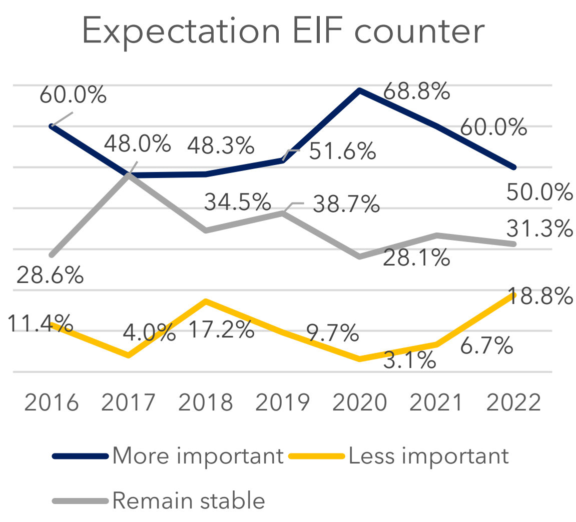
Observations on the development of EIF counter-guarantees point to a tightening of EIF counter-guarantee supply. The share of members that expect the utilisation of EIF counter-guarantees to decrease reached its highest ever registered point of almost 30%. The share of members that expect an increase developed in the adverse direction. The reason is that the financing instruments under the previous Multiannual Financial Framework (such as COSME, InnovFin, etc.) come to an end and the new InvestEU products were not yet operational in 2021.

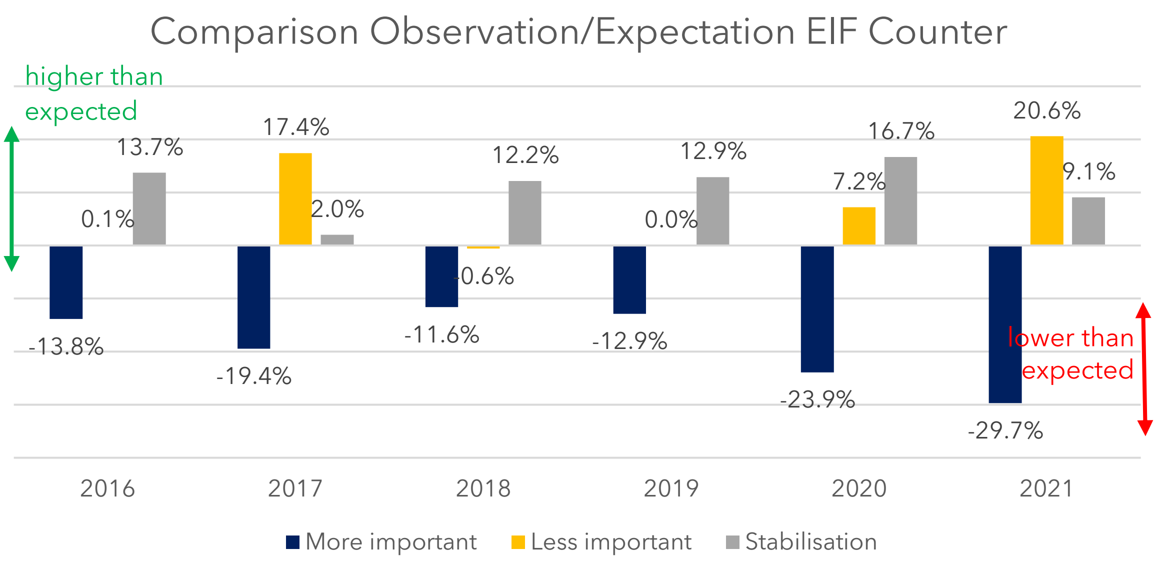
Expectations for the development of EIF counter-guarantees were very far from being met. For 2021, it became clear, that expectations for an increased importance of EIF counter-guarantees were by almost 30% higher than effectively observed. This mirrors the later than expected implementation of InvestEU. Please find the detailed results below.

Regarding the year 2022, AECM members are more cautious with only 50% of them expecting the utilisation of EIF counter-guarantees to increase. The share of respondents that expect this utilisation to decrease reached its highest ever registered level.

Graph 4.6 : Observed (left) and expected (right) use of EIF counter-guarantees by the respective institutions as well as the comparison (centre) of the expectation with the respective effective observation





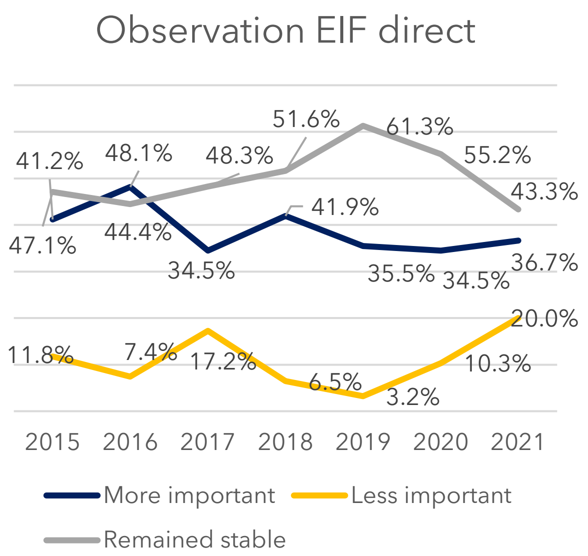


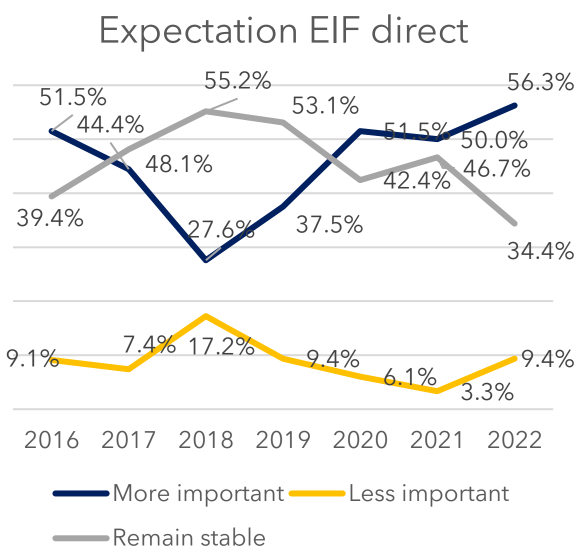
vi. EIF Direct Guarantees

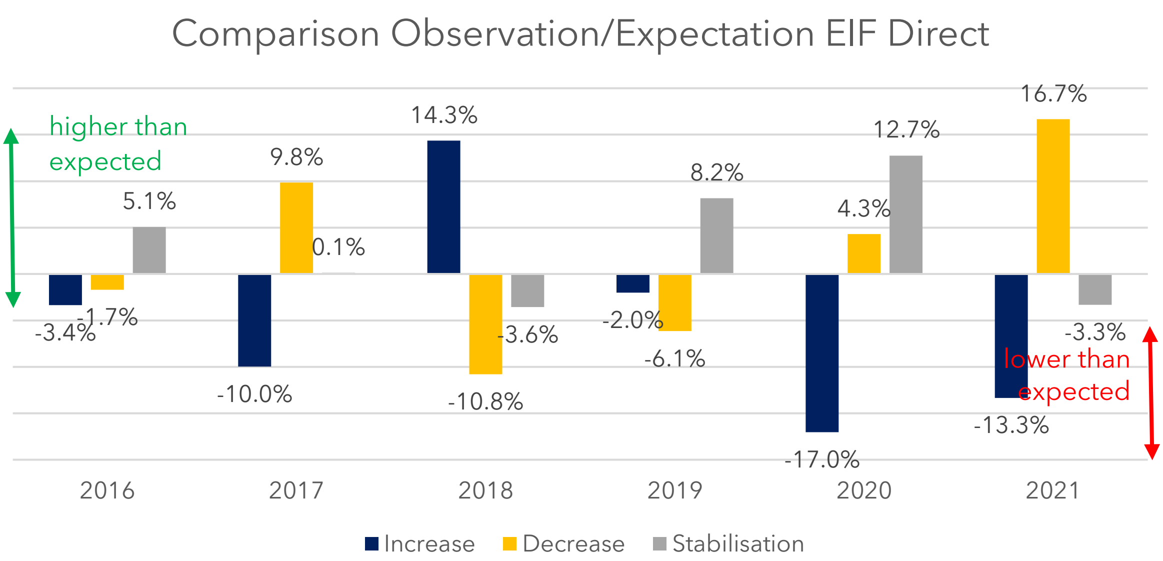
AECM members' observations reveal that in 2021, according to the relative majority of respondents the use of direct EIF guarantees remained stable in their respective countries, but 20% observed a decrease. **However, for 2022, a substantial majority of members expect the use of direct EIF guarantees to increase and less than 10% expect it to decrease.** One third of members expect the use of EIF direct guarantees to banks to remain stable.

The comparison of expectations and observations reveals that in 2021, the use of direct EIF guarantees was much lower than expected.

Graph 4.7 : Observed (left) and expected (right) use of EIF direct guarantees in the respective countries and the comparison (centre) of the expectation with the respective effective observation



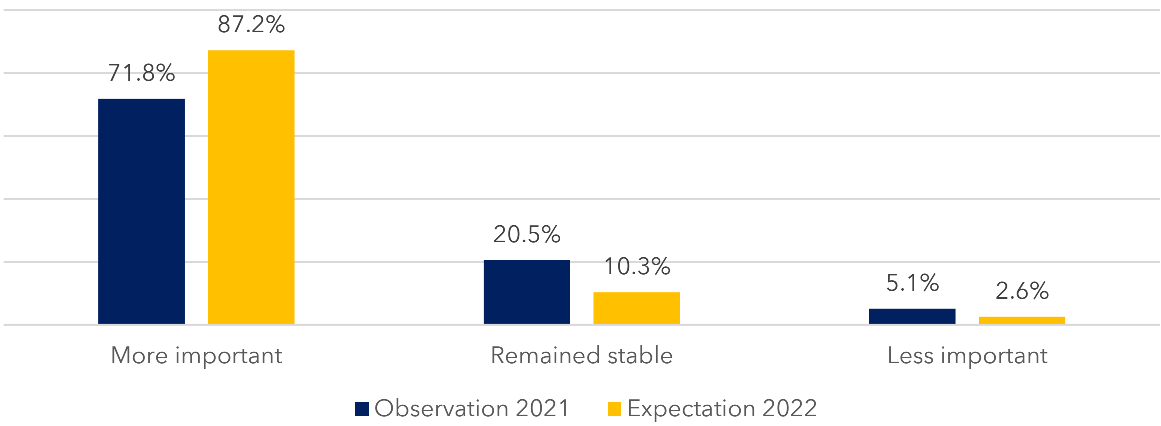




vii. ESG factors

This year, we asked for the first time about the development of the importance of ESG (ecological, social, governance-related; factors for the purpose of product design, risk assessment, etc.). **According to the results, almost 72% of respondents observed an increase in the importance of ESG factors in 2021, but even a larger share expects such an increase in 2022**. The share of members expecting ESG factors to become less important this year is 2.6%.

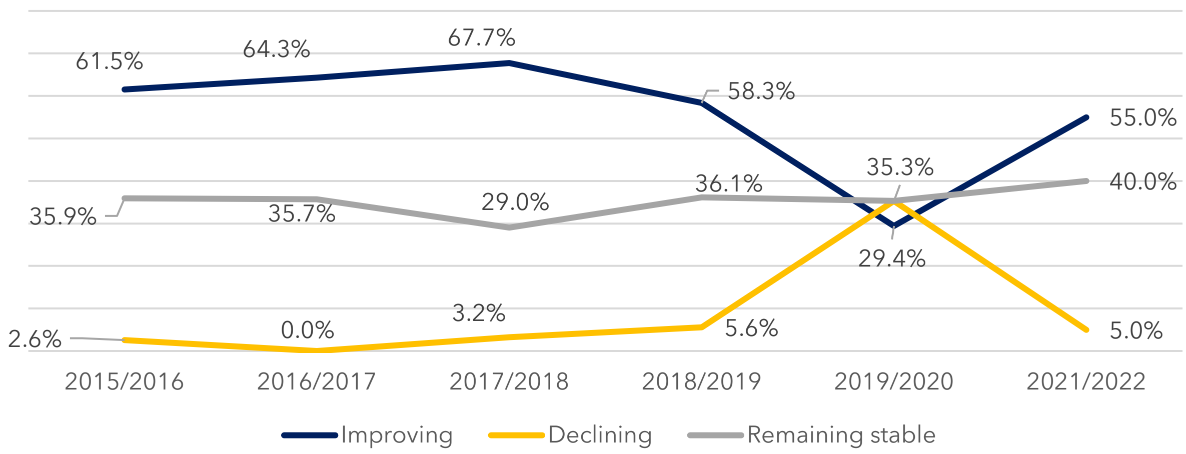
Graph 4.8 : Development of the importance of ESG factors



viii. Business prospects

According to the respondents of our Guarantee Activity Survey, the general business prospects for SMEs were broadly improving in 2021/2022. This is the case for 55% of countries in which AECM members are present. Only 5% of respondents point to a deterioration of the SME business prospects in their respective countries. The is a strong net improvement with regard to the results in 2019/2020. Nonetheless, it is important to note that the share of members expecting business prospects to improve remains – despite its strong increase with regard to 2019/2020 – below its level in all other previous years.

Graph 4.9 : General business prospects for SMEs in the respective country



ix. Focus in 2021

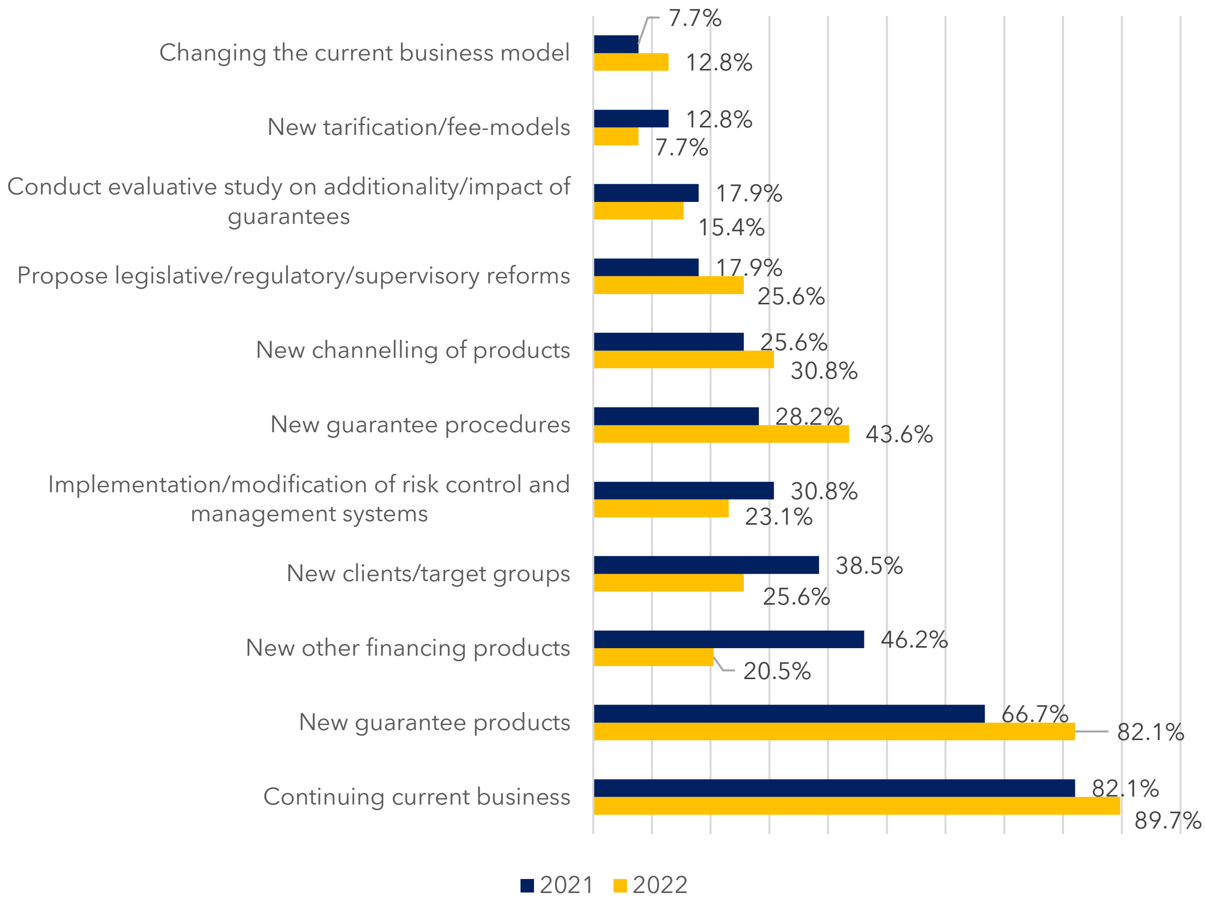
***"Continuing current business"* is again the most frequently mentioned focus of AECM members in 2022.** The share of members mentioning this priority increased substantially from 82.1% to 89.7%. Only during the pandemic year 2020, this priority was not the most frequently mentioned one. It is important to add that there are quite some priorities that gained in significance with respect to last year. The most notable examples are the following:

- *New guarantee products* (82.1%, up from 66.7%)
- *New guarantee procedures (43.6%, up from 28.2%)*
- *Propose legislative/regulatory/supervisory reforms (25.6%, up from 17.9%)*

A significant drop in importance could be observed for the priorities *"New other financing products"* (20.5%, down from 46.2%) and *"New clients/target groups"* (25.6%, down from 38.5%).

It looks as if, following the acute stress that the pandemic imposed on SMEs and guarantee institutions, the latter see themselves turning to and strengthening their core business. Please have a look at the detailed results on the question about priorities below.

Graph 4.10 : AECM members' focus for the years 2021 and 2022



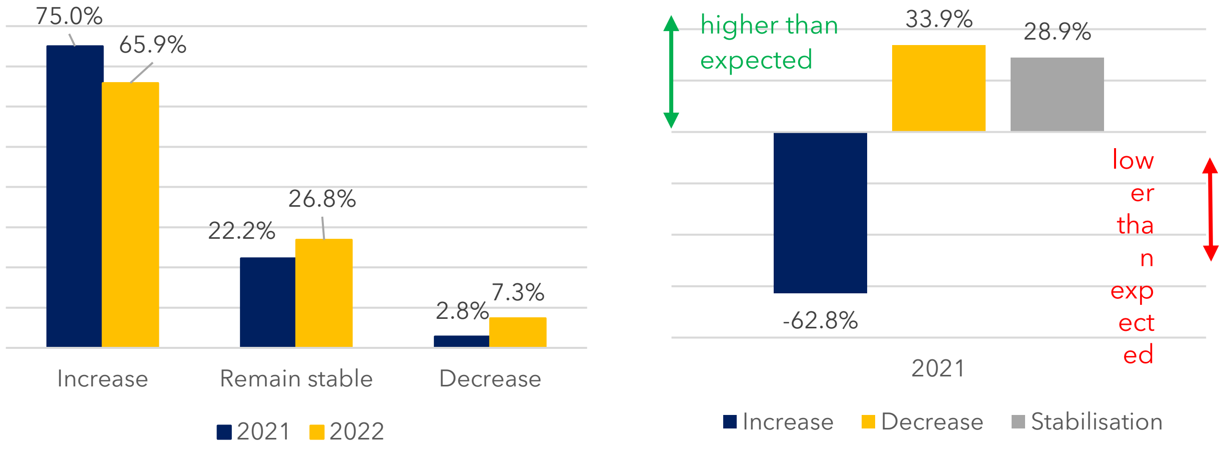
x. Default rates

With respect to last year, the share of members that expect default rates (of outstanding guaranteed loans) to rise decreased from 75.0% to 65.9%. A bit more than ¼ of respondents expect default rates not to change and 7.3% expect them even to decrease.

In this year's survey, we also asked about the development default rates that members observed in 2021 and surprisingly we note that **only 12.2% observed an increase in the default rate despite the still acute pandemic situation**. A vast majority of 56.1% of members recorded a stable development of default rates.

If we compare this observation with the expectation that members expressed previously, we see that an increase in the default rate was observed much less than expected. This is very good news and it hints to some extent to the incredible efficiency with which AECM members intervened in support of small and medium-sized companies suffering from the economic consequences of the Covid-19 pandemic.

Graph 4.11 : Expected development of default rates in 2021 and 2022 (left) and the comparison of the expectation with the respective effective observation (right)

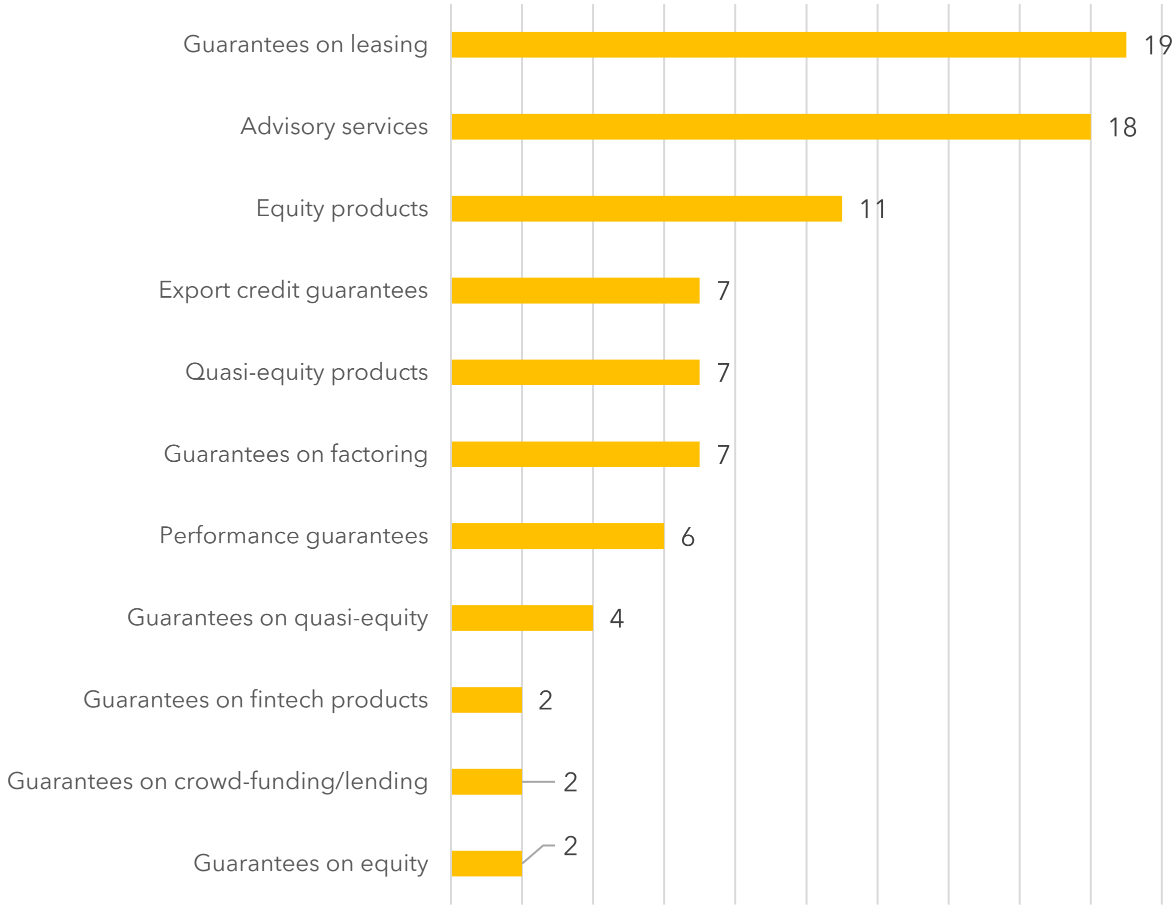


xi. Extra questions 2022

This year, we added an additional one-off questions to our survey in order to better understand which products and services are offered by AECM members besides classical SME guarantees. The answers to this question will notably inform and shape the activities of the newly established AECM Working Group on Products / Services including Non-financial Services.

According to the result, the most frequent product that guarantee institutions offer besides their standard products are leasing guarantees (19 members), closely followed by advisory services (18 members). Innovative products such as guarantees on (quasi-)equity, on fintech products and on crowd-funding/lending are still quite rare. Please have a look at the detailed results below.

Graph 4.12 : Products offered by AECM members besides classical SME guarantees



xii. Comments

As every year, we asked our members to tell us more about the development of the guarantee activity within their respective organisations. Here are their replies:

- **Fonds Bruxellois/BE** informed about the introduction of automatic guarantee products.
- **PMV/z Waarborgen/BE** stated that all measures from different governments within Belgium enabled many SMEs to survive.
- Default rates have been low in 2021. This is partly explained by public measures to help companies but also by entrepreneurs' resilience capacity. **SOWALFIN/BE** is impressed by what its SMEs have done in 2021 and how they managed to continue doing business and to have good results. Nonetheless, an increase in defaults is expected.

- **HAMAG-BICRO/HR** informed that it does not offer any programmes connected to Covid-19, but that it is now more focused on the general economic situation and the reflection on SME business. It is furthermore focused on DNSH (do not significantly harm) regulation in order to comply with regulations due to the usage of the RRF (Recovery and Resilience Fund) for its programmes for individual guarantees and direct loans.
- **NRB/CZ** reported a certain decrease in volumes and numbers between 2021 and 2020. Nonetheless, Covid-19 support remains at a high level. Currently, our Czech member is working on a guarantee programme for SMEs, addressing the sharp increase of energy costs which started on 31th March 2022.
- Covid-19 temporarily increased the demand for **KredEx/EE** guarantees, but does not affect it anymore.
- **Finnvera/FI** informed about a peak in demand caused by the Covid-19 pandemic. It is closely following the development of InvestEU under both, the direct and indirect access.
- **Bpifrance/FR** informed about its development of green guarantees.
- According to **SOCAMA/FR**, the activity in 2021 was significantly higher than in the previous year. However, this evolution is essentially explained by the subscription of state guaranteed loans (PGE) in 2020 by craftsmen, traders and liberal professions. This state-guaranteed offer has limited the use of the SOCAMA guarantee. In order to reflect the economic reality, the SOCAMA are increasing the maximum loan amounts.
- After the initial demand of 2020, the demand for credit in 2021 was lower according to **HDB/GR**. The increase of inflation and the costs of energy and raw material will impose an additional burden on SMEs and they will need to finance this increase with new working capital.
- The evolution of the number of SMEs supported by **TMEDE/GR** depends on the recovery of the Greek economy and the number of public works that are put to tender to TMEDE's members. During the peak of the pandemic, construction work and public tenders in this area stalled as the pandemic had a negative impact on all stakeholders of the construction food chain. As the impact of the pandemic eases, more public works are now being put out to tender and it is reasonably expected that more SME members of TMEDE will be expressing interest in participating in such tenders offering proposals. TMEDE actively supports all its members, presently more than 30,000 SMEs and individual constructors, designers etc. and will be willing to provide participation and good performance guarantees to all its members willing to participate in the new public works opportunities. TMEDE thus expects that as the Greek economy recovers from the impact of the pandemic and as more

public works are being put out for tender financed by EU funds such as the RRF (Recovery and Resilience Fund), there will be an increasing number of SMEs that will be seeking guarantees from TMEDE. During the last semester of 2021, TMEDE established a joint Fund with the **Hellenic Development Bank** offering larger support to its SME members in the constructions sector. The additional and enlarged guarantees are offered by HDB and are funded to a large degree by TMEDE funds. The supported activities extend beyond the traditional public works and include both the private sector and green infrastructure development.

- Crisis programmes offered by **AVHGA/HU** were renewed and made available for a longer period.
- **Garantiqa/HU** prepares for the implementation of the new InvestEU programme.
- The extension of the Temporary Framework is desirable from the point of view of **SBCI/IE** as the full effects of the pandemic have not yet materialised. The corporation reports on the establishment of the new energy efficiency debt product, on retrofitting for individuals for family homes, on a new long term investment scheme as well as on the digitisation of its customer hub.
- In 2022, the **KCGF/XK** will work on the improvement of current products and on the development of new products such as dedicated windows for Energy, Export, Women in Business, Start-ups and Production. The development of these products will be supported by the World bank, KfW and EIB Capital as well as Millennium Foundation Kosovo supported by the U.S. Millennium Challenge Corporation (technical assistance). In addition, the KCGF is in the process of increasing the capital which will be supported by the Government of Kosovo (through an EIB loan). The capital increase will result in the development of new products for strategic sectors and under-served categories.
- **MC/LU** informed that up to now businesses are doing quite well but cautions that the Covid-19 crisis is not yet over and that new dangers will arrive for SMEs due to the Ukraine War.
- **MPME/LU** reported that they were not very strongly affected by the Covid-19 pandemic. They are currently developing an operational management computer application.
- According to **MDB, in Malta** certain economic sectors, particularly those related to hospitality, are still being significantly impacted by Covid-19. In 2022, the bank will launch two new EGF backed instruments, where for the first time uncapped guarantees will be offered.

- Guarantees have been a very important instrument in supporting the mobilisation of funds to respond to the impact of the Covid-19 outbreak, states our **Polish member BGK**. A major challenge will be the restoration of the willingness to do business and to invest in the development of projects, particularly in view of the consequences of the war in Ukraine, rising raw material prices and rising interest rates on credit. BGK calls on the European Commission to offer special support in connection with the war in Ukraine and the sanctions against Russia and Belarus that have been introduced. The activities of many entrepreneurs will require support.
- **FGCR/RO** informed that thanks to the state intervention with the IMM invest programme it seems that the decrease in SME business activity was stopped last year. Currently, the war between Ukraine and Russia will impact SMEs which are working with companies from these countries. FGCR is now implementing the new programme AGRO IMM INVEST, which is a programme that was developed by the state under the Covid-19 Temporary Framework.
- The guarantee activity, meaning the guarantees granted within the Temporary Framework due to Covid-19, has increased according to **FNGCIMM/RO**. These are state guarantees through government programmes. Furthermore, FNGCIMM is currently preparing some further products in the name and account of the state.
- In order to help businessmen and farmers to overcome the negative consequences of the Covid-19 pandemic as efficiently as possible, in 2020 the Provincial Government of Vojvodina prepared guarantee schemes for loans that serve to maintain liquidity. These were realised by the **GF Vojvodina/RS**. The new credit line is intended for micro, small and medium enterprises, as well as for agricultural farms, and in agreement with commercial banks, the duration of this guarantee line was extended until the end of 2022. The guarantee-credit offer will be enriched by the introduction of a completely new guarantee line - the issuance of guarantees for long-term loans to finance climate-sustainable investments.
- **SEF/SI** reported on higher demand, more liquidity problems and more defaulted guarantees.
- Due to Covid-19, **SRDF/SI** expects slightly higher losses in our portfolio (guarantees, own loans and the most liquid Covid-19 loans which SRDF carried out on behalf of the Ministry). SRDF's guarantees scheme is closed and it has only guarantees in portfolio, which were granted between 2015-2018.
- **CESGAR/ES** informed us that Spanish mutual guarantee schemes significantly increased their activity, especially with term extensions and moratoria for SMEs. They are currently promoting and boosting the activity of their

Aquisgrán programme and are establishing a new product oriented towards sustainability, called Aquisgreen.

- Due to the fact that the **Network of Swiss Guarantee Institutions** had to guarantee all the loans of the Covid-19 liquidity programme of the Swiss government, this had a very strong impact on all guarantee institutions in Switzerland.

V Impact Studies & Research

Guarantee institutions are accountable towards their shareholders and to providers of any kind of counter-guarantee or similar support. That is why they engage more and more in the evaluation of their activities and this with the aim to demonstrate their positive impact on the economy.

This section presents in the following a selection of recently published impact studies.

Bpifrance/FR : Evaluation of Bpifrance Loan Guarantee Programme: evidence from a natural experiment

This study analyses the impact of Bpifrance loan guarantee programmes on bank lending, using a break in the distribution process of the scheme. While one would usually be required to run a randomised controlled experiment in which some economic units are randomly assigned to a group eligible to the programme and others are assigned to a control group not eligible to the programme, this Bpifrance study uses the alternative methodology of a natural experiment. This natural experiment exploits the extension of the scope (the volume threshold) of the decision delegation agreements[14].

The first part of the report analyses the characteristics and economic outcomes of SMEs that receive bank loans guaranteed by Bpifrance, and compares them to those of SMEs that receive bank loans not guaranteed by Bpifrance. This analysis is made possible by merging Bpifrance loan guarantee data to the Bank of France credit register data.

The analysis is carried out separately for the business creation guarantee programme and for the business development guarantee programme. One striking fact regarding recipients of the business creation guarantee is that one third of new businesses eligible to the guarantee that receive a bank loan above kEUR 25, have their loan guaranteed by Bpifrance.

Recipients of guaranteed loans are more likely to file for bankruptcy at a three year horizon (12%) than other new firms that receive a non-guaranteed loan (6%). The higher bankruptcy rate of recipients of guaranteed loans is consistent with the fact

[14] The concept of decision delegation could be seen as a hybrid concept between individual guarantees and portfolio guarantees. The guarantees under the decision delegation regime remain granted on an individual basis (line by line). Moreover, there are no overall commitment ceilings or a stop loss, typical for portfolio guarantees.

that the price banks pay to Bpifrance to purchase the guarantee does not depend on the riskiness of the borrowing firm. Therefore, banks have an incentive to purchase the guarantee for riskier loans. On the other hand, it emerges from the data that new firms that benefit from a guaranteed loan are not significantly different in terms of size and productivity than other new firms that do not benefit from the guarantee.

Regarding recipients of the business development guarantee, it is estimated that around 2% of bank loans to established firms (defined as three years old or more) eligible to the guarantee are guaranteed by the business development programme. 6% of established firms that receive a guaranteed loan file for bankruptcy within three years following the obtention of the guaranteed loan, which is 0.5 percentage points higher than for recipients of non-guaranteed loans.

The second part of the report analyses the impact of the extension of the scope of guarantee agreements under decision delegation. The regular procedure foresees individual guarantees with risk assessment performed by Bpifrance. However, loans under a certain threshold may be automatically granted a guarantee without an individual risk assessment undertaken by Bpifrance. In 2015, the threshold below which the automatic procedure applies increased from kEUR 100 to 200. This change is exploited as a natural experiment in order to assess the impact of the automatic procedure. **This natural experiment allows to analyse the impact of providing guarantees under decision delegation instead of classical individual guarantees.**

In a first step, the evolution of the aggregate volume of guaranteed loans in each of the four main Bpifrance loan guarantee programmes after the extension of the automatic procedure in 2015 is analysed. This analysis reveals that the volume of guaranteed loans increased sharply in the business creation programme and in the business development programme, but not in the business transmission programme and in the cash reinforcement programme.

In order to identify the impact of the extension of the automatic procedure the study compares the evolution of lending in the loan size category kEUR 100 to 200, which becomes eligible to the automatic procedure ("treatment group"), to the adjacent loan size categories kEUR 50 to 100 and kEUR 200 to 300 ("control groups"). This comparison allows to filter out the effect of the business cycle on credit demand and isolate the impact of the extension of the automatic procedure.

Regarding the business creation programme, it appears that the volume of bank loans to new firms in the treatment group increased by 6% after the extension of the automatic procedure, relative to the control groups[15]. This

[15] A caveat of the methodology is that, if banks reduce the loan size to make loans fit under the threshold for the automatic procedure, the estimate might be biased upwards. Evidence is provided

increase in bank lending is estimated on the total volume of loans, guaranteed or not. It is moreover found that there are **not any meaningful changes in average profitability, default rate, and bankruptcy rate**.

The study undertakes a tentative cost-benefit analysis of the extension of the automatic procedure in the business creation programme. The cost is that Bpifrance does not break even on the guarantee and the expected losses on the guarantee need to be covered by public funds. The benefit is that more new firms obtain a bank loan and that the guarantee granting procedure is less costly. **At a one year horizon, it is estimated that the extension of the automatic procedure led to the creation of between 460 and 920 new firms per year, and to the creation of between 920 and 1,840 jobs per year in these new firms, at a cost of around kEUR 6 per job.** Importantly, these estimates correspond to jobs created in new firms but not necessarily to net job creation, because the employees of new firms may have been employed by other firms had these new firms not been created.

Regarding the extension of the automatic procedure in the business development programme, the analysis reveals an increase in the volume of guaranteed loans to the treatment group relative to the control groups. However, loans guaranteed by the business development programme represent only about 2% of all loans, which makes it difficult to detect the impact of a change in guaranteed lending on total lending.

Gazaniol, A., Hombert, J., Vinas, F. (2022). Evaluation of Bpifrance Loan Guarantee Program: evidence from a natural experiment. Link

that banks indeed sometimes reduce the loan amount down to the automatic procedure threshold. The study includes an alternative estimator that corrects for the bias induced by this behaviour. The estimated increase in total lending of 6% reported here is the one obtained using the methodology that corrects for this potential bias.

VDB/DE : PwC study on the overall economic benefits and viability of the German Guarantee Banks

The study was conducted on behalf of the German Federal Ministry for Economic Affairs and Energy (BMWi) by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC).

The central task of the 17 regional guarantee banks in Germany is to support small and medium-sized enterprises (SMEs) by providing guarantees for subsidiary collateralisation of loans and guarantees for equity-enhancing financing. They are thus an important instrument within Germany's economic system. The use of guarantee banks to facilitate business growth or start-ups has been repeatedly strengthened in the past against the background of the search for effective economic promotion instruments – here in the form of budget-friendly contingent liabilities. In order to examine the macroeconomic benefits and viability of the guarantee banks a study has been commissioned, the results of which will be summarised below.

In addition to evaluating the application statistics of the guarantee banks, the PwC study comprises three main parts:

- Evaluation of the company survey conducted online,
- Analysis of the economic cost-benefit ratio; and
- Assessment of future challenges that guarantee banks are facing.

I. Evaluation of the company survey conducted online

A total of 735 medium-sized enterprises from the current portfolio of the German guarantee banks were surveyed by PwC in an online survey and asked for information on their experience with the guarantee banks. One result of this survey is that the guarantees provided by the guarantee banks support investment with a regional impact and that they fulfil the regional promotional objective.

The most common reason for applying for a guarantee is concrete instructions from the bank or fulfilment of collateral requirements. The optimisation of credit costs plays a minor role here. Rather, it shows that guarantees are suitable for gaining access to bank financing if otherwise insufficient collateral is provided.

According to the companies surveyed, the provision of credit guarantees has produced significantly positive results. **79% of the participating companies stated that their turnover had increased. In addition, 75% of companies were able to see an improvement in their annual results after funding. 77% of farms stated that the number of employees could be increased.** A significant positive assessment was also made following the guarantee commitment for the developments in the competitive situation (59%), market shares (47%) and creditworthiness (47%). **62% of the companies surveyed stated that the guarantee was a prerequisite for financing by the house bank and that they would not have received**

financing without the guarantee – a further 36% would not have received the necessary financing in full or only under difficult conditions.

Only 2% of the companies estimate that they would have received financing from the house bank without a guarantee.

- On this basis, it can be concluded that the deadweight effect of guarantees provided by the guarantee banks is rather small. Moreover, guarantees are suitable for realising viable projects that do not dispose of sufficient collateralisation from the bank's point of view and for counteracting market failures in the area of SME finance.
- 78% of the participating companies, which used a guarantee, were satisfied with the support of the guarantee banks. However, the guarantee fee and the collateralisation requirements were considered too high by some respondents and the handling was considered too inflexible on a case-by-case basis.

II. Analysis of economic cost-benefit ratio

In its study, PwC analyses the cost-benefit-relation and reached i.a. the following conclusions:

- **The average investment stimulus resulting from EUR 1 of public guarantee is around EUR 2.12.**

As a result of the annual new guarantee emission, **Germany has an average GDP effect of EUR 2.8 billion per annum. In the period under review (2009-2018), the resulting employment effect is on average more than 40,000 jobs created or secured each year.** Annual tax revenue amounts to more than EUR 630 million and social security contributions approximately EUR 460 million. In addition, the state saved almost EUR 80 million of social transfers per annum due to the employment effect.

The public default payments made by the federal and the regional governments amount to around EUR 66 million per annum. If the positive and negative budgetary effects are offset against each other, this results in a **monetary net effect of EUR 1.1 billion per annum on average.**

The economic benefits for the economy from the activities of the guarantee banks exceed the resulting costs by 17 times, which represents a high cost-benefit ratio of 1:17.

III. Future challenges facing guarantee banks

High margin and competitive pressures force banks to significantly reduce costs, in particular by increasing the efficiency of processes.

Overall, based on the PwC analysis, the guarantee banks in Germany play a crucial role in SME financing. Not only young enterprises in the start-up phase benefit from the activity of the guarantee sector, but also established enterprises in the context of the collateralisation of business transfer finance. Access to the guarantee programme for SMEs benefits from low restrictions and is therefore accessible for a wide range of companies.

One of the main strengths of the guarantee banks' practice is that the applicants' business models are usually assessed individually; this allows guarantee banks to take as many factors as possible into account for their guarantee decisions.

A significant weakness and thus a latent risk to future business development lies in the market access and the high degree of dependence on the house banks.

It appears that collateralisation and documentation requirements of the guarantee banks are sometimes higher than those of the house banks. Furthermore, the additional costs for involving a guarantee in the financing process represent in the current low interest rate environment a disproportionate share of the total credit costs. These factors constitute obstacles to the involvement of the guarantee banks in the financing project by the house bank. There is therefore a risk that the house banks will increasingly rely on the guarantee banks only in the event of poor credit quality and in a more difficult economic environment.

In order to counter this development, changes in market access (strengthening direct distribution) and in the guarantee product should be considered.

Approaches to product change or recommendations for action could include:

- The collateral and documentation requirements should be aligned with the current credit allocation guidelines of the house banks.
- The guarantee fees should be adjusted. This could be achieved by reducing costs through more efficient processes and the use of new technologies, including through a nationwide centralised organisation of certain tasks and functions (instead of a decentralised organisation by the respective regional guarantee banks).
- Decision-making processes in small-scale lending should be more automated or implemented with KPI support.
- KPI-based credit decisions in the segment of smaller loans would also contribute to a more efficient and rapid decision-making process without the prior involvement of the Guarantee Committee.

According to the PwC study, the overall challenge for the guarantee banks is to keep pace with market developments while maintaining important differentiation features. These include in particular the individual and personal risk assessment and advice to final borrowers in the regions.

The study was conducted between 11.07.2019 and 31.01.2020 and was presented due to the coronavirus pandemic in the third quarter of 2021.

Further links:

VDB association report with annual statistics from guarantee banks and guarantee companies: www.vdb-verbandsbericht.de

Association of German guarantee banks (VDB): www.vdb-info.de

IT : A survival analysis of public guaranteed loans: Does the financial intermediary matter?

Introduction

The aim of this study is to assess the financial sustainability of the public Italian guarantee fund "Fondo Centrale di Garanzia" (Central Guarantee Fund, hereafter CGF) by analysing the failure risk of guaranteed loans, especially with regard to differences in failure risk depending on the type of financial intermediary. Furthermore, it enquires if these differences depend on firms' informational opacity.

In Italy, the CGF either directly guarantees SME loans issued by commercial banks or it counter-guarantees SME guarantees issued by mutual guarantee institutions (MGIs) to the financing banks. During the period of 2007–2009, the CGF issued bEUR 5 in guarantees, which allowed SMEs to obtain approximately bEUR 9.5 in loans.

Theory and Research

Default risk is monitored by many credit guarantee schemes (CGSs) via complex scoring models that primarily analyse borrowers' financial data and, consequently, their repayment capacity. When borrowers are SMEs, however, the analysis of hard information (related to balance sheet data) is difficult due to their informational opacity. Thus, the assessment of soft information is key.

According to Bartoli et al. (2013) an MGI can serve as a substitute for relationship lending. **MGIs play a crucial role through their peer screening and monitoring effects. This allows them to prevent some of the moral hazard problems that limit SME credit availability**.

A guarantee entails a fee. That is why it is only requested by riskier firms that would not receive a loan without a guarantee or only with a high risk premium. This leads to adverse selection. Nevertheless, when MGIs implement scoring and rating models that enable firms' eligibility to be assessed and borrowers to be carefully screened, as is the case for loans counter-guaranteed by the CGF, the positive effect of **MGI members' peer screening and peer monitoring activities may more than adequately compensate for the adverse selection effect**.

Compared to situations in which only banks are involved, the peer screening activity of the MGI allows each member to be better informed of the riskiness of other members. In fact, if an SME exhibits a level of risk that is too high, other members of the MGI may not accept its membership. The presence of MGIs also reduces moral hazard through 'peer monitoring'. Members of MGIs have an incentive to monitor one another since the cost in case of default is shared among them.

Most of the scientific literature on CGS focuses on financial and economic additionality. This article, however, aims to analyse a third perspective, that of financial sustainability. It investigates the impact of public guarantees on loans' probability of default by considering individual firm-loan observations.

Previous studies indicate a better performance of MGIs with respect to commercial banks when it comes to screening and monitoring of opaque SMEs. It is therefore expected that the failure risk for public guarantees requested by MGIs is lower than that of direct guarantees granted to banks.

Asset tangibility reduces information asymmetry problems and opacity allowing for a reduction of the monitoring activity of lenders. This is especially the case for sectors with greater concentration of tangible assets (e.g. manufacturing). When opacity is lower and monitoring and screening activities depend more on the management and evaluation of hard information, the authors expect that banks will be more efficient than MGIs.

Data

The present analysis uses a Cox proportional hazards model and a confidential dataset covering approximately 15,000 loans that were granted between 2007 and 2009 and observed until 2012. For each transaction, the database records the following information: size, geographical area, economic sector of the guaranteed firm, exact date the guarantee was granted, amount, expiration date of the guaranteed loan, type of guarantee (direct or counter-guarantee), type of intermediary (bank or MGI) and the exact date of default.

51% of the counter-guarantees requested by MGIs are for micro firms, 39% are for small firms and 10% are for medium firms. Meanwhile, in the sample of guarantees requested by banks, the percentages are as follows: 38% for micro firms, 42% for small firms and 20% for medium firms. Younger firms are more frequently intermediated by an MGI (32%) than by a bank (13%).

Findings

A first analysis of the data reveals that counter-guaranteed firms have a worse performance in terms of profitability, leverage and total asset turnover. The scoring of firms intermediated by banks (9.14) is slightly higher than the scoring of those intermediated by MGIs (8.63). A look at the loans' characteristics shows that when a guarantee is intermediated by an MGI, firms borrow loans of smaller amounts (with a value of 11.81, corresponding to an average amount of kEUR 227.1) and with shorter maturities (47 months) compared to the situation where guarantees are directly absorbed by banks (loans, in the latter case, have a value of 12.29, corresponding to an average loan amount of kEUR 357.9 and an average maturity of 64 months). In all cases, the differences in mean values are statistically significant. Finally, it is observed that **the default rate is higher for directly guaranteed loans than for**

counter-guaranteed loans and this despite the fact that firms guaranteed through banks exhibit stronger financial characteristics.

To test the stated hypotheses, the authors ran a Cox proportional hazards model allowing to explore the relationship between loan survival and several explanatory variables. The hazard function is determined by a set of covariate coefficients that measure the impact of covariates on the survival time. The covariates are divided into two main groups of variables: a) the vector that includes the firms' financial characteristics and b) the vector that includes the loans' characteristics.

As a result, the survival functions reveal that, at any point in time, the use of a bank as the intermediary in the relationship with the CGF is associated with a lower survival rate. **Loans directly guaranteed by the CGF are more likely to default than loans counter-guaranteed by the CGF suggesting that MGIs perform better than banks in screening and monitoring the activities of the borrowers. Thus, MGIs are usually better able than banks to mitigate the risk of loan default.**

Finally, the **results indicate that for younger firms, the failure risk of counter-guaranteed loans is 2.13% lower than that of directly guaranteed loans**. Banks, however, seem to have better results regarding the financing of manufacturing firms. In this case, the failure risk of directly guaranteed loans is 0.50% lower than that of counter-guaranteed loans.

Several robustness checks were undertaken. As a result, the **hazard ratio of loans issued by banks is found to be 4.54% higher than that of loans counter-guaranteed by MGIs. The presence of a counter-guarantee for loans granted to younger firms reduces the failure risk by 2.75%.**

These results confirm the hypothesis that MGIs are compared to banks better able to mitigate the risk of default, thanks to their peer monitoring and peer screening. This is especially true in relationships involving informationally opaque firms. MGIs seem to be better able than banks to manage soft information.

Lastly, the study recommends that given their proven ability to help address financial market imperfections, guarantee institutions should be reinforced through EU programmes such as COSME and InnovFin and national public CGSs should receive counter-guarantees from these programmes. This would entail several advantages, such as a greater leverage effect, a more efficient support for SMEs and the involvement of a large number of experts with specific local knowledge and expertise.

Caselli, S., Corbetta, G., Cucinelli, D. , Rossolini, M. (2021). A survival analysis of public guaranteed loans: Does financial intermediary matter?, Journal of Financial Stability. Link

BGK/PL : Outcomes of de minimis and COSME Guarantee Schemes – Report from the 2021 Study

The Department of Research and Analysis of BGK undertook a study on the performance of both the de minimis guarantee as well as the COSME guarantee which was published in November 2021.

The programmes and their production

The support under the de minimis Portfolio Guarantee Facility has been provided by BGK since mid-March 2013. Since then, BGK issued de minimis guarantees worth bPLN 115 (bEUR 24.8) securing loans worth bPLN 185.7 (bEUR 40.1). At that time, the value of the COSME guarantee amounted to around bPLN 6 (bEUR 1.3), which translated into a total loan value of bPLN 7.7 (bEUR 1.6). From 2013 to 2021, a total of around 455k loans granted to nearly 211k different companies were covered by de minimis guarantees. In turn, the COSME guarantee in 2016-2021 secured around 35k loans granted to almost 30k different companies. While the de minimis guarantee covers 17.0%, the COSME guarantee covers 1.7% of all SME loans in Poland. During the pandemic, the de minimis guarantees allowed to cover a maximum up to 80% of the loan principal amount and, the COSME guarantee allowed to cover 80% of the loan principal amount. EIF-backed COSME guarantee facilities have proven to be largely complementary to the governmental *de minimis* guarantees scheme rather than a competitive product.

Methodology

The questionnaire survey conducted for the purpose of this report covers de minimis and COSME guarantees that were extended between 1 March 2020 and 31 December 2020.

The control sample comprises entities that, due to their size, sector, revenues, region and extent of activity, resemble the structure of BGK guarantee users but have not taken any guarantee-backed loans.

Two analytical approaches were used in this study to assess the effect of BGK guarantees on the financial gap:

I. Only those businesses that admitted they would not have obtained financing without BGK guarantees are considered to be in the gap (narrow approach);

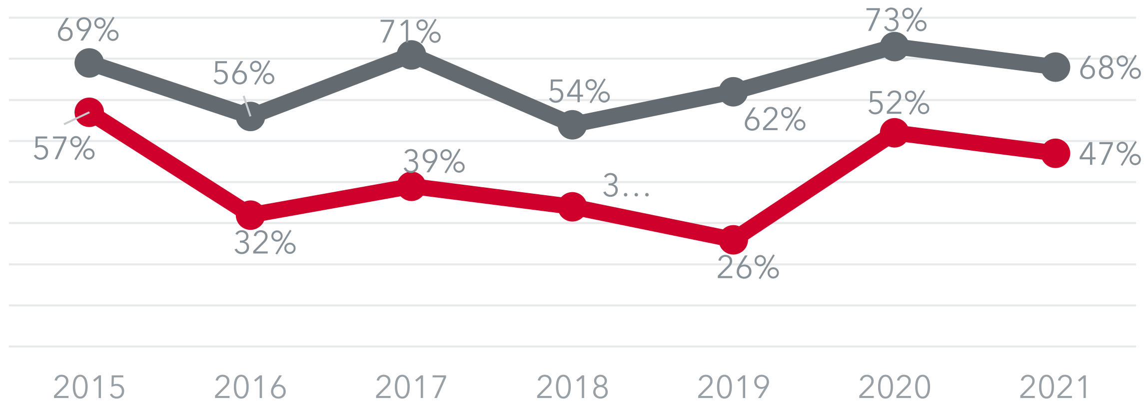
II. Businesses that admitted they would not have obtained financing without BGK guarantees or they would have obtained it on less favourable terms than the terms applied for are considered to be in the gap (broad approach).

Impact results

The study reveals that **48% of enterprises that have obtained a loan with a BGK guarantee would not have received funding without the support of the de**

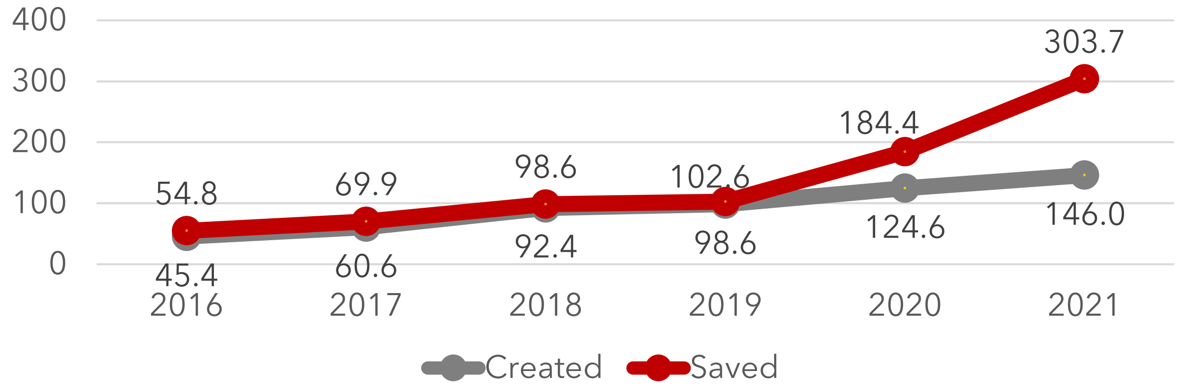
minimis or the COSME guarantee. The results of the study further indicate that the value of the additional loans (for firms in the financial gap) generated between 2014 and 2021 thanks to the guarantee support from BGK amounts to bPLN 66.5 (bEUR 14.4) which represents 36.5% of the total loans secured by de minimis guarantees. These additional loans are assumed to fill the existing financial gap between 2014 and 2021 that Polish SMEs experience in getting access to finance.

Graph 5.1 : Percentage of companies that would not have received a loan (red) or would have received it under less favourable conditions without the de minimis guarantee (grey) – results for research from individual years



Whereas in the whole SME sector nearly one in nine companies declare that they have reduced their employment within twelve months prior to the survey, for companies that have obtained the de minimis or COSME loan in 2020, such declarations are made by every eleventh company. Even bigger differences can be observed in employment growth. Throughout the SME sector, only one in twenty companies increased employment in the twelve months preceding the survey. In the group of beneficiaries of the BGK guarantee, employment increased by one in six companies. **In total, between 2014-2021, 303.7k jobs were saved and 146k jobs were created thanks to additional credit generated by the de minimis guarantees.**

Graph 5.2 : Number of jobs created and retained by additional de minimis credit (cumulative values) [thousand]



A further finding of the study is that 73% of the companies with the COSME loan and 66% of the beneficiaries of the de minimis guarantee have improved their liquidity situation over the past year. 99% of them state that this was possible thanks to the BGK guarantees.

Regarding the business performance of beneficiaries, the study shows that companies supported by BGK guarantees have achieved significantly better results in the last twelve months than similar companies that have not benefitted from guarantee support, and also significantly better than all SMEs. However, the definitive direction of causality cannot be inferred from this observation. While 25.3% respectively 20.0% of beneficiaries of the de minimis and the COSME guarantee observed an improvement of their market position over the last twelve months, only around 7.8% of the control group did so. The advantage of beneficiaries regarding an increase in turnover is very slight.

The study moreover finds evidence for the positive impact of BGK guarantees on innovation. **43% of the investments made by the beneficiaries of the de minimis guarantee were innovative, while the whole SME sector has an innovation focus of only 14%.**

The following table summarises the effects of BGK guarantees.

Graph 5.3 : Effects of guarantees in different business groups

	Beneficiaries of the de minimis guarantee	Beneficiaries of the COSME guarantee	Control (without guarantee)	SMEs in general
Improving financial liquidity	66,3%	73,4%	22,9%	21,8%
Growth in turnover	24,0%	24,2%	21,1%	20,0%
Employment growth	16,7%	16,4%	5,5%	4,5%
Improving market position	25,3%	20,0%	7,8%	8,8%
Export development	4,5%	3,9%	11,0%	3,4%
The company made an investment	28,2%	24,8%	25,1%	14,1%
The company has made investments of an innovative nature	12,1%	7,5%	7,4%	2,0%
Average value of the positive effects index of the previous year (scale 0 -7)	**1,77**	**1,70**	**1,01**	**0,75**

Covid impact

In March 2020, de minimis guarantees became one of the key elements of the anti-crisis shield to help businesses tackle the effects of the crisis caused by the Covid-19 pandemic. The conditions under which these guarantees are granted to Polish SMEs were significantly improved. This resulted in a marked increase in the use of this instrument.

72% of the recipients of the de minimis guarantee and 62% of the recipients of the COSME guarantee state that the funding received with the guarantee helped their company survive the crisis caused by the Covid-19 pandemic. Even slightly higher are the percentages of companies claiming that the financing provided by the BGK guarantees helped to stabilise the financial situation of the company (76.7% for companies with the de minimis guarantee and 69.5% of the beneficiaries of the COSME guarantee).

CESGAR/ES : Report on the level of financial additionality and economic additionality of IBERAVAL, SGR's operations in 2017

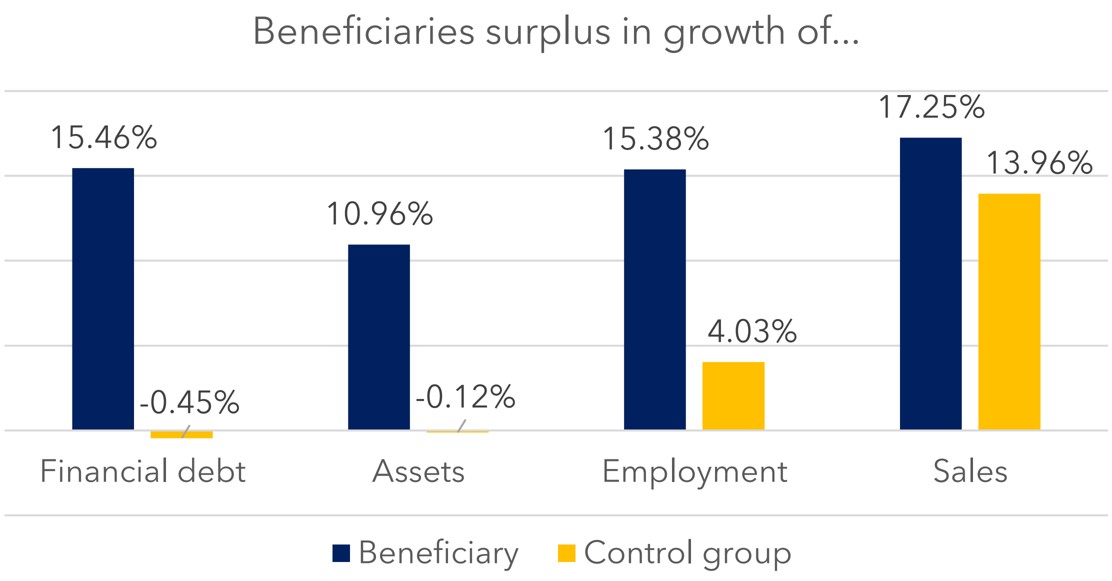
This report on the financial and economic additionality provided by IBERAVAL has been elaborated by experts from Loyola Andalucía University and the University of Cordoba, with the collaboration of IBERAVAL, SGR's Department of Information Technology. It is based on economic and financial data of the commercial companies served by IBERAVAL and on information on a group of companies that acts as a counterfactual. The empirical strategy used for the analysis of financial and economic additionality is the Difference-in-Differences methodology following a statistical matching process.

The results show a **very positive effect of IBERAVAL's activity on beneficiary companies. These increased their financial debt more than non-guaranteed companies (financial additionality).** The growth of financial debt was 15.81% higher in guaranteed companies compared to non-guaranteed companies. Beneficiary companies increased their financial debt by 15.46%, while in non-beneficiary companies it decreased by 0.45% between 2016 and 2017.

This higher level of financing resulted in beneficiary companies showing a higher growth in resources compared to non-guaranteed companies (economic additionality). Whereas beneficiary companies registered an increase of 10.96% in assets, non-beneficiary companies observed a decrease of 0.12% between 2016 and 2017. **Beneficiary companies increased employment by 15.38%, while in non-beneficiary companies it increased by 4.03% between 2016 and 2018.**

Increased funding also leads to an improvement in the level of income. This can be seen in the **beneficiary companies' increase in sales growth by 17.25% between 2016 and 2018. In comparison, non-beneficiary companies registered only an increase of 13.96%.**

Graph 5.4 : Overview of the impact of Iberaval's guarantee support



Carbonero Ruz, M., Molina Sánchez, H., Ramírez Sobrino, J. (2021). Report on the level of financial additionality and economic additionality of IBERAVAL, SGR's operations in 2017. Link

NSGI/CH : Firms' participation in the Swiss COVID-19 loan programme

This study analyses the determinants of the participation of Swiss companies in the public Covid-19 loan support programme implemented by the four Swiss guarantee institutions represented by the AECM member NSGI.

The Programme

The Swiss federal government reacted quickly to the looming economic consequences of the Covid-19 outbreak by setting up an immense loan support programme in March 2020.

The programme was open to the vast majority of Swiss enterprises, just excluding around 300 firms with an annual turnover of more than mCHF 500 (mEUR 524). The guarantee could cover loans for an amount up to 10% of a company's annual turnover (up to a maximum of mCHF 20) and with a maturity of five years. Loans of up to kCHF 500 were guaranteed 100% by the state. Tranches exceeding this amount benefitted from a 85% coverage. The first tranche bore an interest rate of 0% and the second tranche of 0.5% for the guaranteed part in the first year. Access to the loans was quick. The money was usually disbursed within a day. However, there were some restrictions on the programme, for example the programme does not allow to finance investments.

The uptake of the programme was massive with 20% of all Swiss firms participating. This participation was unevenly distributed both over regions and over sectors. While participation (in absolute terms; volume and numbers) was highest in the Zurich canton, it was lowest in the Appenzell Innerrhoden canton. The sector with the highest participation rate (again in absolute terms) was the hospitality sector in terms of numbers and the wholesale sector in terms of volumes and the lowest sectoral participation rates were measured in agriculture, mining and in the utilities sector. The overall vast participation in the programme resulted in a considerable programme volume of 2.4% of Swiss GDP.

Literature review and Theory

The present study builds on the existing literature on the Swiss loan support programme. The following section gives an overview of the most pertinent studies:

Brülhart et al. (2020) found that lockdown restrictions are positively related with the usage of both short-time work and Covid-19 loans. However, they found that lockdown restrictions are less important for explaining the participation in the loan programme than for explaining the participation in other government support programmes. Moreover, they found that previously indebted firms are more likely to take up Covid-19 loans.

Zoller-Rydzek and Keller (2020) showed that there seems to be no evidence that the loan support programme creates zombie firms. In their model, a zombie firm is a firm that survives the crisis thanks to the programme but cannot repay the debt.

Kaufmann (2020) found in his study that higher loan supply due to the programme indeed reduces unemployment, with approximately kCHF 400 of loan volume needed to save one job.

Credit creation is usually determined by the matching of loan supply and demand. However, due to the structure of the loan support programme as well as the coordinated and complementary policy measures taken, participation was exclusively determined by firms' demand. Loan supply was almost perfectly elastic since banks had no incentive to reject loan applications. The reasons for this were low or absent credit and liquidity risks as well as accommodating regulatory measures by the Swiss financial market supervisory authority (FINMA).

The Study

The study aims to identify the determinants of firm participation. It builds on a comprehensive dataset combining various data sources. In particular, it matches the complete set of firms in Switzerland from the register of commerce (BUR database) to the list of firms participating in the loan programme (JANUS database). Using these data, the authors analyse firm participation in the Covid-19 programme by estimating a binary response model.

The analysis is run on the following potential determinants of firm participation in the loan support programme:

Firm's sensitivity to the lockdown was measured by a lockdown index relying on physical proximity as well as by a home office index relying on the possibility to perform tasks at home. Both indices are constructed based on survey data. These indices are complemented by two indicators of business activity, the proportion of firms using the Swiss short-time work scheme in a given sector within a canton as well as data on retail card payments that serve to compute the year-on-year percentage change in transaction values for April 2020.

The intensity of the virus spread is measured by cumulative cases and by the cumulative number of fatalities in the respective canton.

The broader group-level liquidity is measured by a cash to assets ratio. Additionally, a more granular liquidity ratio consisting of the ratio between liquid asset to short-term debt, is used. External financing is measured by the proportion of firms with external financing (both bank and non-bank debt) in 2016 and by the debt to asset ratio. Firm profitability is measured by the profit margin as well as the profit to interest payment ratio.

In order to check whether the programme was more extensively used by zombie firms, these are defined as companies with high indebtedness and low profitability.

After having modelled the potential determinants of loan demand, the authors disentangled the different determinants with the help of a standard logit model which allows to assess each determinant of the demand while keeping other factors constant.

The Results

The study finds that participation in the programme was largely driven by the exposure of a firm to lockdown restrictions as well as by the intensity of the virus in the specific region. Secondly, it shows that firms associated with lower liquidity ratios had a significantly higher probability of participating in the programme. Furthermore, the study reveals that there is no clear evidence that firm indebtedness affected participation in the programme, and importantly, that there is **no evidence that "zombie firms" participated more strongly in the loan programme. And finally, it shows that the programme reached younger and smaller firms, which could be financially more vulnerable as they are less likely to obtain external funding during a crisis**. These results are successfully checked for robustness. They are graphed here below:

Graph 5.5 : Impact results

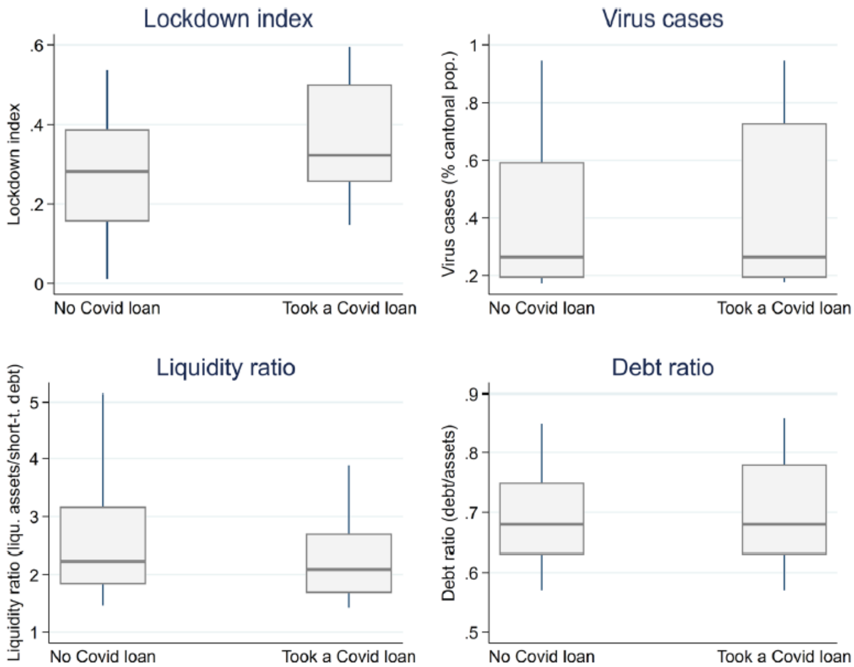


Fig. 3 Main explanatory variables by firm participation. *Sources*: FSO (BUR), JANUS, Faber et al. (2020), SECO, SNB, FOPH, FSO, CompNet. See main text for details. *Notes*: The distribution of the variables' values by firm participation is shown. The liquidity and debt ratios are at the sector-canton level. The median is boxed around the 25th and 75th percentiles. The whiskers are the 10th and 90th percentiles, respectively

One can conclude, that measured by its objectives, the programme was successful.

Fuhrer, L., Ramelet, M., Tenhofen, J., (2021). Firms' participation in the Swiss COVID-19 loan programme. Swiss Journal of Economics and Statistics Link

Table 1 : Empirical evidence for the effectiveness of guarantee institutions

Study	**Geo**	**Data[a]/ Methodology**	**Financial additionality**	**Microeconomic additionality**	**Macroeconomic additionality**	**Results**
Schmidt, Elkan (2006)	DE	B, U/ Macroeconomic simulation model	60%/82%[b]/95%[c] credits+, 40% interest-, 43% information+	67%[b]/72%[c]/79% investments+, 22%[b] investment volume+, 60% jobs+, per guarantee 7.5 jobs+, default rate-	Net benefit+, GDP multiplier 3.2, investment multiplier 2.1	
Kramer (2008)	DE	B, U/ Simulations	67% security+, 33% information+	Per mEUR 1 of counter-guarantee mEUR 64.1 investments+ and 2,000 jobs+		
Neuberger, Räthke (2008)	DE	U/ Descriptive	50% credits+, 23% credit volume+, 9% interest-, 16% credit volume+, after support 71% credits+	61% turnover+, 59% market share+		
Zecchini, Ventura (2009)	IT	B, C/ OLS, IV, DID	Credits+, interest-	Default rate-		
Carbonero et al. (2019)	ES	DID, Matching	20% credits+	Investment+, employment+, 12% assets+, 12% turnover+		
Carbonero et al. (2021)	ES	DID, Matching	15.46% credits+	11% assets+, employment+, 17% turnover+		
Columba et al. (2010)	IT	K, U/ OLS	Interest-, information+			
Crowling (2010)	UK	U/ Matching, regressions, cost-benefit-analysis	Credits+	Investments+, turnover+, employment+, productivity+	GDP+, net benefit+, GDP multiplier 1.05	
Federal ministry of economy and technology (2010)	DE	U/ Descriptive	90% credits+, interest-			
Garcia-Tabuenca,	ES	A, B/ ANOVA, Kruskal-Wallis, factor and	Credits+, interest 0	Productivity+		

Crespo-Espert (2010)		regression analyses				
Lelarge et al. (2010)	FR	A, B/ Matching model	Credit volume+, interest-	Turnover+, employment+, default rate+		
Schmidt, Elkan (2010)	DE	B, U/ Macroeconomic simulation model		71%[b]/60%[c] investments+, 31% turnover+	Net benefit+	
Althammer et al. (2011)	DE	B, U/ Descriptive	67% credits+, interest-, information 0	100%[c] investments+	GDP+, employment+	
Mistrulli et al. (2011)	IT	A, U/ OLS, Probit	Credit volume+, interest-	Default rate+		
Allinson et al. (2013)	UK	U/ Matching, OLS, cost-benefit-analysis	Credits+	Growth+, employment+	Net benefit+, GDP multiplier 7.1	
Bartoli et al. (2013)	IT	C/ IV	Credits+, information+			
Valentin, Henschel (2013)	DE	U/ Descriptive	68% credits+, 68% regular information+, 49% information+, 43% credit relation+			
Boschi et al. (2014)	IT	B, C/ DID	Credits+/-			
Breemersch et al. (2014)	BE	A, B, C		Growth+, employment+, value added+		
Asdrubali, Signore (2015)	CE-SEE	A, C/ PSM, CEM, DID		Turnover+, employment+, short-term productivity-		
Holtemöller et al. (2015)	DE	Macroeconomic simulation model			Net benefit+, GDP multiplier 1.3-1.5	
Briozzo, Cardone-Riportella (2016)	ES	A/ ATE		Assets+, turnover+, assets/turnover+, employment+, turnover/employment+		
Gai et al. (2016)	IT	B, C/ Logit		Default rate+		
Muller et al. (2017)	UK	A / PSM, DID		Turnover+, employment+, default rate-	Net benefit+	

Neuberger et al. (2017), Hennecke et al. (2019), Hennecke, Neuberger (2020)	DE	B, K, U/ Macroeconomic simulation model	59%/63%[b]/89%[c] credits+, 19% credit volume+ and interest-, 6% credit volume 0 and interest-, 15-25% credit volume+,85%[b]/78%[c] interest-, 35%[b]/36%[c] information+, after support 84% credits+, 57% interest-	70% turnover+, employment+, default rate-	Net benefit+, GDP multiplier 1.15-1.22	
Bertoni et al. (2018)	FR	A/ PSM, CEM, DID		Assets+, turnover+, employment+, default rate-, productivity +/-		
De Blasio et al. (2018)	IT	B, K/ RDD	Credits+, interest 0	Investments 0, default rate+		
Duarte et al. (2018)	PT	A, B/ Regressions	Long-term credits+			
Rodrigues et al. (2018)	PT	A, B/ DID, Input-output-analysis	Credits+, interest-, information+	Investments+, employment+, short-term profitability-, default rate-	GDP+	
Barrot et al. (2019)	FR	A, B / OLS		Employment+	Net benefit+	
Bertoni et al. (2019)	BE, DK, FI, IT, LU, NL, NO, SE	A, C/ PSM, CEM, DID		Assets+, turnover+, employment+, immaterial assets+, default rate-		
Brault, Signore (2019)	EU	A, C/ PSM, CEM, DID		Assets+, turnover+, employment+, immaterial assets+, default rate-		
Carbonero Ruz et al. (2019)	ES	B / DID, ANOVA	Credits+	Assets+, employment+, growth+		
Martín-García,	ES	A/ OLS, PSM	Credits+	Turnover+, investments+		

Santor (2019)						
Amamou et al. (2020)	EU	PSM, DID		Employment+		
Bpifrance (2020)	FR	A, B / PSM, DID		Default rate-, growth+, employment+		
Ciani et al. (2020)	IT	C/ IV	Credits+, interest-			
D'Ignazio, Menon (2020)	IT	B, K/ IV	Long-term credits+, interest-	Investments 0, default rate+		

[a] A : Administrative data, B : Guarantee institution data, C : Commercial data, K : Credit bureau data, U : Survey data; [b] established companies, [c] start-ups, [d] company takeovers; positive, mixed, negative results; table based on Neuberger (2020), adapted by AECM.

List of Literature

Allinson, G., Robson, P., Stone, I. (2013). "Economic Evaluation of the Enterprise Finance Guarantee (EFG) Scheme". Link

Albertazzi, U., Bijsterbosch, M., Grodzicki, M., Metzler, J., Ponte Marques, A. (2020). "Potential impact of government loan guarantee schemes on bank losses". Financial Stability Review, May 2020. Link

Althammer, W., Hoßfeld, O., Siegert, G. (2011). "20 Jahre Bürgschaftsbank Sachsen: Effekte auf die wirtschaftliche Entwicklung in Sachsen." Study mandated by the Guarantee Bank of Saxony. Link

Amamou, R., Gereben, A., and Wolski, M. (2020). *"Making a difference: assessing the impact of EIB's funding to SMEs."* EIB Working Paper. Link

Asdrubali, P., Signore, S. (2015). "The economic impact of EU guarantees on credit to SMEs: Evidence from CESEE countries". EIF Working Paper 2015/29. Link

Barros, J., Martin, T., Sauvagnat, J., Vallée, B. (2019). *"Employment Effects of Alleviating Financing Frictions: Worker-level Evidence from a Loan Guarantee Program".* In Proceedings of Paris December 2019 Finance Meeting EUROFIDAI-ESSEC. Link

Bartoli, F., Ferri, G., Murro, P., Rotondi, Z. (2013). "Bank–firm relations and the role of Mutual Guarantee Institutions at the peak of the crisis". Journal of Financial Stability, 9, 90–104. Link

Bertoni, F., Brault, J., Colombo, M., Quas, A., Signore, S. (2019). "Econometric study on the impact of EU loan guarantee financial instruments on growth and jobs of SME". EIF Working Paper 2019/54. Link

Bertoni, F., Colombo, M., Quas, A. (2018). "The effects of EU-funded guarantee instruments of the performance of small and medium enterprises: Evidence from France". EIF Working Paper, No. 2018/52. Link

Boschi, M., Girardi, A., Ventura, M. (2014). "Partial credit guarantees and SMEs financing". Journal of Financial Stability, 15, 182–194. Link

Bpifrance (2020). *"Evaluation de l'impact économique des fonds de garantie de place opérés par Bpifrance."* Link

Brault, J., Signore, S. (2019). "The real effects of EU loan guarantee schemes for SMEs: A pan-European assessment". EIF Working Paper, No. 2019/56. Link

Brault, J., Signore, S. (2020). "Credit Guarantees in the COVID-19 crisis – Relevance and Economic Impact". SUERF Policy Note, issue no 176, June 2020. Link

Breemersch, K., Decramer, S., Lecocq, C., Reynaerts, J. (2014). *"Economische analyse van de Waarborgregeling"*. Link

Briozzo, A., Cardone-Riportella, C. (2016). "Spanish SMEs' Subsidized and Guaranteed Credit during Economic Crisis: A Regional Perspective". Regional Studies, 50, 496–512. Link

Brülhart, M., Lalive, R., Lehmann, T., & Siegenthaler, M. (2020). COVID-19 financial support to small businesses in Switzerland: Evaluation and outlook. Swiss Journal of Economics and Statistics, 156(15), 1–13. Link

Carbonero Ruz, M., Molina Sánchez, H., Pombo González, P., Ramírez Sobrino, J. (2019). *"Evaluation of the financial and economic additionality of IBERAVAL, SGR in 2016."* Link

Carbonero, M., Molina, H., Ramirez, J.N. (2021). Evaluacion Adicionalidad Financiera 2021, Iberaval. Link

Caselli, S., Corbetta, G., Rossolini, M., Vecchi, V. (2020). "Public Credit Guarantee Schemes and SMEs' Profitability: Evidence from Italy". Journal of Small Business Management. Link

Caselli, S., Corbetta, G., Cucinelli, D. , Rossolini, M. (2021). A survival analysis of public guaranteed loans: Does financial intermediary matter?, Journal of Financial Stability. Link

Ciani, E., Gallo, M., Rotondi, Z. (2020). "Public credit guarantees and financial additionalities across SME risk classes". Banca d'Italia Working Paper 1265. Link

Columba, F., Gambacorta, L., Mistrulli, P. (2009). "The effects of mutual guarantee consortia on the quality of bank lending. Revue Bancaire et Financière. Link

Columba, F., Gambacorta, L., Mistrulli, P. (2010). "Mutual guarantee institutions and small business finance". Journal of Financial Stability, 6, 45–54. Link

Corredera-Catalán, F., di Pietro, F., Trujillo-Ponce, A. (2021). "Post-COVID-19 SME financing constraints and the credit guarantee scheme solution in Spain". Journal of Banking Regulation. Link

Cowling, M. (2010). "Economic evaluation of the small firms loan guarantee (SFLG) scheme". Link

Cowling, M., Ughetto, E., Lee, N. (2017). "The innovation debt penalty: cost of debt, loan default, and the effects of a public loan guarantee on high-tech firms. Technological Forecasting and Social Change. Link

De Blasio, G., De Mitri, S., D'Ignazio, A., Finaldi Russo, P., Stoppani, L. (2018). "Public guarantees to SME borrowing. A RDD evaluation". Journal of Banking and Finance, 96, 73–86. Link

D'Ignazio, A., Menon, C. (2020). "Causal Effect of Credit Guarantees for Small and Medium-Sized Enterprises: Evidence from Italy". The Scandinavian Journal of Economics, 122, 191–218. Link

Duarte, F., Rodrigues, L., Madeira, M. (2018). "Credit Guarantee and the impact in financial structure of the Portuguese SME's". Chinese Business Review, 17, 179–190. Link

ECA (2020). "Report of the European Court of Auditors on the performance of the EU budget – Status at the end of 2019". Link

Falagiarda, M., Prapiestis, A., Rancoita, E. (2020). "Public loan guarantees and bank lending in the COVID-19 period". ECB Economic Bulletin, Issue 6/2020. Link

Federal Ministry for Economy and Technology (2010). "Evaluierung des erweiterten Bürgschaftsprogramms der Bürgschaftsbanken. Zusammenfassung der wichtigsten Ergebnisse".

Fuhrer, L., Ramelet, M., Tenhofen, J., (2021). Firms' participation in the Swiss COVID-19 loan programme. Swiss Journal of Economics and Statistics Link

Gai, L., Ielasi, F., Rossolini, M. (2016). "SMEs, public credit guarantees and mutual guarantee institutions". Journal of Small Business and Enterprise Development, 23, 1208–1228. Link

Garcia-Tabuenca, A., Crespo-Espert, J. (2010). "Credit guarantees and SME efficiency". Small Business Economics, 35, 113–128. Link

Hennecke, P., Neuberger, D., Ulbricht, D. (2019). „The economic and fiscal benefits of guarantee banks in Germany". Small Business Economics, 53, 771–794. Link

Hennecke, P., Neuberger, D. (2020). "Gesamtwirtschaftliche Effekte der Tätigkeit von Bürgschaftsbanken in den Neuen Bundesländern," Vierteljahrshefte zur Wirtschaftsforschung / Quarterly Journal of Economic Research, DIW Berlin, German Institute for Economic Research, vol. 89(2), pages 63-80. Link

Holtemöller, O., Brautzsch, H., Drechsel, K., Drygalla, A., Giesen, S., Hennecke, P., Kiesel, K., Loose, B., Meier, C., Zeddies, G. (2015). "Ökonomische Wirksamkeit der Konjunktur stützenden finanzpolitischen Maßnahmen der Jahre 2008 und 2009. Forschungsvorhaben im Auftrag des Bundesministeriums der Finanzen". IWH Online 4/2015. Link

Kaufmann, D. (2020). Does government-backed lending prevent unemployment? An assessment of the Swiss COVID-19 lending program. University of Neuchâtel, Mimeo. Link

Kramer, D. (2008). "Bürgschaftsbanken als Instrument zur Überwindung von Kreditrationierung in Deutschland? Eine empirische Untersuchung in den Ländern Brandenburg und Berlin".

Lelarge, C., Sraer, D., Thesmar, D. (2010). "Entrepreneurship and Credit Constraints: Evidence from a French Loan Guarantee Program." Link

Martín-García, R., Morán Santor, J., (2019). "Public guarantees: a countercyclical instrument for SME growth. Evidence from the Spanish Region of Madrid. Small Bus Econ (2021) 56:427-449. Link

Mistrulli, P., Vacca, V., Corbisiero, G., del Prete, S., Esposito, L., Gallo, M., Graziano, M., Lozzi, M., Maffione, V., Marangoni, D., Migliardi, A., Tosoni, A. (2011). "Mutual Guarantee Institutions (MGIs) and small business credit during the crisis". Questioni di Economia e Finanza, 105, Bank of Italy. Link

Molina, H., Pombo, P., Ramirez, J.N., Figueiredo, J.F. (2018). Conceptual framework for information on the outreach, additionality and financial sustainability of Public Credit Guarantee Schemes (CGSs), AECM, ALIDE, REGAR. Link

Muller, P., Devnani, S., Julius, J. (2017): *„Economic impact evaluation of the Enterprise Finance Guarantee (EFG) scheme."* London Economics, Ipsos MORI. Link

Neuberger, D., Räthke-Döppner, S. (2008). "Wirksamkeit von Landesbürgschaften und Bürgschaftsbanken: eine empirische Studie für Mecklenburg-Vorpommern". Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen, 31, 386–406. Link

Neuberger, D., Ulbricht, D., Hebebrand, L., Hennecke, P., Kholodilin, K., Laatz, W., Stähr, D. (2017). "Gesamtwirtschaftliche und fiskalische Effekte der Tätigkeit von Bürgschaftsbanken in den Neuen Bundesländern". Link

Neuberger, D. (2020). "Der Mehrwert von Bürgschaftsbanken und (Rück-) Bürgschaften für KMU: ein Literaturüberblick," Vierteljahrshefte zur Wirtschaftsforschung / Quarterly Journal of Economic Research, DIW Berlin, German Institute for Economic Research, vol. 89(2), pages 41-62. Link

Rodrigues, V., Leitão, A., Nascimento, A., Santos, F., Guedes de Oliveira, F., Ribeiro, R. (2018). "The Mutual Guarantee System in Portugal, Economic and financial additionality over the 2011–2016 period". Link

Schmidt, A., van Elkan, M. (2006). „Der gesamtwirtschaftliche Nutzen der deutschen Bürgschaftsbanken". Link

Schmidt, A., van Elkan, M. (2010). „Quantifizierung der gesamtwirtschaftlichen Effekte der Aktivitäten der deutschen Bürgschaftsbanken unter den Rahmenbedingungen der weltweiten Finanz- und Wirtschaftskrise".

Valentin, A., Henschel, T. (2013). "Do guarantee banks mitigate credit restrictions for SMEs?". International Journal of Entrepreneurship and Small Business, 20, 481–496. Link

Zecchini, S., Ventura, M. (2009). "The impact of public guarantees on credit to SMEs". Small Business Economics, 32, 191–206. Link

Zoller-Rydzek, B., Keller, F. (2020). COVID-19: Guaranteed loans and zombie firms. MPRA Paper, No. 100897. Link

VI Methodological and Editorial Note

i. Methodological note

Scoreboard Survey

As in the previous years, we asked our members to report data on their outstanding and new guarantee volumes and numbers as well as on the numbers of supported SMEs (stock and flow). Furthermore, we collected data on a yearly basis on agricultural guarantees, counter-guarantees, the use of EU programmes and coverage rates. Some additional questions were also included in the online questionnaire. The survey ran from 2nd February to 4th March 2022 and was extended several times. We collected 43 out of 47 possible responses. For members who did not report their data, we used recurrent data in order to avoid a distortion of the overall development of the AECM total values.

Monetary values were reported in EUR and members that do not have the EUR as their national currency calculated the EUR values using official exchange rate of December 2021 (respectively of June 2021 for the new guarantee volume of the first semester 2021) published on the website of the European Commission.

It is important to note that the presented data refers to guarantees implemented by AECM members, i.e. it includes both – guarantees for which our members assume at least part of the risk as well as guarantees that are fully covered (explicitly and implicitly) by their respective governments.

Concerning the definition of the data, we would like to remind the reader that the term outstanding guarantee is not uniformly defined across our membership base. From the Scoreboard survey 2019, we know that at the beginning of the guarantee, ¾ of the respondents include guarantees from the moment on when the underlying loan has been disbursed (only active guarantees), around 11% of the respondents include guarantees after they were granted but before the underlying loan has been disbursed. At the end of the guarantee, nearly half of the members include guarantees until the moment of the calling of the guarantee and around 40% until the moment of disbursement of the guarantee. In the H2 2020 survey, we enquired about the definition of newly granted guarantees. As a result, 15 respondents confirmed that the reported volume of newly granted guarantees of their respective organisations include refinancing operations and/or prolongations. 18 members stated that their organisations do not include refinancing operations and/or prolongations in the data concerning newly granted guarantees.

In order to calculate the share of our members' guarantee value of the GDP in their respective countries, we used the gross domestic product at market prices (current prices, in EUR) extracted from the Eurostat database. For the calculation of the share of AECM members' number of supported SMEs in relation to the amount of all SMEs in the respective countries, we used the number of enterprises that employ between 0 and 249 employees. Here, Eurostat data is only available until 2019. That is why we use recurrent data for 2020 and 2021. Both GDP and SME data are not available for all countries of AECM members. For Kosovo, we used 2019 SME data of the Kosovo Tax Authority. For the United Kingdom, we used GDP data from statista.com.

AECM members can access the complete databank in the member area under the following link: Scoreboard data H2 2020

Guarantee Activity Survey

As in previous years, we asked our members about their perception of the guarantee activity during the past year and about their expectations for the current year. This survey was undertaken between 2nd February and 4th March 2021. 41 out of 47 members replied. The results of this survey are not weighted. A stabilisation is defined as growth of -1 to 1% for the purpose of comparison with Scoreboard data.

ii. Editorial note

The AECM Statistical Yearbook 2021 publication was elaborated by Felix HAAS VINÇON, Director of Studies at AECM, with the statistical data sent by the members, whom we would like to thank for their contributions. The section on agricultural guarantees was developed by Felicia COVALCIUC, Senior Policy Officer for Agricultural Policies at AECM. A big thank you also for her great support. Furthermore, we thank Marijana OREB, Chairwoman of the AECM Working Group Statistics and Impact, Peter SLEECKX, former Chairman of the working group, Katrin STURM, Secretary General of AECM and Jean-Louis LELOIR, Special Advisor to the AECM Board of Directors for their important support.

Glossary

Abbreviations

ANOVA	Analysis of variance
ATE	Average treatment effect
CCS	Cultural and Creative Sector
CEM	Coarsened exact matching
CIP	Competitiveness and Innovation Framework Programme
COSME LGF	Competitiveness of Enterprises and Small and Medium-sized Enterprises Loan Guarantee Facility
DID	Difference-in-difference
DNSH	Do not significant harm
EAFRD	European Agricultural Fund for Regional Development
ECA	European Court of Auditors
ECB	European Central Bank
EE	Energy efficiency
EFSI	European Fund for Strategic Investment
EGF	European Guarantee Fund
EIB	European Investment Bank
EIF	European Investment Fund
EU	European Union
EUR	Euro - kEUR, mEUR, bEUR (respectively thousand, million, billion)
ESG	Environmental, social, governance
GDP	Gross domestic product
HMT	Her Majesty's Treasury
HORECA	Hotel/Restaurant/Café – Hospitality sector
IV	Instrumental variables
MAP	Multi-Annual Programme
OLS	Ordinary least squares
PGE	Prêt garanti par l'Etat (State guaranteed loan)
PSM	Propensity score matching
RDD	Regression discontinuity design
RDP	Rural Development Programme
RE	Renewable energy
RRF	Recovery and Resilience Facility
RWA	Risk weighted assets

SME	Small and medium-sized enterprises
SMEG	SME Guarantee Facility
SUR	Seemingly unrelated regressions
TF	Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak

Member list

AT	aws Austria Wirtschaftsservice GmbH NÖBEG Niederösterreichische Bürgschaften und Beteiligungen GmbH
AZ	MCGF Azerbaijan Mortgage and Credit Guarantee Fund
BE	Fonds Bruxellois Fonds Bruxellois de Garantie-Brussels Waarborgfonds PMV/z Waarborgen Participatie Maatschappij Vlaanderen SOWALFIN Société walonne de financement et de garantie des PME
BA	GF Srpska Guarantee Fund of the Republic of Srpska
BG	NGF National Guarantee Fund MGFSME Sofia Municipal Guarantee Fund for SMEs
HR	HAMAG-BICRO
CZ	NRB Národní rozvojová banka
EE	KredEx
FI	Finnvera
FR	Bpifrance Banque publique d'investissement EDC Européenne de Cautionnement SIAGI Société de caution mutuelle pour les petites entreprises SOCAMA Société de caution mutuelle artisanale
DE	VDB Verband Deutscher Bürgschaftsbanken
GR	HDB Hellenic Development Bank TMEDE Greek Engineers and Public Works Contractors Fund
HU	AVHGA Rural Credit Guarantee Foundation Garantiqa MVA Hungarian Foundation for Enterprise Promotion
IE	SBCI Strategic Banking Cooperation of Ireland
IT	Assoconfidi ISMEA Istituto di Servizi per il Mercato Agricolo Alimentare
XK	KCGF Kosovo Credit Guarantee Fund
LV	ALTUM
LT	Garfondas Agricultural Credit Guarantee Fund INVEGA Investiciju ir verslo Garantijos
LU	MC Mutualité de Cautionnement

	MPME Mutualité des PME
MT	MDB Malta Development Bank
NL	RVO Rijksdienst voor Ondernemend Nederland
PL	BGK Bank Gospodarstwa Krajowego
PT	BPF Banco Português de Fomento
RO	FGCR Romanian Rural Credit Guarantee Fund FNGCIMM National credit guarantee fund for SMEs FRC Fondul Roman de Contragarantare S.A.
RS	GF Vojvodina Guarantee Fund of the Autonomous Province of Vojvodina
SI	SEF Slovenian Enterprise Fund SRDF Slovenian Regional Development Fund
ES	CESGAR Confederation of Spanish Mutual Guarantee Societies
CH	NSGI Network of Swiss Guarantee Institutions
TR	KGF Kredi Garanti Fonu TESKOMB Türkiye Esnaf ve Sanatkarlar Kredi ve Kefalet Kooperatifleri Birlikleri Merkez Birliği
UK	BBB British Business Bank

Country code

AT	Austria
AZ	Azerbaijan
BE	Belgium
BA	Bosnia and Herzegovina
BG	Bulgaria
HR	Croatia
CZ	Czechia
EE	Estonia
FI	Finland
FR	France
DE	Germany
GR	Greece
HU	Hungary
IE	Ireland
IT	Italy
XK	Kosovo
LV	Latvia
LT	Lithuania
LU	Luxembourg
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
SI	Slovenia
ES	Spain
CH	Switzerland
TR	Turkey
UK	United Kingdom

About us

The 47 members of the **European Association of Guarantee Institutions (AECM)** are operating in 30 countries in Europe. They are either private /mutual sector guarantee schemes or public promotional institutions or banks. Their mission is to support SMEs in getting access to finance. They provide guarantees to SMEs that have an economically sound project but do not dispose of sufficient bankable collateral. This so-called SME financing gap is recognised as market failure[16]. By guaranteeing for these enterprises, guarantee institutions help to successfully address this market failure and facilitate SMEs' access to finance. The broader social and economic impact of this activity includes the following:

- Job creation and preservation of jobs by guaranteed companies
- Innovation and competition: crowding-in of new ideas leading to healthy competition with established market participants
- Structure and risk diversification of the European economy
- Regional development since many rural projects are supported
- Counter-cyclical role during crises

SME guarantees generally pursue a medium- and long-term and our members, if public, private, mutual or with mixed ownership structure, have a promotional mission.

AECM's members operate with counter-guarantees from regional, national and European level. At the end of 2021, AECM's members had about bEUR 312 of guarantee volume in portfolio, thereby granting guarantees to around 5.9 million SMEs. AECM's members are by far the most important counterparts of the EIF concerning EU counter-guarantees, handling EU guarantees from the very beginning in 1998.

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[4] OECD (2006). The SME finance gap. Vol. 1. Theory and evidence.
For an overview of market failures in SME lending and mitigation techniques: OECD (2018). Financing SMEs and entrepreneurs 2018. An OECD Scoreboard, OECD Publishing, Paris.

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