

# **MF STRATEGY**

**The European Investment Bank ‘Fruit  
Garden of Moldova’ Loan**

**Impediments to Loan  
Absorption**

**30<sup>th</sup> May 2020**

## **Executive Summary**

The horticultural sector of the Republic of Moldova represents a third from the total agricultural production and has a high importance in the economic development of the country. In recent years, it has registered an increase in both, volume of production and volume of export. Moreover, the sector has recorded significant performance by expanding the areas of orchards with the latest super-intensive and modern technologies. The sector demonstrates an increased demand and promising perspectives. To further support the sector, local authorities have developed the Horticulture Sector Development Programme for 2020-2026. One of the Programme objectives is to attract innovative investments in the sector. The Programme estimates an investment need of EUR 789 million in horticultural sector.

The Fruit Garden of Moldova is a strategic international Project. It delivers social and economic outcomes in Moldova when farmers borrow from local banks cheaper long-term financing provided by the European Investment Bank and invest these funds in the horticultural value chain. Every euro borrowed from the credit line which was issued by the European Investment Bank for this Project generates 2.1 euros in direct investments in the Moldovan agriculture. The tax exemptions offered by the Government of Moldova to Project beneficiaries stimulate further investments, which are predominantly made in the rural areas of the country.

A set of impediments affected the setup, launch and efficient implementation of the Project. Political instability was a major obstacle for the Project setup. The Moldovan Cabinet of Ministers changed three times between the date the loan agreement has been signed by the European Investment Bank in 2014 and the effective date of the credit line in 2016. Additionally, few months after the loan agreement signature, the Moldovan bank fraud scandal emerged. The scandal fuelled political instability but also affected the financial sector. It disturbed the macroeconomic indicators in Moldova for the years to come. The national currency depreciated against the euro, rendering Moldovan entrepreneurs more reticent towards financing termed in euro – the only available currency of the Project until recently. Faced with increasing repayment problems, financial institutions reduced lending after the fraud scandal emerged. Three banks directly involved in the fraud were liquidated in spite of important bailout loans from the Government.

After the fraud, the European Investment Bank as well as the Moldovan Ministry of Finance became more prudent towards the financial institutions participating or willing to participate in the Project. The Fruit Garden of Moldova Project started financing operations with three banks representing only 1/5 of the assets of all licensed banks in Moldova. Their number and weight gradually increased. In 2020 seven out of eleven banks were partners of the Project. These have assets totalling 70% of all Moldovan banks.

Since the size of the bank is a strong predictor of its capacity to convey the European Investment Bank funds to Project beneficiaries, current partner banks are expected to disburse about EUR 18 million per year to Project beneficiaries. This amount will represent about 19% of the annual need in investments in the horticultural sector of Moldova that the Government wants to achieve by stimulating private investment with State subsidies.

The European Investment Bank approves each financing of each Project beneficiary, after verification of compliance with Project rules. Thus, final loan approval requires more time and effort from the local financial institution and from the loan applicant. Technical assistance,

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which became available since mid-2018, helped develop a set of mechanisms meant to simplify the application process. These mechanisms, relying on business development services offered by third parties, have been finalised in 2019 leading to a significant increase in Project applications. One third of already approved financing has been approved in the last six months: December 2019 to May 2020. The availability of the technical assistance is associated with an increase in number of Project applications. On the other side, technical assistance is available only until May 2021, while the Project lasts longer. Therefore, this Report recommends to consider the extension of the technical assistance's availability.

In spite of increasing popularity of the Project amongst banks and entrepreneurs investing along the horticultural value chain, estimates show that only EUR 66 million out of the net EUR 108 million can be allocated to the private sector by the end of the current allocation period. These estimations do not consider the potential negative effects of the global pandemic that affected Moldova in the spring of 2020.

From the activation of the credit line on 27 May 2016 until 27 May 2020 the European Investment Bank approved EUR 26.3 million for the financing of 127 investment projects. On 27 May 2020 about 65% of the credit line allocation period has passed while only 24.4% of the net EUR 108 million have been allocated by the European Investment Bank.

The Fruit Garden of Moldova Project will require, under provided assumptions, 28 additional months to ensure full absorption of the credit line committed by the European Investment Bank to the private sector. This Report recommends high-level stakeholders to consider setting a new credit line allocation end date on or beyond 30 November 2024. The new date should allow the absorption of additional EUR 42 million which will generate almost EUR 90 million in additional investments in Moldovan horticulture. More farmers should get access to affordable credit.

This Report recommends the inclusion in the Project of all banks which are licensed in Moldova. Particular interest represents the second largest bank in Moldova. It can use its large network of outlets and officers to reach out to more businesses in need for affordable financing, thus increasing the speed of absorption of the credit line. In addition to banks, in Moldova operate several large non-bank financial institutions which issue secured and unsecured business loans of EUR 20 thousand and above. Some of these microfinance institutions have good financial standing and large rural networks, reaching to many businesses working at the base of the horticulture value chain. Inclusion of a few large non-bank financial institutions in the Project will increase absorption of the credit line by financing smaller farmers which are amongst the most credit constrained businesses in the country.

To sustain an accelerated pace of allocation of funds, old and new partner financial institutions need to be constantly trained. These trainings need to target particularly the loan officers which are in contact with the potential beneficiaries. This Report recommends that the technical assistance of the Project elaborates a training protocol which will aim to form in each partner financial institution own Project trainers who will train and inform the loan officers about the Project procedures. This protocol should also include the linkage with the providers of business development services, which became an important channel for potential applicants to get Project funding.

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### Abbreviations

AGRN	Joint Stock Commercial Bank Moldova-Agroindbank
BDS	Business Development Services
CLD	Credit Line Directorate
CMTB	Joint Stock Commercial Bank Comertbank
ECBM	Joint Stock Commercial Bank Eurocreditbank
EIB	European Investment Bank
ENEG	Joint Stock Commercial Bank Energbank
EOY	End of Year
EUR	Euro
EURIBOR	Euro Interbank Offered Rate
EXMM	Joint Stock Commercial Bank Eximbank
FGM	Fruit Garden of Moldova
FTMD	Banca de Finante si Comert Joint Stock Bank
GOM	Government of Moldova
MDL	Moldovan leu
MOA	Ministry of Agriculture
MOBB	Mobiasbanca - OTP Group Joint Stock Bank
MOF	Ministry of Finance
MOLD	Joint Stock Commercial Bank Moldindconbank
NBM	National Bank of Moldova
PFI	Partner Financial Institution
PIU	Project Implementation Unit
PRCB	Joint Stock Commercial Bank ProCredit Bank
RNCB	Banca Comerciala Romana Chisinau Joint Stock Commercial Bank
TA	Technical Assistance
VAT	Value Added Tax
VICB	Joint Stock Commercial Bank Victoriabank

## **1. Background**

### **1.1. Introduction**

In Moldova about 3/4 of the land constitutes agricultural land and about 1/3 of employment is in agriculture (WDI, 2020). Considering that more than 57% of the Moldovan population live in rural areas (WDI, 2020), the real employment in agriculture could exceed by far the official figures. Agriculture, forestry and fishing contributed to only 10% of the national GDP in 2018 (WDI, 2020). Since subsistence farming and informal trade with agricultural products are not counted in the official national output, the real contribution of agriculture to the national economy is higher than the official figures. Nevertheless, Moldovan agriculture registers low productivity. The high volatility of the output of agriculture, with the standard deviation of the annual output growth of 20% over the last years, indicates that Moldovan agriculture continues to rely on low-value crops, which depend on the climate for their yield. Expansion of high-value crops was hampered by the lack of long-term affordable financing, insufficient post-harvest infrastructure, but also by geopolitical implications.

Geopolitical confrontation in the Black Sea region involving the Russian Federation, the EU and NATO countries such as the USA and Turkey resulted in armed and trade conflicts. The 2006 Russian import ban of Moldovan and Georgian wines is one such episode. A more recent episode unfolded with the September 2013 Russian import ban of Moldovan wine, followed by the April 2014 import ban of processed meat, followed by the July 2014 import ban of canned fruits and vegetables, ending with the establishment of increased customs duties for Moldovan products such as fruits, vegetables and cereals, effective on the Russian Federation territory from September 2014. The later episode was perceived by the public as a punishment for Moldova signing the Association and Free Trade Agreement with the EU.

In the view of the 2013-2014 ban episode, conversion from low-value to high-value agriculture, sustained by improvements in the post-harvest infrastructure, emerged as a high priority for the sector and for the country in general. An affordable credit line dedicated to finance private and public sector operators along the horticultural value chain was foreseen to generate important investments in the Moldovan high-value agriculture with the aim to help Moldovan producers increase output and quality of high-value agriculture in order to be more competitive on the EU market.

### **1.2. The EIB credit line**

In 2014 the Government of the Republic of Moldova (GOM) and the European Investment Bank (EIB) signed a loan agreement in amount of EUR 120 million to finance the Fruit Garden of Moldova (FGM) Project. The EIB credit line became effective in May 2016 with the draw period ending in July 2022.

The credit line is gradually drawn in tranches with individual maturity of 12 years and a grace period for principal of 4 years. These EIB funds, via selected partner financial institutions (PFIs), are further lent to end-borrowers – the beneficiaries of the Project. End-borrowers are Moldovan farmers and entrepreneurs who invest in the horticultural value chain. End-borrowers' investment plans are called Sub-Projects. Formalised Sub-Projects can be

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financed with EIB funds in amount not exceeding half of their total value. End-borrowers need to co-finance their Sub-Projects.

The credit risk of an end-borrower stays with the financing PFI. The credit risk of the PFI stays with the GOM. The credit risk of the GOM is the risk of the sovereign debt beard by the EIB, for which it received an EU guarantee. In spite of degrading sovereign risk rating of Moldova in the years following the Moldovan bank fraud scandal, the EU guarantee allowed for the credit line tranches to be priced below the market rate offering Project beneficiaries access to affordable long-term financing.

Both, the preferential interest rate and the long term of the tranches are conditioned by strict compliance of financed Sub-Projects with Project rules. These include eligible investments, maximal maturity and amount, as well as the obligation of the end-borrower to co-finance the Sub-Project. In addition to lower effective interest rates and longer maturities, end-borrowers receive, on acquisitions made from the proceeds of the FGM Project financing, exemptions from the VAT and eventual customs duties and fees.

### **1.3. Main Project stakeholders**

Two Ministries of the GOM intervene in the management of the Project: the Ministry of Agriculture (MOA) and the Ministry of Finance (MOF). MOA aims at promoting the Project to a large audience in order to achieve a fast disbursement of the credit line, while the MOF aims at ensuring compliance with the rules of the Project in order to eliminate unnecessary risks to be taken by the GOM and avoid misbehaviour of local stakeholders.

The GOM can invest up to EUR 12 million out of the total EUR 120 million directly into building or improving the relevant infrastructure. Beneficiaries of this infrastructure component of the FGM Project are public institutions which can support the development of the horticultural value chain in Moldova through secondary and tertiary specialised education, laboratories, state registries of plant varieties and other relevant public services.

The Credit Line Directorate (CLD) is a unit hosted by the MOF. It manages external loans and grants provided by international financial organisations for supporting the development of the national economy. It ensures that the GOM assumes the agreed risks when it draws funds from available credit lines. Within the FGM Project, the CLD collects the funds from PFIs when end-borrowers repay their loans. The CLD repays to the EIB the credit line tranches when these are due. It collects the interest PFIs pay for borrowed funds. The CLD pays the interest to the EIB. For its services the CLD charges the PFIs a fee included in the cost of funds. The EIB interest rate and the CLD mark-up are consequently transferred to the end-borrowers by the PFI. The PFI adds its own mark-up, which together with the CLD mark-up and the EIB interest rate make for the final interest rate to be paid by the end-borrower. For financing termed in euro, the interest rate remains fixed till maturity, if the MOF opted for a fixed interest rate when it has drawn the EIB funds. It fluctuates twice a year based on the EURIBOR 6 months rate if the MOF opted for a variable interest rate. For loans termed in MDL, the interest rate fluctuates twice a year based on past and expected inflation rate in Moldova. The CLD makes all the calculations and communicates them to the PFIs. The PFIs consequently communicate relevant changes to end-borrowers.

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The Project Implementation Unit (PIU) is hosted by the MOA. It is responsible for the implementation and overall coordination of the Project. The PIU is the national counterpart of the EIB with regard to issues such as administration of the Project, validation of end-borrowers' compliance with eligibility criteria, coordination of disbursement of EIB funds to PFIs, monitoring of end-borrowers, Project procurement and Project reporting. The PIU is also responsible for the outreach of the Project and with the support of the Technical Assistance conducts or arranges awareness campaigns and seminars for potential end-borrowers and for other stakeholders involved in the local agriculture and horticulture. The PIU issues tax exemption letters to end-borrowers.

The Technical Assistance (TA) Provider is an international consulting company which delivers technical assistance to the PIU and to the Moldovan horticultural sector within the scope of the Project. The TA was launched in May 2018 – two years after the EIB credit line became effective. Financed directly by the EIB, it can be considered as a grant for local stakeholders. The TA has identified a group of local companies which provide business development services (BDS). From 2019 potential end-borrowers can solicit BDS to formalise their Sub-Projects to be co-financed within the FGM Project. The formalised investment plans are used by the PFIs to better appraise the credit deal and by the PIU to assess eligibility and record the mandatory contribution of the applicant. Such BDS are offered for free to end-borrowers which apply for EIB financing below EUR 0.4 million. The availability of the TA in general and BDS in particular is associated with an increase in number of Project applications. End-beneficiaries which benefited from BDS value particularly their utility and consider them among the main advantages of the Project.

PFIs are local financial institutions participating in the Project. Currently all seven PFIs are banks licensed by the National Bank of Moldova (NBM). Before joining the Project, the CLD approves the financial institution which is a private bank or leasing company dully registered in Moldova.

### **1.4. The problem**

The Fruit Garden of Moldova Project is a multi-stakeholder scheme. The set-up of the Project was difficult as it coincided with political and economic turmoil augmented by the Moldovan bank fraud scandal. Two and a half years passed from the date the loan agreement was signed between the GOM and the EIB until the date the first EIB funds reached the first end-borrower. In this period the Moldovan Cabinet of Ministers changed three times. Because the bank fraud scandal affected directly and indirectly the largest Moldovan banks, the Project started operating with only few banks, none of which were in the national top 3 by value of assets. The national currency depreciated when the bank fraud contaminated the economy. By the time the Project became functional, potential borrowers were cautious towards financing offered in euro, which was then the only currency available for borrowing under the FGM Project. Borrowing of EIB funds increased when the volatility of the exchange rates reduced and macroeconomic indicators stabilised.

The FGM Project offers a distinct set of benefits. These benefits come with a price for the end-borrower: compliance with eligibility criteria; significant own contribution; and additional eligibility verification procedures. Verifications increase the time-to-cash for entrepreneurs and



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demand additional effort on the part of applicants and PFIs. Longer time-to-cash indicators also resulted in a slow and cautious adoption of Project products by the PFIs and by potential applicants.

The PIU claims that the number of Project applications reached expected figures by late 2018, when TA became functional. Availability of BDS further determined an increase in the number of applicants putting already some pressure on the capacity of the PIU to process Project applications in a timely manner.

Assuming that all EUR 12 million allocated for the development of the horticulture-related infrastructure will be successfully committed by the GOM to relevant public institutions, the FGM Project remains with a net EUR 108 million to be lent to the private sector.

On 27 May 2020 – four years since activation of the credit line, the EIB allocated EUR 26,3 million for the financing of 129 Sub-Projects of 107 distinct private beneficiaries, reaching a 24.4% rate of absorption of the net EIB funds. Considering that on 27 May 2020 about 65% of the time allocated for the credit line absorption has passed, the absorption rate appears critically low.

## **2. Analysis of past impediments**

### **2.1. Slow setup and launch**

Figure 1 presents the timeline of main events related to the FGM Project credit line. From the figure one can acknowledge that the credit line setup and launch was slow. The Project was adversely affected by the political and economic instability in the country.

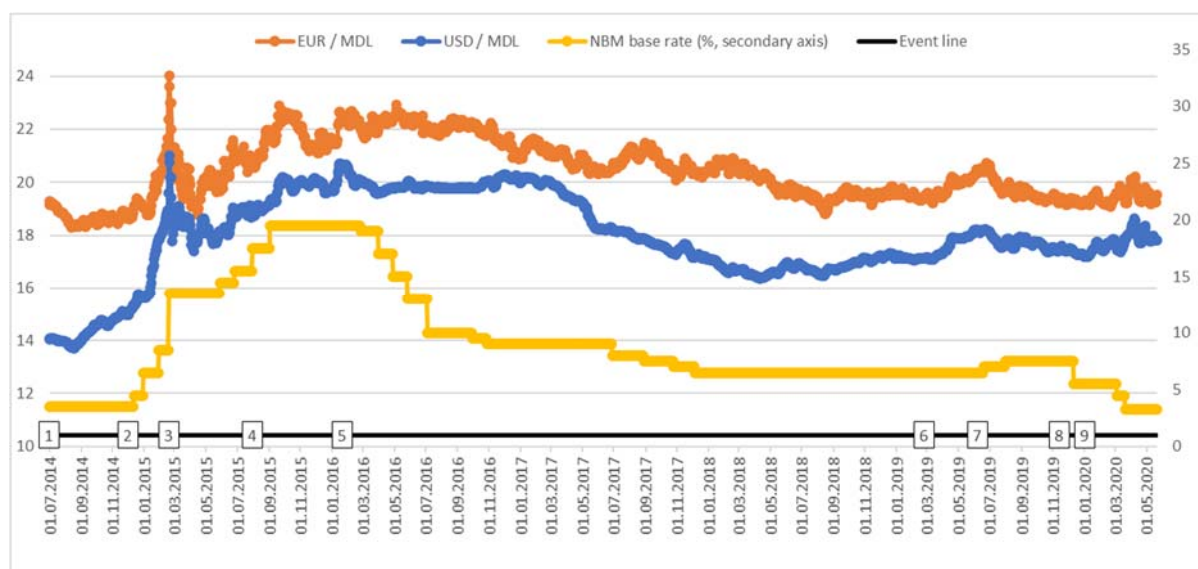
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Figure 1: General Timeline of the FGM Project

Event	Event date	Report date minus event date (days)
Formal request for financing FGM Project by the GOM	28.10.2013	2,403
Signature of FGM Project financing agreement	31.07.2014	2,127
Ratification by Parliament of Moldova of loan agreement	02.04.2015	1,882
Effective date of financing agreement	27.05.2016	1,461
First submission to PIU of request for financing by entrepreneur	03.06.2016	1,454
Modification of financing agreement: allocation time prolonged	29.07.2016	1,398
Initial credit line allocation timeframe end (prolonged)	31.07.2016	1,396
First EIB disbursement to PIU	22.12.2016	1,252
First end-borrower receives EIB funds	27.12.2016	1,247
Modification of financing agreement: eligibility criteria enlarged	14.09.2018	621
Report reference date: 27 May 2020	31.12.2019	0
First EIB credit line principal repayment date	22.06.2021	-391
Allocation time ends: last possible EIB disbursement to PIU	31.07.2022	-795
Last hypothetical principal repayment date	31.07.2034	-5,178

Figure 2 portrays the economic instability that intensified at the end of 2014, few months after the loan agreement has been signed, while Figure 3 describes the events numbered on the event line in Figure 2.

Figure 2: interdependence of political and economic instability in Moldova



Source: NBM 2020a, NBM 2020b.

Figure 2 indicates the fluctuation of the national currency against the euro and the US dollar as well as the NBM base rate which is the reference rate for the main short-term monetary policy operations. The increase in the NBM base rate reflected the intention of the regulator

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to limit the depreciation of the national currency as well as slow down inflation. A higher base rate increases the cost of local borrowing. As a result, economic growth is tempered.

The FGM Project could not benefit from the increase in cost of local borrowing because of the volatility of the exchange rate of the local currency against the euro.

Figure 3: Description of events numbered on the event line in Figure 2.

Date	Description of event or situation at the date
01.07.2014	1. Beginning of the timeline of the Figure 2. Leancă Cabinet of Ministers is in office since 30 May 2013. The Pro-European Coalition has parliament majority.
30.11.2014	2. Parliamentary elections resulting in a loss for the incumbent Pro-European Coalition.
18.02.2015	3. Gaburici Cabinet supported by the new Political Alliance for a European Moldova voted as minority government.
30.07.2015	4. Streleț Cabinet voted as minority government after resignation of former Prime Minister.
20.01.2016	5. Filip Cabinet voted with the support of several communist members of Parliament who left the party. Protesters in front of the Parliament building demanded the interruption of the vote.
24.02.2019	6. Parliamentary elections which triggered a constitutional crisis.
08.06.2019	7. Sandu Cabinet voted. Vote was declared unconstitutional by the Constitutional Court. A week later the Court cancelled its previous decision.
14.11.2019	8. Chicu Cabinet voted after a motion of no confidence overthrew the previous Cabinet.
27.05.2020	9. Report date. End of the timeline of the Figure 2.

Within few days, just before the 2014 parliamentary elections, over USD 750 million were extracted from three Moldovan banks and transferred to foreign accounts of shell companies, being consequently transferred to other accounts to hide the traces of funds. The banks declared bankruptcy and have been secretly bailed out by the GOM with USD 870 million in emergency loans. The banks were liquidated, while the bailout created a deficit in public finances and further fuelled political and socioeconomic instability.

The FGM Project started operations offering applicants only financing in euro. Financing in national currency became available only from 2019. One could see from Figure 2 how political turbulence in Moldova adversely affects the exchange rates of the national currency against the main foreign currencies. The launch of the FGM Project has been penalised both, by the echoes of the recent political turmoil and the volatility of the exchange rate of the euro. Both factors affected the investment confidence of potential end-borrowers.

### **2.2. Relative political and socioeconomic stability in the years 2016 – 2018**

The relative political and socioeconomic stability brought by the Filip Cabinet, which governed for more than three years, had a positive impact on the economy in general and the investment climate in particular. The economy grew by an average 4.2% per year in the years 2016, 2017 and 2018. The EIB approved financing for 4 Sub-Projects in 2016, 17 Sub-Projects in 2017 and 29 Sub-Projects in 2018.

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This stability was overshadowed by the declaration of the Parliament made on the last day of the Filip Cabinet on 08 June 2019 that Moldova became a captured State. The Parliament denounced the head of the Democratic Party for illegal and unconstitutional control over the General Prosecutor's Office, the judiciary system and other law enforcement authorities. This declaration made reference also to a statement of the secretary-general of the Council of Europe (Jagland, 2015) which dated back to mid-2015. In such conditions, businesses not affiliated with the Democratic Party or affiliated with people in opposition with this party could have been under pressure, not being able or not willing to engage in important investment projects.

### **2.3. 2019 – a great year for the Project**

Although political turbulence increased in Moldova in 2019 after few years of relative calm, the macroeconomic indicators reacted moderately, showing resilience and continuing their general improvement trend. Progressive dismantling of the captured State condition should have improved the investment climate in Moldova. In 2019 the World Bank's Ease of Doing Business index slightly improved for Moldova (Doing Business, 2020). Notable progress has been achieved in the category dedicated to dealing with construction permits. This underperforming category penalises the general Moldovan Doing Business index and entrepreneurs with many procedures and high costs of these procedures. In 2019 the number of procedures has been reduced from 29 to 21. This legal reform was particularly relevant for entrepreneurs constructing cold-storages and processing units for horticultural products.

More banks joined the Project including the largest bank, which has seen its first Sub-Project being approved by the EIB in the last days of 2019. Financing in national currency became possible within the Project.

At EOY 2019 five Moldovan banks have managed to get funds approved by EIB for their end-borrowers. Two more banks formally joined the FGM Project in 2019, nevertheless EIB did not approve any funds for their clients in 2019 because these did not submit any Sub-Project. First Sub-Projects of one of these banks have been approved by the EIB in the first months of 2020.

The cumulated value of assets of banks participating in the FGM Project, as percentage of total assets of the Moldovan banks, are presented in Figure 4. The 2020 figures are presented as of end of April, but also include the assets of RNCB, which did not get any EIB funding or approval of funding up to April 2020, but submitted in May its first Sub-Project for EIB approval. One can observe that four banks gathering 30% of banking assets do not participate in the FGM Project. These banks include the second largest bank MOLD.

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**Figure 4: EOY value of assets of PFIs in percentage of total assets in the banking sector.**



At the EOY 2019 main external impediments to the absorption of EIB funds via the FGM Project have faded out, including the inertia of old PFIs and the general reticence of applicants. Impediments encountered by the entrepreneurs in accessing financing such as the lack of guarantees or low repayment capacity have not been significantly addressed, preventing many businesses from developing at a faster pace.

### 2.4. The 2020 pandemic

In the spring of 2020 Moldova and its main trade partners have been hit by the global pandemic. Lockdown measures concerned most people and businesses in Moldova. The possible mid- and long-term effects of this crisis on the outcomes of the FGM Project remain outside the scope of this Report. Predicting them at the time of this Report is impossible. Although experts disagree on the most probable scenario, they agree that the pandemic will lead to an economic crisis. This crisis will affect the regional and Moldovan economies in 2020 and 2021. This crisis might be longer, but its effects on the Moldovan horticultural sector and on the absorption rate of EIB funds are impossible to predict.

## 3. Credit line absorption statistics

There are 2.047 days separating the disbursement of the first tranche of the EIB credit line and the last possible disbursement. The report date marks the passage of 65% of this time window. In this period EUR 26.3 million of the net EUR 108 million have been allocated to private end-borrowers. This corresponds to a 24.4% absorption rate.

In this period 107 distinct private businesses have been approved by the EIB as FGM Project beneficiaries. These beneficiaries successfully submitted 129 Sub-Projects.

The largest amount of funding EIB approved to one end-borrower is EUR 2.54 million. The smallest amount of funding EIB approved to one end-borrower is EUR 8.3 thousand. The average amount of funding approved by the EIB per end-borrower is EUR 246 thousand, which is 83 times the estimated per capita GDP of Moldova for 2019 (IMF, 2019). More than half of end-borrowers have EIB funds approved above EUR 100 thousand. Such borrowers, in the Moldovan context, are medium and large enterprises. These statistics are in sharp

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contrast with the Moldovan reality where 96% of businesses are micro and small businesses (NBS, 2019).

Figure 5 shows the FGM Project PFIs and their performance in approving EIB funds for their clients. The approval by the EIB of the first Sub-Project of a PFI marks the date when this Report considers the PFI effectively included in the Project.

By dividing the volume of EIB funding approved for each PFI by the number of days each PFI has been effectively in the Project, we obtain the daily absorption rate of EIB funds by each PFI. This variable is presented in Column 5 of Figure 5.

**Figure 5: Total and Daily Production of PFIs in Terms of FGM Financing for End-Borrowers**

<b>PFI</b>	<b>Date effectively joined FGM Project</b>	<b>Days in FGM Project</b>	<b>EIB funds approved, EUR</b>	<b>Daily production, EUR</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5) = (4) / (3)</b>
ENEG	03.08.2016	1,414	1,870,159	1,323
PRCB	26.10.2016	1,343	7,534,886	5,610
MOBB	16.12.2016	1,310	9,574,352	7,309
CMTB	13.07.2018	709	3,078,907	4,343
AGRN	20.12.2019	168	3,752,069	22,334
VICB	02.03.2020	86	509,105	5,920
RNCB	Expected in 06.2020			
<b>Total</b>			<b>26,319,477</b>	

We identified several factors that could have determined the capacity of the PFI to outreach to potential FGM Project beneficiaries, process their loan application forms, conduct the loan appraisal procedures, approve the loan and submit the request for EIB funds to the CLD in coordination with the PIU. These factors are:

- Size of PFI in terms of assets, portfolio and number of full-time employees. Size of the bank certainly determines its capacity to provide financing to businesses;
- Deposits to loans ratio. The smaller the ratio, the larger the need of the bank to attract external funding at subsidised cost; and
- Average FGM Project financing. The smaller the average loan or leasing financing, the higher the time and effort costs to approve and disburse the same amount of funds if compared to a bank working with larger clients.

In Figure 6 we present the actual values of the selected indicators at EOY 2019. The values of the daily production of FGM Project financing are calculated at the report date – 27 May 2020. On the last two rows we present the Pearson correlation coefficient in row ‘Correl.’ and the two-tailed significance level in row ‘Sig.’.

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Figure 6: Available PFI Variables that could Influence Daily Absorption of EIB Funds

PFI	Daily production, EUR	Assets, EUR million	Gross loan portfolio, EUR million	Employees	Deposits to loans	Average FGM financing, EUR
ENEG	1,323	131	48.3	588	1.88	155,847
PRCB	5,610	206	129.5	147	0.87	279,070
MOBB	7,309	633	325.4	949	1.50	162,277
CMTB	4,343	83	37.5	158	2.23	236,839
AGRN	22,334	1,341	739.9	2,006	1.43	268,005
VICB	5,920	761	210.8	1,143	2.82	509,105
<b>Correl.</b>	-	<b>0.896</b>	<b>0.970</b>	<b>0.839</b>	<b>-0.282</b>	<b>0.086</b>
<b>Sig.</b>	-	<b>0.016</b>	<b>0.001</b>	<b>0.037</b>	<b>0.588</b>	<b>0.872</b>

The Pearson correlation coefficients can range between -1 and 1. The closer to 1 a coefficient, the higher the positive correlation. A coefficient of 1 indicates a perfect positive correlation. The closer to -1 a coefficient, the higher the negative correlation. Negative correlation means that when one variable grows the other necessarily decreases. A coefficient of -1 indicates a perfect negative correlation. A Pearson correlation coefficient of 0 as well as positive or negative figures close to zero show no linear relationship between the movement of the two analysed variables. Coefficients above 0.15 or below -0.15 show weak correlation which increases in strength as coefficients approach perfect correlation at 1 or -1 respectively.

Significance is expressed in probabilities. Each probability indicates how unlikely a given correlation coefficient can occur while no relationship between the two variables exists. In Figure 6 we focus our attention on correlation coefficients that have a probability of occurring by chance below 0.1.

Correlations between PFIs' daily production of FGM Project financing and the size of the PFI is positive, strong and statistically significant. Daily production strongly correlates with the size of the PFI in terms of assets, portfolio and number of full-time employees. The highest correlation coefficient of 0.970 is between the daily production and the gross loan portfolio of the PFI. Chances that such correlation does not exist in reality are below 0.1%.

Statistics show that the size of the PFI is strongly correlated with its capacity to convey the EIB funds to the end-borrowers. Although, correlation does not imply causation, the causal link is obvious. Even if we subtract the EIB loans from the gross loan portfolio of each PFI, the correlation and its statistical significance don't change. Larger banks absorb larger amounts of EIB financing within the same time frame.

The deposits to loans ratio as well as the average FGM Project financing do not correlate with PFIs' daily production of FGM Project financing.

#### 4. Modelling Future Absorption of EIB Funds for the Private Sector

Using the data presented in Figure 5 we construct a linear regression model with one predictor variable:  $y = ax + b$ . The dependent variable  $y$  is the daily absorption rate of EIB funds by the PFI, expressed in euro. The predictor  $x$  is the gross loan portfolio of the PFI expressed in millions of euro.  $b$  represents the constant of our linear model. The model is statistically

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significant at 0.01 level. The coefficient of determination, which indicates the proportion of the variance in the dependent variable that is predictable from the predictor, is 0.941 – very close to 1 or 100%.

The future daily absorption of EIB funds by each PFI can be estimated with the formula:

$$y = 27.2 x + 1,041$$

If all currently active PFIs will continue to disburse FGM Project loans as before and RNCB will become active around June 2020, using the model, all other thing being equal, we expect an absorption of EUR 39.6 million in additional EIB funds by the last day of the current credit line allocation period. This mean a total absorption of 61% of the EUR 108 million committed by the EIB to private end-borrowers.

Under same circumstances, full absorption of the EUR 108 million will happen at the end of 2024. Validation of this hypothesis implies the need to extend the allocation period with 28 additional months to ensure full absorption of the EIB credit line committed to the private sector. The proposed EIB credit line allocation end date is 30 November 2024 or EOY 2024.

If no quantitative and qualitative improvements will happen to the FGM Project and all other external factors won't change dramatically, the volume of FGM loans disbursed by each PFI at the end of the current EIB credit line allocation period will have the estimates provided in Figure 7.

**Figure 7: Estimates of Volumes of Disbursed FGM Loans from EIB Funds**

<b>PFI</b>	<b>Rank by loan portfolio</b>	<b>PFI</b>	<b>Gross Loan Portfolio, EUR million</b>	<b>Estimated absorption within current credit line allocation period, EUR million</b>
AGRN	1	Yes	740	20.9
MOLD	2		393	
MOBB	3	Yes	325	17.6
VICB	4	Yes	211	6.0
PRCB	5	Yes	129	11.2
FTMD	6		86	
EXMM	7		60	
ENEG	8	Yes	48	3.8
RNCB	9	Yes	38	1.7
CMTB	10	Yes	37	4.7
ECBM	11		28	
<b>TOTAL</b>		<b>7</b>	<b>2,096</b>	<b>65.9</b>

From a quantitative perspective, the inclusion of more banks, especially the one that ranks second in terms of portfolio and possibly the sixth and the seventh is mandatory to accelerate absorption of EIB funds. A few non-bank financial institutions active in Moldova have large outlet networks. These usually serve smaller businesses, including many farmers. Participation of few non-bank institutions in the FGM Project can bring added value to the Project and to their customers.

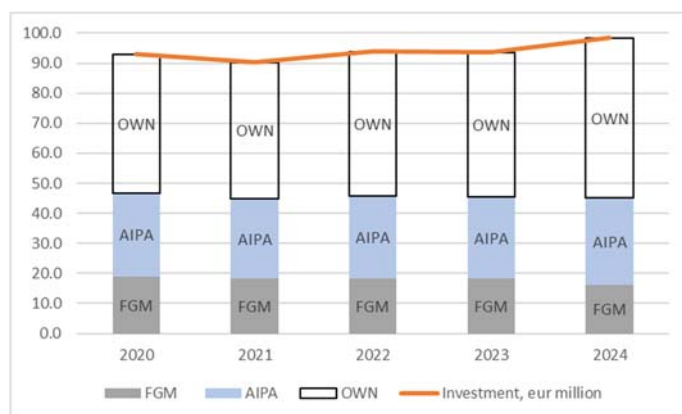


## 5. Potential demand for FGM Project financing

At the beginning of 2020 the MOA released the governmental plan for the development of horticulture for the years 2020 - 2026. It summarises main policies and expected interventions of the GOM to render the horticultural sector more sustainable. The governmental plan acknowledges that in the period 2017 - 2019 the governmental Agency of Interventions and Payment for Agriculture (AIPA) approved for subsidy payments: 1,456 projects to support investments made in new orchards; 700 projects to support investments made in new vineyards; and 1,526 projects to support investments made in rooting out old or compromised orchards and vineyards. AIPA recognised a total of EUR 85 million in investments realised by these 3,682 approved projects. In the same period EIB approved 38 Sub-Projects involving the planting, replanting or restructuring of orchards and vineyards. The total value of Sub-Projects was EUR 9 million out of which EUR 4.4 million in EIB financing.

The governmental plan for the development of horticulture forecasts a gradual increase in the volume of fruits, vegetables and berries produced in Moldova reaching a 54% growth in the year 2024, if compared to 2019. This increase will be the result of improvements in technology and replacement of unfit varieties, while the surface dedicated to horticultural products will remain the same. Such increase in production volumes will determine a need for additional post-harvest infrastructure, namely cold-storage facilities. The governmental plan forecasts equally a gradual increase in volume of cold-stored horticultural products reaching in 2024 a 71% growth, if compared to 2019.

**Figure 8: Annual investment needs defined by the governmental plan for the development of the Moldovan horticulture, in million of euro.**



Overall, the governmental plan for the development of horticulture for the years 2020 - 2026 estimates an investment need of EUR 789 million, out of which EUR 546 million to be provided by the entrepreneurs from savings, profits and borrowings. The governmental plan does not rely on foreign direct investments. Since foreign companies and nationals cannot buy or hold land in Moldova, horticulture does not appeal to foreign investors.

The FGM Project funds could cover up to 19% of the investment needs for the years 2020 – 2024 until the EIB credit line is fully absorbed.

## **6. Conclusions**

From the activation of the credit line on 27 May 2016 until 27 May 2020 the EIB approved EUR 26.3 million for the financing of 127 Sub-Projects initiated by 107 distinct businesses – beneficiaries of the FGM Project. At 27 May 2020 about 65% of the credit line allocation period has passed while only 24.4% of the net EUR 108 million have been allocated by the EIB for approved private Sub-Projects.

Currently the FGM Project experiences increased popularity amongst banks and entrepreneurs investing along the horticultural value chain. One third of accepted so far EIB funds have been approved in the last six months: December 2019 to May 2020. In spite of this sharp increase in credit line allocations, estimates show that only EUR 66 million out of the net EUR 108 million can be allocated to the private sector by the end of the current allocation period. These estimations do not consider the potential negative effects of the global pandemic that affected Moldova in the spring of 2020.

The FGM Project will require, under provided assumptions, 28 additional months to ensure full absorption of the EIB credit line committed to the private sector.

This Report acknowledges that the political and economic turmoil augmented by the 2014 Moldovan bank fraud scandal greatly affected the set-up and launch of the FGM Project. At the beginning of 2020 most effects of that fraud have been partially or fully resolved. Investment climate and business regulation improved in the period 2016 – 2019 and is set to improve further if the solutions the GOM will elaborate to mitigate the 2020 pandemic crisis effects will be oriented to support businesses.

The FGM Project started financing operations with three banks representing only 1/5 of the assets of all licensed banks in Moldova. In 2020 seven out of eleven banks were PFIs of the Project. These have assets totalling 70% of all Moldovan banks. Since the size of the PFI is a strong predictor of its capacity to convey the EIB funds to Project beneficiaries, these PFIs are expected to disburse about EUR 18 million per year in funds provided by the EIB under the FGM Project. This amount will represent about 19% of the annual need in investments in the horticultural sector of Moldova that the GOM wants to achieve by stimulating private investment with state subsidies.

Moldovan businesses are credit constrained. Agricultural businesses are particularly affected because many cannot use efficiently their assets as collateral. Banks use high discount coefficients when evaluating the value of assets, especially assets located in rural areas. The FGM Project does not offer any mechanism which helps solve the collateral problem of potential beneficiaries. The GOM has no solution to this problem either.

## **7. Recommendations**

This Report recommends high-level stakeholders to consider setting a new EIB credit line allocation end date on or beyond 30 November 2024. The FGM Project will require, under provided assumptions, 28 additional months to ensure full absorption of the EIB credit line committed to the private sector.

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This Report recommends the inclusion of all banks which are licensed by the NBM as PFIs, if these banks manifest an interest to participate in the Project. MOLD, which is the second largest bank in Moldova and which is not a PFI can use its large network of outlets and officers to reach out to many businesses in need for affordable financing.

Main Project stakeholders (including End-borrowers, PFIs and PIU) value the overall contribution of the TA to the Moldovan horticulture sector within the scope of the projects. As the availability of the TA ends in May 2021 and the Project lasts longer, this Report recommends to consider the extension of the TA availability.

In addition to banks, in Moldova operate several large non-bank financial institutions which issue secured and unsecured business loans of EUR 20 thousand and above. Some of these microfinance institutions have good financial standing and large rural networks, reaching to many businesses working at the base of the horticulture value chain. Inclusion of a few large non-bank financial institutions in the Project might increase absorption of EIB funds by smaller farmers which are amongst the most credit constrained businesses in the country.

## **8. References**

- International Monetary Fund. 2019. World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers. Washington, DC, October
- Jagland, Thorbjorn. 2015. Bring Moldova Back From the Brink. The New York Times International Edition, 11 August 2015
- World Bank 2020, World Development Indicators
- NBM 2020a, National Bank of Moldova. NBM Exchange rates database.
- NBM 2020b, National Bank of Moldova. NBM Interest rates database.
- NBS 2019, National Bureau of Statistics of the Republic of Moldova. Business demography in Moldova in 2018
- EIU, 2020. Economist Intelligence Unit: Moldova: risk assessment, 24 January 2018