



# Taking decisions in uncertain times with Credit Insights on Demand



A woman with curly hair is sitting on a bed, looking down at a laptop. She is wearing a light-colored jacket over a striped top. The room has a brick wall and a window in the background. The lighting is dim, with a blue tint. There are yellow pillows on the bed.

The need to respond to the current market challenges whilst simultaneously ensuring customers' digital expectations are fully met, means Bulgarian financial institutions need to re-examine the accuracy, speed and responsiveness of their credit risk decisioning.

# A bleak outlook for the economy and employment

There have been extreme economic shocks in Europe and across the world caused by the outbreak of Covid-19 and there is real uncertainty about timing of recovery.

It is already clear that we are in a global recession with the International Monetary Fund predicting negative GDP growth of -4.4% for 2020<sup>1</sup>. For Europe the expectation is even worse at -7.2% while for Eastern Europe is in line with the global forecast at -4.6%.

The Bulgarian National Bank is currently predicting a 4.4% annual decrease in Real GDP for Bulgaria which is close to the expectations for Eastern Europe<sup>2</sup>.

The crisis will unfortunately see many businesses face bankruptcy which will increase levels of unemployment. In the Euro Area the rate of unemployment is already 8.9% up from 7.6% in 2019<sup>3</sup> and in Bulgaria it is expected to be about 5.4% in Q4 of 2020 up from 4.1% in the fourth quarter of 2019<sup>4</sup>.

The high risk of bankruptcy facing many SMEs clearly exposes their employees to potential unemployment and the risk of financial difficulties in meeting their credit obligations. However, with the economy contracting generally, the prospect of employees who have been made unemployed finding alternative employment may be limited. Therefore, at this current time, business risk is particularly highly correlated with individual consumers' credit risk.

(1) World Economic Outlook (Oct 2020) by IMF

(2) BNB Macroeconomic Forecast Report, December 2020

(3) World Economic Outlook (Oct 2020) by IMF

(4) BNB Macroeconomic Forecast Report, December 2020



# The pandemic has caused a change in consumer behavior



The pandemic has also affected consumer behavior with increased use of digital services across almost every aspect of life. More people are transacting on-line and the take up of mobile banking has increased across the board including amongst the less technology aware older generations.

New habits have become instilled in consumers which will undoubtedly remain when recovery returns. This is good news for the digital transformation programmes many financial institutions have been working on in recent years. They are creating real value for customers and the pace of development in this area is only likely to increase.

Consumer on-line service expectations have been raised by their "one click" interactions with global internet giants and they are looking for comparable experiences in their dealings with banks and financial institutions.

In terms of new customer credit applications, these expectations mean that any form of friction or delay within digital journeys will risk customers abandoning the process and going to a competitor.

Automation to increase the speed of decisioning is therefore critical to securing new customer revenues.

## The local market context



More people are transacting online



Rising unemployment



Increasing non performing loans



Rising provision levels



Negative GDP growth



Customers are expecting "one-click" experiences

# Taking decisions for credit is becoming more difficult than ever

The dynamics of credit risk decision making have changed significantly. Levels of loan restructuring and postponement of financial obligations have increased significantly following the introduction payment moratoria.

Debt restructuring levels have been high and have applied to approximately 10% of both household loans and loans to non-financial corporations (NFCs), and more than 15% of loans to small and medium size enterprises (SMEs).

After the moratoria are over, and we move further into recovery it will become clearer how many will roll on to Non-Performing Status or revert to become fully performing. Even if a third of existing loans have issues, this could significantly increase banks' non-performing loan (NPL) ratios.

This has been reflected by significant increases in levels of provisions in the last year.

## Uncertainties for individual customers cannot be resolved by relying on historic data

The transition to the "new normal" therefore creates multiple challenges in taking a credit-related decision due to uncertainty over:



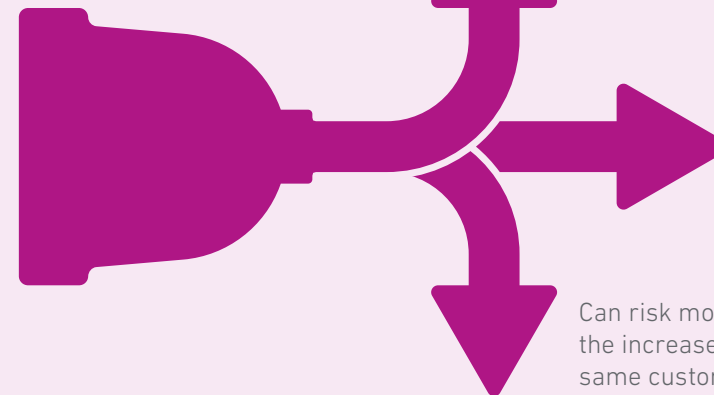
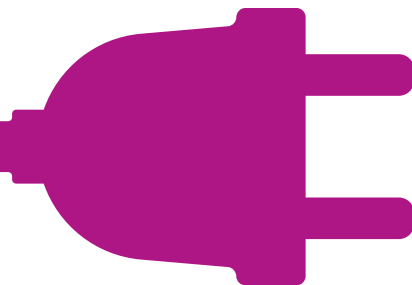
Will the business customer and the individual customer face difficulties after the moratorium?

Will individual customer's jobs be at risk?

Will individual customers face a reduction in salary?

These uncertainties therefore raise doubts about whether risk models will be able to fully predict these increased risks.

### HISTORICAL DATA



Will a customer face difficulties after the moratorium?

Will a customer face a job loss or salary decrease?

Can risk models predict the increased risks for the same customer



## How should financial institutions **respond**?

Meeting these new risks, whilst simultaneously meeting consumers' digital expectations, requires action to be taken in the following areas:



Update credit risk models and strategies to adapt to current circumstances.



Use all available existing data sources to ensure as comprehensive a view of risk as possible.



Use data in an optimal way with stable and accurate predictive models to achieve high levels of automation.



Automate customer treatment strategies to meet customer expectations.



Gain new data to improve risk assessment.

# How we **can help** financial institutions?

Experian's Credit Insights on Demand platform provides access to a wide range of services ranging from basic expert scorecards to advanced innovative solutions such as the web data Scores for small and medium sized enterprises (SMEs).

## **Real-time in no-time**

The Customer Insights On-Demand Platform provides a range of real-time credit risk assessment services which will enable you to give an immediate response to new credit applications. The speed of the service will help ensure high levels of customer satisfaction and help minimise abandonment rates.

## **Access to knowledge and up-to-date models and strategies**

Experian has been active in the credit risk decisioning for the Bulgarian market for over 15 years. The platform gives you access to the most up-to-date credit risk assessment tools. The models and strategies on the platform are robust and are regularly re-assessed to ensure they reflect the current challenges and the potentially long road to recovery. They have been developed using the extensive knowledge and expertise of our specialist, local consultants who work with the top financial institutions in Bulgaria.

## **Rules and scores enable automated decisioning with options for customization**

To help automate unsecured lending decisions for both consumers and SMEs, we can provide credit policy rules and scores that can be integrated within client systems.

# Risk modelling using Central Credit Register data

## **What does the service do?**

- Leverage the power of data from Central Credit Register
- Access up to date credit risk scores
- Acquire stable and accurate predictive models and customer strategies that can support high levels of automation

## **How is it accessed?**

- Individual consumer or SME
- Outputs in real time or batch
- Basic or bespoke services
- Easy to implement



Insightful



Fast



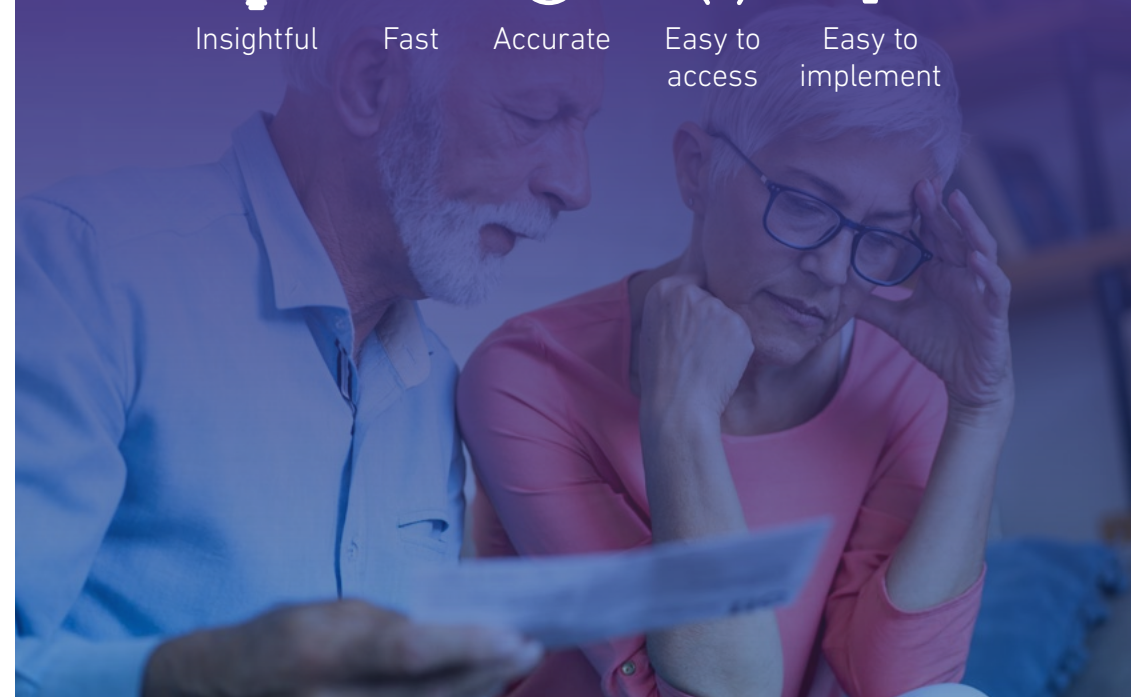
Accurate



Easy to access



Easy to implement



With the overall CCR score service clients receive:

01

Stable and sound credit risk score and rating plus supporting explanation (to aid compliance)

02

Automated preparation of unstructured CCR raw data

03

Real time decisioning in milli-seconds

04

Automated Scores for SMEs and Private Individuals

This service can be fully tailored to reflect client needs and enable client-specific policy rules and scores to drive automated system decisions.

#### **Central Credit Register scores for an enhanced risk assessment**

Bureau-like risk scores are quite essential to the decision making of credit institutions. In recent years the Central Credit Register (CCR) has expanded the reach of data it provides to credit institutions. This has increased the value of CCR data and its value for risk assessment purposes. However, the data is by nature unstructured and many financial institutions lack the specialist analytical and data science expertise to enable them to use this data to its full potential.

Experian as an expert in credit bureau scores (having also already had a Credit Bureau in Bulgaria) and, using best practice methodologies, has built robust and stable CCR scores for both private individuals and SMEs.

The CCR scores have been thoroughly tested using consumer and SME data from financial institutions. This testing has shown that performance of 45 to 60% discriminatory power (GINI coefficient) and up to 30% improvement in accuracy of existing client models measured on datasets containing 500+ defaults.



## Additional SME risk assessment using Experian Web Data Scoring

Experian's Web Data Scores for SMEs is an innovative model developed for Bulgaria and which predicts the likelihood of default for financial institutions products for SMEs operating and registered in Bulgaria. It uses a specially designed web crawler to automatically seek out, select and acquire relevant public web data. It then analyses this data to identify detailed information about the SME business. These insights are then analysed using machine learning and advanced predictive analytics to reveal fresh indicators of risk which can then be used to create a web data risk score.

As the model and scores are based on insights extracted from an entirely new set of data variables, they are not correlated with the data currently used by financial institutions. This means that they can significantly improve risk assessment for SMEs.

The use of web data insights is particularly useful in the current environment for two reasons:

1. As so many businesses during the pandemic have been forced to rely on their on-line presence in order to engage with their customers, this has created significantly increased levels of data and insights that can now be used to inform financial institutions' SME credit risk assessments.
2. The high risk of bankruptcy facing many SMEs clearly exposes their employees to the risk of financial difficulties which could impact their ability to covering their credit obligations. Therefore, employer risk assessments could become a vital part of the assessment of the risk of individual consumers. The Web Score helps solve this challenge by providing a score based on publicly available data – thereby reducing the need to request information directly from the employer.

# Introducing SME Web Data Insights

To access this service, clients simply need to identify to us the relevant SME customer.

01



**Search and acquire Data**

02



**Cluster Attributes**

Machine Learning identify data attributes and then structures and categorise data into clusters

03



**Create Scores**

Clusters with maximum predictive potential are then used to create predictive algorithms and credit risk scores

04



**Blendscores with Central Credit Register data**

The combined score creates a further uplift to GINI

For one financial institution in Bulgaria, web data scoring created a significant risk prediction improvement resulting in more than 20% decrease in expected losses.






## Flexible service options and easy to both implement and maintain

Experian's Credit Insights on Demand offers maximum flexibility in meeting the needs of financial institution across consumers and SME credit decisioning processes.






Having agreed the level of customer information that we will be provided, along with the required outputs for individual consumers and for SMEs, the solution can be implemented in no more than 4-5 weeks depending on the nature of the client infrastructure. Full support and maintenance services are automatically included in the service.

It is a simple to implement solution available for a limited initial investment.

## Individual consumers assessment

Decisioning Process	Standard Service	Advanced Service
 <b>Data to be used</b>	Client-provided data including Central Credit Register (CCR) data, Product data, Customer Socio-demographics, etc.	All data in standard service + other client supplied data based on specific client requirements
 <b>Attributes to be used</b>	No additional attributes used in decisioning	Additional risk attributes supplied by client
 <b>Model configuration</b>	Product specific configurations reflecting "best practice", Pre-set models for different products, pre-set CCR model Models for Mortgages / Personal loans / Small ticket loans / Credit Cards, CCR data model	Configuration agreed with client which is a mix of pre-set (existing) and custom tailored models
 <b>Rules</b>	Experian universal rules	Client-specific policy rules
 <b>Outputs</b>	Standard score and / or Basic decision	Custom score and / or Custom decision and / or Custom strategy

## SME businesses assessment

Decisioning Process	Standard Service	Advanced Service	CCR Scores	Commercial Score	Blended SME Scores
 <b>Data to be used</b>	SME Company data and owner data (provided by client)	Web data*	Central Credit Register Data (provided by client)	Official data from Trade Register, NSSI, etc.*	Combination of traditional data, web data and CCR data
 <b>Attributes to be used</b>	Traditional	Attributes created from analysis of web data	Attributes derived from CCR data	Financial Data, Social Security data, Ownership data, Courts data	Attributes derived from analysis of combined data
 <b>Model configuration</b>	Either "Best practice" configurations or client provided				
 <b>Rules</b>	Either Experian universal rules or client supplied policy rules				
 <b>Outputs</b>	Score and / or decision and / or strategy				

(\*) Acquired by Experian

## To find out more, get in touch

If you would like to find out more about how our Credit Insight On-Demand Platform can help you transform your customer relationships and supporting operational processes, contact the Experian Bulgarian office.

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