COVID-19 PLAYBOOK

Alleviating the impact of COVID-19 on Credit Scoring

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In today's round table we will cover:

- A phased response to the COVID-19 pandemic
- The implications of COVID-19 on credit model performance
- Considerations for model development and/or maintenance in a post-COVID world
- TransUnion's global COVID-19 model response plan
- Wrap-up

COVID-19 will have significant implications on global growth and job security with the repercussions being felt in South Africa too

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Pre-COVID-19 World

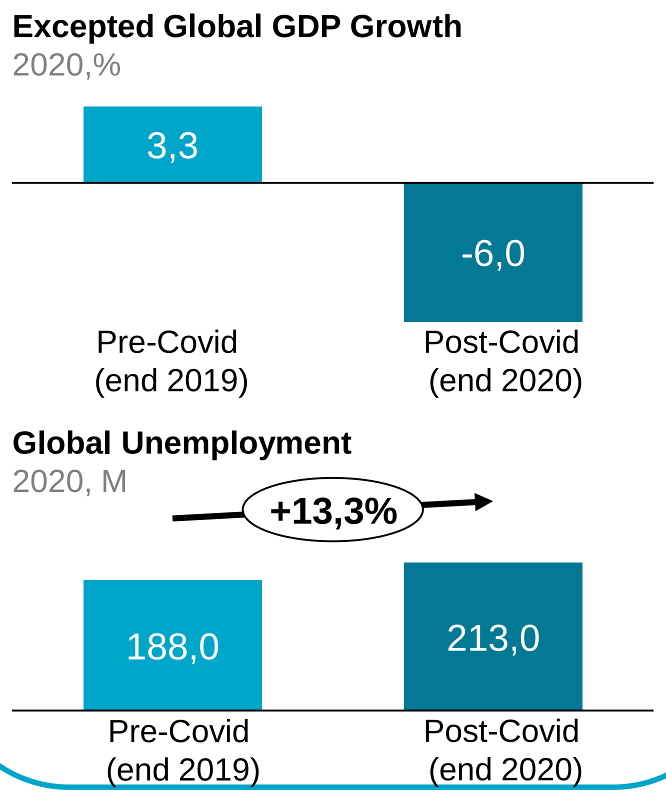
The macroeconomic landscape was already fragile to begin with:

- The **global economy was expected to** match or slightly underperform 2019 levels driven by **a reduction in manufacturing activity**
- **Monetary policy has limited room to maneuver** given lower interest rates & large balance sheets of central banks

Unemployment was projected to be stable with efforts around labour utilisation being prioritised

- Current **projections show an increase in unemployment of 2.5M[2] per year** (as demand outstrips supply)

Pre and Post COVID-19 Impact



Post COVID-19 Implications

Market consensus is that COVID-19 will have a notable negative impact on global growth:

- 82% of economists believe that COVID-19 will **cause a major recession[3]**
- Over 85% believe an economic **downturn of greater** than **3% is likely and almost a quarter believe** that a downturn of greater than **5% downturn is likely[4]**

Unemployment is expected to worsen:

- Worse-case, mid and best-case scenario of **global job losses at 23M,13M & 5M**, with worse-case levels **above those seen during the 2008-9 recession (22M jobs were lost)[2]**

1 – Oxford Economics; 2 – International Labour Organisation; 3 – IGM Forum & 4 – Focused Economics, OECD

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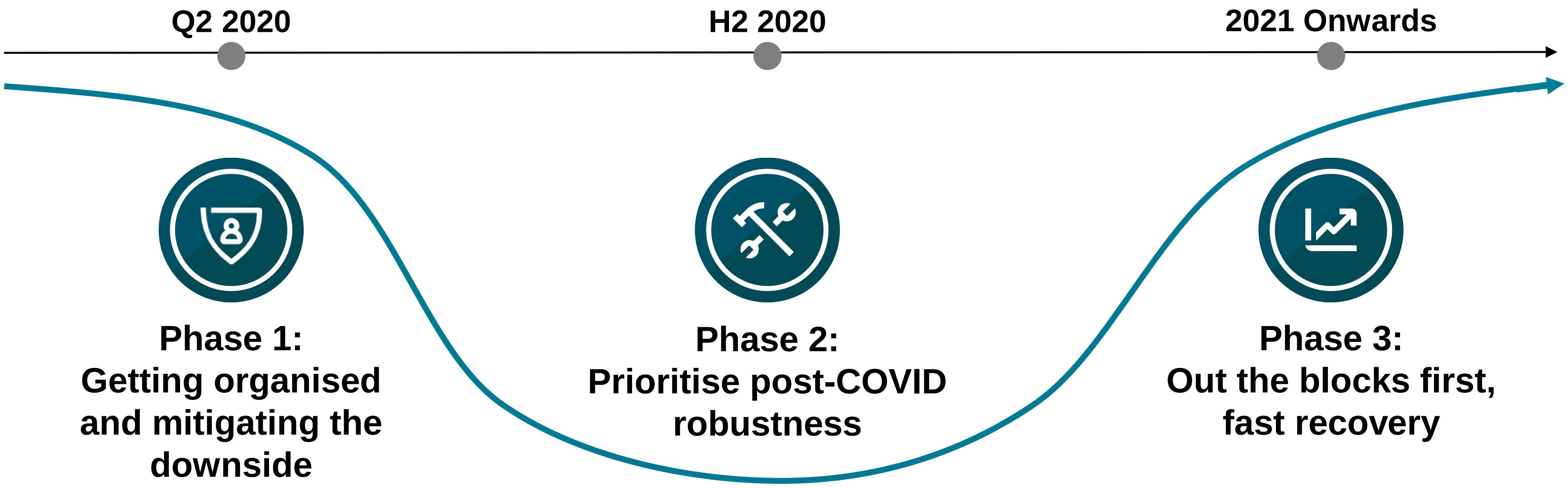
Source: Econometrics, Focus Economic, World Bank, Investec, International Labour Office (ILO), OECD

Analytical Teams should be thinking of their response to the COVID-19 pandemic in three phases



Sudden impact
Bureau reporting impacts, debt relief and risk mitigation measures

Calm before the storm?
The extended implications of consumer debt relief measures

New normal?
The repercussions of COVID-19 on consumer behaviour

Phase 1: Sudden impact, or soft landing?

Setting the scene for how to respond in phase 2 and 3

Bureau Reporting Impact	Debt Relief & Risk Mitigation	Consumer Impact
Observations during phase 1		
• **Public data providers** unable to support normal operations during lock down to supply court information, deeds information and debt review updates. • **Late submissions** or non-submission of monthly SACRRA data	• Significant pull back in **new customer acquisition** during and after lockdown • 17x the number of **deferred payments granted** compared to pre-COVID-19 • 6x the number of **loan term extensions** compared to pre-COVID-19	• 37% of consumers have had their **work hours reduced**[1] • 14% of consumers have **lost their jobs**[1] • 26% of consumers have felt the impact in their **family unit**[1] • 89% of consumers are **concerned about paying their current bills**[1]

Assessing the impact on credit scoring models

- We conducted an impact analysis to understand which models are potentially exposed to notable 'artificial' score shifts as a result of changes in bureau reporting and reduced enquiry volumes during lockdown
- We have implemented enhanced variable stability monitoring to assess the robustness of our Credit Vision suite against changes in bureau reporting and reduced enquiry volumes during lockdown

[1] TransUnion Financial Hardship Report – SA (June 2020)

Introducing our Round Table Participants

Gerhard Muller (SA) (Moderator)
Director, Data Science & Analytics - Africa
Email: Gerhard.Muller@transunion.com

Shannon Fair (USA)
Snr Director, Data Science & Analytics – International
Email: Shannon.Fair@transunion.com

Neil Hancox (UK)
Principal Consultant, Data Science & Analytics – UK
Email: Neil.Hancox@transunion.co.uk

Wei Lin (HK)
Snr Manager, Data Science & Analytics – Hong Kong
Email: Wei.Lin@transunion.com

Christelle Rall (SA)
Credit Vision Product Lead – Africa
Email: Christelle.Rall@transunion.com

Andries Haywood (SA)
Manager, Data Science & Analytics – Africa
Email: Andries.Haywood@transunion.com

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Wrap-up & Key take-aways

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- Analytical teams should think about their responses to how models will be impacted by COVID-19 **across 3 phases**.
- We expect that **debt relief measures will delay delinquency for impacted consumers during phase 2**, but in a worse-case scenario **increase to unprecedented levels** when we reach phase 3.
- As a result, **consumers with debt relief measures may be scored higher than they should during phase 2**. We also expect to see **traditionally deemed good risk consumers default due to reduced income or job loss**.
- As we move into phase 3, **credit risk models are expected to continue to rank order risk**, **but may under predict** if delinquencies increase as expected.
- A number of **considerations should be taken to enhance model robustness** during model development and maintenance. These include using variables that describe behaviour over longer periods, spreading variable contribution, considering a more recent validation sample, considering additional pre-scoring filters.
- ML techniques can be used to **enhance the final model performance**, but also to **shorten development cycles**.
- Models need to **be monitored as frequently as relevant data gets refreshed** and should track both **scorecard performance and variable stability**.
- TransUnion's CreditVision product aims to **equip our clients to make timely and informed decisions**, and include alternative data **providing more information about the consumer**.