

Step into the shoes of a banker, and take the lead over your own bank

MERCURSIM is an interactive, web-based simulation, enabling a trainer with credit risk expertise to set up their own fictitious banking environment, with the possibility to mimic specific market conditions, for a number of competing banks. The goal is to create a competitive playing field on which participants directly compete with other banking institutions within the same market. Sustainability is the main objective. MERCURSIM is provided with course material and pre-established simulation scenarios that illustrate various aspects of performance and risk present in the banking sector.

Educational value

MERCURSIM is a system that is mainly designed for students who feel the need to apply their theoretical knowledge in a real-life practical setting. Our simulation focuses on the following objectives:

- **Reading and understanding the balance sheet.** Players can view credit products of different maturities, work with loan provisions, and make credit purchase decisions based on financial information on the balance sheet.
- **Reading and understanding the income statement.** Players can see how the income statement is constructed over the whole game period.
- Liquidity risk and interest risk management. Players can work with the loans outstanding that are split into maturity categories, and how these can be used to perform a GAP analysis.
- Credit risk management. Players are motivated to actively monitor their risk when making purchasing decisions, based on loan provisions and economic capital.
- Effects of loan diversification. Players can buy and sell credit products from different market segments and see how this affects their risk exposure.

Our solution philosophy

STACHANOV has created an environment to help provide an answer to the complex formulae, welded with the latest knowledge of financial agreements, combined with firsthand experience in the banking world. We have thorough experience in modelling reflections of the real financial world. The result is a banking simulation that is grounded in the latest theoretical frameworks, and practical first-hand experience in the banking industry.

The Mercursim system

MERCURSIM is a simple and transparent system that is web-based and allows students to experience all steps of decision-making in the banking industry. The MERCURSIM banking simulation provides the following features:



Practical tools based on theory. All aspects of the banking simulation are grounded in theory. Whether it is asset and liability management (ALM), accounting principles, risk management, all theories can be demonstrated using the tools in the simulation.



Continuous playing. One of the unique aspects of the Mercursim is the fact that the simulation is continuous, and not step-by-step based. The main advantage is that a player will see ratios and data being updated continuously, and immediately see the effects of their decisions.



Incredibly competitive. Players are constantly bidding against each other to win credit product deals to finance their bank. This leads to a lot of interaction, excitement between the players.



Export data. Players can export all the data available in the simulation to an easy to use Excel or .csv format. This enables them to

recalculate all ratios made in the dashboard, making it a practical finance laboratory.



Continuously compounding interest. Using continuously compounding interest enables the player to be actively involved in asset liability management, by creating projected balance sheets and executing stress tests.



Easy to master and easy to integrate. Although the banking simulation consists of a powerful back-end, the front-end for the user is as simple as a web-based tool. So, there is no need to install new software packages.



Visualization tools. To create the best educational tool, players are equipped with visualization tools that elucidate financial ratios and make decision making more transparent.

Additionally, MERCURSIM provides the following benefits:



Information security. We are proud of the fact that our organisation holds the ISO/IEC 27001, 9001 and 14001 certifications, which supports our professional approach and execution.



Log-in and run. Once players receive their log-in credentials, they are able to login to the system, and start running the simulation.



Affinity with the industry. Although we are an IT company, we are specialised in the financial and MFI sector; our IT engineers speak the same language.

Demonstration

Figure 1. Dashboard of the simulation. Players can see the general status of their bank, including the most important ratios.

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Dashboard Market place Market place Balance sheet Gap analysis Risk weighted assets Ratios	Dashboard UGGED WAS: test (player) B EURBOR NI BASS POINTS 10	108 TODAY IS DAY (1 YEAR = SKI):	Refresh data	
Income statement	Bank statistics 97,201 E	80,000 Eta lisibilisie (excluding central bank advance)	O Total defaulted amount	8
Savings	0 Total number of defaulted leans	7,812 The Herfindah Hinchman Index for savings		

Figure 2. Market place for bidding. Players are able to bid against each other to win credit products that can be used to finance their banking operations.

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hboard									
ket place					Marke	et Place			
ice sheet					Available credit	products on r	narket		
nalysis	Demand	Supply							
ed assets	Loan-	Begin		End	Principal	Annual	Actual	Loss given	Market
5	ID	date	Tenor	Date	amount	PD	PD	default	Segment
itement	127	43	240	283	50,000	0.02	0.01329	0.2	E
nent	128	43	270	313	50,000	0.05	0.03727	0.8	В
	129	43	420	463	5,000	0.02	0.02337	0.2	E
tory	130	44	210	254	20,000	0.04	0.02314	0.6	c
es 🤇	131	44	540	584	20,000	0.06	0.09134	1.0	A
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	136	46	300	346	5,000	0.05	0.04150	0.8	В
					Add a amount in basis p	oints (1 basis point obability of default	= 0,01%)		
					100				
					Ad	id bid!			

Figure 3. Balance sheet. Players are able to see the well-known balance sheet of their bank. The loans and savings are categorised according to their term.

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🕜 Dashboard						
🔦 Market place	Balance sheet					
Balance sheet	Download as csv Download as Excel speadshe	eet				
🖩 Gap analysis	Assets			Liabilities		
🖩 Risk weighted asset	Loans			Savings		
Ratios	Outstanding 1 - 15 days:	0		Outstanding 1 - 15 days:	0	
		*				
	Outstanding 16 - 30 days:	0		Outstanding 16 - 30 days:	0	
Graphs	Outstanding 31 - 90 days:	0		Outstanding 31 - 90 days:	10,000	
	Outstanding 91 - 180 days:	60,000		Outstanding 91 - 180 days:	20,000	
Bid history	Oustanding 181 - 1 year:	15,000		Outstanding 181 - 1 year:	0	
🛙 Tables 🔍 🖌	Outstanding 1 - 2 years:	25,000		Outstanding 1 - 2 years:	50,000	
	Outstanding > 2 years:	0		Outstanding > 2 years:	0	
	Total loan portfolio (gross):	100,000		Total Saving portfolio		10,000
	Loans provisions:	(2,798)		Equity:	20,000	
	Total loan portfolio(net):		97,201	Profits current period:	-3254	
				Total equity:		16,746
	Cash or cash equivalents:	0		Central bank advance	457	

Figure 4. Ratios. Players are able to see the most important ratios of their bank.

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🍘 Dashboard				
🔦 Market place	Ratios			
Balance sheet	Liquidity (30 days)			
🖩 Gap analysis	Current assets	457 Current liabilities	20% Liquidity ratio	456 Working capital
III Risk weighted assets	E.	~	/0	e
III Ratios				
Income statement	Liquidity (90 days)		_	
🕍 Graphs	Current assets	Current liabilities	2% Liquidity ratio	•10,456 Working capital
Bid history				
III Tables 🔍	Economic capital			
Loans	so%	99 %	24,071	23 %
 Savings 	% Correlation in default behaviour	% Confidence level	Economic capital	23 To Economic capital as percentage of loan portfolio

About us

MERCURSIM is a product developed by STACHANOV, a company located Amsterdam, the Netherlands. The company is a renowned niche-specialist in the design, construction and implementation of financial models and IT-applications for the financial industry. At STACHANOV, we distinguish ourselves through vigour, a lust for work and dedication. We have been delivering solutions to clients, at home and overseas, for over fifteen years. Relations appreciate our serious, no-nonsense attitude, and our ISO-certifications regarding 9001, 14001 and 27001 support our professional approach and execution.

Company information



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Contact us

Our specialists are always prepared to answer your enquiries. If you are interested in the MERCURSIM simulation system, and would like to know more about it, our partners are pleased to give you a presentation and a product demonstration to show all its features.

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