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## ReThink Finance - integrating innovative paradigms and digital technologies into financial teaching and literacy

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# Intensive Summer Programme for economics students “FinTech: digital finance and blockchain” - curricula



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**Curricula – Intensive Summer Programme for economics students “FinTech: digital finance and blockchain”**

<b>TOPIC 1</b>			
<b>Digital technologies – an imperative transformation</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>	To clarify the goals and the lectures contents	<ul style="list-style-type: none"> <li>Introduction</li> </ul>	Computer classroom for students with Internet access, projector,
<b>2 hours</b>	To introduce the students to the reasons why of the rapid development of new technologies applied to finance and financial intermediation, combined with the Blockchain spread in almost every field of economy and society.	<ul style="list-style-type: none"> <li>Frontal teaching on “Digital technologies – an imperative transformation”</li> </ul>	M. POMPELLA, Roman MATOUSEK (2021), The PALGRAVE HANDBOOK of Fintech and Blockchain, Palgrave-MacMillan.
<b>1 hour</b>		<ul style="list-style-type: none"> <li>Question time</li> </ul>	Discussion
<b>2 hours</b>		<ul style="list-style-type: none"> <li>teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 2</b>			
<b>The drivers of future changes in the digital era</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>Sum up previous lecture</li> </ul>	



<b>2 hours</b>	<p>What are the key trends driving the future of the digital transformation?</p> <ul style="list-style-type: none"> <li>- Interactive presentation</li> <li>- Discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Frontal teaching on “The drivers of future changes in the digital era”</li> </ul>	<p>Zia Qureshi and Cheonsik Woo (ed). “Shifting Paradigms: Growth, Finance, Jobs, and Inequality in the Digital Economy” Brookings Institution Press 2022</p> <p>“Digital technologies for a new future”, UN-CEPAL 2022</p>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Question time</li> </ul>	Discussion
<b>2 hours</b>		<ul style="list-style-type: none"> <li>• teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 3</b>			
<b>Digitalization in financial sector – why it is different from other sectors</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Sum up previous lecture</li> </ul>	
<b>2 hours</b>	<p>How is digital technology impacting financial services industry?</p> <ul style="list-style-type: none"> <li>- Interactive presentation</li> <li>- Discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Frontal teaching on “Digitalization in financial sector – why it is different from other sectors”</li> </ul>	<p>G. Andrade (ed.) “Shaping the future of financial services in the Digital economy” IDB 2019</p> <p>Erik Feyen, Jon Frost, Leonardo Gambacorta, Harish Natarajan and Matthew Saal “Fintech and the digital transformation of financial services: implications for market structure and public policy” BIS Paper No 117, World Bank 2021</p>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Question time</li> </ul>	Discussion



2 hours		<ul style="list-style-type: none"> <li>teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 4</b>			
Not changing but adapting the business model for a better risk management, in financial sector			
Time	Learning goals and activities	Agenda	Resources
1 hour		<ul style="list-style-type: none"> <li>Sum up previous lecture</li> </ul>	
2 hours	<p>How adapting the business model for a better risk management, in financial sector?</p> <ul style="list-style-type: none"> <li>Interactive presentation</li> <li>Discussions</li> </ul>	<ul style="list-style-type: none"> <li>Frontal teaching on “Not changing but adapting the business model for a better risk management, in financial sector”</li> </ul>	<p>S. Aramonte, W. Huang A. Schrimpf DeFi risks and the decentralisation illusion, BIS Quarterly Review, December 2021</p> <p>J. Weking, M. Mandalenakis,</p> <p>A. Hein, S. Hermes M. Böhm H.Krcmar</p> <p>The impact of blockchain technology on business models – a taxonomy and archetypal patterns, Electronic Markets (2020) 30:285–305</p> <p><a href="https://doi.org/10.1007/s12525-019-00386-3">https://doi.org/10.1007/s12525-019-00386-3</a></p>
1 hour		<ul style="list-style-type: none"> <li>Question time</li> </ul>	Discussion
2 hours		<ul style="list-style-type: none"> <li>teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials



<b>TOPIC 5</b>			
<b>Understanding FinTech and how it changed the 21<sup>st</sup> century</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>Sum up previous lecture</li> </ul>	
<b>2 hours</b>	<p>The goal of this section is gauging whether the technological developments and innovations that have been bringing about new patterns of banking and financial intermediation equate to the developments and disruptions observed in other sectors, and to follow how the process developed over the latest 25 years.</p>	<ul style="list-style-type: none"> <li>Frontal teaching on “Understanding FinTech and how it changed the 21<sup>st</sup> century”</li> </ul>	<p>M. Pompella, Costantino L., (2019), Fintech and Blockchain based Innovation, “UBERIZATION” of banks, in the Context of FIs Theory, Vestnik of UNN, Lobachevsky State University of Nizhniy Novgorod (RUSSIAN FED.), 4/2019.</p> <p>M. Pompella, Costantino L., (2021), Financial Innovation and Technology after COVID-19, a few directions for Policy Makers and Regulators in the view of old and new disruptors, EKONOMIKA, 100(2), pp. 40-62.</p>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>Question time</li> </ul>	Discussion
<b>2 hours</b>		<ul style="list-style-type: none"> <li>teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 6</b>			
<b>FinTech and EU – fostering a competitive and innovative financial sector</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>Sum up previous lecture</li> </ul>	



<b>2 hours</b>	<p>What activities foster a competitive and innovative financial sector</p> <ul style="list-style-type: none"> <li>- Interactive presentation</li> <li>- Discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Frontal teaching on “FinTech and EU – fostering a competitive and innovative financial sector”</li> </ul>	<p>I. A. Boitan K. Marchewka-Bartkowiak, Fostering Innovation and Competitiveness With FinTech, RegTech, and SupTech, DOI: 10.4018/978-1-7998-4390-0</p> <p>Fintech: a more competitive and Innovative European Financial sector, Bureau européen des unions de consommateurs aisbl, Brussel, 2017</p> <p>X. Suty, M. Raisch, M. Tooming, Jeff Lynn, Creating a more competitive and innovative financial market, European Commission.</p>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Question time</li> </ul>	Discussion
<b>2 hours</b>		<ul style="list-style-type: none"> <li>• teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 7</b>			
<b>Digital banking. Products and Services in the Digital Finance</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Sum up previous lecture</li> </ul>	
<b>2 hours</b>	<p>Participants are introduced to the relevant innovations of digital finance, such as security tokens, peer-to-peer (P2P) lending, decentralised finance (DeFi). Opportunities for democratisation of finance and financial inclusion</p>	<ul style="list-style-type: none"> <li>• Frontal teaching on “Digital banking. Products and Services in the Digital Finance”</li> </ul>	<p>M. POMPELLA, Roman MATOUSEK (2021), The PALGRAVE HANDBOOK of Fintech and Blockchain, Palgrave-MacMillan.</p>





	are contrasted with the challenges for public regulators and the new risks faced by market participants.		
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Question time</li> </ul>	Discussion
<b>2 hours</b>		<ul style="list-style-type: none"> <li>• teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 8</b>			
<b>Blockchain and cryptocurrency</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Sum up previous lecture</li> </ul>	
<b>2 hours</b>	Participants are introduced to the engine that powers fintech: blockchain. The exposition aims to be rigorous while accessible. Essential concept such as distributed ledgers, mining and hashing are presented. Starting from the original Bitcoin context, new use cases, such as smart contracts, are discussed.	<ul style="list-style-type: none"> <li>• Frontal teaching on “Blockchain and cryptocurrency”</li> </ul>	A. NARAYANAN, J. BONNEAU, E. FELTEN, A. MILLER, S. GOLDFEDER (2016), Bitcoin and Cryptocurrency Technologies. A Comprehensive Introduction, Princeton University Press
<b>1 hour</b>		<ul style="list-style-type: none"> <li>• Question time</li> </ul>	Discussion



2 hours		<ul style="list-style-type: none"> <li>teamwork and interaction between multinational groups</li> </ul>	Discussion, workshop materials
<b>TOPIC 9</b> <b>Stock Trak trading simulation and students competition</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
3h	Students are introduced to Stock Trak trading simulator software.  Students will learn and test trading strategies.	<ul style="list-style-type: none"> <li>Stock Trak trading simulation</li> </ul>	Stock Trak software
4h	Students will analyse different trading strategies and results.	<ul style="list-style-type: none"> <li>Students trading competition using Stock Trak software</li> </ul>	Stock Trak software
<b>TOPIC 10</b> <b>Overview and evaluation</b>			
<b>Time</b>	<b>Learning goals and activities</b>	<b>Agenda</b>	<b>Resources</b>
3h	Course overview and students' feedback related to lectures activity.		



## References

1. M. Pompella, Costantino L. (2021), Financial Innovation and Technology after COVID-19, a few directions for Policy Makers and Regulators in the view of old and new disruptors, EKONOMIKA, 100(2), pp. 40-62.
2. M. POMPELLA; Roman MATOUSEK, The PALGRAVE HANDBOOK of Fintech and Blockchain, Palgrave-MacMillan
3. M. Pompella, Costantino L., (2021), Fintech and Blockchain based Innovation: Technology driven Business Models and Disruption, in: M. POMPELLA; Roman MATOUSEK, The PALGRAVE HANDBOOK of Fintech and Blockchain, Palgrave-MacMillan (Ch. 18).
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6. M. Pompella, Costantino L., (2019), Fintech and Blockchain based Innovation, “UBERIZATION” of banks, in the Context of FIs Theory, Vestnik of UNN, Lobachevsky State University of Nizhniy Novgorod (RUSSIAN FED.), 4/2019.
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22. A. NARAYANAN, J. BONNEAU, E. FELTEN, A. MILLER, S. GOLDFEDER (2016), Bitcoin and Cryptocurrency Technologies. A Comprehensive Introduction, Princeton University Press