

Managing Cross-System Risks in Your Payments & Settlements

A 2-day intensive course on understanding and managing potential contagion in the global financial infrastructure and how it directly affects your institution

Why you should attend

Who Should Attend

Central banks/Monetary Authorities

This course is intended as a primer for all staff who are involved in

- operations of “large value payment systems” (be they RTGS systems or other systems of a similar nature)
- payment system oversight
- operations risk management at all levels

Commercial Banks

This course is intended as a primer for all staff who are involved in

- payment systems
- operations risk management of “large value payment systems” (be they RTGS systems or other systems of a similar nature)

All Senior Bank Staff

The course also serves as an ideal overview for senior and executive management both at central banks and commercial banks of large value payment systems operations, processes and interdependencies.

The network of domestic and cross-border systems that comprise the global payment and settlement infrastructure has evolved significantly over recent years. These systems, like the financial markets and economies they support, are increasingly connected through a wide range of complex interrelationships. As a result, the smooth functioning of an individual system may often depend on the smooth functioning of other related systems.



Recently the Bank for International Settlements highlighted concerns that the speed and multiplicity of potential disruption channels across the global payment system are not adequately reflected in stress-tests, risk controls, contingency funding plans, and crisis management procedures.

The safety of the global payment and settlement infrastructure requires that system operators, bank, financial institutions, and service providers have a clear understanding of payment and settlement risks, and that they manage those risks effectively. The growing range of interdependencies between systems, changes the nature of risks present in the global infrastructure. These cross-system risks also create new challenges for achieving effective risk management.

This course aims to provide participants with the knowledge of payments systems, how they operate and how they occupy a pivotal position in both national and international financial systems. It also seeks to provide participants with the skills that they need to develop a framework for analyzing the risks of interdependencies, along with clear specifics on how these should be addressed. For central banks it also provides their staff will clear guidelines as to the formulation of appropriate policies in managing the problem created by interdependencies in light of the increasingly integrated nature of the global financial infrastructure.

What is the curriculum focus?

What the course covers

The Nature of Large Value Transfer Systems

We examine the core characteristics of Large Value Transfer Systems including their interaction with the economy, payments Infrastructure and markets, the payments process, clearing netting & settlement, the distinction between wholesale & retail systems, payment instruments, payment infrastructures.

How Large Value Transfer Systems Work

- The concept of settlement
- The distinction between deferred net settlement & real time gross settlement (RTGS)
- Securities systems and settlements
- Settlement mathematics
- Large Value System Characteristics
- Case studies – we examine the operations of a number of Large Value Transfer Systems



including FedWire, CHIPS, CHAPS & TARGET2.

- Continuous Linked Settlement (CLS) – what it is and how it operates
- SWIFT – its

role and functions in Large Value Transfer Systems

How Securities Settlement Systems Work

- Key concepts including DvP
- Interaction with Large Value Transfer Systems
- Case studies – we examine the operations of a number of Securities Settlement Systems including the US' National Settlement Service, CREST & LCH Clearent

Liquidity Management

We explore the nature of liquidity and why it is so critical in Large Value Transfer Systems

Case Study – Fedwire & Liquidity

Using data collected over 8 years we examine Fedwire operations and the liquidity question and reveal some interesting findings

The Legal Framework

- We explore the legal responsibilities and liabilities for operational failures in Large Value Transfer Systems in a number of countries
- We examine the core legal frameworks for Large Value Transfer Systems in both the European Union and the United States

Linkages Between Large Value Transfer Systems

- After having provided a solid background for Large Value Transfer Systems and their operations in many different jurisdictions, we are now in a position to begin our examination of interdependencies
- We explore the characteristics and form of interdependencies that have led to a complex web of interconnections among numerous payment and settlement systems, specifically:
 - direct relationships between systems
 - indirect relationships arising from the activities of large financial institutions in multiple systems
 - broader commonalities



- A payment or settlement system typically provides clearing or settlement services for a specific set of financial instruments or assets, has a defined group of direct participants, and is governed by a detailed set of rules and procedures. As such,

a system is usually viewed and analyzed as distinct and separate from other systems. However payment and settlement systems do not operate in a vacuum. Here we examine the diversity of relationships & interdependencies.

- System based interdependencies
- Institution-based interdependencies
- The factors that contribute to interdependencies
- Modelling interdependencies - a practical model

What is the curriculum focus?

Managing Risks in Large Value Transfer Systems

- We explore the nature of risk in Large Value Transfer Systems as well as the policies that are necessary to mitigate these. Specifically we focus on operational risk, how it is analyzed and quantified.
- We examine the current range of international rules and standards for the mitigation and control of these risks.

Risk Management Standards for Large Value Transfer Systems

- This section looks at the main principles of managing risks in Large Value Transfer Systems
- The BIS' "Core Principles for Systemically Important Payment Systems" (SIPS), are examined in detail.



Aspects of Risk Management in Large Value Transfer Systems

- In this section we cover the risks associated with wholesale payment systems, using various risk categories, including reputation, strategic, credit, liquidity, legal/compliance, and operational/transaction risk.
- This section also describes the risk management measures management should establish to mitigate these risks.
- In addition to covering the information technology risks and controls, the course also describes certain credit and liquidity risks that may be present when conducting wholesale payment services.

For further details please contact

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The "New" Risks

- Payment and settlement systems are a major channel by which disruptions can be transmitted across the entire financial system.
- We examine the process by which disruptions might spread across different systems. Because a disruption can cause one or more system participants to fail to settle transactions as expected in that system this could result in other participants suffering liquidity shortfalls, replacement costs or principal losses, depending on the design of that particular system. We explore;
 - Risk transmission
 - Interdependency effect on risk
 - What risks are reduced by interdependency
 - "New" risks due to interdependency
 - Transmission of payment and settlement disruptions
 - Interdependencies & markets
 - Critical risk management issues

What is the curriculum focus?

Sub-Prime Crisis & Contagion

- We examine the securitization process, its basis, the mechanics and the pitfalls
- We take a closer look at the events commencing mid-2007 which led to the sub-Prime crisis and the liquidity effect that it had on Large Value Transfer Systems including a case study on the UK's "Northern Rock"

Case Studies in Interdependencies

- We examine several case studies in Large Value Transfer Systems interdependencies including;
 - Canada
 - Germany
 - Hong Kong

Future Trends in Large Value Transfer Systems

- We conclude the course by taking a look at what the future holds for Large Value Transfer Systems.
- This embodies technological innovation, structural changes in banking and the evolution of central bank policies in the "payments" space.
- We also examine the ten global trends in Large Value Transfer Systems as a pointer to the future.

What you will gain

At the end of this course participants will:

- Understand the nature of large value payment systems
- See how these system fill a pivotal role in the international financial infrastructure
- Understand the key principals of PvP and DvP
- Learn how different systems are interdependent
- Have a clear understanding of the risks in such systems
- Have gained the knowledge as to the management of these risks
- Understand the key risk management standards for such systems.



This Program is Results-Orientated

- The course has been structured as a highly practical program with the emphasis on case-study and participants' interaction.
- Provides for meaningful and maximum participant interaction.
- Uses highly interactive presentations, exercises & case-study in the knowledge transfer process