

## INTRODUCTION

Financial institutions require innovative solutions to meet increasing compute demands in Trading and Risk Management. The Xilinx Compute Library provides accelerated functions and pre-built pricing models to allow developers to quickly build accelerated computational solutions while lowering the TCO.

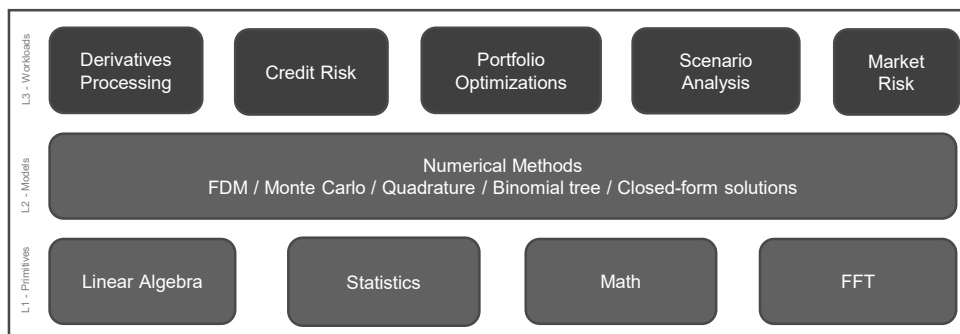
## APPLICATIONS AND USE-CASES:

- Monte-Carlo based pricing models
- Closed-form solutions
- Finite Difference based pricing models
- Counterparty Credit Risk Analytics
- Regulatory Risk (FRTB, CCAR, RWA)
- Trade / Portfolio Risk
- Portfolio Optimization
- Pre-Trade Risk checks
- Scenario / What-If Analysis

WORKLOADS	DESCRIPTION
Derivatives Processing	Pricing, Risk Sensitivities, Calibration, and Backtesting
Counterparty Credit Risk	Credit Valuation Adjustment (CVA), Standard Initial Margin Model (SIMM), Potential Future Exposure (PFE), Risk Weighted Assets (RWA)
Scenario Analysis	Stress testing, CCAR, Complex What-If Scenarios
Portfolio Optimization	ADMM Models
Market Risk	Value at Risk (VaR), FRTB, Stress Testing
Risk Analytics	Risk Modelling (Credit Models, Simulations)

## SOLUTION OVERVIEW

The Xilinx<sup>®</sup> Compute Library will be available as C++ API calls, or can be used as reference designs for developers to modify.



## SOLUTION BRIEF

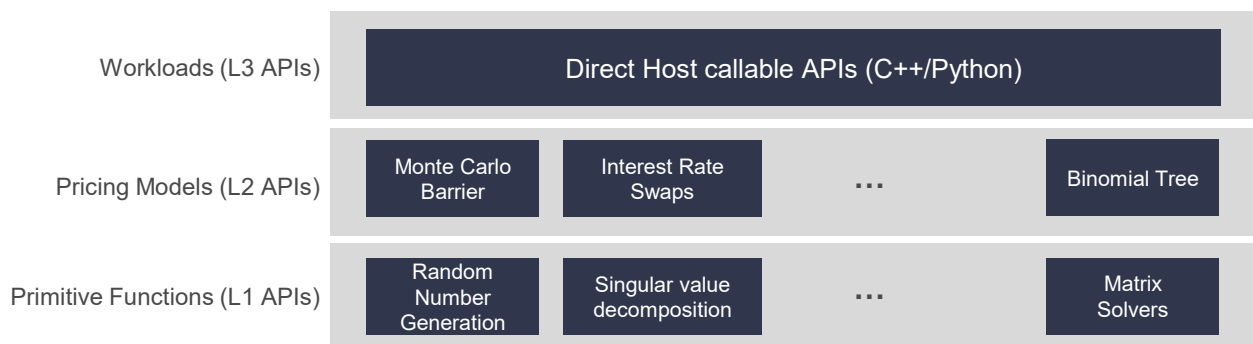


- Accelerated Compute Library for a variety of Financial Workloads
- Accelerated Statistics, Linear Algebra, Math and Financial functions
- Common Financial models available (Black-Scholes, Heston, Binomial)
- Deploy in the Cloud, On-Premise, Grid or Desktop
- Shorter development cycle
- Lower TCO

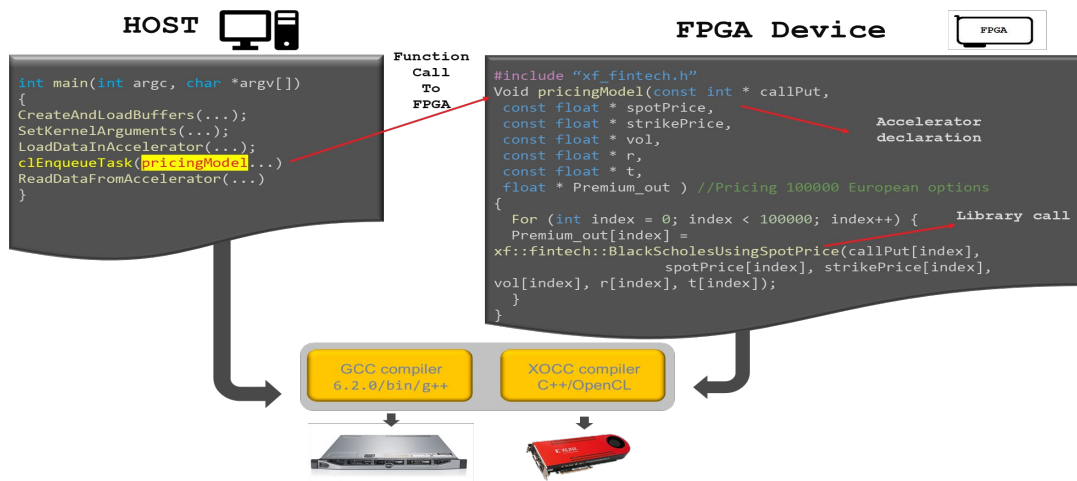
## KEY BENEFITS

- No prior knowledge of hardware language necessary to build applications
- Rich set of primitive functions to support a variety of applications
- Shorter development cycle
- Open source approach
- Pre-optimized set of libraries for high throughput and low power utilization
- Supports both SDAccel™ and Vivado® HLS tools

## LIBRARY STRUCTURE



## LIBRARY CALL EXAMPLE



## TAKE THE NEXT STEP

Learn more about [Xilinx solutions for the Finance industry](#)

Learn more about [Alveo Accelerator Cards](#)

Build and market applications with the [Xilinx Accelerator Program](#)