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Overview

- This Overview slide deck accompanies the 'A2A Interoperability Commercial Model Toolkit,' to help users better understand the structure and purpose of the toolkit.
- The toolkit provides a mechanism to build a simple model for interoperability of account to account (A2A) transfers between mobile money schemes. The model allows users to show the impact of different commercial models between the participating schemes and the commercial effect of different types of implementation approaches.
- The toolkit is aimed at mobile money managers and commercial analysts, and it is helpful to build the business case for interoperability.

To obtain the A2A Interoperability Commercial Model Toolkit, please email mmu@gsma.com
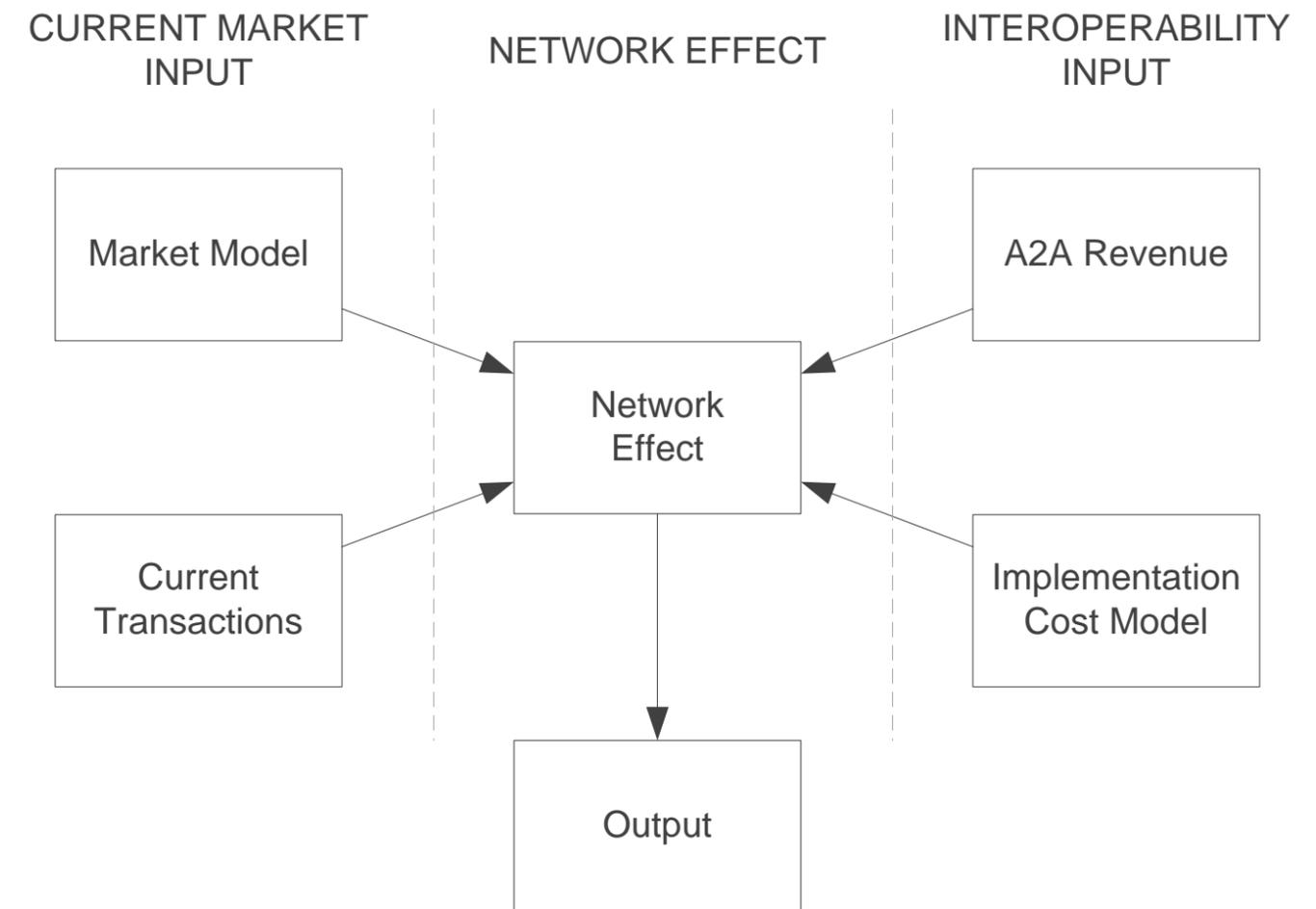
Introduction

- The scope of the toolkit model is three-fold:

  1. Estimate the revenue opportunity of inter-scheme A2A transactions between mobile money schemes in a market - for one single scheme based on their current P2P transaction volume

  2. Visualise a potential need for cross-scheme compensation fee, and assist in identifying its value

  3. Show the ROI for implementing interoperability for the scheme

- The model in the toolkit is constructed by completing each of the Microsoft Excel worksheets (see next slide). Each worksheet adds to the others, leading to a model for the number of transactions for interoperable schemes and the effect on the commercial model of particular fee structures.

- Main parameters to calculate the network effect transaction uptake are:

  - Size of increased addressable customer base, and,

  - Impact on customer demand for charging A2A transactions more compared to current P2P

- Outside the current toolkit scope are:

  - Multi-participant schemes, with partnership arrangements

  - Complex transaction types, the model currently deals with cash-in, P2P and cash-out, grouping all other transactions into a single type

  - Any impact on GSM business from interoperability

Structure of the Toolkit

The toolkit is structured with the following worksheets:

- **Market Model:** Define the MMO customer share based on market dynamics and agent distribution

- **Current Transactions:** Define the transaction mix with the target market and the MMO fee structure

- **A2A Revenue:** Apply fee structure to interoperable A2A transaction model, as well as inter-scheme compensation

- **Implementation Costs:** Factor in the costs (CAPEX/OPEX) of the implementation approaches for A2A interoperability

- **Network Effect:** Apply an estimate of the network effect across customer and transaction models

CURRENT MARKET INPUT | NETWORK EFFECT | INTEROPERABILITY INPUT

Market Model
A2A Revenue
Network Effect
Current Transactions
Implementation Cost Model
Output

Cells that require user input are shaded orange. For example:

| Fee | 0.5% |

Market Model

- The 'Market Model' defines the current market share of the scheme to be modelled. The user completes the market share for the scheme being modelled.

- In order to help isolate the network effect, the model assumes a static market.

- The market model allows a simple segmentation model for urban and rural money transfer using a physical agent network.

- Other splits could be used depending on relevant money flows in a market. For example cities, states or clusters of towns.

Mobile Money Scheme 1	Market Share (in Mobile Money)
Agent Distribution	
Urban	10%
Rural	10%
Customer Distribution	
Urban	10%
Rural	10%
Transaction Distribution	
Urban - Urban	55%
Rural - Rural	4%
Urban - Rural	40%
Rural - Urban	1%
	100%

Transaction Model

- The 'Transaction Model' defines the current number and value of different transaction types in the scheme, along with their fee structure.

- The transaction model describes the relationship between money IN (e.g. cash-in) and money OUT (e.g. cash-out) transactions and money transfer transactions (i.e. P2P).

- The user enters data to describe their current proportion of IN transaction types and OUT transaction types, along with the cost and revenue model for each type.

- From this base data, the estimates of the number and value of inter-scheme A2A transactions are calculated in other worksheets.

- To isolate the network effect, no transaction growth is assumed over the life of the model.


Mobile Money Accounts

Cash-in   Cash-out

Others-in   Others-out

P2P-in   P2P-out

P2P
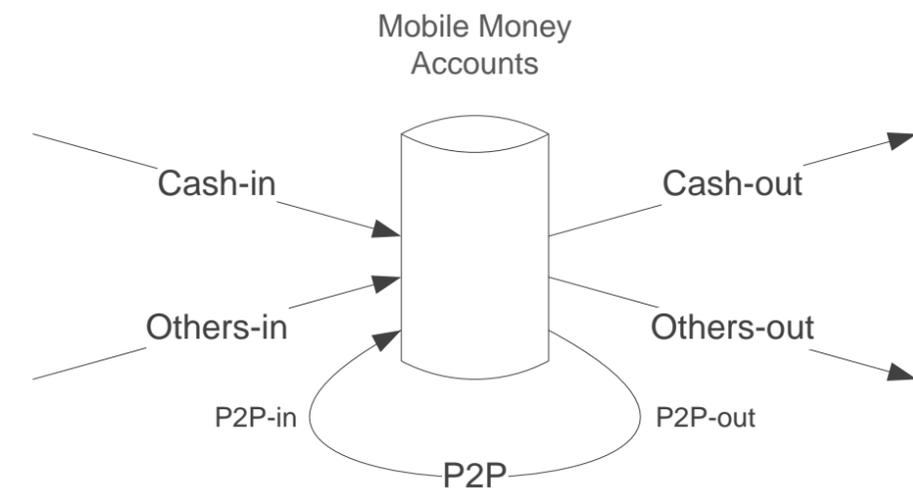
A2A Revenues

Assumptions:

- The average value of A2A transaction is assumed to be same as P2P.

- Customer charges for A2A transactions expressed as a % to current P2P charges.

- An inter-scheme compensation fee is expected to be paid from one scheme to another.

- The proportion (by value) for IN and OUT transaction types preceding and following A2A transactions is assumed to be the same as for the 'Current Transaction' worksheet.

- These factors are combined with the network transaction model to output a high-level revenue model for the scheme.
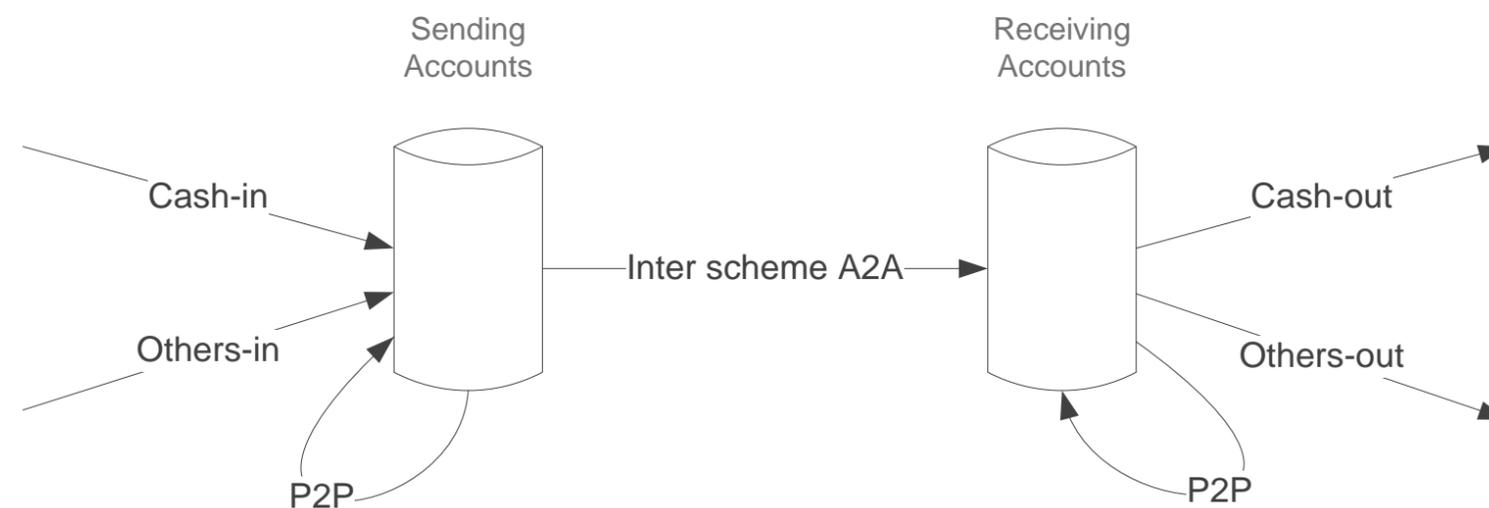
Commercial Costs

- Commercial models are estimated for three implementations options:

  1. Bilateral agreements,

  2. Central processor with fixed transaction fees, and

  3. Central processor with variable transaction fees.

- CAPEX and OPEX cost estimates are entered for the integration with an external party and the operations needed to enable interoperable A2A transactions between schemes.

- The cost estimate is factored into each implementation option, taking into account the number of schemes in the market and the likely transaction fees charged by central processors.
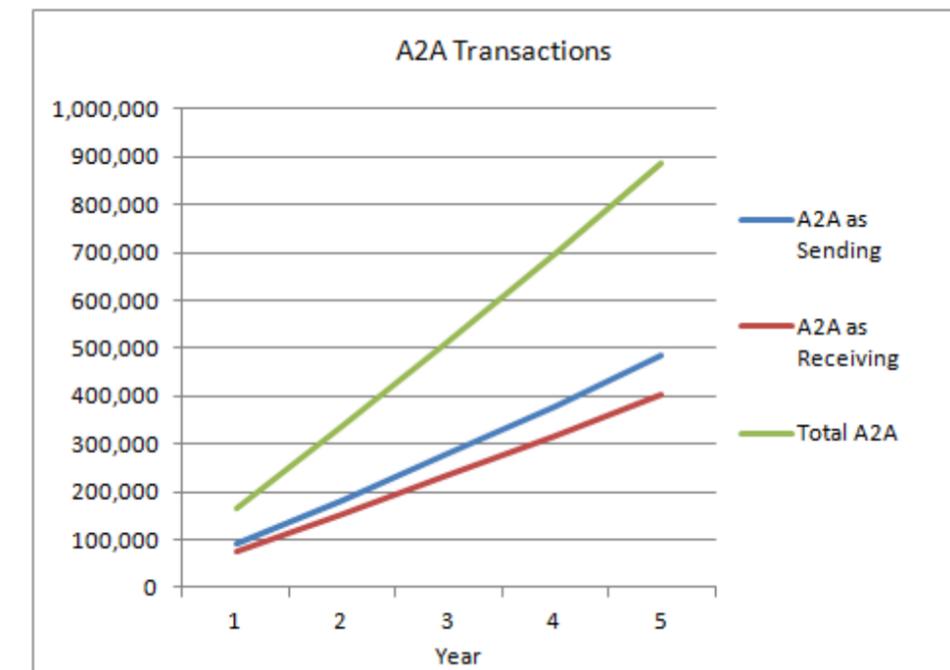
Network Effect

- Network effect is modelled as incremental A2A transactions in proportion to current P2P transactions.

- Using the customer distribution data and the number of intra-scheme P2P transactions, an estimate for the number of inter-scheme A2A transactions is calculated on the 'Network Effect' worksheet.

- A multiplier of 'pessimistic' or 'optimistic' can be applied to give greater range to the output calculated. Default is set to 'neutral'.

| Network Effect Multiplier	Neutral

Network Effect Parameters

- Two features control the estimate of interoperable transactions:

  1. The increase in the addressable market for the scheme. An increase should result in a positive network effect, the size of which is estimated from an analysis of a banking scheme rollout (see Appendix A of this deck).

  2. The price to customers for A2A transactions. If higher than current P2P prices, demand is likely to be reduced acting to restrict incremental A2A transactions.

- An additional factor can be used to tailor the model:

  - **Network Effect Multiplier**: A user selected multiplication factor that affects the impact to the scheme of the network effect. The factor used is defined on the parameters sheet. Allows the following adjustments: Neutral, Pessimistic, Optimistic.

Output – Interoperability Revenue

- The user completes each of the worksheets, starting with the customer and transaction model, followed by network effect and revenue models.

- A summary of the model is given on the 'Output' worksheet.

- This gives an estimate of the modelled interoperability revenue opportunity showing:

  - Revenue solely for A2A transactions, and

  - Revenue including the preceding IN and following OUT transaction types are included in the calculation.

A2A Transaction Revenue

Incremental Transaction Revenue due to A2A
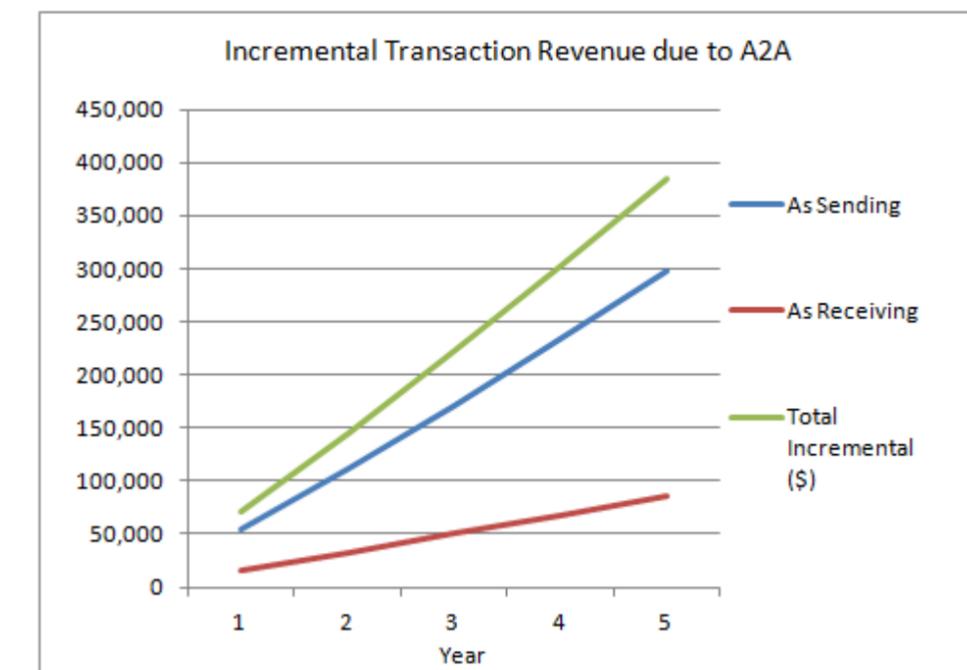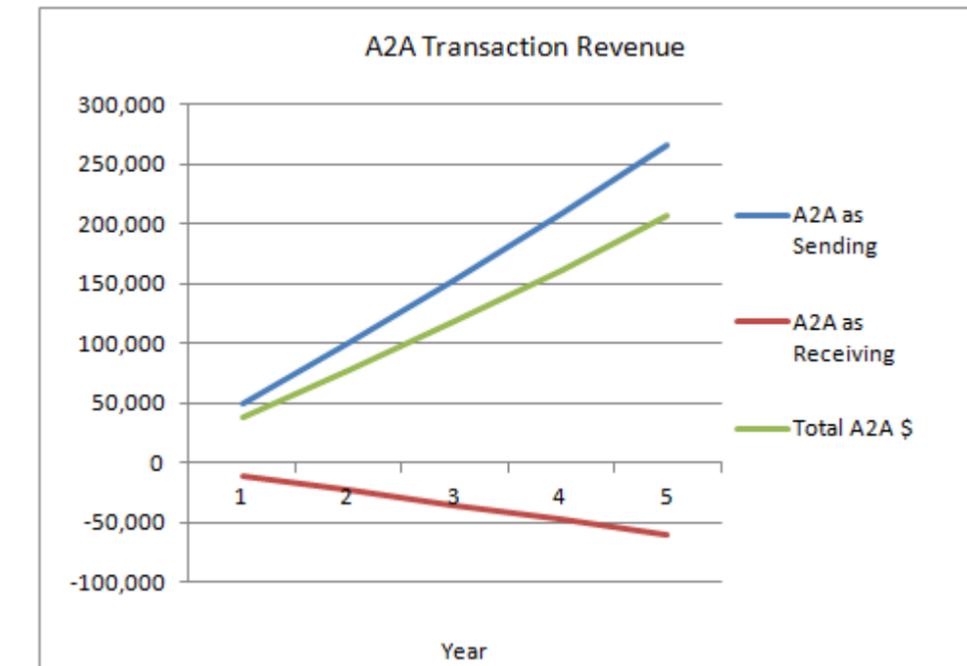
Output – Commercial models

- Adding expected costs for each of the implementation options to a cumulative revenue model for the scheme gives a commercial model.

- Each implementation option is compared in terms of the cumulative P&L over a five year period.

- Also provided is an estimate of the value of the opportunity to a commercial processor.

A2A Cumulative Incremental Revenue
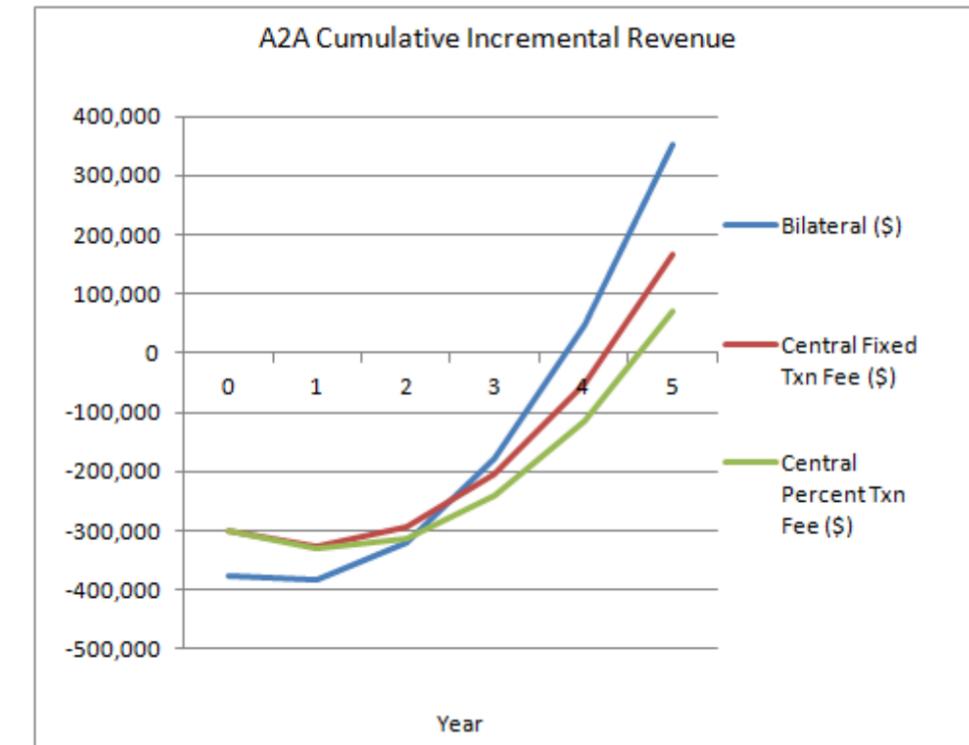
Appendix A: Estimating the Network Effect

- The commercial model toolkit currently estimates of the number of potential inter-scheme A2A transactions using the following assumptions:

  - Interoperability will increase the number of addressable customers

  - A2A transactions will be in proportion to the number P2P transactions currently performed

  - The number of A2A transactions will be in proportion to the increase in the number of addressable customers

  - The factor used to estimate A2A transactions from current P2P transactions is extrapolated from the recent rollout of the UK's FasterPayments service

- FasterPayments was chosen as its single immediate payments are close to P2P transactions in mobile money, and therefore A2A transactions between interoperable schemes.

# Estimating network effect from FasterPayments transactions

- FasterPayments rollout was a migration from an older ACH to near real-time system. This was an organic growth from which network effect is difficult to isolate.

- However, distinct phases before and after Jan 2011 (when EU regulation required one day transfers), highlights effect of an increase addressable customers.

- Annual rolling average transaction growth in:

  - 2011: 42.1%

  - 2013: 44.3%

  - Increase p.a. : 2.2%

- Data for the corresponding increase in the number of addressable customers is not available.

  - Banks continued to add support and directly connected agencies/originators increased over the period.

  - Estimate: the 2.2% pa increase represents a 100% increase in addressable customers.

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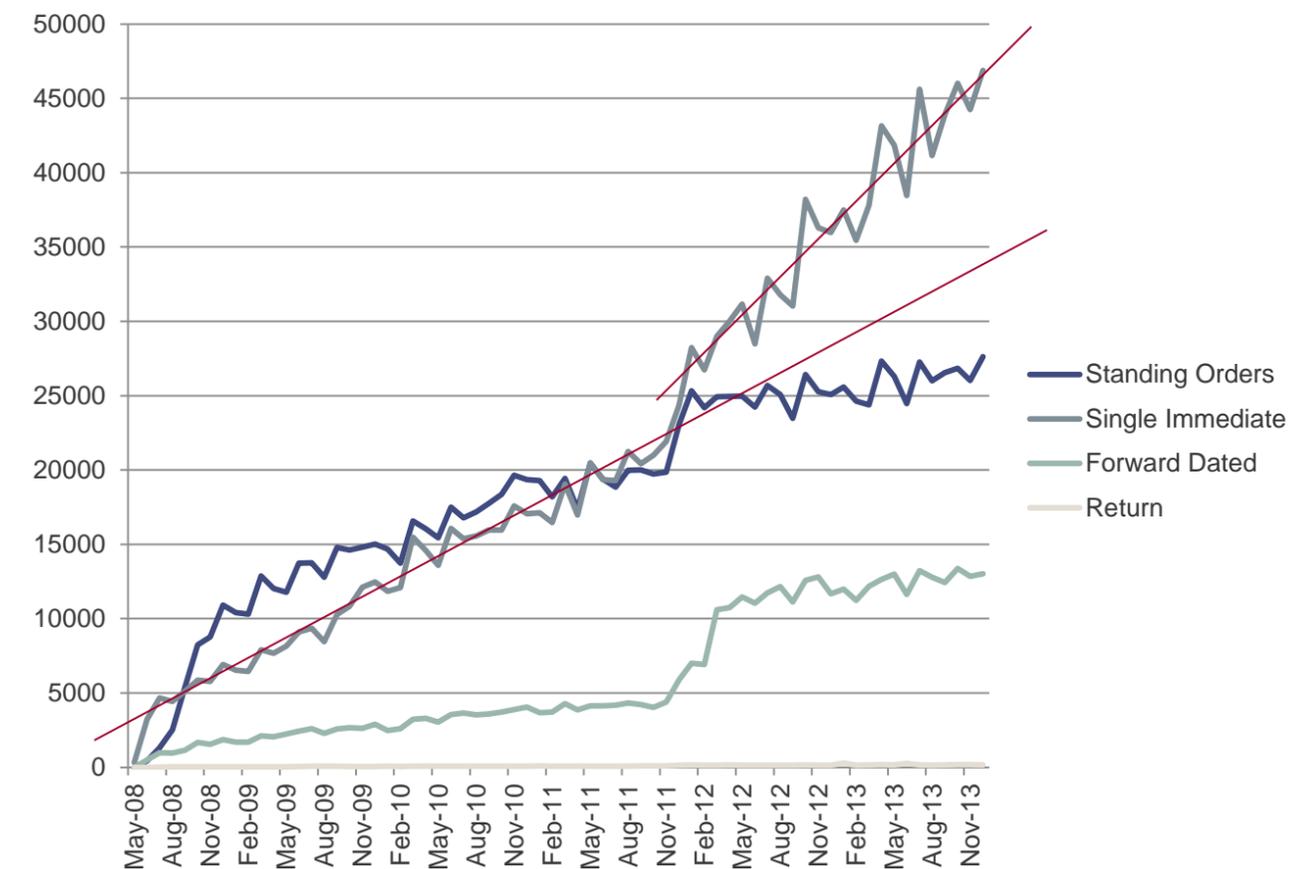
Using a Linear Model

- Overtime, the effect of interoperability seen in FPS immediate payments is likely to fit an S-curve model.

- This is seen is the data for different types of FasterPayments transactions:

  - The rollout of single immediate payments is still at a growth state, due to the growth in internet transactions.

  - While standing orders are entering a maturity curve. This suggests a likely future scenario for immediate payments.

- S-curve models from starting point, through fast growth and take-up over time to a saturation level.

- For the period of time under consideration in the A2A model (5 years), with a lack of suitable source data an S-curve model is too complicated .

- For simplicity, therefore, the current commercial model assumes a linear growth.

Single Immediate

Standing Orders
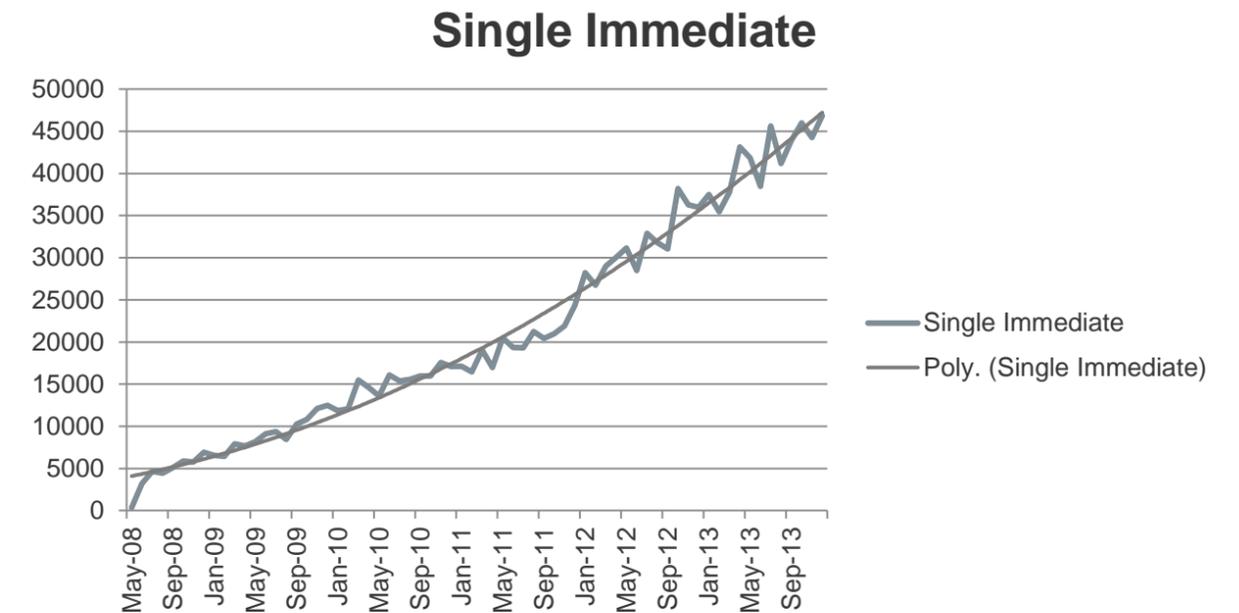
A2A Interoperability

Commercial Models Toolkit – Overview

For more information or to obtain a copy of the toolkit, please email:
mmu@gsma.com

gsma.com/mmu