

# Clearing and Settlement Impact Assessment:

## Chapter 5: The benefits of integrated Clearing and Settlement system

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# Overview and findings

Four main findings:

1. Price differentials (cross-border vs. domestic) and aggregate excess cost of cross-border C&S. (« Static effect »)
2. Price reduction and impact on liquidity (« first-order dynamic effect »)
  - the profile of the demand curve
  - the profile of the supply curve
  - the competitive form of the market
3. Changes to the total factor productivity (TFP) (« second order dynamic effects »)
4. Impact of increased liquidity on GDP

# 1. Price Differential

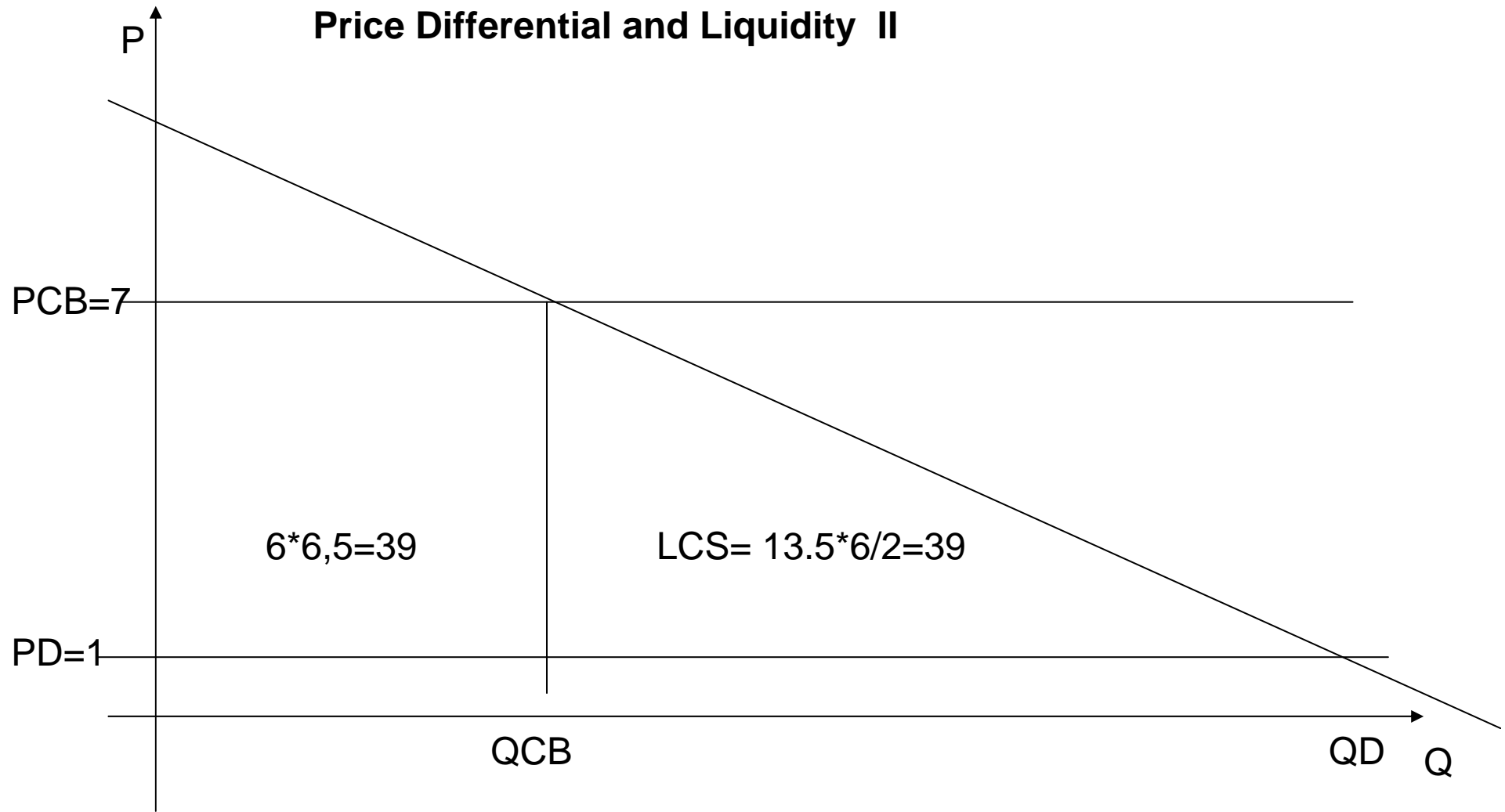
Price differentials of cross-border vs. domestic shown in Annex 1:

- Cross-border C&S is from 1 to 8 times more expensive
- About 25 € more for transaction (excluding custody costs)
- In aggregate depends on number of transaction and their repartition agents banks vs. ICSD channel. Estimates vary (2 to 6 billions €)
- Range of reduction of overall trading costs due to a reduction in post-trading goes from 10% to 20%

## 2a. Price Differential and Liquidity I

- Annex 1 tells us, *inter alia*, that CB C&S costs from 1 to 8 times more than domestic C&S (intercept)
- Annex 2 tells us, *inter alia*, that most national markets have a demand elasticity of about 2 (slope)

## Price Differential and Liquidity II



P: price Q: quantity PCB: ... PD: ... QCB:  
QD: ... LCS: lost consumer surplus

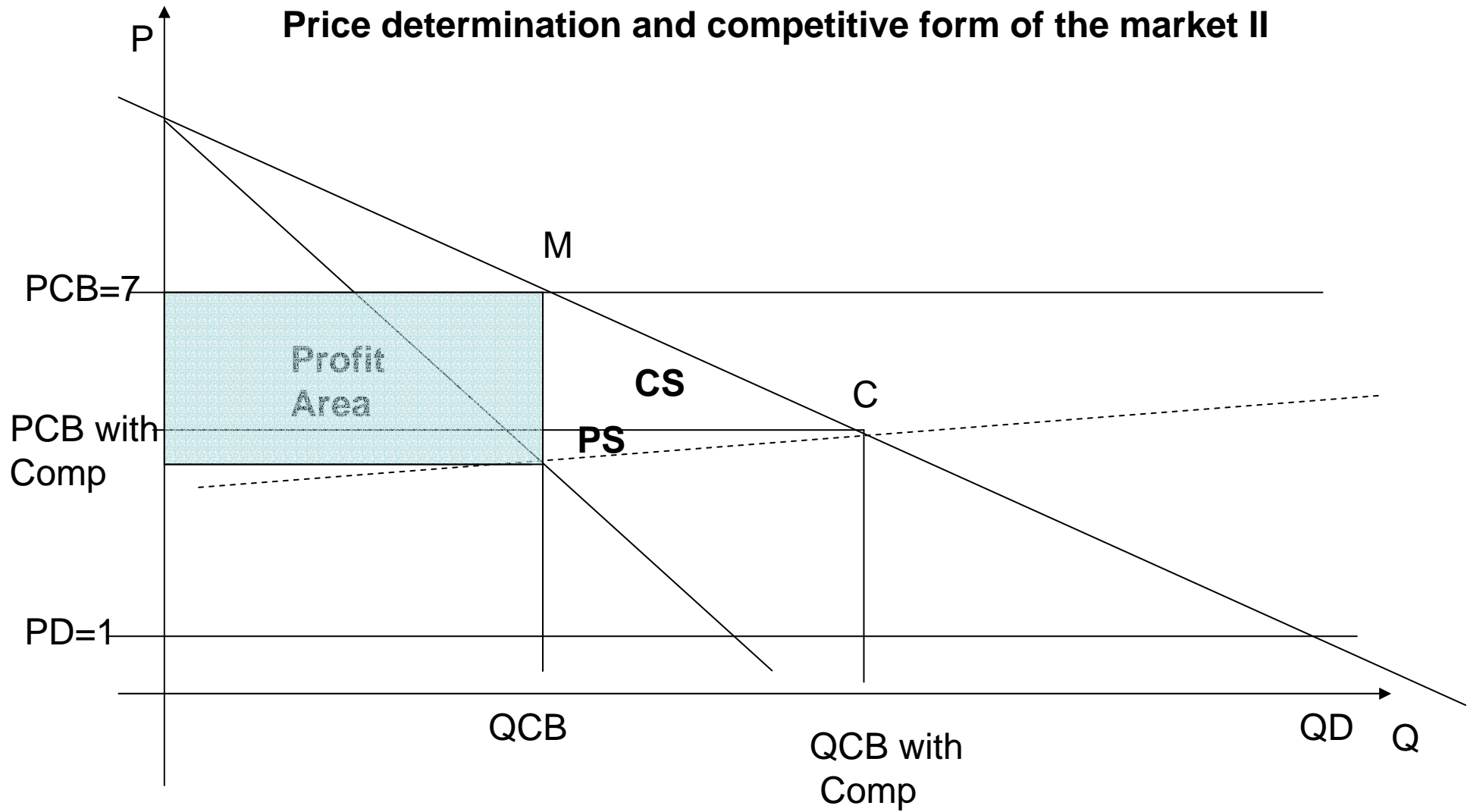
## 2a. Price Differential and Liquidity III

- The area of the lost consumer surplus (LCS) due to the price difference is very large.
- Large benefits for consumers to be reaped by moving from PCB to PD

## 2b. Price determination and competitive form of the market I

- Annex 2 tells us, *inter alia*, that the supply curve is quasi-flat (Schmiedel et al. 2002)
- If the market is a *de facto* monopoly, the price is determined by the MR curve crossing the MC curve, rather than the D curve crossing the MC curve.
- Let us assume we are in monopoly...

# Price determination and competitive form of the market II



Agenda:

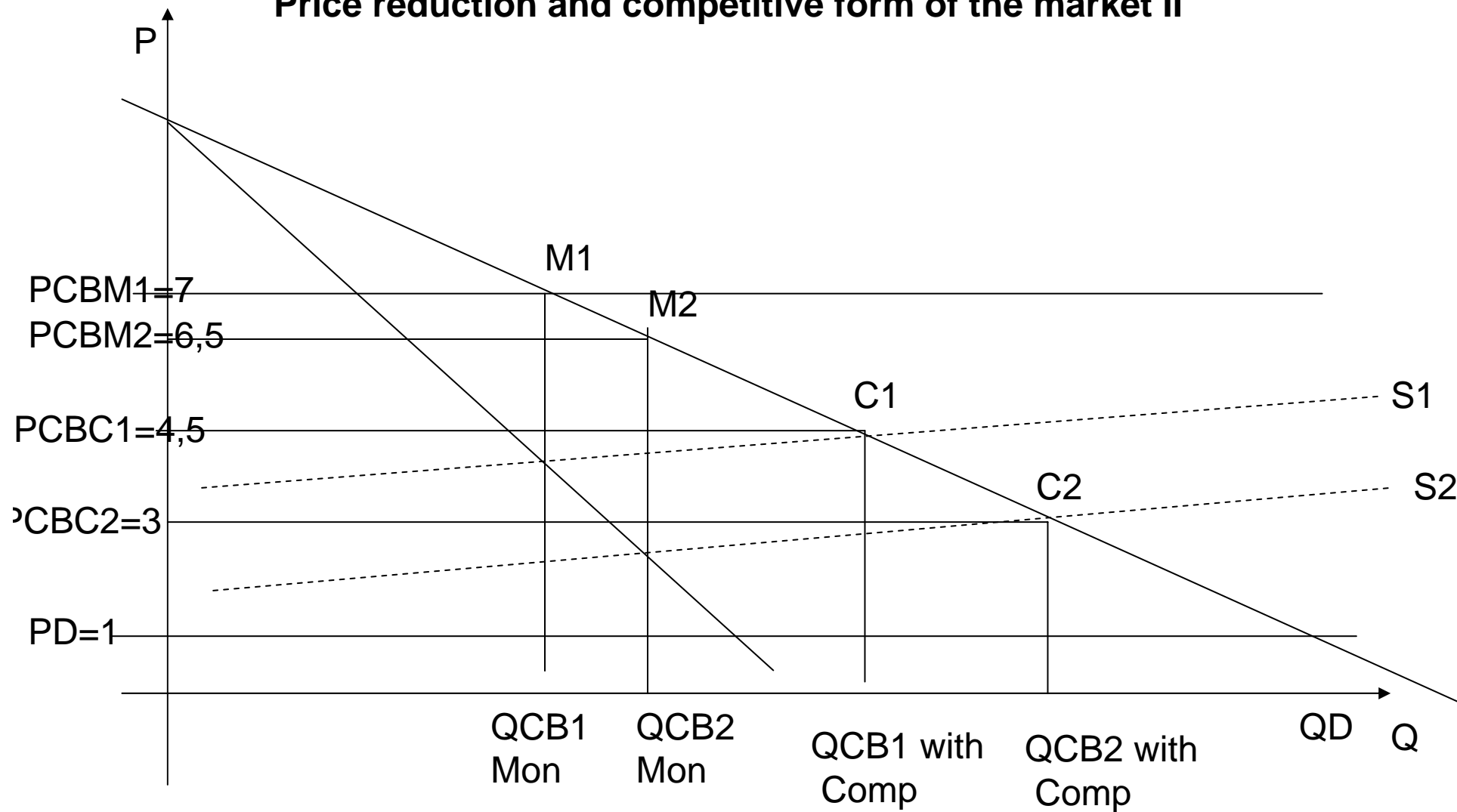
## 2b. Price determination and competitive form of the market III

- A good part of the Lost Consumer Surplus (LCS) can be recovered by forcing more competition into this market!
- With the same demand and supply curve, the price determination is obviously different depending on whether the market is closer to the M (for Monopoly) point or to the C (for Competition) point.

## 2c. Price reduction and competitive form of the market I

- For any given price reduction, a more competitive market form provides greater benefits

## Price reduction and competitive form of the market II



Agenda:

## 2c. Price reduction and competitive form of the market III

- It is worth thinking about measures delivering and/or ensuring the continuous competition in the market
  - rights of access
  - price transparency
  - unbundling of products

### 3. Second-Order Dynamic Effects I

- Studies of economic effects of financial integration mainly focus on changes in transaction costs and their implications for the user cost of capital (UCC) (as in the previous part)
- Financial integration expected to deliver lower UCC, resulting in a higher level of capital investment
- Increased capital investment results in a higher level of economic growth, with positive knock-on effects to employment, welfare etc.

### 3. Second-Order Dynamic Effects II

- In theory, economic growth is determined by capital investment, labour supply and total factor productivity (TFP)
- TFP is the ratio of output to inputs and reflects ability to combine capital and labour more efficiently over time due to changes in quality of inputs or better methods of organisation.
- Increase in TFP effects growth rate rather than the level of economic output

### 3. Second-Order Dynamic Effects III

- TFP growth is found to be mainly determined by expenditure on capital investment and expenditure on R&D/innovation
- Expenditure on capital investment tends to be relatively large but TFP much more responsive to expenditure on R&D/innovation
- Expenditure on R&D/innovation delivers potentially high economic (and social) return but tends also to be high risk

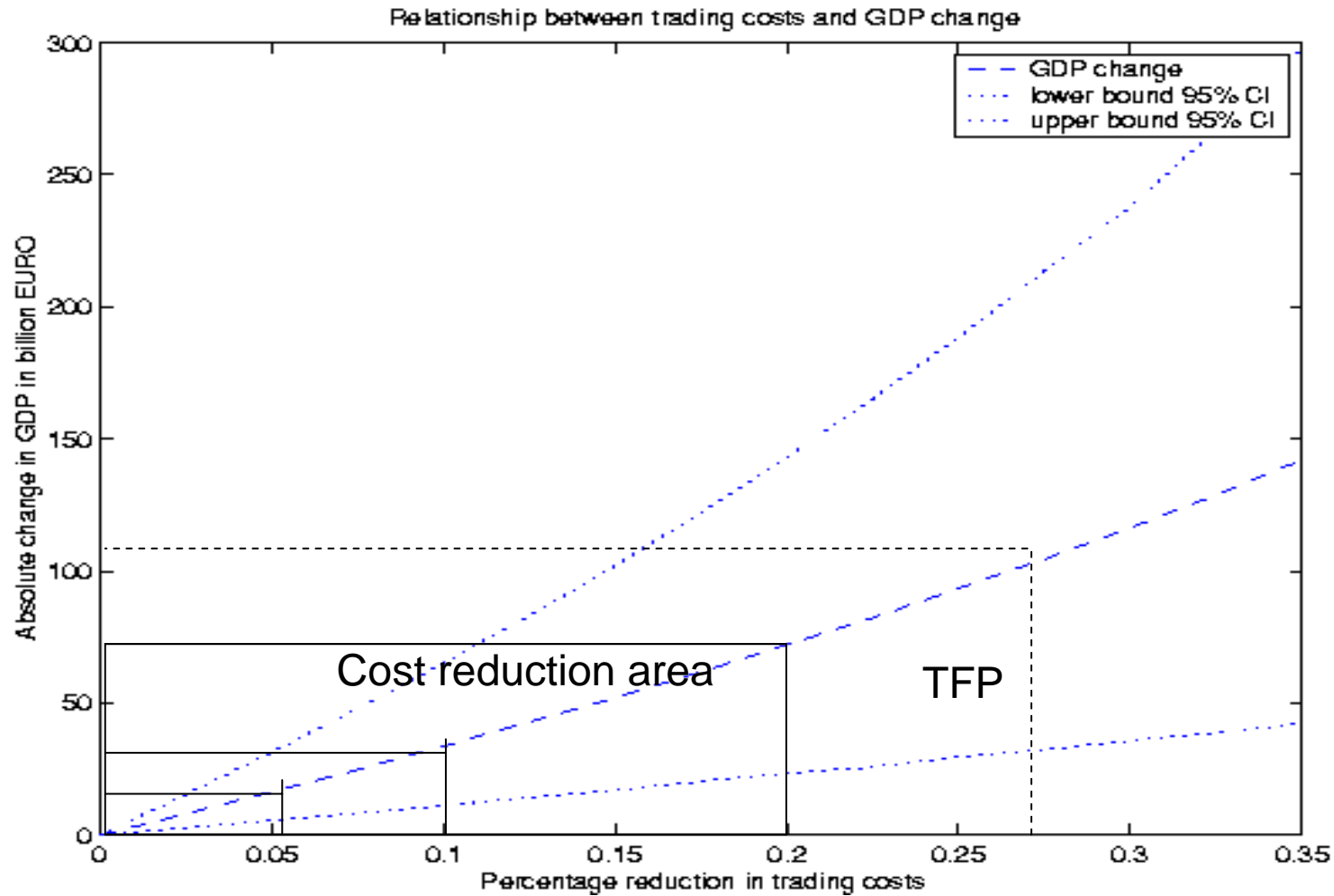
### 3. Second-Order Dynamic Effects IV

- Question: How will financial integration impact on TFP?
- Directly via higher capital investment, but also – and maybe more importantly - to the extent that financial integration improves opportunities for risk pooling
- Improved risk pooling should increase average risk-return relationship in investment, facilitating expenditure on higher risk R&D/innovation expenditure
- Question: Is it possible to quantify the reduction in risk implied by financial integration?
- Question to CESAME: Can you help on this?

### 3. Second-Order Dynamic Effects V

- Financial integration improves risk management, impacting positively on TFP.
- Higher TFP implies a rise in economic growth rate, delivering additional and more durable benefits
- Question to CESAME: Can you help? Can you give us your feeling on how financial integration would (or will) change your way of doing business?

# 4. Impact on GDP values



# 5. Conclusion

- Reduction of C&S costs does have an impact on liquidity and in turn it has an impact on GDP
- The exact value of the costs reduction is difficult to pinpoint and it matters little
- Cost reduction is the sum of different elements
- Cost reduction will be greater in the long run than in the short run (namely, because of TFP effect)
- For a given level of cost reduction, its impact on liquidity and on GDP depends crucially on the competitive form of the market (the more competitive the market is, the greater is the impact of cost reduction on liquidity and therefore on GDP)