Financial Consumption and the Cost of Finance

Measuring Financial Efficiency in Europe (1950-2007)

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Motivations

- Is financial deregulation good for society ?
- Does financial deregulation increase financial industry efficiency ?
- How to measure efficiency in finance (Demirguc-kunt et al. (2003), Philippon (2015)) ?
- Are the consequences of deregulation the same for countries with different financial systems ?

Measuring the unit cost of financial intermediation ?

Theoretical definition

It is the cost to produce or obtain one basket of financial services during one year

Finance industry issues

- Financial services are not homogeneous
- It is not possible to attribute one specific income to one specific service
- I use aggregated data :
  $$uc = \frac{financial\ \ income}{provision\ \ of\ \ financial\ \ services}$$

Main results

- The unit cost increases in Germany, the UK and Europe over the past 40 years ; it decreases in France
- The European and US unit costs are similar, except during the 2000s where the US unit cost appears higher

Plan of the presentation

- 1. Methodology : measuring financial income and financial production
- 2. Detailed results for Germany, France, and the UK
- 3. Results for Europe and robustness check
- 4. Conclusion

Methodolgy

- How to measure financial income ?
- How to measure financial output ?
- How to deal with international provision of financial services ?

Measuring financial income, some issues

- National accountant perspective : financial VA
- banks' capital income (capital gains ; income on securities) are not accounted in VA for the sake of accounting homogeneity among sectors
- Increasing amount of securities in banks' balance sheet
- Those incomes generate wages and profits in the financial sector $\Leftrightarrow$ transfer of income from the non financial sector to the financial sector

Measuring financial income ; alternative measure

- Banking income from OECD data accounts for capital income (available after the 1970s)
- I use banking income instead of banking VA in the calculation
- $corrected\ financial\ income = banking\ income + insurance\ VA + other\ intermediaries\ VA$

How to estimate financial output ?

We need to account for all financial services intermediated :

Transfer of funds (monitoring, screening, wealth management, etc.

1. Supply side : provision of credit, security issuance
2. Demand side : financial wealth management

Liquidity management

1. Deposit management and liquidity provision
2. creation of liquid assets with money-like features (e.g. MMMF shares)

How measuring financial services ?

- To provide those services financial intermediaries create and manage financial assets
- ToF $\Leftrightarrow$ private credit (households and enterprises credit) + market value of equity (market cap) + public debt ; the sum of which is very close to households financial wealth
- Liquidity management $\Leftrightarrow$ broad money
- Financial output is the weighted sum of financial assets

Intensity of intermediation issue

- Is the average intensity of management the same for all assets ?
- Does the intensity change over time ?
- A "quality adjustment" could matter (Philippon, 2015)

Derivatives issue

Remarque : Derivatives are not included

1. They are of zero net supply and derive from other credits
2. Less than 10% of derivatives has non financial counterpart, the value of which represents less than 0,3% of total European output

International issues

Provision of financial services to foreign clients, two cases :

- including net foreign asset into financial output $\rightarrow$ cost to produce financial services
- accounting for trade balance of the financial industry $\rightarrow$ cost to obtain financial services

Unit cost

Definition :

The unit cost of financial intermediation is the cost to produce or obtain a basket of one euro of financial assets during one year

Calculation :

$$uc^{obtain} = \frac{financial\ income - trade\ balance}{financial\ assets}$$

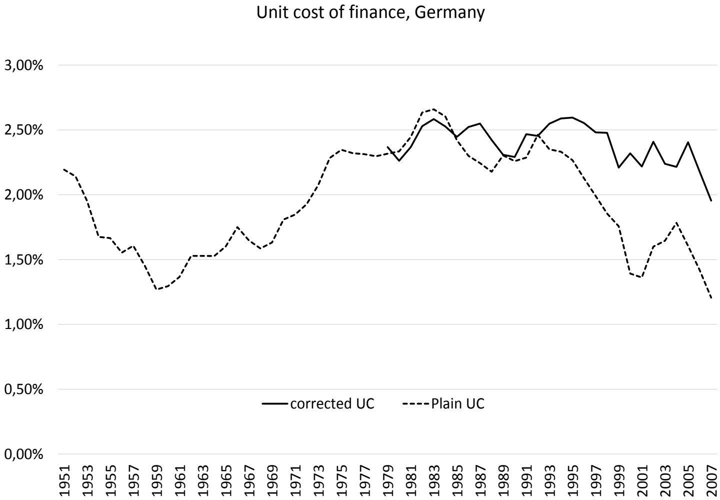
$$uc^{produce} = \frac{financial\ income}{financial\ assets + NFA}$$

Two indicators are possibles : plain vs corrected uc

Germany, France, and the UK

- Unit cost increases in Germany and the UK as soon as we account for capital income
- Unit cost decreases in France

Germany



Unit cost of finance, Germany
3,00%
2,50%
2,00%
1,50%
1,00%
0,50%
0,00%
corrected UC
Plain UC
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
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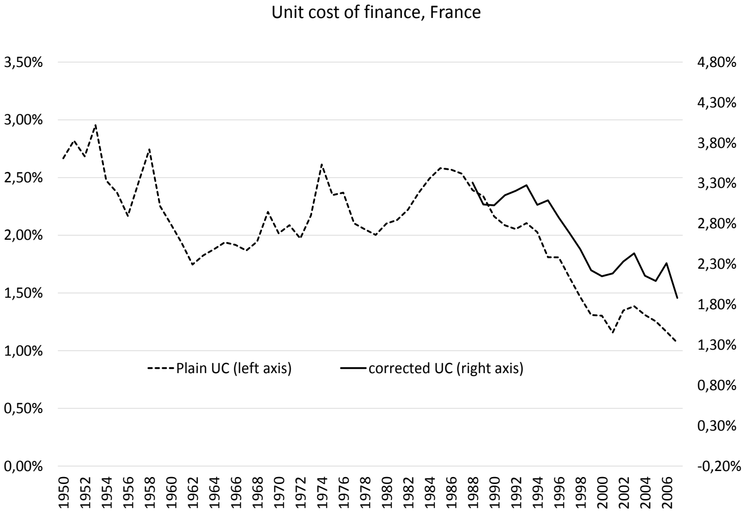
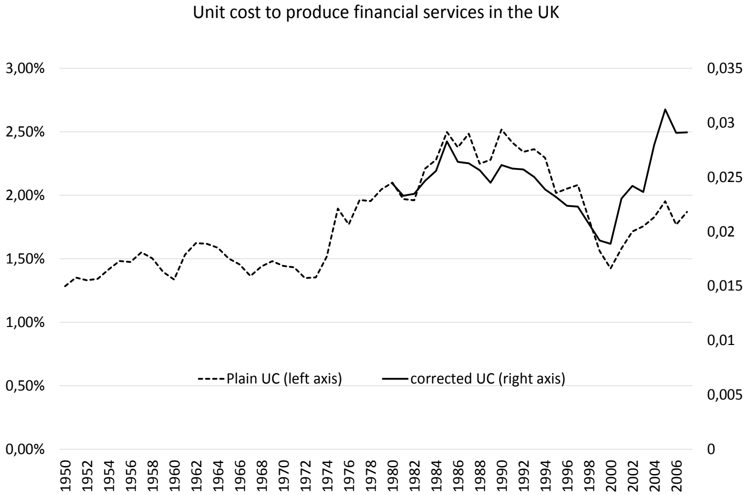
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007

France

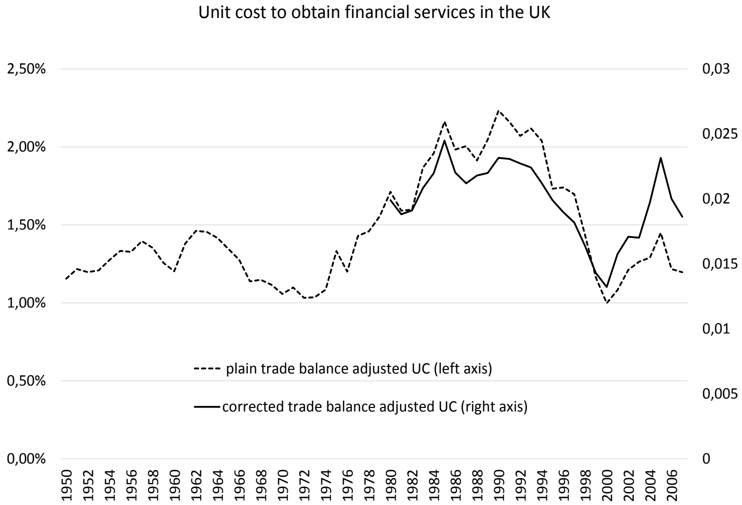


Unit cost of finance, France
3,50%
3,00%
2,50%
2,00%
1,50%
1,00%
0,50%
0,00%
4,80%
4,30%
3,80%
3,30%
2,80%
2,30%
1,80%
1,30%
0,80%
0,30%
-0,20%
Plain UC (left axis)
corrected UC (right axis)
1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006

The UK

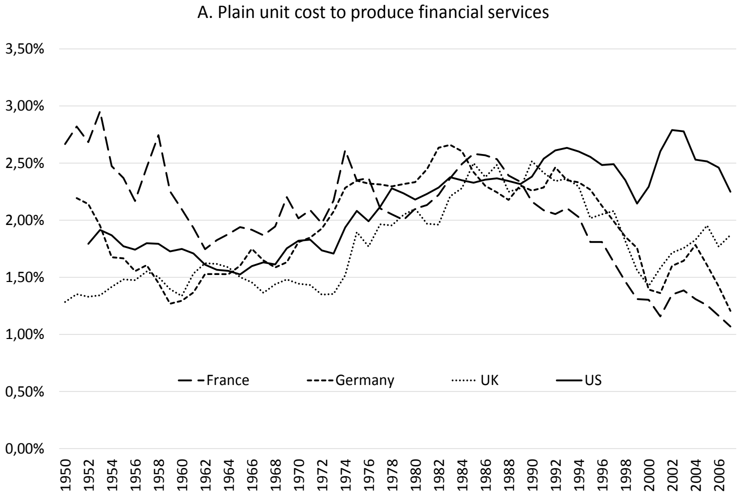

Unit cost to produce financial services in the UK
3,00%
2,50%
2,00%
1,50%
1,00%
0,50%
0,00%
0,035
0,03
0,025
0,02
0,015
0,01
0,005
0
Plain UC (left axis)
corrected UC (right axis)
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006

The UK

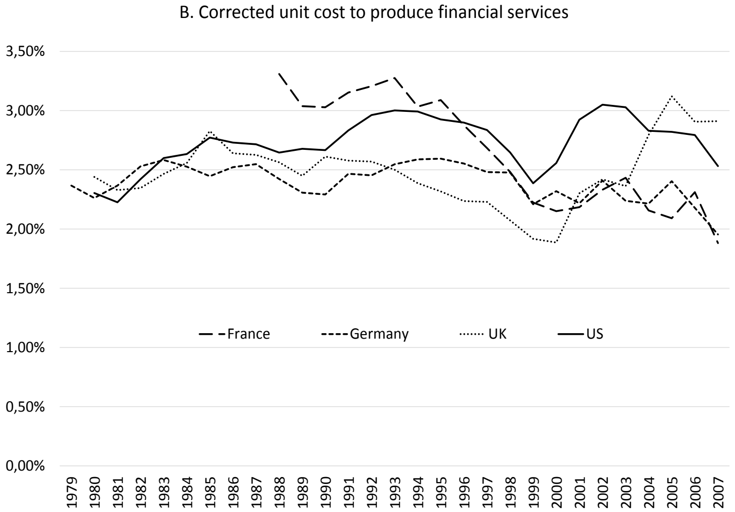


Unit cost to obtain financial services in the UK
2,50%
2,00%
1,50%
1,00%
0,50%
0,00%
0,03
0,025
0,02
0,015
0,01
0,005
0
plain trade balance adjusted UC (left axis)
corrected trade balance adjusted UC (right axis)
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006

Comparison plain UC



Comparison corrected UC



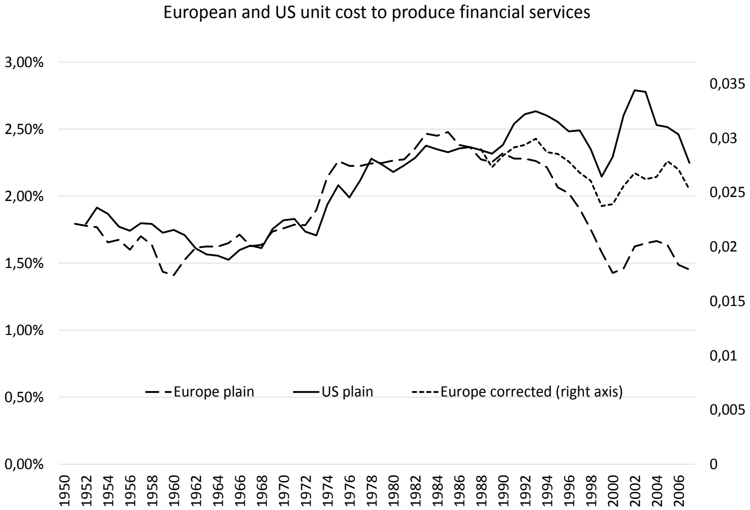
Results for Europe

- How to aggregate European national series ?
- Comparison with the US unit cost
- Robustness check

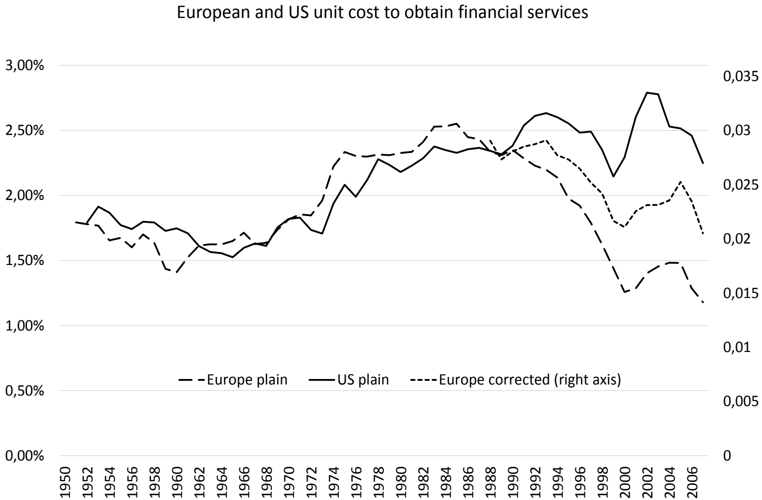
How to estimate the European unit cost ?

- I use 6 countries : Germany, France, the UK, Italy, Spain and the Netherlands ($\simeq$ 85% European GDP)
- Due to data issues, Italy, Spain are not included in the calculation before 1970
- The same is true for the Netherlands before 1961
- results are quite the same if I only use Germany, France and the UK all over the period
- Aggregation method has no impact on the results

Europe and the US unit costs 1



Europe and the US unit costs 2



Robustness check

Intensity of asset management

- Dividing financial income by each series provide a positive trend
- composition effect is not confirmed by econometric analysis

Intensity of intermediation over time

- "lazy" bank effect (low credit risk management) and securitization reduce screening and monitoring
- "Quality adjustment" of financial services does not impact the main results

Conclusion

- Deregulation is not related to lower unit cost in Germany and the UK
- Deregulation is related to more efficiency (or helped reduce previous inefficiencies) in France
- As for the US the unit cost increases (or at least does not decrease) in Europe after deregulation

Provocative conclusion !

- Has financial deregulation increased macroeconomic stability ?
- Has the related financial development caused economic growth ?
- Has deregulation raised financial efficiency ?
- What about income and wealth inequalities since the 1980s ?