



# KYLE HOOD AND MARGARET LUMSDEN: CASTING LIGHT ON SHADOW BANKING: MEASURING IMPLICITLY PRICED SERVICES OF PRIVATE ASSET BACKED SECURITIES ISSUERS

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# General introduction

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- Output of banks: direct charges + indirect charges (Financial Intermediation Services Indirectly Measured, FISIM)
- Output on loans = loan rate – reference rate
- Output on deposits = reference rate – deposit rate
- Major discussions on inclusion/exclusion of maturity risk and credit default risk, especially in view of counterintuitive results in the post-crisis period
- Excellent contributions by the BEA, on the exclusion of credit default risk



# Main topic of the paper

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- FISIM is often confined to loans and deposits provided by traditional financial intermediaries (banks), also in the US
- However, securitisation has led to the original loans being “transferred” to securitisation vehicles, which finance them by issuing asset-backed securities
- As a consequence, the original loans disappear from the balance sheets of the banks, and FISIM-type of services decrease
- Extension of the measurement of FISIM to securitised loans: mortgages, auto loans, and credit cards
- However, required data are not instantly available
- Paper suggests a novel approach to address these data limitations



# Main points of the paper

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- Ignore potential FISIM on deposits:
  - Very small amounts of deposits
  - The spreads in deposits are much smaller
  - Securitisation vehicles typically don't provide the services associated with deposits
- FISIM on loans = (loan interest rate – reference rate) \* loans – costs associated with credit defaults
- User cost for borrowing:
  - risk-free interest rate ( $i$ ) + depreciation ( $\delta$ ) – price change ( $\pi$ )
  - Interest on loans ( $r$ ) =  $i + \delta - \pi + \text{costs } (c)$
  - $c$  is equal to services (FISIM) and the credit default costs
  - $\delta$  is irrelevant in the case of loans
  - $\pi$  is zero for fixed-rate loans, if we manage to pick the interest at issuance
  - FISIM =  $r - i - \text{credit default costs}$



# Main points of the paper

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- However, reporting requirements of securitisation vehicles do not allow for the direct computation of the interest rate and the reference rate (which here is set equal to the coupon on the debt securities)
- What is available is various data on the level and conditions of each deal or bond, from Bloomberg, Inc.
- Allow the construction of interest yields, coupon payments, credit performance, principal balances and issuance for various classes of asset-backed securities
- Based on this information, data are constructed on the weights of each vintage of loans in a certain year, which are subsequently used to construct data on the spread of securitised loans



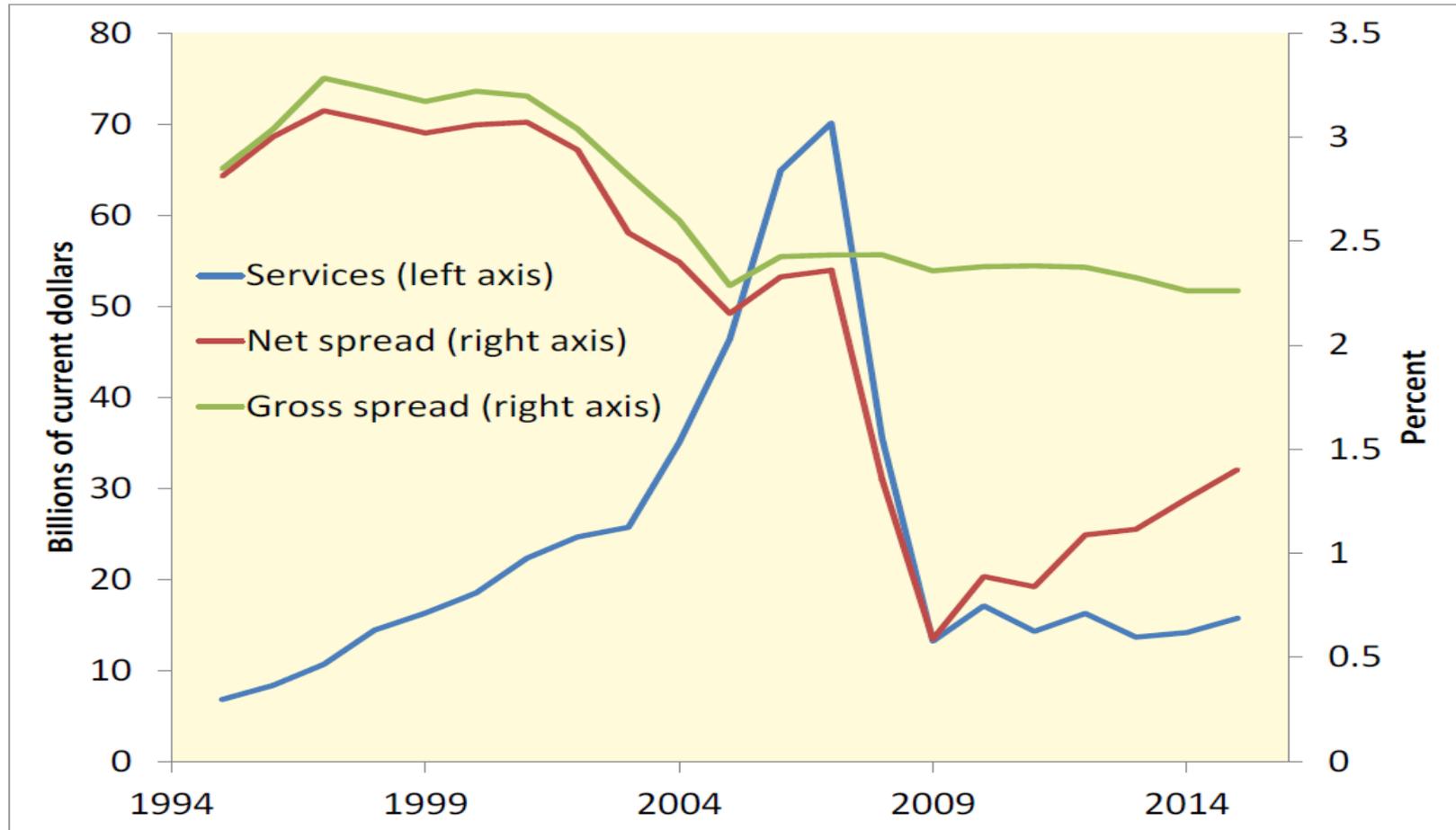
# Summary of the methodology

Table 1: Methods employed (by category of loan)

Category	Weights	Yield	Reference	Vintage	Losses
Mortgages (MBS)	Vintage	WAC (orig.)	Coupon (orig.)	Historical	Actual
Credit cards (ABS)	Actual	Portfolio yield	Interest	N/A	Actual
Auto loans (ABS)	Vintage	WAC (orig.)	Coupon (orig.)	Average historical	Index (S&P/Experian)

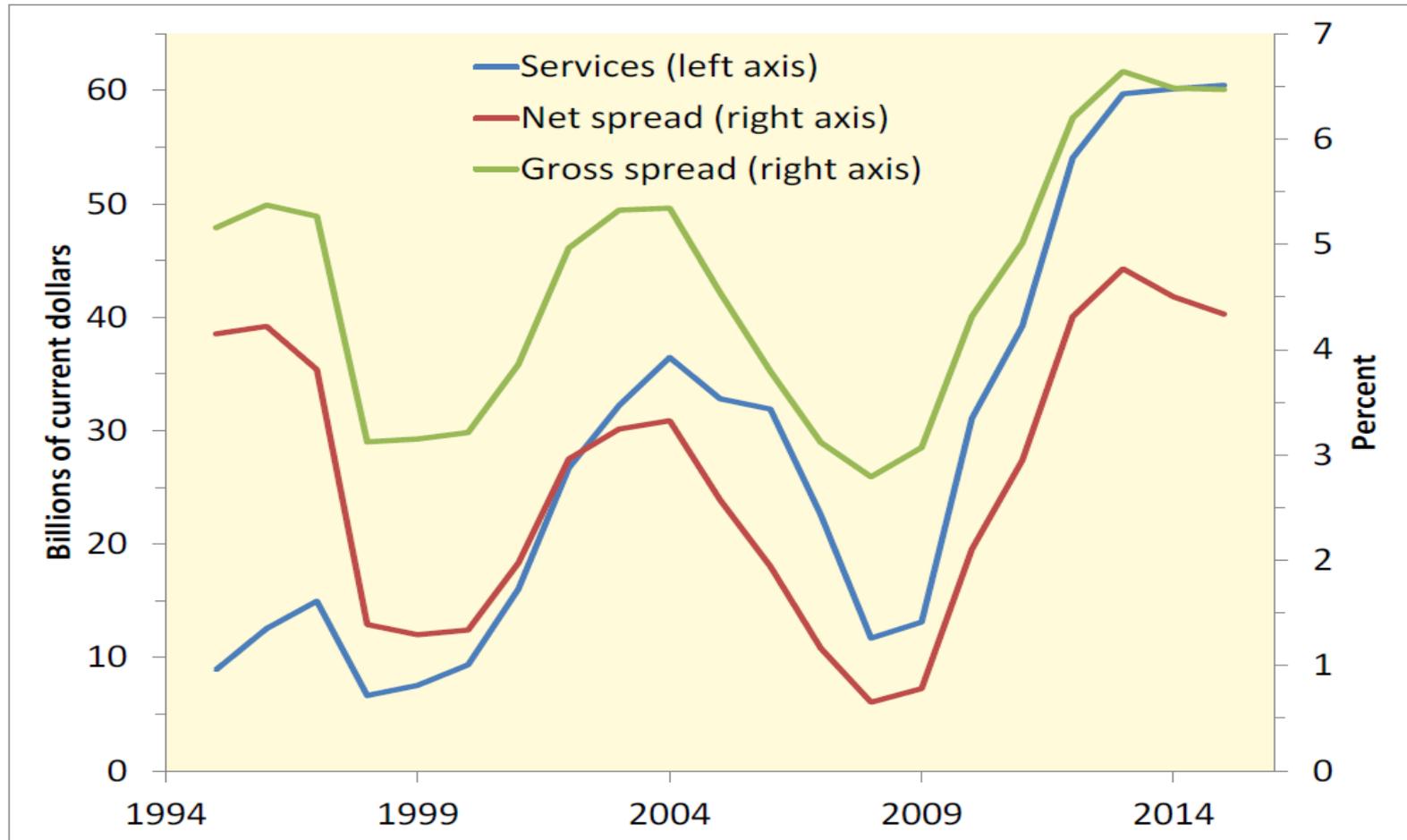


# Results: mortgages



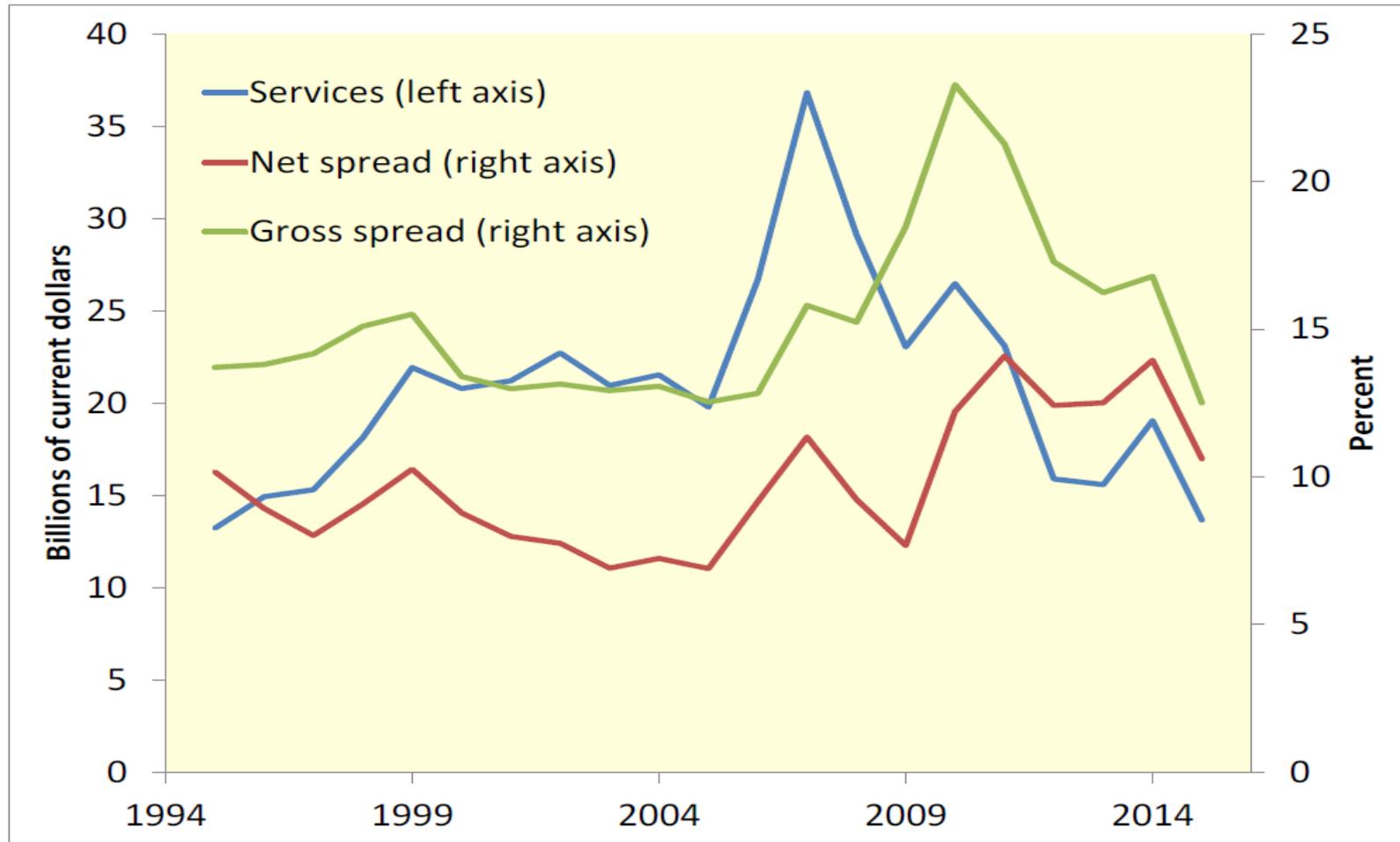


# Results: auto loans





# Results: credit card





# Future work

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- Some of the loans may be required to be kept on the balance sheets of the originator => possible double-counting: needs to further checked
- Loan servicing may still be done by the originator, for which the securitisation vehicle is being charged: these costs need to be included as intermediate consumption of the vehicles
- Inclusion of other non-depository financial intermediaries (finance companies, government sponsored enterprises, etc.)



# Discussion

- I like the vintage approach very much. For a fixed interest loan, the split between services part and reference rate is struck at the time of the contract. This is true for commercial banks as well. It would avoid spurious developments in the allocation of FISIM. However, this line of work, proposed by the International Task Force on FISIM, has not (yet) been further developed.
- Use the coupon rate on bonds as a reference rate. Why not “simply” use the reference rate for commercial banks? Because of the differences in vintages?
- For MBS, the 10 largest deals are used => representative?





# Discussion

- Surprised to see that up to now FISIM is not calculated for government sponsored enterprises like Fannie Mae and Freddie Mac. Main reason?
- More generally, should we apply similar methods for other financial corporations, like insurance corporations and pension funds, as well?
- Include non-American literature as well





**Thank you for your attention!**