

Understanding Consumption with Transactional Payment Data

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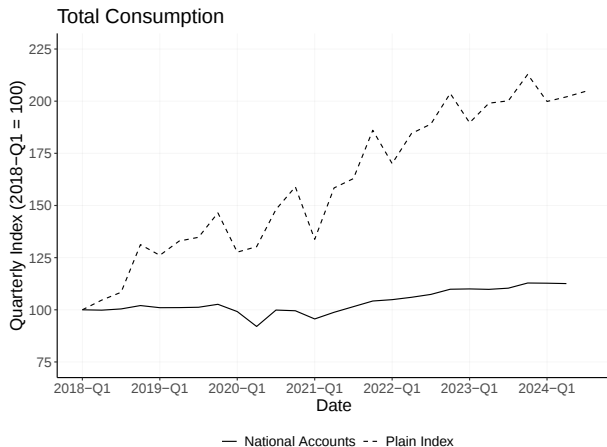
Main issues for obtaining representative expenditure series

- ▶ Merchant churn
 - ▶ Active merchant sample
 - ▶ Handle seasonality, temporary shocks (Covid-19)

Main issues for obtaining representative expenditure series

- ▶ Merchant churn
 - ▶ Active merchant sample
 - ▶ Handle seasonality, temporary shocks (Covid-19)
- ▶ Shift from cash to digital payments
 - ▶ Adjustment factor (exp. category $\times$ region) based on payment-behavior data
 - ▶ Handle shifts albeit at a lower frequency

Acquiring data versus national accounts



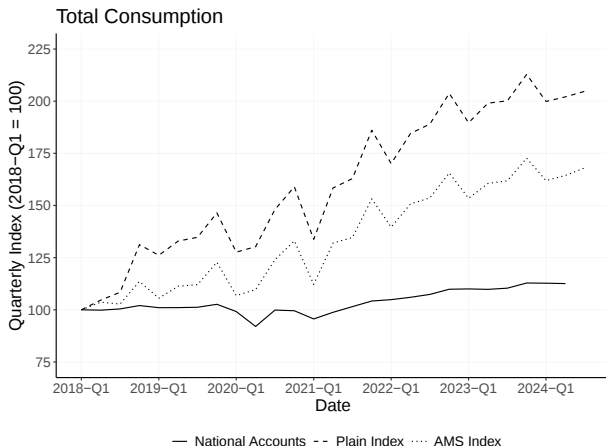
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Acquiring data versus national accounts



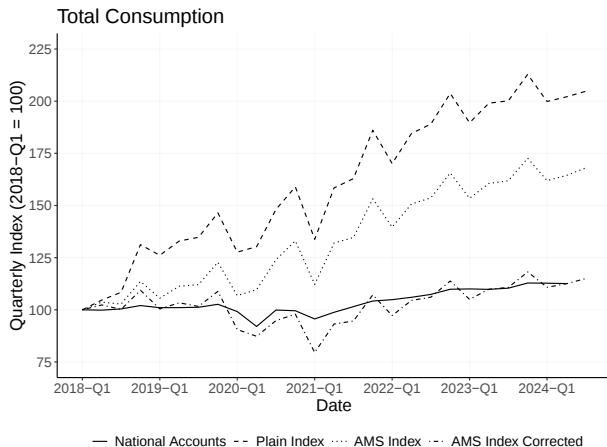
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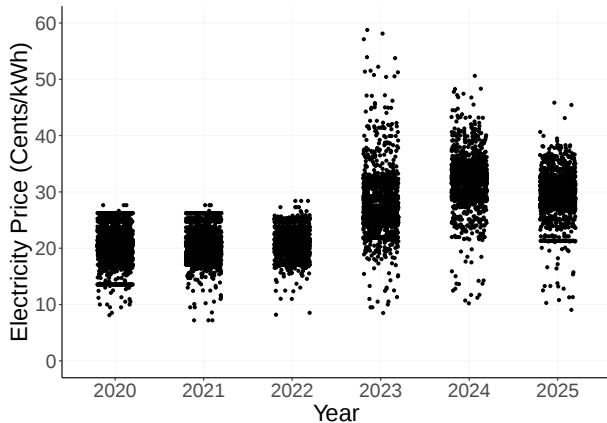
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The effect of electricity prices on expenditures

- ▶ Substantial and very heterogeneous electricity price changes in Swiss municipalities in 2023, 2024, and 2025
- ▶ Use transactional payment data to estimate the reaction of consumption expenditures to these price changes

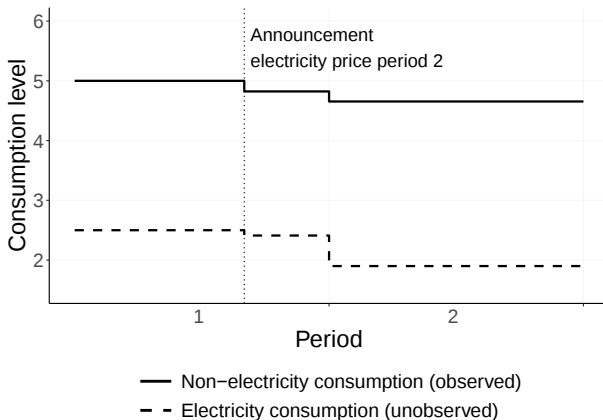
Electricity prices in Switzerland



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Theoretical consumption evolution



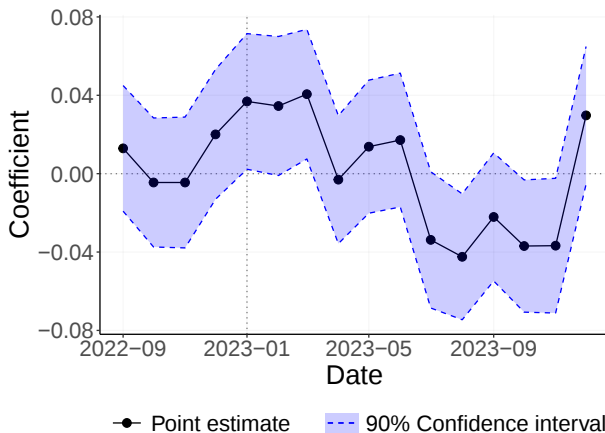
timeline



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Reaction of consumption expenditures



Conclusion

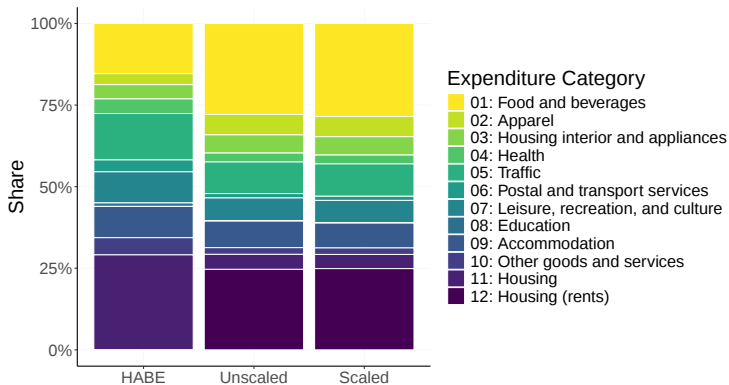
- ▶ Accounting for merchant churn and shifts in payment behavior, delivers representative expenditure data.
- ▶ The elasticity of non-electricity expenditures to electricity price changes is -0.04 .



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Consumption basket



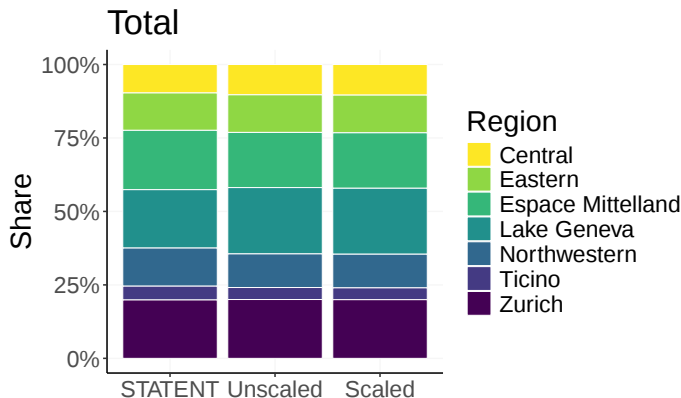
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Regional representativeness



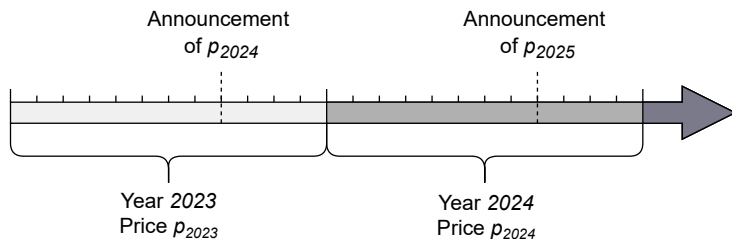
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Timeline of electricity prices in Switzerland



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