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Estimating the scale of foreign exchange fees in the United States

Capital Economics has been commissioned by Wise to estimate the fees paid on foreign exchange transactions by US consumers and small and medium-sized businesses nationally and in every state. This note sets out Capital Economics' results and the approach used to produce them.

US national and state-level foreign exchange fees (USD millions, current prices)						
	2018	2019	2020	2021	2022	2023
1. Fees on consumer spending abroad	3,265	3,497	847	1,561	3,254	4,088
Fees on personal travel excluding "education related"	3,130	3,366	789	1,510	3,182	4,003
<i>of which exchange rate margins</i>	917	986	231	442	932	1,079
<i>of which transaction fees</i>	2,213	2,380	558	1,068	2,250	2,924
Fees on education related spending	135	131	58	51	73	84
<i>of which exchange rate margins</i>	26	25	11	10	14	16
<i>of which transaction fees</i>	109	106	47	41	59	69
2. Fees on remittance outflows	7,873	8,745	7,783	9,189	10,747	11,564
<i>of which exchange rate margins</i>	2,224	2,800	2,545	2,489	2,809	3,061
<i>of which transaction fees</i>	5,649	5,945	5,238	6,700	7,938	8,502
3. Fees on SME trade	851	848	756	906	1,053	1,040
<i>of which exchange rate margins</i>	648	646	575	689	801	792
<i>of which transaction fees</i>	203	202	181	217	252	248
4. Fees on portfolio income from abroad	1,106	981	893	921	1,090	1,180
<i>of which exchange rate margins</i>	687	706	637	662	775	834
<i>of which transaction fees</i>	419	275	256	260	315	346
US total fees	13,095	14,071	10,279	12,577	16,144	17,872
<i>of which exchange rate margins</i>	4,501	5,162	3,999	4,291	5,331	5,782
<i>of which transaction fees</i>	8,594	8,908	6,280	8,285	10,813	12,089
California total fees	2,614	2,814	2,190	2,673	3,292	3,617
<i>of which exchange rate margins</i>	868	1,006	819	863	1,029	1,111
<i>of which transaction fees</i>	1,747	1,808	1,371	1,810	2,263	2,506
Florida total fees	1,088	1,185	931	1,162	1,545	1,715
<i>of which exchange rate margins</i>	353	417	341	366	471	517
<i>of which transaction fees</i>	735	768	590	797	1,074	1,198
New York total fees	1,156	1,223	939	1,179	1,464	1,614
<i>of which exchange rate margins</i>	383	436	354	382	463	500
<i>of which transaction fees</i>	773	787	585	796	1,001	1,114
Texas total fees	1,374	1,485	1,132	1,380	1,744	1,904
<i>of which exchange rate margins</i>	491	565	448	488	606	648
<i>of which transaction fees</i>	883	921	683	892	1,139	1,256
Rest of US total fees	6,862	7,364	5,087	6,182	8,098	9,022
<i>of which exchange rate margins</i>	2,406	2,739	2,037	2,192	2,762	3,007
<i>of which transaction fees</i>	4,456	4,625	3,050	3,991	5,337	6,015

Foreign currency transactions

The fees paid on US foreign currency transactions, including both explicit transaction fees and 'hidden' exchange rate margin fees, have been estimated each year from 2018 to 2023 in five areas:

1. Spending abroad by US vacationers and students studying overseas. Travellers face fees on purchases and cash withdrawals they make abroad using debit and credit cards and on cash exchanged for foreign currency in the US.
2. Remittances from the US – fees paid by those sending money to people who live abroad.
3. Remittances to the US – fees faced by those receiving money sent by people living abroad.
4. International trade by small and medium sized enterprises (SMEs) – fees paid by SMEs to convert foreign currency earnings into US dollars and to obtain foreign currency to pay for imports priced in foreign currency.
5. Portfolio investment earnings abroad – US residents earn income in a foreign currency on foreign portfolio investments, for example dividends on equities or interest on debt securities, and pay fees when converting this income into US dollars.

1. Spending by US vacationers and education tourists abroad

The Bureau of Economic Analysis (BEA) provides data on the value of spending by US residents on non-business visits abroad, including separately identifying education-related travel spending.

Capital Economics adjusts the spending figures for the shares of spending that are in US dollars as opposed to foreign currency. For vacationers, the share of spending that is in foreign currency is estimated using data from the Survey of International Air Travellers published by the International Trade Administration.¹ For education spending abroad, the share of expenditure that is in foreign currency is estimated from publicly available information.²

Total expenditures in the two travel spending categories are split by payment method (cash withdrawal using credit card, purchases using credit card, cash withdrawal using debit card, purchases using debit card, cash from home) based on data on payment methods used by US citizens on foreign trips from the US National Travel and Tourism Office.³

Data from major banks in the US and the biggest card payment providers (Mastercard and Visa) are used to estimate the fees that apply to the five different payments methods to derive both the average exchange rate margin and transaction fee charged. The average exchange rate margin has

¹ National Travel and Tourism Office, U.S. Travel And Tourism Balance Of Trade (<https://www.trade.gov/survey-international-air-travelers-results-outbound>)

² <https://www.bestcolleges.com/research/college-study-abroad-statistics/#:~:text=During%20the%202020%2D2021%20academic,14%2C550%20U.S.%20students%20studied%20abroad.&text=This%20number%20is%20a%2091,to%20the%20COVID%2D19%20shutdowns.>

³ National Travel and Tourism Office, U.S. Travel And Tourism Balance Of Trade (<https://www.trade.gov/survey-international-air-travelers-results-outbound>)

been estimated based on the currencies of the ten biggest personal travel destinations for US travellers by spending, which jointly make up over 60% of vacation and education spend abroad.

The five different expenditure amounts are multiplied by the relevant transaction and foreign exchange rate margin cost to determine total fees on vacation and education spending abroad.

Total fees on personal spending abroad by state are estimated by multiplying national fees by the state-level shares of national foreign travel expenditure by US residents. State-level data on foreign travel expenditure are from the BEA.⁴

2. Remittances from the US

The BEA provides data on remittance outflows from the US following the International Monetary Fund's (IMF) definition of "remittances", which includes transfers made by resident households to non-resident households as well as the income of border/seasonal workers.⁵ KNOMAD, a centre of excellence on migration and development issues supported by the World Bank and governmental organisations, also produces estimates of remittance outflows.⁶ Capital Economics believes that the KNOMAD estimates provide more comprehensive coverage of remittance outflows and are taken as the preferred measure.

The World Bank provides estimates of the average total cost of remittance outflows from the US to 42 countries, as well as the portion of the cost that is attributable to foreign exchange margin cost.⁷ Average transaction costs of remittance outflows to the countries in the sample are calculated as the difference between the average total cost and the average foreign exchange rate margin cost. An aggregate measure for both US transaction and foreign exchange rate margin costs is constructed as a weighted average of country-specific costs and shares of US remittance outflows.

Remittance outflow fees are calculated by multiplying remittance outflows by the aggregate measures of transaction and exchange rate margin costs. Estimates of the fees using both BEA and KNOMAD data are provided.

Total remittance outflow fees by state are calculated by multiplying national fees by the state-level shares of national foreign-born population. Data on foreign-born population are from the US Census Bureau.⁸

3. Remittances to the US

The costs of remittance inflows are assumed to be fully borne by the senders.

⁴ Bureau of Economic Analysis (<https://www.bea.gov/data/consumer-spending/state>)

⁵ Bureau of Economic Analysis (<https://www.bea.gov/data/intl-trade-investment/international-transactions>)

⁶ KNOMAD, <https://www.knomad.org/data/remittances>

⁷ The World Bank, Remittance Prices Worldwide, available at <http://remittanceprices.worldbank.org>.

⁸ United States Census Bureau ([https://data.census.gov/table/ACSSPP1Y2022.S0201?g=010XX00US\\$0400000&d=ACS%201-Year%20Estimates%20Selected%20Population%20Profiles](https://data.census.gov/table/ACSSPP1Y2022.S0201?g=010XX00US$0400000&d=ACS%201-Year%20Estimates%20Selected%20Population%20Profiles))

4. International trade by SMEs

Foreign exchange fees on the value of US SMEs' trade that is invoiced in a foreign currency are estimated for exporters and importers.⁹

The value of exports from and imports to the US comes from data provided by the US BEA.¹⁰ To avoid double-counting foreign exchange costs on travel spending abroad, foreign currency travel spending is deducted from services imports data.

Export and import values broken down by size of business comes from the Census Bureau.¹¹ The shares of SME exports and SME imports from the Census Bureau data is applied to the total trade figures from the BEA (excluding foreign currency travel spending abroad) to calculate the value of SME trade in goods and services.

The IMF provides estimates for the share of US trade that is invoiced in a foreign currency, for both exports and imports.¹² These shares are applied to the value of SME exports and imports to estimate the value of payments to and from US SMEs that are converted into US dollars.

Firms that both export in foreign currency and pay for imports in foreign currency will use some of their foreign currency earnings to pay foreign currency import bills. That is, they won't convert all their foreign currency earnings into local currency, then re-convert local currency into foreign currency to pay for imports. Foreign currency SME trade values are adjusted to account for this.

Exchange rate costs vary depending on the size of the transaction. Data from Wise's website is used to derive estimates for both transaction fees and exchange rate margins that apply in the US to transaction values ranging in size from \$5,000 to \$100,000.¹³ A weighted average of these fees is taken based on the estimated shares of SMEs that make 'small', 'medium' and 'large' transactions. Finally, the value of foreign currency SME trade is multiplied by the relevant transaction and exchange rate margin fee rates to determine total fees on trade transactions.

The US Census Bureau provides information on identified US companies and their known export or import value at a state level.¹⁴ Export values for SMEs are provided by state, whereas import values are only provided for all companies by state. SME shares of import values by state are assumed to be the same as those for exports. SME exports and imports are summed at a state-level, and the state share of total US trade is then applied to fees on international trade transactions.

⁹ Small and Medium-sized Enterprises are defined here as any business that has fewer than 250 employees.

¹⁰ <https://www.bea.gov/data/intl-trade-investment/international-trade-goods-and-services>

¹¹ https://www.census.gov/foreign-trade/Press-Release/edb/profile_hist.html

¹² <https://www.imf.org/en/Publications/WP/Issues/2020/07/17/Patterns-in-Invoicing-Currency-in-Global-Trade-49574>

¹³ <https://wise.com/gb/compare/>

¹⁴ https://www.census.gov/foreign-trade/Press-Release/edb/profile_hist.html

5. Portfolio investment earnings abroad

US residents earn income on portfolio investment abroad, such as dividends from equities or interest payments on debt. The BEA provides estimates for the values of equity and debt assets held abroad and the incomes earned on equities and debt assets.

Data on money transfer fees from Wise's website are used to estimate the associated fee rates for US residents converting portfolio investment earnings into dollars.¹⁵ Finally, total portfolio investment volumes are multiplied by the relevant transaction and exchange rate margin fee rates to determine total portfolio investment fees.

Total fees on portfolio investment earnings abroad by state are estimated by multiplying national fees by the state-level shares of national net worth (defined as mean value of households' assets excluding equity in own home). Data on net worth are from the US Census Bureau.¹⁶

Time series data availability

The latest full year for most national time series data used to estimate foreign exchange transaction fees is 2022. An exception is KNOMAD remittance outflows, which are available through to 2021 and are estimated beyond that using their relationship to US official data for remittance outflows. National time series data for travel spending, remittances (as published by the BEA) and portfolio investment inflows are available through to the third quarter of 2023, while the latest export and import data are for October 2023. The available data for 2023 are used to produce estimates of full year values to which percentages fees are then applied.

The time series data used to estimate state-level travel spending and remittances are available up to 2022, while the those used for the estimation of portfolio income from abroad are up to 2021. Beyond these years, state level shares of national totals are assumed to remain unchanged. State-level international trade are available through to October 2023.

¹⁵ Data from Wise's website (<https://wise.com>).

¹⁶ United States Census Bureau (<https://www.census.gov/data/tables/2021/demo/wealth/state-wealth-asset-ownership.html>)

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