

# IMF Programs and Financial Flows to Offshore Centers

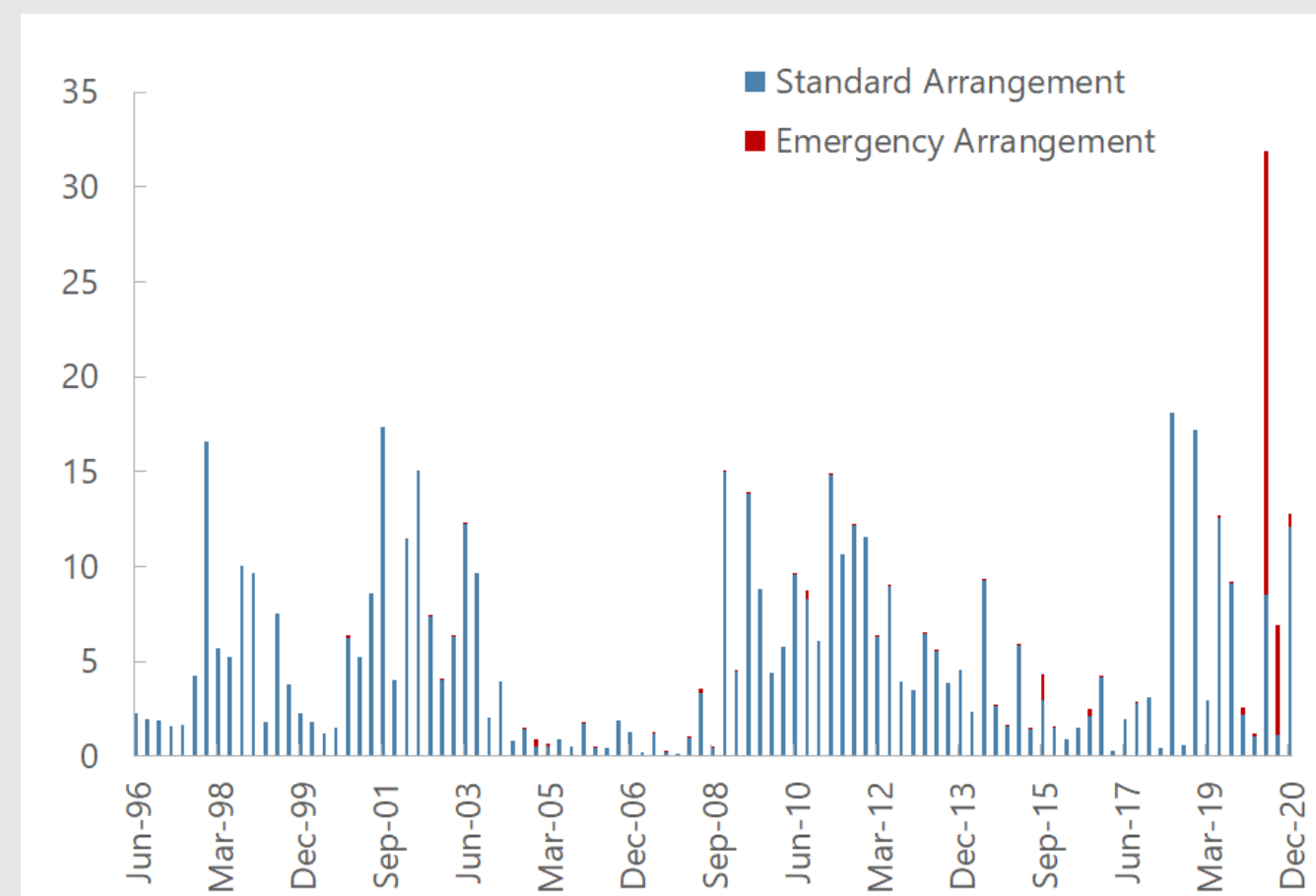
Shekhar Aiyar<sup>1</sup> Manasa Patnam<sup>1</sup>

<sup>1</sup>International Monetary Fund

## Are Aid Funds Diverted for Corruption?

- Mixed consensus on the effectiveness of international assistance; a growing literature documents that it may be captured by economic and political elites.
- Recent paper from the World Bank documented that aid disbursements to highly aid-dependent countries coincide with sharp increases in bank deposits in offshore financial centers (*Andersen, Johannesen and Rijkers, 2020*).
- Our paper: Replicates the exercise for IMF program flows but exploiting the timing and schedules tranching of disbursements.
- Overall, we are unable to detect statistically significant effects suggesting that IMF disbursements are channeled to offshore financial centers.

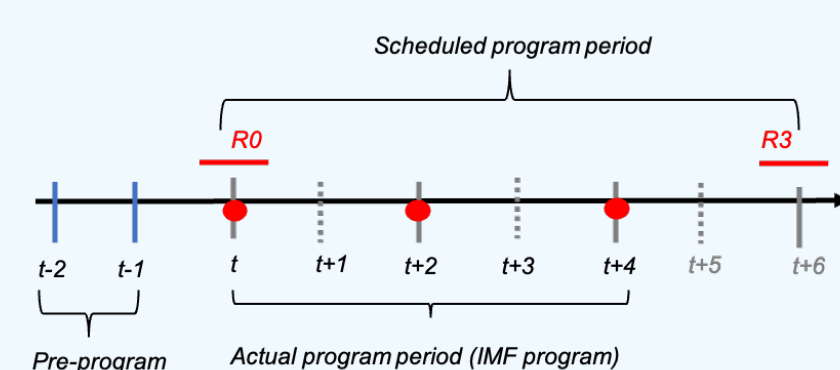
## IMF lending has reached an all-time high



- Moreover, the proportion of light conditionality emergency relief is also at an all-time high, potentially increasing the concern about elite capture.

## Data

- Confidential locational banking statistics data from the BIS:
  - Quarterly bilateral bank deposit flows from all countries to select offshore and non-offshore financial centers.
  - Broad literature which uses offshore flows as a measure to detect/quantify elite capture and corruption (*Anderson et. al., 2017; Johannesen and Zucman, 2014*).
  - Time period: 1995Q4-2019Q4 restricting sample to countries which have had at least one IMF program.
- IMF Program and Disbursement Data:
  - IMF Monitoring of Programs Database provides (i) timing (both expected and actual) and amount of disbursement (ii) type of program conditionalities:



The figure presents an illustrative timeline of an IMF lending arrangement. The blue vertical ticks correspond to the quarters before a program is put in place (pre-program period). The solid gray vertical ticks reference the quarters in which loan amounts are scheduled to be disbursed at the time the program is arranged at time  $t$  (i.e., at the initial program review  $R_0$ ). The solid gray vertical ticks with red circles reference the quarters in which loan amounts are actually disbursed under the program which is arranged at time  $t$ . Dashed gray vertical ticks reference quarters, within the program period, but when no disbursements are made.

## Empirical Strategy

Denote  $offshore_{it}$  as the aggregate (quarterly) deposits of country  $i$  at time  $t$  in all offshore destinations and  $IMF_{it}$  is a dummy indicating whether country  $i$  received a disbursement at time  $t$ :

$$\Delta \log(offshore_{it}) = \beta \cdot IMF_{it} + \gamma \cdot X_{it} + \alpha_i + \gamma_t + \epsilon_{it}$$

**The timing of IMF disbursement ( $IMF_{it}$ ) clearly endogenous:**

- 1 As a first step, we run the same specification with non-offshore flows and, more formally, the difference between offshore vs non-offshore flows which absorbs time-varying country-specific shocks to cross-border flows.
- 2 Next, we restrict the sample to the duration of the IMF program exploiting only the timing of disbursements.
- 3 We also instrument for the timing of disbursement using the pre-determined schedule of disbursements at the time of arrangement which are uncorrelated with contemporaneous shocks to offshore flows.

## Baseline Effect: IMF Disbursement on Cross-border Flows

	Offshore Flows (A)	Non-Offshore Flows (B)	Diff. Flows (C)
IMF disbursement quarter	-1.756*** (0.637)	0.937 (0.732)	-2.671*** (0.861)
Quarterly GDP (log)	0.055 (0.620)	-0.308 (0.610)	0.379 (0.910)
Observations	10736	10704	10690
Country F.E.	X	X	X
Time F.E.	X	X	X

The table reports the average effects of IMF program on OFC and NOFC deposit flows. All columns report results from a panel fixed effects specification with country and time fixed effects. To account for possible dependence across results/observations for the same country, we cluster standard errors by country and reported these in parentheses. \* indicates significance at 10%; \*\* at 5%; \*\*\* at 1%.

## Note

A statistically significant positive coefficient in Columns A and C would provide evidence of elite capture. We do not find such evidence.

## Effect of IMF Disbursement on Cross-border Flows: Gravity Specification

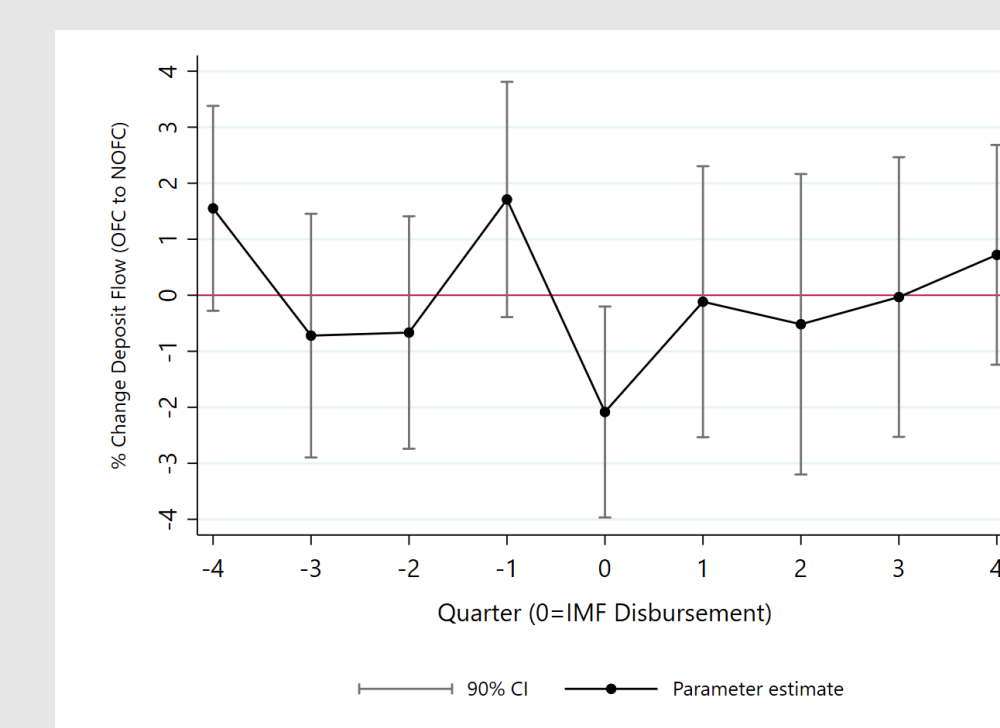
$$\Delta \log(\text{Deposit}_{ijt}) = \beta \cdot IMF_{it} \times O_{jt} + \alpha_{ij} + \gamma_{it} + \eta_{jt} + \epsilon_{ijt}$$

	All Flows (A)	All Flows (B)	All Flows (C)	All Flows (D)
IMF disbursement quarter $\times$ Offshore	-1.161* (0.686)	-1.691** (0.858)	-1.849* (0.992)	-1.801* (1.019)
IMF Program $\times$ Offshore			0.399 (0.954)	
Observations	177226	60132	60132	45461
Sample	A	PP	PP	P
Country by Destination F.E.	X	X	X	X
Country by Time F.E.	X	X	X	X
Destination by Time F.E.	X	X	X	X

Standard errors in parentheses clustered by country and destination. A refers to all sample; PP refers to program and pre-program sample; P refers to program sample. \* indicates significance at 10%; \*\* at 5%; \*\*\* at 1%.

Disaggregating granularly by source and destination flows, and flexibly incorporating country by time effects, we find similar results even on the entire duration of IMF program flows.

## Are IMF lending effects lagged or anticipated?



No significant effects 4 quarters before or after IMF disbursement.

## Robustness: Using Scheduled Disbursements as an Instrument

- Focus on disbursement schedule at the time of program arrangement and use this predicted schedule as an instrument for actual disbursement.
- **Exclusion:** predicted disbursements uncorrelated with future contemporaneous shocks that determine actual disbursement.

	IV			Baseline OLS
	Offshore Flows (A)	Non-offshore Flows (B)	Diff. Flows (C)	Diff. Flows (D)
IMF disbursement quarter	3.984 (4.034)	4.917 (4.663)	-1.914 (6.068)	-2.456** (1.182)
Observations	7046	7041	7041	7661
First-stage F	408.6	408.3	408.3	-
Country F.E.	X	X	X	X
Time F.E.	X	X	X	X

The table reports the average effects of IMF program on offshore and non-offshore deposit flow for the sample period 2003-2019. Cluster-robust standard errors by country and reported these in parentheses. \* indicates significance at 10%; \*\* at 5%; \*\*\* at 1%.

## Additional Robustness and Covid-19 Shock

**We conduct additional checks but results are robust:**

- Condition on observable sources of economic stress (oil shocks) and corruption indicators;
- Examine heterogeneity by program type (crude proxy for concessionality and conditionality), type of country and quantity of disbursement.

**Sub-sampling by Covid-19 lending period:**

	Offshore Flows (A)	Non-Offshore Flows (B)	Diff. Flows (C)
IMF disbursement quarter	6.801 (5.680)	5.097 (3.434)	1.704 (6.644)
Observations	244	244	244
Country F.E.	X	X	X
Time F.E.	X	X	X

The table reports the average effects of IMF program on OFC and non-OFC deposit flows over the 2020 Q2-Q3 time period. All columns report results from a panel fixed effects specification with country and time fixed effects. To account for possible dependence across results/observations for the same country, we cluster standard errors by country and reported these in parentheses. \* indicates significance at 10%; \*\* at 5%; \*\*\* at 1%.

## Conclusion

- We analysed whether IMF lending is associated with an increase to offshore destinations which is a metric widely used to document elite capture.
- We find:
  - No positive and statistically significant effect around the timing of IMF disbursements and flows to offshore.
  - Result is robust to restricting to the duration of an IMF program and instrumenting using scheduled tranche of disbursements.
  - Effects could be heterogeneous; still we are unable to find any positive significant effects in any of the (heterogeneity) cuts.
- The results are reassuring at a time when the IMF is expanding lending to an unprecedented extent, with much of the lending in light-conditionally emergency programs.
  - Extend the data for the Covid crisis period: no evidence to support an association between recent surge in emergency lending and increased offshore flows.