Online Appendix

Research Note: Corruption, Accountability, and Women's Access to Power

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1. Overview of Variables

Table 1.1: Variable Descriptions

	N	Mean	Standard Deviation	Minimum	Lower SD Bound	Upper SD Bound	Maximum
Female Minister	1833	0.096	0.295	0	-0.199	0.391	1
Δ Corruption	1833	-1.01	6.11	-26.9	5.10	7.12	27
Log GDP per Cap	1833	8.771	1.48	4.77	7.291	10.25	11.63
Log GDP	1833	25.20	1.97	18.95	23.23	27.17	30.48
Unified	1833	0.46	0.49	0	-0.04	1.37	1
Women in Cab.	1833	17.62	12.12	0	23.12	29.74	62.5
Women in Par.	1817	20.11	11.07	0	9.04	31.18	63.80
Presidential	1833	0.598	0.49	0	0.11	1.09	1
Free & Fair Elections	1833	0.702	0.46	0	0.24	1.16	1
Electoral Democracy (VDEM)	1833	5.66	2.81	0	2.85	8.47	9
Electoral Democracy (Freedom House)	1515	7.918	4.22	0	3.70	12.14	12

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Importantly, the number of countries included in the analysis varies over time. This is due primarily to the TI CPI data. In 1995 TI CPI included a sample of 41 countries. This number increased slowly over time. Starting in 2005 it includes over 150 countries. There is also some missingness on the Unified variable, and sparser coverage for the Women in Cabinets measure in 2017.

Table 1.2: Variable Coding Descriptions

Variable	Variable Source	Coding Description
Increasing Corruption	Transparency International Corruption Perception Index	Increasing corruption is measured by first taking the inverse of CPI. Then we take the difference in the corruption score at time <i>t-1</i> and time <i>t-6</i> such that positive (negative) values indicate the country has seen an increase (decrease) in corruption in the last 5 years. Larger absolute values indicate bigger changes—with positive values indicating increases and negative values indicating decreases—in corruption.
Women Finance	CIA Chiefs of State and Cabinet	We code the finance ministry as being held by a woman
Minister	Members of Foreign Governments	if a woman was recorded as occupying the post for one month or more in a given year.
GDP per Capita	World Bank	Geometric mean of the GDP per capita (constant US dollars)
GDP	World Bank	Geometric mean of the GDP (constant US dollars)
Unified	Database of Political Institutions (Scartascini, Cruz, and Keefer 2018)	Coded as 1 if only one party controls the government. Coded 0 if more than one party has a seat in the government. This was created using the variable gov2me (name of 2nd government party) from DPI Where there is no second government party, Unified = 1; where there is a second government party, Unified = 0.
Women in Cabinet	Who Governs (Nyrup and Bramwell 2020)	This measure captures the percentage of women in the core executive cabinet. It was created by taking the variable n_female_core (the number of women in the core cabinet) divided by n_core (the number of core cabinet members). When a woman occupies the finance ministry, she is excluded from this measure (i.e., subtracted from both the numerator and denominator).
Women in Parliament (Table 5, Fig 5)	Hughes, Paxton, Clayton, and Zetterberg (2017) Supplemented by Inter- Parliamentary Union Data	Percent women in the national legislature, lower house.
Presidential	Bjørnskov & Rode (2019) (extension of Cheibub, Gandhi and Vreeland 2010)	Coded 1 if the system is presidential, 0 if the system is not presidential. Semi-presidential systems are coded as 1.
Fair & Free (primary measure of electoral democracy)	Bjørnskov & Rode (2019) (extension of Cheibub, Gandhi and Vreeland 2010)	Coded 1 if elections were held. 0 if there were no elections held.
Electoral Democracy (Table 4.1, Figure 4.1)	Varieties of Democracy	Regimes coded as equal to or above 4 in the v2x_regime_amb variable from VDEM are considered an electoral democracy and coded as a 1. Regimes with a value less than 4 are coded as 0 (not electoral democracies).
Electoral Democracy (Table 4.2, Figure 4.2)	Freedom House	Regimes are coded as an electoral democracy if they score at least 7/12 on the political rights subcategory A (questions about the Electoral Process) and an overall political rights score of 20 or better (out of 40).

2. Model with Alternative Dependent Variable: Transition to Female Finance Minister

As we note in the main text, our outcome variable captures whether a woman holds the finance portfolio. We focus on this measure because ministers do not serve for fixed terms; they can be replaced by the executive at any point. Chief executives are thus continually reevaluating the composition of their cabinets. Indeed, a considerable body of research shows that executives across all regime types regularly weigh the cost of cabinet reshuffles with the potential benefits of enhancing government performance, bolstering their own popular support, or improving their own political fortunes (see, Camerlo and Pérez-Liñán 2020; Flores and Smith 2011; Kroeger 2020; Indridason and Kam 2008). Just as a cabinet reshuffle in the wake of a corruption shock likely indicates a calculated response to the crisis, the decision not to reshuffle in the wake of a scandal also reflects a strategic calculation to stay the course (Camerlo and Pérez-Liñán 2020). We thus expect that as long as women appointees signal a commitment to addressing corruption, we are more likely to observe a woman in this position.

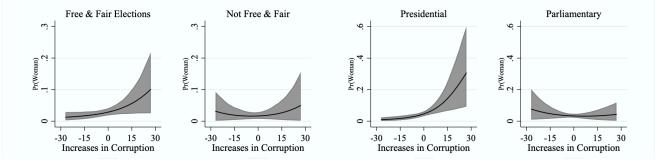
At the same time, it is important to establish that our results are robust to considering women's appointment to the finance ministry. We thus fit additional models where our dependent variable is the appointment of a woman finance minister. In this model specification the dependent variable is coded 1 when a woman is appointed to the post, and a zero when the post is held by a man. After a woman is appointed to a post, all other subsequent country-years in which the woman holds office drop out of the analysis. The country returns to the analysis when the post is once again occupied by a man. The results for this analysis are presented in Appendix Table 2 and Figure 2. Consistent with the findings presented in the main text, we find that women are more likely to be appointed by presidents in the context of free and fair elections. These results do not hold for prime ministers, or for states without free and fair elections.

Table 2: Corruption and the Transition to a Woman Finance Minister

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Free & Fair	Not Free	Corruption*	Presidential	Parliamentary	Corruption*
		Elections	& Fair	Free&Fair			Presidential
Δ Corruption	0.042	0.049*	0.036	0.019	0.097**	-0.016	-0.009
	(0.026)	(0.029)	(0.062)	(0.056)	(0.041)	(0.051)	(0.046)
Time	0.000	0.010	-0.102	-0.000	0.025	0.001	0.020
	(0.037)	(0.039)	(0.111)	(0.037)	(0.052)	(0.066)	(0.040)
Log GDP per Cap	-0.298**	-0.237	-0.746	-0.298**	-0.384**	-0.033	-0.246*
	(0.139)	(0.147)	(0.531)	(0.139)	(0.188)	(0.407)	(0.148)
Log GDP	-0.054	-0.073	0.432	-0.054	0.132	-0.571**	-0.057
	(0.104)	(0.109)	(0.373)	(0.104)	(0.143)	(0.255)	(0.108)
Unified	-0.859**	-0.916**	-1.015	-0.857**	-1.566***	0.671	-0.896**
	(0.343)	(0.395)	(0.784)	(0.343)	(0.558)	(0.652)	(0.397)
$\%$ \supseteq in Cabinet	0.045***	0.037***	0.125**	0.044***	0.005	0.114***	0.037***
	(0.012)	(0.013)	(0.053)	(0.012)	(0.017)	(0.027)	(0.013)
Presidential	0.212	0.133		0.217			0.145
	(0.361)	(0.376)		(0.361)			(0.381)
Free&Fair	0.804*	, ,		0.833*			, ,
	(0.432)			(0.440)			
ΔCorr*Free&Fair	` /			0.029			
				(0.063)			
ΔCorr*Presidential				,			0.096
							(0.059)
Constant	-0.780	-0.028	-7.349	-0.798	-3.442	8.550	-0.661
	(2.538)	(2.690)	(8.025)	(2.540)	(3.370)	(5.645)	(2.707)
Observations	1705	1181	352	1705	647	534	1181

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 2: Predicted Probability of a Transition to a Woman Finance Minister: Conditional on Accountability



3. Models with Alternative Measures of Corruption

Here we consider whether our results are robust to alternative lag structures for the explanatory variable.

Table 3.1: Corruption and Women's Inclusion in the Finance Ministry

Increasing Corruption measured as: (t-1)-(t-5)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Free & Fair	Not Free	Corruption*	Presidential	Parliamentary	Corruption*
		Elections	& Fair	Free&Fair			Presidential
A C	O O O Talkala	O O F O kalada	0.024	0.007	O OF Astroteste	0.027	0.024
Δ Corruption	0.037**	0.053***	0.031	-0.006	0.073***	0.026	0.021
	(0.015)	(0.017)	(0.036)	(0.033)	(0.022)	(0.035)	(0.028)
Time	0.054***	0.061***	-0.077	0.054***	0.056**	0.081**	0.065***
	(0.020)	(0.022)	(0.060)	(0.020)	(0.027)	(0.041)	(0.022)
Log GDP per Cap	-0.113	-0.114	0.099	-0.116	-0.176*	-0.079	-0.113
	(0.078)	(0.084)	(0.224)	(0.079)	(0.096)	(0.240)	(0.084)
Log GDP	-0.131**	-0.168***	0.305**	-0.129**	-0.047	-0.478***	-0.161***
O .	(0.054)	(0.058)	(0.136)	(0.054)	(0.068)	(0.138)	(0.058)
Unified	-0.003	-0.252	1.102**	-0.002	-0.588***	0.831**	-0.238
	(0.167)	(0.189)	(0.532)	(0.167)	(0.226)	(0.401)	(0.190)
% ♀ in Cabinet	0.046***	0.038***	0.181***	0.045***	0.009	0.107***	0.037***
ı	(0.006)	(0.007)	(0.031)	(0.006)	(0.009)	(0.016)	(0.007)
Presidential	0.582***	0.421**	()	0.585***	(* * * * *)	()	0.441**
	(0.199)	(0.207)		(0.199)			(0.207)
Free&Fair	0.871***	(0.201)		0.943***			(0.201)
r recer air	(0.223)			(0.232)			
ΔCorr*Free&Fair	(0.223)			0.054			
Acon ricceran				(0.037)			
ΔCorr*Presidential				(0.037)			0.049
							(0.035)
Constant	-107.468***	-120.571***	139.840	-109.263***	-112.280**	-155.349*	-128.878***
	(40.306)	(43.512)	(120.717)	(40.463)	(53.803)	(82.495)	(43.952)
Observations	1989	1378	611	1989	775	603	1378

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 3.1: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability

Increasing Corruption measured as: (t-1)-(t-5)

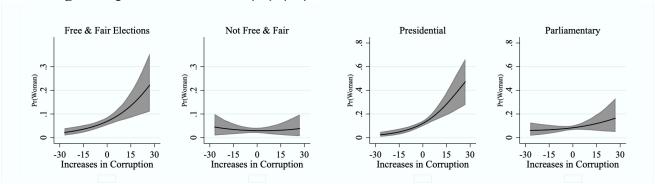


Table 3.2: Corruption and Women's Inclusion in the Finance Ministry

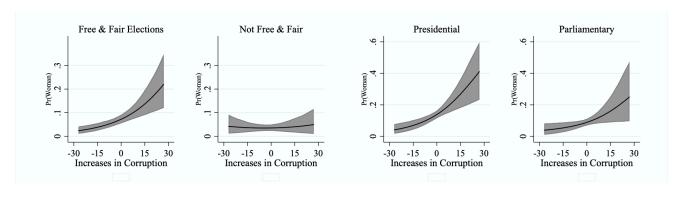
Increasing Corruption measured as: (t-1)-(t-7)

8	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full	Free & Fair	Not Free	Corruption*	Presidential	Parliamentary	Corruption*
	Sample	Elections	& Fair	Free&Fair		,	Presidential
Δ Corruption	0.036**	0.051***	0.042	-0.003	0.059***	0.039	0.041
	(0.014)	(0.016)	(0.035)	(0.029)	(0.019)	(0.034)	(0.028)
Time	0.041*	0.046*	-0.065	0.041*	0.024	0.094*	0.048*
	(0.023)	(0.025)	(0.072)	(0.023)	(0.030)	(0.050)	(0.025)
Log GDP per Cap	-0.120	-0.106	0.035	-0.123	-0.170*	0.015	-0.106
	(0.084)	(0.089)	(0.255)	(0.084)	(0.102)	(0.262)	(0.089)
Log GDP	-0.107*	-0.139**	0.318**	-0.104*	-0.033	-0.503***	-0.136**
	(0.058)	(0.062)	(0.156)	(0.058)	(0.073)	(0.153)	(0.062)
Unified	-0.122	-0.375*	0.713	-0.116	-0.668***	0.684	-0.372*
	(0.179)	(0.204)	(0.556)	(0.179)	(0.240)	(0.438)	(0.204)
% ♀ in Cabinet	0.045***	0.034***	0.188***	0.043***	0.005	0.108***	0.034***
	(0.007)	(0.007)	(0.035)	(0.007)	(0.009)	(0.017)	(0.007)
Presidential	0.650***	0.528**	, ,	0.657***	, ,	, ,	0.528**
	(0.213)	(0.220)		(0.213)			(0.219)
Free&Fair	0.732***			0.820***			
	(0.240)			(0.251)			
ΔCorr*Free&Fair	,			0.050			
				(0.033)			
ΔCorr*Presidential				,			0.015
							(0.033)
Constant	-82.157*	-91.252*	117.874	-83.675*	-47.537	-181.125*	-94.552*
	(46.840)	(50.037)	(143.968)	(46.957)	(61.363)	(101.108)	(50.589)
Observations	1679	1191	488	1679	666	525	1191

Standard errors in parentheses * p<0.10, ** p<0.05, *** p<0.01

Figure 3.2: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability

Increasing Corruption measured as: (t-1)-(t-7)



3.3 Discussion of Sustained Corruption and Models with (t-1) Lag Specification

The main way citizens learn about corruption is through news media, opposition parties, or their own experience with paying bribes (Davis, Camp, and Colman 2004; Lupu 2017; Kunicová and Rose-Ackerman 2005). We reason that in countries where corruption is perpetually high, it is less likely to demand the attention of headline news, to motivate opposition campaigns, or to capture the attention of citizens. Indeed, Hiskey and Moseley (2020) show that where political machines have retained hold over governments at the sub-national level in Argentina and Mexico, people do not consider their clientelistic tactics to be corruption. Media and opposition parties may thus be less likely to center their attention on bringing corruption to light, and citizens may be more likely to see corruption as business as usual or simply "turn a blind eye" (Anduiza, Gallego, and Muñoz 2013). If so, leaders have fewer incentives to address sustained high levels of corruption, as any individual head of government (or governing party) is less likely to be held accountable for long-term trends. Again, drawing on Hiskey and Moseley (2020), those "business as usual" corrupt practices may be very important for keeping the incumbent party in power.

By contrast, a meaningful jump in corruption may be cause for concern (even, or indeed especially, if the overall level remains comparatively low). It is more likely to draw media attention, more likely to motivate political opponents, and more likely to frustrate citizens. And, when corruption is seen as increasing, the governing party is an easier target for blame. It is in these cases where we expect heads of government to use women finance ministers to signal cleanliness.

For this reason, the models in our main analysis measure increases in corruption. Nonetheless, we demonstrate that our results are largely robust to an alternative approach to measuring our main explanatory variable that focuses on sustained high levels of corruption. In this section, we fit a series of models where we measure the level of corruption using the (inverse) of the Transparency International score in the previous year (i.e., corruption is measured at *t-1*). We find that women are more likely to be appointed to the finance ministry in the context of high corruption. Moreover, this relationship is stronger in the context of free and fair elections and presidential systems. These results are reported in Table 3.3 and Figure 3.3 below.

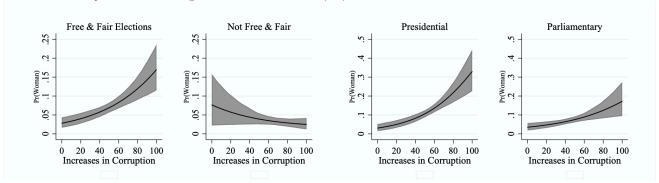
Table 3.3: Level of Corruption and Women's Inclusion in the Finance Ministry

Level of Corruption measured as: (t-1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full	Free & Fair	Not Free	Corruption*	Presidential	Parliamentary	Corruption*
	Sample	Elections	& Fair	Free&Fair		•	Presidential
Compation	0.02***	0.03***	-0.01	-0.02	0.03***	0.03**	0.02***
Corruption		(0.01)	(0.02)	(0.01)	(0.01)		(0.01)
Т"	(0.01)	` /	` '	` /	` ,	(0.01)	` /
Time	0.03*	0.04**	-0.05	0.03*	0.03	0.05	0.04**
	(0.01)	(0.02)	(0.04)	(0.01)	(0.02)	(0.03)	(0.02)
Log GDP per Cap	0.10	0.20*	0.06	0.11	0.16	0.03	0.22*
	(0.09)	(0.11)	(0.21)	(0.09)	(0.13)	(0.25)	(0.11)
Log GDP	-0.16***	-0.22***	0.18*	-0.16***	-0.13**	-0.34***	-0.23***
	(0.05)	(0.05)	(0.11)	(0.05)	(0.06)	(0.11)	(0.05)
Unified	-0.03	-0.28	0.75*	-0.07	-0.60***	0.49	-0.28
	(0.15)	(0.17)	(0.39)	(0.15)	(0.21)	(0.34)	(0.17)
% ♀ in Cabinet	0.06***	0.05***	0.13***	0.06***	0.03***	0.11***	0.05***
'	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Presidential	0.37**	0.29	()	0.42**	` /	,	-0.08
	(0.18)	(0.19)		(0.18)			(0.46)
Free&Fair	0.87***	(* *)		-1.97**			()
	(0.19)			(0.82)			
Corr*Free&Fair	(0.17)			0.04***			
Con Trecer an				(0.01)			
Corr*Presidential				(0.01)			0.01
Corr i residendal							
Caratant	E0 74**	74.10**	02.00	E4.07*	(4.07	02.00	(0.01)
Constant	-59.74**	-74.12**	93.00	-54.06*	-64.96	-92.90	-74.75**
	(29.66)	(32.84)	(73.62)	(29.81)	(39.70)	(61.17)	(32.88)
Observations	2611	1750	861	2611	985	765	1750

Standard errors in parentheses * p<0.10, ** p<0.05, *** p<0.01

Figure 3.3: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability, Level Corruption measured as: (t-1)



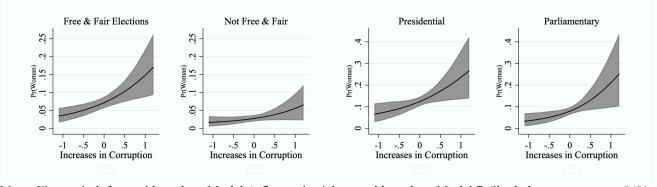
We also replicate our main results using the World Bank Control of Corruption measure.

Table 3.4: Replication of Main Analysis Using World Bank Control of Corruption Measure

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Free & Fair	Not Free	Corruption*	Presidential	Parliamentary	Corruption*
		Elections	& Fair	Free&Fair		-	Presidential
	0.4416	O O O Italia	0.50	0.00	0.0544	4.00	0.40
Δ Corruption	0.61*	0.83**	0.53	0.33	0.97**	1.22	0.69
	(0.31)	(0.39)	(0.57)	(0.54)	(0.46)	(0.84)	(0.73)
Time	0.01	0.03	-0.13***	0.01	0.01	0.06	0.03
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.04)	(0.02)
Log GDP per Cap	-0.13*	-0.14*	0.12	-0.13*	-0.20**	-0.30	-0.14*
	(0.07)	(0.08)	(0.16)	(0.07)	(0.10)	(0.21)	(0.08)
Log GDP	-0.07	-0.11**	0.22**	-0.07	0.03	-0.22**	-0.11**
	(0.05)	(0.05)	(0.10)	(0.05)	(0.07)	(0.10)	(0.05)
Unified	0.11	-0.15	0.77**	0.11	-0.55**	0.67*	-0.15
	(0.15)	(0.18)	(0.39)	(0.16)	(0.22)	(0.39)	(0.18)
% ♀ in Cabinet	0.05***	0.05***	0.14***	0.05***	0.02***	0.10***	0.05***
•	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Presidential	0.49***	0.39*	,	0.49***	` ,	,	0.39*
	(0.19)	(0.20)		(0.19)			(0.21)
Free&Fair	0.63***	,		0.61***			` /
	(0.19)			(0.19)			
ΔCorr*Free&Fair	()			0.44			
				(0.66)			
ΔCorr*Presidential				(0.00)			0.20
							(0.86)
Constant	-20.48	-60.04	252.56***	-20.15	-29.12	-122.46	-59.63
	(35.27)	(40.84)	(84.62)	(35.28)	(49.06)	(79.06)	(40.86)
Observations	2363	1470	893	2363	845	625	1470

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 3.4: Predicted Probability of Women's Inclusion in the Finance Ministry: Using World Bank Control of Corruption Measure



4. Models with Alternative Measures of Electoral Democracy

Table 4.1: Corruption and Women's Inclusion in the Finance Ministry, Electoral Democracy measured using VDEM

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Electoral	Not	Corruption*	Presidential	Parliamentary	Corruption*
		Democracy	Electoral	Electoral			Presidential
			Democracy				
Δ Corruption	0.04**	0.05***	0.00	-0.00	0.08***	0.02	0.02
•	(0.01)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
Time	0.05**	0.06***	-0.02	0.05**	0.06**	0.08*	0.07***
	(0.02)	(0.02)	(0.05)	(0.02)	(0.03)	(0.04)	(0.02)
Log GDP per Cap	-0.07	-0.04	-0.35*	-0.08	-0.09	0.08	-0.04
	(0.08)	(0.09)	(0.20)	(0.08)	(0.10)	(0.25)	(0.09)
Log GDP	-0.12**	-0.18***	0.28**	-0.12**	-0.06	-0.47***	-0.17***
_	(0.06)	(0.06)	(0.14)	(0.06)	(0.07)	(0.14)	(0.06)
Unified	-0.09	-0.18	-0.06	-0.09	-0.50**	0.82**	-0.16
	(0.17)	(0.20)	(0.38)	(0.17)	(0.24)	(0.41)	(0.20)
% ♀ in Cabinet	0.05***	0.04***	0.11***	0.05***	0.01	0.10***	0.04***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)
Presidential	0.62***	0.45**	` ,	0.62***	` ,	` ,	0.46**
	(0.21)	(0.22)		(0.21)			(0.22)
Electoral Dem	0.51**	, ,		0.58***			` ,
	(0.22)			(0.22)			
ΔCorr*Electoral	,			0.05			
				(0.03)			
ΔCorr*Presidential				` ,			0.05
							(0.03)
Constant	-100.57**	-121.47**	37.85	-100.00**	-115.84*	-146.55*	-132.40***
	(43.40)	(47.60)	(109.85)	(43.50)	(59.63)	(88.15)	(48.16)
Observations	1833	1260	573	1833	697	563	1260

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 4.1: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability, Electoral Democracy measured using VDEM

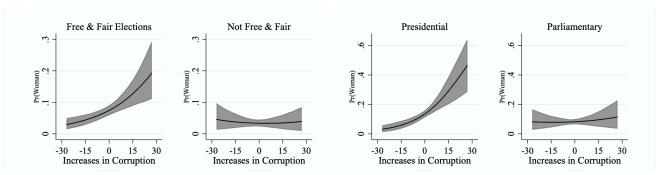
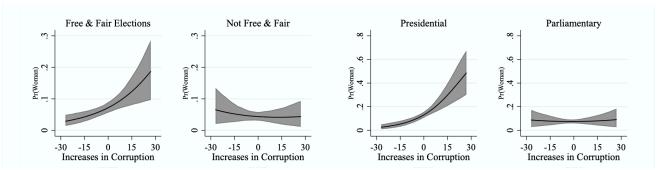


Table 4.2: Corruption and Women's Inclusion in the Finance Ministry, Electoral Democracy measured using Freedom House

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Electoral	Not	Corruption*	Presidential	Parliamentary	Corruption*
		Democracy	Electoral	Electoral			Presidential
			Democracy				
Δ Corruption	0.03**	0.05***	-0.01	-0.00	0.08***	0.00	0.01
1	(0.01)	(0.02)	(0.03)	(0.03)	(0.02)	(0.04)	(0.03)
Time	0.05**	0.06***	-0.06	0.05**	0.06**	0.09*	0.07***
	(0.02)	(0.02)	(0.06)	(0.02)	(0.03)	(0.05)	(0.02)
Log GDP per Cap	-0.03	-0.0Ó	-0.35**	-0.0 4	-0.04	0.05	0.00
	(0.08)	(0.09)	(0.18)	(0.08)	(0.11)	(0.27)	(0.09)
Log GDP	-0.13**	-0.20***	0.11	-0.13**	-0.08	-0.52***	-0.19***
	(0.06)	(0.06)	(0.12)	(0.06)	(0.07)	(0.16)	(0.06)
Unified	-0.13	-0.36	0.39	-0.13	-0.68***	0.58	-0.34
	(0.17)	(0.22)	(0.34)	(0.17)	(0.26)	(0.45)	(0.22)
% ♀ in Cabinet	0.05***	0.05***	0.06***	0.05***	0.01	0.12***	0.05***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)
Presidential	0.61***	0.51**	` ,	0.61***	, ,	, ,	0.54**
	(0.21)	(0.22)		(0.21)			(0.22)
Electoral Dem	0.14	, ,		0.22			` ,
	(0.21)			(0.22)			
ΔCorr*Electoral	, ,			0.05			
				(0.03)			
ΔCorr*Presidential				` ,			0.07*
							(0.03)
Constant	-94.48**	-124.06***	113.02	-97.33**	-118.01**	-169.62*	-138.50***
	(43.97)	(47.85)	(118.76)	(44.09)	(59.69)	(92.78)	(48.59)
Observations	1833	1288	545	1833	709	579	1288

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 4.2: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability, Electoral Democracy measured using Freedom House



5. Models with Alternative Specifications of Women in Politics

Table 5.1: Corruption and Women's Inclusion in the Finance Ministry, Controlling for Women in Cabinet at *t-1*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	Free & Fair Elections	Not Free & Fair	Corruption* Free&Fair	Presidential	Parliamentary	Corruption* Presidential
		Licetions	CC 1 an	1 receir an			1 residential
Δ Corruption	0.03**	0.04***	0.00	-0.01	0.07***	0.02	0.01
	(0.01)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
Time	0.04**	0.05**	-0.09	0.04**	0.05*	0.09**	0.06***
	(0.02)	(0.02)	(0.06)	(0.02)	(0.03)	(0.04)	(0.02)
Log GDP per Cap	-0.16**	-0.15*	-0.02	-0.16**	-0.19*	-0.16	-0.15*
0 1 1	(0.08)	(0.09)	(0.23)	(0.08)	(0.10)	(0.24)	(0.09)
Log GDP	-0.09*	-0.13**	0.33**	-0.09*	-0.01	-0.45***	-0.12**
Q	(0.05)	(0.06)	(0.14)	(0.05)	(0.07)	(0.14)	(0.06)
Unified	-0.11	-0.34*	0.75	-0.11	-0.62***	0.70*	-0.33*
	(0.17)	(0.19)	(0.50)	(0.17)	(0.23)	(0.41)	(0.19)
% ♀ in Cabinet _{t-1}	0.05***	0.04***	0.18***	0.05***	0.01	0.12***	0.04***
'	(0.01)	(0.01)	(0.03)	(0.01)	(0.01)	(0.02)	(0.01)
Presidential	0.49**	0.36*	,	0.49**	` ,	,	0.39*
	(0.20)	(0.21)		(0.20)			(0.21)
Free&Fair	0.87***	,		0.97***			` ,
	(0.23)			(0.24)			
ΔCorr*Free&Fair	, ,			0.05			
				(0.03)			
ΔCorr*Presidential				,			0.05*
							(0.03)
Constant	-88.29**	-107.41**	171.60	-89.96**	-98.19*	-179.00**	-117.64***
	(40.84)	(44.04)	(120.54)	(40.98)	(54.58)	(86.06)	(44.49)
Observations	1939	1342	597	1939	760	582	1342

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 5.1: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability, Controlling for Women in Cabinet at *t-1*

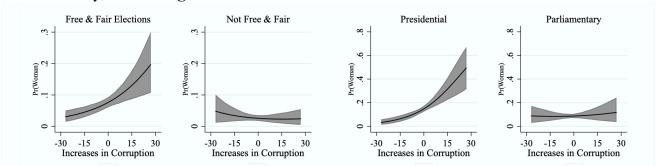
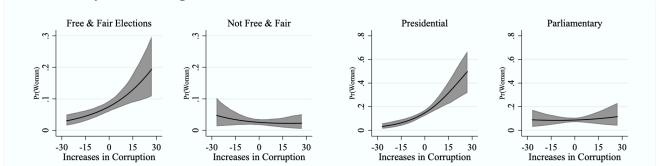


Table 5.2: Corruption and Women's Inclusion in the Finance Ministry, Controlling for Women in Parliament at *t-1*

	(1) Full Sample	(2) Free & Fair	(3) Not Free	(4)	(5) Presidential	(6) Parliamentary	(7)
	run sample	Elections	& Fair	Corruption* Free&Fair	Fiesidentiai	Famamentary	Corruption* Presidential
A.C:	0.02**	0.04***	0.00	0.04	0.07444	0.00	0.04
Δ Corruption	0.03**	0.04***	-0.00	-0.01	0.06***	-0.00	0.01
m:	(0.01)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.02)
Time	0.04*	0.05**	0.00	0.04**	0.04	0.11***	0.06***
	(0.02)	(0.02)	(0.05)	(0.02)	(0.03)	(0.04)	(0.02)
Log GDP per Cap	-0.08	-0.04	-0.25	-0.08	-0.16	0.18	-0.04
	(0.08)	(0.09)	(0.21)	(0.08)	(0.11)	(0.19)	(0.09)
Log GDP	-0.11**	-0.14**	-0.02	-0.11**	-0.02	-0.43***	-0.13**
	(0.06)	(0.06)	(0.15)	(0.06)	(0.07)	(0.12)	(0.06)
Unified	-0.08	-0.33*	1.15**	-0.08	-0.61***	0.62	-0.31*
	(0.17)	(0.19)	(0.49)	(0.17)	(0.23)	(0.38)	(0.19)
% ♀ in Parliament	0.04***	0.03***	0.07***	0.04***	0.02*	0.10***	0.03***
'	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)
Presidential	0.65***	0.54***	,	0.65***	,	()	0.57***
	(0.19)	(0.20)		(0.19)			(0.20)
Free&Fair	1.12***	()		1.20***			\ /
	(0.23)			(0.24)			
ΔCorr*Free&Fair	(0.23)			0.05			
20011 Treeect an				(0.03)			
ΔCorr*Presidential				(0.03)			0.06*
Acon residendar							(0.03)
Constant	-80.67**	-105.69**	-4.42	-83.91**	-75.53	-210.23**	-118.34***
Constant	(41.10)	(44.36)	(108.17)	(41.23)	(55.88)	(82.03)	(44.80)
Observations	1928	1333	595	1928	746	587	1333

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 5.2: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Accountability, Controlling for Women in Parliament at *t-1*



6. Model with Alternative Measure of Clarity of Responsibility

Table 6: Corruption and Women's Inclusion in the Finance Ministry: Conditional on Clarity of

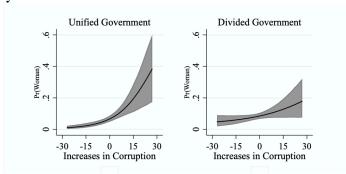
Responsibility

	(1)	(2)	(3)
	Unified Government	Divided Government	Corruption* Unified Government
Δ Corruption	0.054**	0.029	0.030
	(0.026)	(0.022)	(0.021)
Time	-0.022	0.101***	0.060***
	(0.042)	(0.029)	(0.023)
Log GDP per Cap	-0.221	-0.069	-0.082
	(0.183)	(0.099)	(0.086)
Log GDP	-0.144	-0.140*	-0.162***
	(0.101)	(0.075)	(0.059)
% ♀ in Cabinet	0.027**	0.046***	0.037***
	(0.013)	(0.009)	(0.007)
Presidential	-0.371	0.899***	0.472**
	(0.368)	(0.268)	(0.213)
Unified	` ,	` ,	-0.295
			(0.198)
ΔCorr*Unified			0.049
			(0.032)
Constant	47.303	-201.532***	-119.492**
	(84.424)	(59.303)	(47.032)
Observations	500	786	1286

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Models 1-3 use "unified" as the measure of clarity of responsibility.

Figure 6: Predicted Probability of Women's Inclusion in the Finance Ministry: Conditional on Clarity of Responsibility



7. Women as Political Insiders and Outsiders

We examined the backgrounds of women finance ministers appointed in the context of increasing corruption. We first identified women serving in environments with dramatically increasing corruption—i.e., the 17 women who occupied the post when the change in corruption measure was at least one standard deviation above the sample mean. Following the strict coding rules established by Escobar-Lemmon and Taylor-Robinson (2016, 106) we coded the backgrounds of each of these women ministers. Specifically, Escobar-Lemmon and Taylor-Robinson coded cabinet ministers as "political insiders — ministers who had previously held a cabinet post, been a vice minister, or built a career in national government." Insiders are politicians whose experience in national government means that they should already know and be known to the people who are players in the government (106, n1), though not all people who meet these criteria will be known by the public.

According to Escobar-Lemmon and Taylor-Robinson's definition, seven of the women ministers in our sample who served in the context of increasing corruption were political outsiders, while ten were insiders (see Appendix Table 7). Of these "insider" women, only four had previously been ministers holding other portfolios. Another four had been under-secretaries (or held a similar post), and two had built careers in government. The seven "outsiders" had careers in academia, the private sector, outside of the country, in local-level politics, or in the bureaucracy.

Importantly, we observe that the ratio of political outsiders is higher in countries with free and fair elections and presidential systems than it is in other types of states. Indeed, over half of the women appointed in free and fair (semi-)presidential systems are outsiders. This is notable because our theoretical framework suggests that heads of government are most likely to use women as symbols when they are more likely to be held accountable for economic conditions.

The variation in women's backgrounds before they ascend to the helm of the finance ministry further underscores that women's outsider status is not the only factor that makes women attractive symbols of cleanliness during times of increasing corruption. Perceptions of women as more cautious and more trustworthy also motivate their strategic inclusion as anti-corruption signals.

Table 7: Coding of Female Finance Ministers Prior Careers: Insiders or Outsiders

Country	Year	Free & Fair	Minister(s)	
		(Semi)Presidential		
		Systems		
Argentina	2005		Felisa Miceli: Outsider (financial economic	
		•	analysis, consultant) took over from	
			Roberto Lavagna	
Austria	2011		Maria Fekter: Insider (previous post as Min. of	
			Interior) took over from Josef Proell	
Guatemala	2004	√	Maria Antonieta del Cid: Outsider (work	
			abroad, banker) took over for Eduardo	
Iceland	2012	_	Weymann	
rceiand	2012	√	Oddny G. Hardardottir: Outsider (provincial politics) took over from Steingrimur J.	
			Sigfussion Sig	
Lebanon	2011		Raya Haffar: Insider (previous 5 years as	
Lebanon	2011		member of the Office of the PM and prior	
			work as advisor to Min. of Economy & Trade)	
			took over from Mohammed Chattah	
Mozambique	2004		Luisa Diogo: Insider (prior Deputy Minister of	
1			Finance) took over from Tomas Salomao	
Namibia	2004-	/	Saara Kuugongelwa: Insider (previous Director	
	2007	~	General of the National Planning Commission,	
			a post with the rank of minister) took over	
			from Nangolo Mbumba	
Nigeria	2004		Ngozi Okonjo-Iweala: Outsider (career at	
		•	World Bank) took over from Malam Adamu	
			Ciroma. NOTE: insider when reappointed	
> T	2000		Min. of Finance (2011-2015)	
Norway	2009		Kristin Halvorsen: Insider (15 years in	
			parliament and leader of the Socialist Left	
Philippines	2004		Party) took over from Per-Kristian Foss Juanita Amatong: Insider (prior under-	
Timppines	2004	√	secretary of Dept. of Finance) took over from	
			Jose Camacho	
Poland	2005		Teresa Lubinska: Outsider (academic) took	
1 0111111			over from Miroslaw Gronicki	
Spain	2010		Elena Salgado Mendez: Insider (prior Min. of	
1			Economy and Min. of Health and Deputy PM)	
			took over from Pedro Solbes	
Suriname	2010	./	Wonnie Boedhoe: Outsider (career in	
			bureaucracy) took over from Humphrey S.	
			Hildenberg	
Sweden	2017		Magdalena Andersson: Insider (State Secretary	
			in Min of Finance, Deputy Director Swedish	
			Tax Agency, economic policy spokesperson	
			for Swedish Social Democratic Party) took	
			over from Anders Bord	

Switzerland	2014	√	Eveline Widmer-Schlumpf: Insider (prior Min. of Justice & Police) took over for Hans-Rudolf Merz
Trinidad and Tobago	2008		Karen Tesheira-Nunez: Outsider (lawyer) took over from Patrick Manning
Tunisia	2016	√	Lamia Zribi: Insider (career in bureaucracy, but prior Sec of State to Min. of Development) took over from Slim Chaker

Notes: (1) Coding of insider/outsider is based on Escobar-Lemmon and Taylor-Robinson (2016: 106). "Political insiders – ministers who had previously held a cabinet post, been a vice minister, or built a career in national government." (2) One woman finance minister who was appointed to her post at a time of increasingly high corruption is not included in this table due to lack of information for coding her career background (Clotilde Nizigama of Burundi).

8. TI CPI Measure

8.1 Discussion of Transparency International's Corruption Perception Index

The Transparency International (TI)'s Corruption Perceptions Index (CPI)—which is a composite score of 13 other indices from 12 organizations—is the "most widely known perception-based composite index." Though, the CPI index is seen as the most comprehensive and useful of existing corruption measures (Borja 2020; Hamilton and Hammer 2018), it has also drawn criticism (Thompson and Shah 2005).

First, some scholars worry about focusing on corruption perceptions, rather than actual changes in corruption. They argue that corruption perception scores are not moved by the same factors that drive actual corruption, suggesting that the two are distinct (Donchev and Ujhelyi 2014, Petersen 2020). Treisman (2007) suggests that perceptions of corruption might be responding to other factors beyond corrupt practices. More recently, Petersen (2020) suggests that corruption scandals might only move corruption perceptions, but they do not contribute to increasing levels of actual corruption. Second, critics of the CPI note that it focuses primarily on experts', rather than citizens', assessments (Graycar and Prenzler, 2013), some of whom are not from the country in question (i.e., business leaders in developed states evaluating developing countries). Third, some work suggests that the CPI is not sensitive enough to large, but brief, corruption scandals and experiences (Gilman 2018).

Each of these criticisms is valid. Yet, for our purposes, the CPI remains the best measure of increased corruption. To begin with, the composite nature of the CPI means that it provides the most complete picture of perceived corruption, while also being highly correlated with most other measures (Beschel 2017, Charron 2016, Hamilton and Hammer 2018, Luĉić, Golubović, and Džunić 2016). Given that our paper focuses on accountability and women finance ministers serving as anti-corruption signals, we also believe that it is more important to measure beliefs about corruption than corruption in and of itself. When actual corruption is measured, moreover, it often captures vote-buying or rent seeking by individual actors and agencies. Corruption perceptions capture the "general perception of corruption (everyday, related to different levels of administration, etc.)" (Belousova, Goel, and Korhonen 2016, p. 175). Likewise, we focus on expert assessments—rather than citizen respondents—because research shows substantial variation in citizens ability to accurately track corruption (Canache and Alison 2005). And, though the CPI is not especially sensitive enough to large, but brief, corruption scandals and experiences, we note that this suggests that we have a conservative measure of corruption perceptions that biases our results towards the null.

Finally, the CPI is the most widely used corruption measure in the literature. Below, we offer examples of other works that rely on the TI CPI.

8.2 Examples of Studies using TI CPI

- Ahmad, Eatzaz., Muhammed Aman Ullah, and Muhammad Irfanullah Arfeen. 2012. "Does corruption affect economic growth?". Latin American Journal of Economics, 49(2): 277-305.
- Ambraseys, Nicholas and Roger Bilham.. 2011. Corruption kills. Nature, 469(7329): 153-155.
- Amnå, Erik, Ingrid Munck,, and Pär Zetterberg, 2004. Meaningful participation? Political efficacy of adolescents in 24 countries. *European Consortium of Political Research Joint Sessions, Uppsala*.
- An, Weihua and Yesola Kweon. 2017. "Do higher government wages induce less corruption? Cross-country panel evidence". *Journal of Policy Modeling*, 39(5): 809-826.
- Asongu, Simplice. 2012. "On the effect of foreign aid on corruption". *Economics Bulletin*, 32(3): 2174-2180.
- Avnimelech, Gil, Yaron Zelekha, and Eyal Sharabi. 2014. "The effect of corruption on entrepreneurship in developed vs non-developed countries". *International Journal of Entrepreneurial Behavior & Research*.
- Badinger, Harald and Elisabeth Nindl. 2014. "Globalisation and corruption, revisited". *The World Economy*, 37(10): 1424-1440.
- Benfratello, Luigi, Alfredo Del Monte, and Luca Pennacchio. 2018. "Corruption and public debt: a cross-country analysis". *Applied Economics Letters*, 25(5): 340-344.
- Bhattacharyya, Sambit and Roland Hodler. 2010. "Natural resources, democracy and corruption". *European Economic Review*, 54(4): 608-621.
- Blake, Charles H. and Christopher G. Martin. 2006. "The dynamics of political corruption: Re-examining the influence of democracy". *Democratisation*, 13(1): 1-14.
- Breen, Michael and Robert Gillanders. 2012. "Corruption, institutions and regulation". *Economics of Governance*, 13(3): 263-285.
- Campbell, Neil and Shrabani Saha. 2013. "Corruption, democracy and Asia-Pacific countries". *Journal of the Asia Pacific Economy*, 18(2): 290-303.
- Canache, Damarys and Michael E. Allison. 2005. "Perceptions of political corruption in Latin American democracies". *Latin American Politics and Society*, 47(3): 91-111.
- Castro, Conceição and Pedro Nunes. 2013. "Does corruption inhibit foreign direct investment?". *Política*. *Revista de Ciencia Política*, 51(1): 61-83.
- Chang, Eric CC. and Miriam A. Golden. 2007. "Electoral systems, district magnitude and corruption". *British Journal of Political Science*: 115-137.
- Cheung, Hoi Yan and Alex WH Chan. 2008. "Corruption across countries: Impacts from education and cultural dimensions". *The Social Science Journal*, 45(2): 223-239.
- Cooray, Arusha, Ratbek Dzhumashev, and Friedrich Schneider. 2017. "How does corruption affect public debt? An empirical analysis". *World Development*, 90: 115-127.
- DeBacker, Jason, Bradley T. Heim, and Ahn Tran. 2015. "Importing corruption culture from overseas: Evidence from corporate tax evasion in the United States". *Journal of Financial Economics*, 117(1): 122-138.
- Debski, Julia, Michael Jetter, Saskia Mösle, and David Stadelmann, 2018. "Gender and corruption: The neglected role of culture". *European Journal of Political Economy*, 55: 526-537.
- Dela Rama, Marie. 2012. "Corporate governance and corruption: Ethical dilemmas of Asian business groups". *Journal of Business Ethics*, 109(4): 501-519.
- Donovan, Todd and Jeffrey Karp. 2017. "Electoral rules, corruption, inequality and evaluations of democracy". *European Journal of Political Research*, 56(3): 469-486.
- Dreher, Axel and Martin Gassebner. 2013. "Greasing the wheels? The impact of regulations and corruption on firm entry". *Public Choice*, 155(3-4): 413-432.
- Elbahnasawy, Nasr G. and Charles F. Revier. 2012. "The determinants of corruption: Cross-country-panel-data analysis". *The Developing Economies*, 50(4): 311-333.

- Esarey, Justin and Chirillo, Gina. 2013. "Fairer sex" or purity myth? Corruption, gender, and institutional context". *Politics & Gender*, 9(4): 361-389.
- Esarey, Justin and Schwindt-Bayer, Leslie. 2017. "Women's representation, accountability and corruption in democracies". *British Journal of Political Science*, 48(3): 659-690.
- Fink-Hafner, Danica. 2011. "Interest representation and post-communist parliaments over two decades". *The Journal of Legislative Studies*, 17(2): 215-233.
- Gokcekus, Omer and Yui Suzuki. 2014. "Is there a Corruption-effect on Conspicuous Consumption?". *Margin: The Journal of Applied Economic Research*, 8(3): 215-235.
- González-Fernández, Marcos and Carmen González-Velasco. 2014. "Shadow economy, corruption and public debt in Spain". *Journal of Policy Modeling*, 36(6): 1101-1117.
- Grabova, Perseta. 2014. "Corruption impact on Economic Growth: An empirical analysis". *Journal of Economic Development, Management, IT, Finance, and Marketing*, 6(2): 57.
- Graeff, Peter and Guido Mehlkop. 2003. "The impact of economic freedom on corruption: different patterns for rich and poor countries". *European Journal of Political Economy*, 19(3): 605-620.
- Graycar, Adam and Olivia Monaghan. 2015. "Rich country corruption". *International Journal of Public Administration*, 38(8): 586-595.
- Gründler, Klaus and Niklas Potrafke. 2019. Corruption and economic growth: New empirical evidence. *European Journal of Political Economy*, 60.
- Hauenstein, Severin, Mrigesh Kshatriya, Julian Blanc, Carsetn F. Dormann, and Colin M. Beale. 2019. "African elephant poaching rates correlate with local poverty, national corruption and global ivory price". *Nature communications*, 10(1): 1-9.
- Hessami, Zohal. 2014. "Political corruption, public procurement, and budget composition: Theory and evidence from OECD countries". *European Journal of political economy*, 34: 372-389.
- Hooghe, Marc and Ellen Quintelier. 2014. "Political participation in European countries: The effect of authoritarian rule, corruption, lack of good governance and economic downturn". *Comparative European Politics*, 12(2): 209-232.
- Houston, Douglas A.. 2007. Can corruption ever improve and economy. Cato J., 27: 325.
- Ionescu, Luminita. 2018. "Gender inequality in political democracy: electoral accountability, women's representation in government, and perceived corruption". *Journal of Research in Gender Studies*, 8(1): 165-171.
- Jetter, Michael, Alejandra Montoya Agudelo, and Andrés Ramírez Hassan. 2015. "The effect of democracy on corruption: Income is key". *World Development*, 74: 286-304.
- Kalenborn, Chirstine and Christian Lessmann. 2013. "The impact of democracy and press freedom on corruption: Conditionality matters". *Journal of Policy Modeling*, 35(6): 857-886.
- Ketkar, Kusum W., Athar Murtuza, and Suhas L. Ketkar. 2005. "Impact of Corruption on Foreign Direct Investment and Tax Revenues". *Journal of Public Budgeting, Accounting & Financial Management*, 17(3).
- Kim, Chon-Kyun. 2014. "Anti-corruption initiatives and e-government: a cross-national study". *Public Organization Review*, 14(3): 385-396.
- Lalountas, Dionisios A., George A. Manolas, and Ioannis S. Vavouras. 2011. "Corruption, globalization and development: How are these three phenomena related?". *Journal of Policy Modeling*, 33(4): 636-648.
- Lane, Jan-Erik. 2017. "Opportunistic Behaviour". Applied Economics and Finance, 4(4): 1-16.
- McCuddy, Michael K.. 2007, June. "Human freedoms and public corruption around the world: demonstration of a curvilinear relationship". In Forum on Public Policy: A Journal of the Oxford Round Table. Forum on Public Policy.
- Malik, Sakshi. 2020. "Macroeconomic Determinants of Innovation: Evidence from Asian Countries". *Global Business Review*.

- Mathur, Aparna and Kartikeya Singh. 2013. "Foreign direct investment, corruption and democracy". *Applied Economics*, 45(8): 991-1002.
- Obydenkova, Anastassia V. and Bruno Arpino. 2018. "Corruption and trust in the European Union and national institutions: Changes over the Great Recession across European states". *JCMS: Journal of Common Market Studies*, 56(3): 594-611.
- Paldam, Martin. 2020. "The transition of corruption institutions and dynamics". European Journal of Political Economy.
- Petrou, Andreas P. and Ioannis C. Thanos. 2014. "The "grabbing hand" or the "helping hand" view of corruption: Evidence from bank foreign market entries". *Journal of World Business*, 49(3): 444-454.
- Poprawe, M.arie. 2015. "A panel data analysis of the effect of corruption on tourism". *Applied Economics*, 47(23): 2399-2412.
- Potrafke, Niklas. 2019. "Electoral cycles in perceived corruption: International empirical evidence". *Journal of Comparative Economics*, 47(1): 215-224.
- Prihatini, Ella S. 2019. "Women's representation in Asian parliaments: a QCA approach." *Contemporary Politics* 25(2): 213-235.
- Quazi, Rahim M.. 2014. "Corruption and foreign direct investment in East Asia and South Asia: An econometric study". *International Journal of Economics and Financial Issues*, 4(2): 231.
- Sandholtz, Wayne and Rein Taagepera. 2005. "Corruption, culture, and communism". *International Review of Sociology*, 15(1): 109-131.
- Schleiter, Petra and Alisa M. Voznaya. 2014. "Party system competitiveness and corruption". *Party Politics*, 20(5): 675-686.
- Schwindt-Bayer, Leslie A. and Margit Tavits. 2016. *Clarity of responsibility, accountability, and corruption*. Cambridge University Press.
- Stensöta, Helena Olofsdotter, Lena Wängnerud, and Mattias Agerberg. 2015. "Why women in encompassing welfare states punish corrupt political parties". In *Elites, institutions and the quality of government* (pp. 245-262). Palgrave Macmillan, London.
- Themudo, Nuno S. 2013. "Reassessing the impact of civil society: nonprofit sector, press freedom, and corruption". *Governance*, 26(1): 63-89.
- Toff, Benjamin and Antonis Kalogeropoulos. 2020. "All the News that's Fit to Ignore: How the Information Environment Does and Does Not Shape News Avoidance". *Public Opinion Quarterly*, 84(S1): 366-390.
- Tran, Quoc Trung. 2020. "Corruption, agency costs and dividend policy: International evidence". *The Quarterly Review of Economics and Finance*, 76: 325-334.

9. Discussion of Finance Ministers

9.1 Salience of the Finance Post

Generalizing from Marsh, Richards, and Smith (2000), there are four roles that ministers perform: a policy role; a political role; a managerial or executive role; and a public relations role. Our study speaks to the public relations role, which includes "overseeing departments relations with interest groups, the public, and the media." Marsh, Richards, and Smith note that the public relations role of ministers has become increasingly important over time.

Ministers are expected to have a public-facing role in which they interact with the polity and relevant stakeholders. Likewise, chief executives are sensitive to how the make-up of their cabinets affects public opinion. As Franceschet, Annesley, and Beckwith 2017 note, "cabinets are sites of representation, and ministers are often chosen in light of informal rules about which groups must be represented in cabinet. The concept of symbolic representation draws attention to both the symbol maker (in this case, the chief executive who selects ministers) and the multiple audiences to whom the symbol is directed" (488). When assembling their cabinets, heads of government are thus sensitive not only to "experiential" and "affiliational" criteria, but also to "representational criteria"—politically relevant socio-demographic factors, including gender (Annesley, Beckwith, Franceschet 2019).

Indeed, public opinion research suggests that citizens are responsive to the gender composition of cabinets. Barnes and Taylor-Robinson (2018) reason that "when women hold the very top posts in the cabinet citizens will be more likely to be aware of their appointment, and thus it is likely that the presence of those women in government will empower women" (230). Using cross-national data from more than 50 countries between 1981 to 2014, they show that women's presence in high-visibility, high-prestige cabinet posts (i.e., finance, defense, and foreign affairs) is associated with more satisfaction and confidence in governments. Beyond the gender and politics scholarship, other work finds that in the United States, Latino citizens are especially attentive to high-profile Latino appointees (Baik, Lavariega-Monforti and McGlynn, 2009).

Of course, not all portfolios command equal attention. Indeed, we focus on the finance ministry because it is a highly visible post. Work by Escobar-Lemmon and Taylor-Robinson (2016), Krook and O'Brien (2012), Reynolds (1999) and others identifies the finance ministry as a high-prestige portfolio from which women have historically been excluded. Likewise, Druckman and Warwick (2005) and Druckman and Roberts (2008) identify finance—alongside foreign affairs and interior—as the most valuable portfolios after the prime ministership. In fact, their salience measure, which is based on elite surveys, consistently identifies finance as the most important cabinet portfolio, second only to the head of government post and ranking well above the deputy prime minister. They note that "the prime ministership, finance and perhaps foreign affairs are clearly distinct from other portfolios," insofar as they "have the capacity to affect the electoral prospects of the party that holds them" (Druckman and Robert 2008: 104).

Highly salient ministries likely received significant media attention. Focusing on cabinets more broadly, Annesley, Beckwith, and Franceschet (2019) note the "substantial media speculation about likely appointees." And, the press "intensively" covers not only initial cabinet appointments, but also cabinet reshuffles (Kam and Indridason 2005). Because the finance ministry is highly salient, we anticipate that it receives even more coverage than other portfolios.

To this end, we searched for press coverage on cabinet ministers generally, as well as coverage of finance ministers in particular. Given our theoretical expectation that women are most likely to be used as "clean-up" symbols in presidential systems in countries with free and fair elections, we focused on the Americas, the region with the largest share of presidential systems. We counted articles in a major national newspaper during the initial honeymoon period (approximately one month) of two new presidential administrations in Costa Rica, Uruguay, and the United States. We find wide variance in coverage of ministers across posts, with low numbers of articles typical for ministers in such posts as Housing (Costa Rica, Uruguay, U.S.), Justice (Costa Rica), and Veteran's Affairs (U.S.), and much higher coverage of posts such as Education (in Costa Rica and Uruguay) and State (U.S.).

Importantly, the finance minister receives a larger than average amount of coverage. In Uruguay's Vasquez II administration there were 78 articles about the finance minister, compared to an average of 26 articles for all 13 ministers. In Costa Rica in the Chinchilla and Solis administrations there were 24 and 25 articles about the finance minister, compared to an average of 18 and 13 articles for all 21 ministers. In the U.S. in the Bush Jr. and Obama first terms there were 32 and 39 articles respectively about the treasury secretary, compared to an average of 21 and 11 articles for all 14 cabinet secretaries. This high level of media attention to finance ministers in new administrations suggests that the finance ministry is an especially important post for sending signals to the public.

Extending our more systematic analysis of Costa Rica, Uruguay, and the United States, we also found surveys of minister favorability ratings, or of how well known ministers are, in the following countries: Argentina, Australia, Chile, Colombia, El Salvador, Estonia, France, Germany, Latvia, Mexico, Uruguay, the United Kingdom, and the U.S. These do not provide over time evidence, but suggest that the media reports on how well known cabinet members are. And, in many cases the finance minister is one of the ministers who is more likely to be known by the public (e.g. Argentina, Chile, the UK, Germany). In addition to more general media coverage of ministers, we observed that there is often reporting specifically on women being appointed to the finance ministry. On the rare occasions that women serve in the finance portfolio, they readily make headlines, and journalists tout them as "female finance ministers" (see 9.2 below).

Taken together, this suggests that citizens have ample opportunity to notice who serves in the finance ministry and, more importantly, that executives have reason to believe that cabinet appointments are widely observed. Heads of government thus likely see the potential for their ministers to serve as symbols. The fact that the media pays particular attention to women's inclusion in these posts--and that citizens seem to be responsive to women in high-prestige positions—especially reinforces the importance of women as symbols.

9.2 Corruption and the Finance Ministry

Though women can plausibly be strategically deployed as anti-corruption signals in a number of political posts, our research focuses on the finance ministry. We concentrate our efforts on this position because the finance portfolio is still a bastion of male power. Women's inclusion thus sends a particularly strong (and often publicly discussed) signal about the chief executive's commitment to breaking with the status quo. Moreover, with respect to corruption perceptions, the ministry of finance is especially important, as its remit is focused on budget transparency, the effective collection of taxes, etc. This government portfolio is thus best positioned to either perpetuate or remedy corruption.

More than almost any other post, women's inclusion in the finance ministry represents a break from the male-dominated status quo. Finance is among the four portfolios that Krook and O'Brien (2012) classify

as both "masculine" and "high prestige." For this reason, women remain largely excluded from this powerful and coveted inner cabinet portfolio (Barnes and Taylor-Robinson 2018). Indeed, there have been far fewer women finance ministers than women foreign affairs ministers (also classified as masculine and high-prestige) or women justice ministers (typically classified as neutral and medium-prestige).

On the rare occasions that women serve in the finance portfolio, they readily make headlines, and journalists tout them as "female finance ministers," as opposed to simply "finance ministers" like their male colleagues. This tendency is exemplified in recent headlines. The BBC writes: "Chrystia Freeland named Canada's first female finance minister." Mariam Al-Aquel in Kuwait is referred to by the Business Standard as the "Gulf's first female finance minister." Bloomberg draws attention to both Vera Daves' gender and her age, "In Angola, a 35-Year-Old Woman Steps Up to Boost the Economy" and has given similar coverage to Peru's finance minister appointed in 2019, "Peru's 35-Year Old Finance Minister is Suddenly a Rock Star." In India, News 18 even felt the need to clarify that an appointee was not the first woman to hold the position, with the headline: "No, Nirmala Sitharaman is Not India's First Woman Finance Minister."

Women's inclusion in the small subset of high-prestige and masculine ministries—which includes the finance ministry—signals a break from the status quo. With respect to corruption perceptions, the ministry of finance, in particular, is especially important. When heads of government look to improve perceptions of corruption, they frequently turn their attention to the finance ministry to lead the charge. Transparency within the finance ministry is one of the most important steps to curbing corruption and mitigating the perception of government malfeasance. When public funds are not subject to oversight, and spending decisions are not transparent or accountable to the public, it creates opportunities for fiscal misappropriation and undermines citizens', foreign aid donors', and investors' trust in government.

A key way that governments can restore trust among both the polity and financial actors is by signaling transparency and accountability with respect to government finances and financial regulation. The finance ministry is key to achieving this goal. Indeed, in its September 2020 recommendations to the G-20 Anti-Corruption Working Group (ACWG), Transparency International called for "close coordination with the G20 finance track," in order to "help reduce the risk of resources being lost to corruption and mismanagement." TI recommended that the "ACWG should share with Finance Ministers concrete ideas to reduce the risk of corruption in the G20's response to the pandemic." Likewise, it was "leaders and finance ministers for G20 countries" who committed to the G20 High-Level Principles on Beneficial Ownership Transparency, which "outline concrete actions G20 countries will take to ensure legal entities

¹ https://www.bbc.com/news/world-us-canada-53759664 accessed 10/23/2020

² https://www.business-standard.com/article/current-affairs/new-kuwait-cabinet-appoints-gulf-s-first-female-finance-minister-119121800040 1.html accessed 10/23/2020

³ https://www.bloomberg.com/news/articles/2019-11-06/a-35-year-old-woman-steps-up-to-revive-angola-s-economy accessed 10/23/2020

⁴ https://www.bloomberg.com/news/articles/2020-05-04/she-s-35-and-finance-minister-and-suddenly-a-rock-star-in-peru accessed 10/23/2020

⁵ https://www.news18.com/news/india/no-nirmala-sitharaman-is-not-indias-first-woman-finance-minister-to-present-union-budget-2481007.html accessed 10/23/2020

⁶https://www.transparency.org/en/blog/the-g20-anti-corruption-working-group-must-turn-commitments-into-reality

are transparent and are not being misused for illicit purposes such as money laundering, tax evasion and corruption."⁷

Outside of the G20 countries, there are several other examples of heads of government tasking finance ministers with anti-corruption efforts. When President Obasanjo of Nigeria devoted his second term in office to curbing corruption, he assembled a team of technocrats headed by the finance minister to lead the charge (Ngozi Okonjo-Iweala 2011). When looking to clean up corruption in Cambodia the finance minister stated, "If we want to reform, we have to start at the Ministry of Finance first" (Maeda and Kimsong 2020). In Zimbabwe, when President Emmerson's anti-corruption bodies were accused of being meaningless facades, the president looked to Finance Minister Mthuli Ncube to allocate sizable funding for anti-graft initiatives in his 2021 budget. Peru's María Antonieta Alva, described as a "rare female finance minister in Latin America," was recently tasked with addressing the fallout from the transnational *Lava Jato* or "Car Wash" corruption scandal, which originated in Brazil.

Indeed, appointing a woman to the finance portfolio can draw positive attention to the position and shift the narrative (at least temporarily) around the management of government finances, economic policy and financial regulation. We see examples of this in the coverage of Nigeria, where Finance Minister Okonjo-Iweala is championed as the "corruption cop;" in Paraguay where Giménez Duarte, the "first ever woman finance minister," is touted as "a finance minister [who] wants to take down corruption;" and in Indonesia where "Sri Mulyani Indrawati, Indonesia's first woman finance minister, describes her battle to quell corruption and, in an interview, says a few strong women in top positions can really make a difference."

In sum, we focus on the finance ministry because the person holding this portfolio is in the best position to either perpetuate or remedy corruption via her policy decisions concerning budget transparency, the effective collection of taxes, etc. And, because the finance portfolio is often still considered to be a last bastion of maleness, women's inclusion in the post sends a particularly strong (and often publicly commented on) signal about the chief executive's commitment to breaking with the status quo.

⁷https://www.bmjv.de/SharedDocs/Downloads/EN/G20/Brisbane%20Anti-Corruption%20Update.pdf?__blob=publicationFile&v=1

10. References

- Annesley, Claire, Karen Beckwith, and Susan Franceschet. 2019. *Cabinets, ministers, and gender*. Oxford University Press.
- Baik, Ellen R., Jessica Lavariega-Monforti, and Adam J. McGlynn. 2009. "Latino cabinet appointments and young Latino voters: A preliminary look at GOP efforts to attract Latino voters." *The Social Science Journal* 46(3): 601-608.
- Barnes, Tiffany D., and Michelle M. Taylor-Robinson. 2018. "Women Cabinet Ministers in Highly Visible Posts and Empowerment of Women: Are the Two Related?" In *Measuring Women's Political Empowerment across the Globe*, eds. Amy C. Alexander, Catherine Bolzendahl, and Farida Jalalzai. Cham: Springer International Publishing, 229–55. http://link.springer.com/10.1007/978-3-319-64006-8 11 (October 29, 2020).
- Belousova, Veronika, Rajeev K. Goel, and Iikka Korhonen. 2016. "Corruption Perceptions versus Corruption Incidence: Competition for Rents across Russian Regions." *Journal of Economics and Finance* 40(1): 172–87.
- Beschel, Robert P. 2018. "Measuring Governance: Revisiting the Uses of Corruption and Transparency Indicators." In *The Palgrave Handbook of Indicators in Global Governance*, eds. Debora Valentina Malito, Gaby Umbach, and Nehal Bhuta. Cham: Springer International Publishing, 161–79. https://doi.org/10.1007/978-3-319-62707-6_7 (October 20, 2020).
- Bjørnskov, Christian, and Martin Rode. 2020. "Regime Types and Regime Change: A New Dataset on Democracy, Coups, and Political Institutions." *The Review of International Organizations* 15(2): 531–51.
- Borja, Karla. 2020. "Remittances, Corruption, and Human Development in Latin America." *Studies in Comparative International Development* 55(3): 305–27.
- Campbell, John. 2011. "Ngozi Okonjo-Iweala: Nigeria's Next Finance Minister?" *Africa in Transition*. https://www.cfr.org/blog/ngozi-okonjo-iweala-nigerias-next-finance-minister (November 1, 2020).
- Camerlo, Marcelo, and Aníbal Pérez-Liñán. 2015. "Minister turnover, critical events, and the electoral calendar in presidential democracies." *The Journal of Politics* 77 (3): 608-619.
- Canache, Damarys, and Michael E. Allison. 2005. "Perceptions of Political Corruption in Latin American Democracies." Latin American Politics and Society 47 (3): 91–111.
- Central Intelligence Agency. 2018 "Chiefs of State and Cabinet Members of Foreign Governments." URL: https://www.cia.gov/library/publications/world-leaders-1/Archived Data:
 - https://archive.org/search.php?query=chiefs+of+state&and%5B%5D=subject%3A%22Cabinet +officers%22&page=4
- Charron, Nicholas. 2016. "Do Corruption Measures Have a Perception Problem? Assessing the Relationship between Experiences and Perceptions of Corruption among Citizens and Experts." European Political Science Review 8(1): 147–71.
- Cheibub, José Antonio, Jennifer Gandhi, and James Raymond Vreeland. 2010. "Democracy and Dictatorship Revisited." *Public Choice* 143(1): 67–101.
- Davis, Charles L., Roderic Ai Camp, and Kenneth M. Coleman. 2004. "The influence of party systems on citizens' perceptions of corruption and electoral response in Latin America." *Comparative Political Studies* 37(6): 677-703.
- Donchev, Dilyan, and Gergely Ujhelyi. 2014. "What Do Corruption Indices Measure?" *Economics & Politics* 26(2): 309–31.
- Druckman, James N., and Andrew Roberts. 2008. "Measuring portfolio salience in Eastern European parliamentary democracies." *European Journal of Political Research* 47(1): 101-134.

- Druckman, James N., and Paul V. Warwick. 2005. "The Missing Piece: Measuring Portfolio Salience in Western European Parliamentary Democracies." *European Journal of Political Research* 44(1): 17–42.
- Escobar-Lemmon, Maria, and Michelle M. Taylor-Robinson. 2005. "Women Ministers in Latin American Government: When, Where, and Why?" *American Journal of Political Science* 49(4): 829–44.
- Escobar-Lemmon, Maria and Michelle M. Taylor-Robinson. 2009. "Getting to the Top: Career Paths of Women in Latin American Cabinets." *Political Research Quarterly* 62(4):685-699.
- Escobar-Lemmon, Maria C., and Michelle M. Taylor-Robinson. 2016. Women in Presidential Cabinets: Power Players or Abundant Tokens? New York: Oxford University Press.
- Franceschet, Susan, Claire Annesley, and Karen Beckwith. 2017. "What do women symbolize? Symbolic representation and cabinet appointments." Politics, Groups, and Identities 5(3): 488-493.
- Freedom House. "Freedom in the World Comparative and Historical Data: Country and Territory Ratings and Statuses, 1973-2018." URL: https://freedomhouse.org/content/freedomworld-data-and-resources.
- Gilman, Stuart C. 2018. "To Understand and to Misunderstand How Corruption Is Measured: Academic Research and the Corruption Perception Index." *Public Integrity* 20(sup1): S74–88.
- Graycar, Adam, and Tim Prenzler. 2013. Understanding and preventing corruption. Springer.
- Hamilton, Alexander, and Craig Hammer. 2018. Can We Measure the Power of the Grabbing Hand? A Comparative Analysis of Different Indicators of Corruption. The World Bank. http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-8299 (October 16, 2020).
- Hiskey, Johnathan T. and Mason W. Moseley. 2020. Life in the Political Machine: Dominant-Party Enclaves and the Citizens They Produce. New York: Oxford University Press
- Hughes, Melanie M., Pamela Paxton, Amanda B. Clayton, and Pär Zetterberg. 2017. "Quota Adoption and Reform Over Time (QAROT), 1947-2015."
- Indridason, Indridi H., and Christopher Kam. 2005. "The timing of cabinet reshuffles in five westminster parliamentary systems." Legislative Studies Quarterly 30(3): 327-363.
- Indridason, Indridi H., and Christopher Kam. 2008. "Cabinet reshuffles and ministerial drift." *British Journal of Political Science* 38(4): 621-656.
- Inter-Parliamentary Union. Women in National Parliament Data. 2019. Available at: http://archive.ipu.org/wmn-e/world.htm. Accessed June 2019.
- Julious, Steven A. 2004. "Using confidence intervals around individual means to assess statistical significance between two means." *Pharmaceutical Statistics: The Journal of Applied Statistics in the Pharmaceutical Industry* 3(3): 217-222.
- Kroeger, Alex M. 2018. "Dominant Party Rule, Elections, and Cabinet Instability in African Autocracies." *British Journal of Political Science* 50(1): 1-23.
- Krook, Mona Lena, and Diana Z. O'Brien. 2012. "All the President's Men? The Appointment of Female Cabinet Ministers Worldwide." *Journal of Politics* 74(3): 840–55.
- Kunicová, Jana and Susan Rose-Ackerman. 2005. "Electoral rules and constitutional structures as constraints on corruption". *British Journal of Political Science*(35): 573-606.
- Lučić, Danilo, Nataša Golubović, and Marija Džunić. 2016. "Measuring Corruption Key Issues, Data Sources and the Most Commonly Used Indicators." Facta Universitatis, Series: Economics and Organization 0(0): 101–15.
- Lupu, Noam. 2017. "Corruption in the Americas." The Political Culture of Democracy in the Americas, 2016/2017: 49-67.
- Maeda, Yuko, and Kay Kimsong. 2000. "Minister Vows Clean Up of Government Finance System." *The Cambodia Daily*. https://english.cambodiadaily.com/news/minister-vows-clean-up-of-government-finance-system-88514/ (November 1, 2020).
- Marsh, David, David Richards, and Martin J. Smith. 2000. "Re-assessing the Role of Departmental cabinet Ministers." *Public Administration* 78(2): 305-326.

- Nyrup, Jacob, and Stuart Bramwell. 2020. "Who Governs? A New Global Dataset on Members of Cabinets." *American Political Science Review* 114(4): 1366–74.
- Petersen, German. 2020. "Early Democratization, Corruption Scandals and Perceptions of Corruption: Evidence from Mexico." *Democratization*: 1–20.
- Quiroz Flores, Alejandro, and Alastair Smith. 2011. "Leader survival and cabinet change." *Economics & Politics* 23 (3): 345-366.
- Reynolds, Andrew. 1999. "Women in the Legislatures and Executives of the World: Knocking at the Highest Glass Ceiling." *World Politics* 51(4):547-572.
- Scartascini, Carlos, Cesi Cruz, and Phillip Keefer. 2018. "The Database of Political Institutions 2017 (DPI2017)."
- Thompson, Theresa and Anwar Shah. 2005. "Transparency International's Corruption Perceptions Index: Whose Perceptions Are They Anyway?" *Discussion Paper, World Bank*. 2005 (at: siteresources.worldbank.org/INTWBIGOVANTCOR/Resources/TransparencyInternationalCorruptionIndex.pdf)
- Transparency International. 2017. Corruption Perception Index. Accessed July 2018.
- Treisman, Daniel. 2007. "What have we learned about the causes of corruption from ten years of cross-national empirical research?." *Annual Review of Political. Science* 10: 211-244.