

Ideological Customer Capital: Measurement and Asset Pricing Implications

Winston W. Dou[◇] Yan Ji[‡] David Reibstein[†] Di Tian[‡]

[◇]University of Pennsylvania (Finance) and NBER

[†]University of Pennsylvania (Marketing)

[‡]Hong Kong University of Science and Technology (Finance)

ABFER
May 2026

Ideological customer capital is important to firm performance

- It captures the customer base loyal to a firm's brand due to shared ideology
- Firms derive cash flows from customers who care about **socio-political ideologies**
e.g., partisan affiliation, sustainability stance
- It can have distinct asset pricing implications

Valuing ideological customer capital is difficult

- Literature values customer capital via investment-based approach or survey data
Tend to conflate distinct components of customer capital
e.g., Dou et al. (2021); Belo et al. (2022)
- Customers typically hold heterogeneous ideological beliefs
- We rarely observe how ideologies affect firm cash flows in consumer markets

Ideological customer capital is important to firm performance

- It captures the customer base loyal to a firm's brand due to shared ideology
- Firms derive cash flows from customers who care about **socio-political ideologies**
e.g., partisan affiliation, sustainability stance
- It can have distinct asset pricing implications

Valuing ideological customer capital is difficult

- Literature values customer capital via investment-based approach or survey data
Tend to conflate distinct components of customer capital
e.g., Dou et al. (2021); Belo et al. (2022)
- Customers typically hold heterogeneous ideological beliefs
- We rarely observe how ideologies affect firm cash flows in consumer markets

This paper: Examine the value of firm ideological customer capital attributed to **U.S. federal government procurement**

- Government acts as a large customer purchasing from firms
Procurement constitutes a significant portion of cash flows for many firms
- Many procurement contracts are subject to **full and open competition**
Government has the **discretion** to consider ideological factors. (e.g., FAR)
- Detailed contract-level data on procurement decisions and outcomes
Help us infer how ideological factors affect a firm's cash flows from procurement

General procurement process

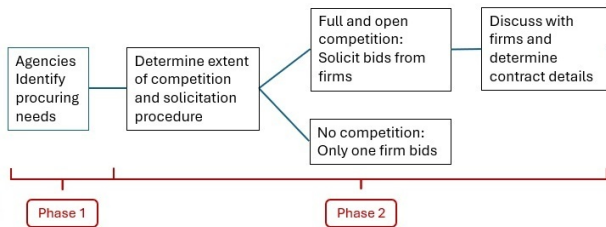
Agencies
Identify
procuring
needs



Phase 1

Phase 1: Project planning

General procurement process

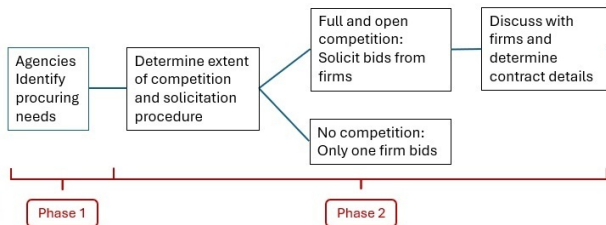


Phase 1: Project planning

Phase 2: Solicitation and competition strategy

- Choosing the solicitation method:
 - Most common: **Negotiated procurement** incorporates non-price considerations
 - Other methods: sealed bidding, simplified acquisition, etc.
- Determining the competition structure:
 - Full and open competition, or No competition if justified
- Announcing the opportunity to vendors and soliciting bids

General procurement process

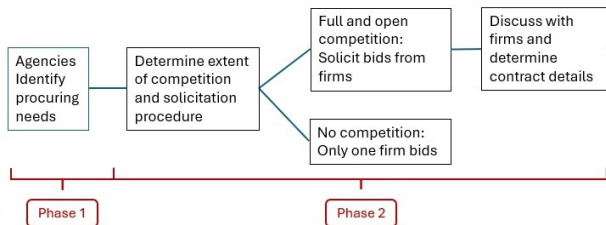


Phase 1: Project planning

Phase 2: Solicitation and competition strategy

- Choosing the solicitation method:
 - Most common: **Negotiated procurement** incorporates non-price considerations
 - Other methods: sealed bidding, simplified acquisition, etc.
- Determining the competition structure:
 - Full and open competition**, or **No competition** if justified
- Announcing the opportunity to vendors and soliciting bids

General procurement process

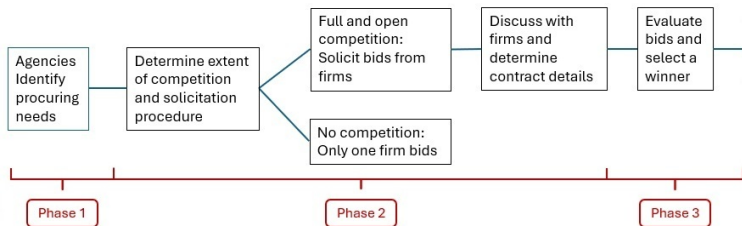


Phase 1: Project planning

Phase 2: Solicitation and competition strategy

- Choosing the solicitation method:
 - Most common: **Negotiated procurement** incorporates non-price considerations
 - Other methods: sealed bidding, simplified acquisition, etc.
- Determining the competition structure:
 - Full and open competition**, or **No competition** if justified
- Announcing the opportunity to vendors and soliciting bids

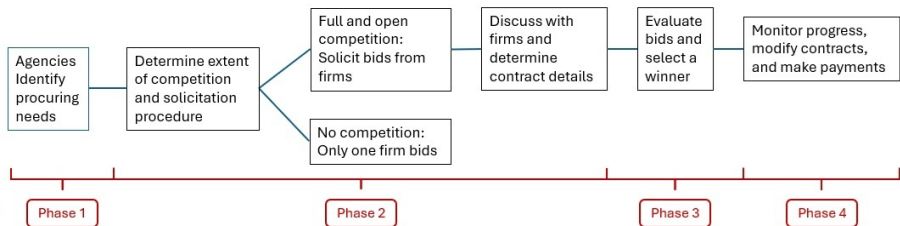
General procurement process (Cont'd)



Phase 3: Evaluation and winner selection in negotiated procurement

- Bidders submit proposals
- Agencies evaluate bids using a combination of price and non-price factors

General procurement process (Cont'd)



Phase 3: Evaluation and winner selection in negotiated procurement

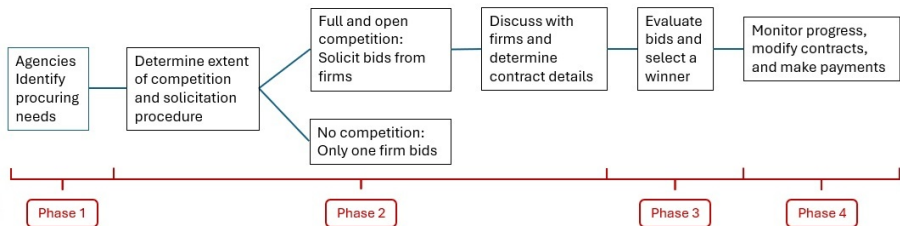
- Bidders submit proposals
- Agencies evaluate bids using a combination of price and non-price factors

Phase 4: Contract formation, execution, and ex-post adjustment

- Adjustments may occur due to technical changes, delays, or random outcomes
- Agencies issue contract modifications, which often increase cost or extend duration

Takeaway: Government agencies exercise significant discretion in negotiated procurement, over competition, contract terms, and selection criteria

General procurement process (Cont'd)



Phase 3: Evaluation and winner selection in negotiated procurement

- Bidders submit proposals
- Agencies evaluate bids using a combination of price and non-price factors

Phase 4: Contract formation, execution, and ex-post adjustment

- Adjustments may occur due to technical changes, delays, or random outcomes
- Agencies issue contract modifications, which often increase cost or extend duration

Takeaway: Government agencies exercise significant discretion in negotiated procurement, over competition, contract terms, and selection criteria

Main contributions

1. A novel dataset that links

- Contract-level details from the US Federal Procurement Data System (FPDS)
- Four ideological characteristics: (1) political alignment; (2) carbon emission; (3) female leadership; (4) supply-chain connection to China

The data cover three broad sectors: IT, Office, and Transportation & logistics

2. Analytically tractable auction-theoretic framework to model procurement

- Optimal mechanism design, rather than fixed, pre-defined bidding schemes
⇒ capture strong discretion of government agencies in reality
- Firms differ in multidimensional characteristics and private efficiency type
⇒ capture multidimensional heterogeneity and information asymmetry

3. Quantifying the impact of firm ideology on its cash flows from procurement

- Measure ideological customer capital attributed to the government
- Examine the asset pricing implications of ideological customer capital

1. A novel dataset that links

- Contract-level details from the US Federal Procurement Data System (FPDS)
- Four ideological characteristics: (1) political alignment; (2) carbon emission; (3) female leadership; (4) supply-chain connection to China

The data cover three broad sectors: IT, Office, and Transportation & logistics

2. Analytically tractable auction-theoretic framework to model procurement

- Optimal mechanism design, rather than fixed, pre-defined bidding schemes
⇒ capture strong discretion of government agencies in reality
- Firms differ in multidimensional characteristics and private efficiency type
⇒ capture multidimensional heterogeneity and information asymmetry

3. Quantifying the impact of firm ideology on its cash flows from procurement

- Measure ideological customer capital attributed to the government
- Examine the asset pricing implications of ideological customer capital

1. A novel dataset that links

- Contract-level details from the US Federal Procurement Data System (FPDS)
- Four ideological characteristics: (1) political alignment; (2) carbon emission; (3) female leadership; (4) supply-chain connection to China

The data cover three broad sectors: IT, Office, and Transportation & logistics

2. Analytically tractable auction-theoretic framework to model procurement

- Optimal mechanism design, rather than fixed, pre-defined bidding schemes
⇒ capture strong discretion of government agencies in reality
- Firms differ in multidimensional characteristics and private efficiency type
⇒ capture multidimensional heterogeneity and information asymmetry

3. Quantifying the impact of firm ideology on its cash flows from procurement

- Measure ideological customer capital attributed to the government
- Examine the asset pricing implications of ideological customer capital

Main results

1. Firms' ideol. char. significantly affect firm cash flow from procurement

- In IT, the government favors firms that
 - have lower carbon emission
 - have less female leadership presence
- In office management, the government favors firms that
 - are more politically aligned
 - have less female leadership presence
- In transportation & logistics, the government favors firms that
 - are more politically misaligned
 - have lower carbon emission
 - are less connected to China

2. Ideological customer capital (ICC) significantly affects asset prices

- We construct measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk

Main results

1. Firms' ideol. char. significantly affect firm cash flow from procurement

- In IT, the government favors firms that
 - have lower carbon emission
 - have less female leadership presence
- In office management, the government favors firms that
 - are more politically aligned
 - have less female leadership presence
- In transportation & logistics, the government favors firms that
 - are more politically misaligned
 - have lower carbon emission
 - are less connected to China

2. Ideological customer capital (ICC) significantly affects asset prices

- We construct measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk

Main results

1. Firms' ideol. char. significantly affect firm cash flow from procurement

- In IT, the government favors firms that
 - have lower carbon emission
 - have less female leadership presence
- In office management, the government favors firms that
 - are more politically aligned
 - have less female leadership presence
- In transportation & logistics, the government favors firms that
 - are more politically misaligned
 - have lower carbon emission
 - are less connected to China

2. Ideological customer capital (ICC) significantly affects asset prices

- We construct measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk

1. Firms' ideol. char. significantly affect firm cash flow from procurement

- In IT, the government favors firms that
 - have lower carbon emission
 - have less female leadership presence
- In office management, the government favors firms that
 - are more politically aligned
 - have less female leadership presence
- In transportation & logistics, the government favors firms that
 - are more politically misaligned
 - have lower carbon emission
 - are less connected to China

2. Ideological customer capital (ICC) significantly affects asset prices

- We construct measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk

1. Model

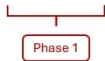
2. Data

3. Structural Estimation

4. Results

Model overview

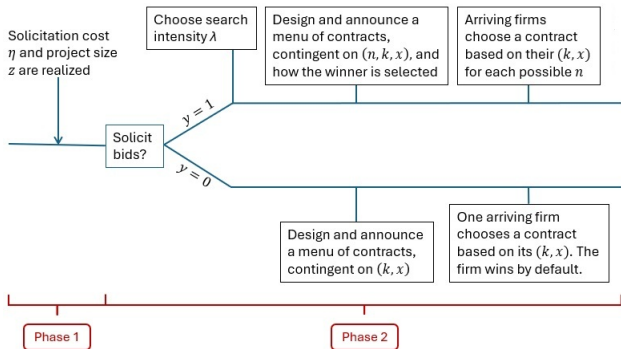
Solicitation cost
 η and project size
 z are realized



Optimal auction design by the government:

- **Phase 1:** Procurement project starts

Model overview

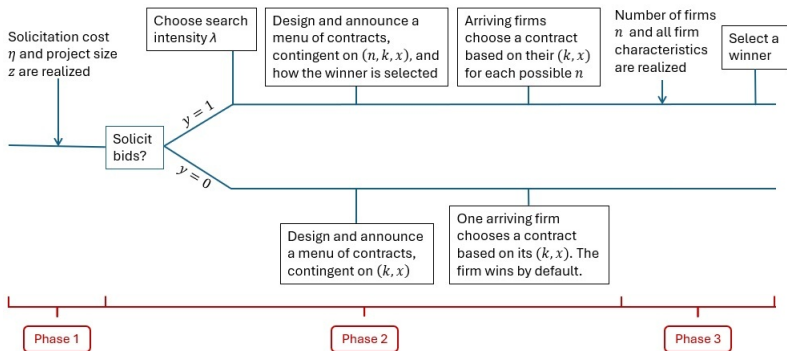


Optimal auction design by the government:

- **Phase 1:** Procurement project starts
- **Phase 2:** Government decides the competition structure, and designs payments and the winner selection

Firms differ in private efficiency type k and observable characteristics x

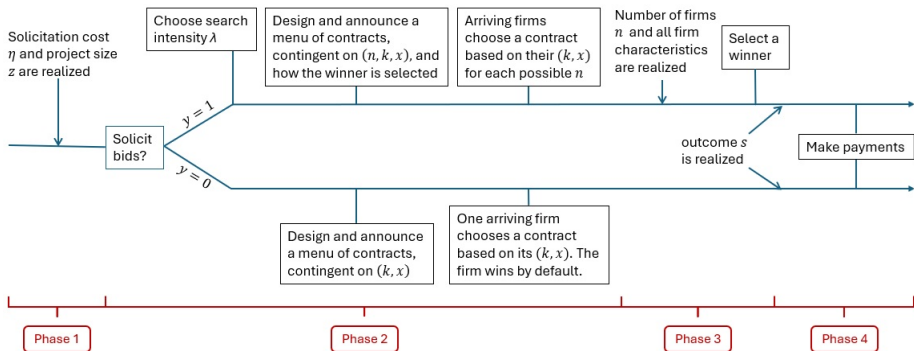
Model overview



Optimal auction design by the government:

- **Phase 1:** Procurement project starts
- **Phase 2:** Government decides the competition structure, and designs payments and the winner selection
- **Phase 3:** Firms arrive to bid and the government selects the winner

Model overview



Optimal auction design by the government:

- Phase 1: Procurement project starts
- Phase 2: Government decides the competition structure, and designs payments and the winner selection
- Phase 3: Firms arrive to bid and the government selects the winner
- Phase 4: A random outcome is realized, and payment adjustments may occur

Firms incur fixed and variable costs:

- Type k firm incurs a fixed cost $\gamma_k z$ and an uncertain variable cost $c(s)z$
- High-efficiency firms ($k = H$) have lower costs than low-efficiency firms ($k = L$):

$$\gamma_H < \gamma_L \text{ and } \int c(s)f_H(s)ds < \int c(s)f_L(s)ds.$$

Government designs base and variable payments, and winner selection rule:

- Government's realized cost:

$$h^n(s; k, x)z = \left(\underbrace{p^n(k, x) + q^n(s; k, x)}_{\text{pecuniary}} + \underbrace{b(x)}_{\text{non-pecuniary}} \right) z$$

- Government's auction design problem:

$$H(n; z) = \min_{p^n, q^n, \phi^n} \int \underbrace{\int h^n(s; k, x)z f_k(s) ds}_{\text{Expected cost if winner is } (k, x)} \underbrace{n\phi^n(k, x)g(k, x)dkdx}_{\text{Prob of winner is } (k, x)},$$

s.t. firms' IR, IC, and limited liability constraints

Firms incur fixed and variable costs:

- Type k firm incurs a fixed cost $\gamma_k z$ and an uncertain variable cost $c(s)z$
- High-efficiency firms ($k = H$) have lower costs than low-efficiency firms ($k = L$):

$$\gamma_H < \gamma_L \text{ and } \int c(s)f_H(s)ds < \int c(s)f_L(s)ds.$$

Government designs base and variable payments, and winner selection rule:

- Government's realized cost:

$$h^n(s; k, x)z = \left(\underbrace{p^n(k, x) + q^n(s; k, x)}_{\text{pecuniary}} + \underbrace{b(x)}_{\text{non-pecuniary}} \right) z$$

- Government's auction design problem:

$$H(n; z) = \min_{p^n, q^n, \phi^n} \int \underbrace{\int h^n(s; k, x)z f_k(s) ds}_{\text{Expected cost if winner is } (k, x)} \underbrace{n\Phi^n(k, x)g(k, x)dkdx}_{\text{Prob of winner is } (k, x)},$$

s.t. firms' IR, IC, and limited liability constraints

Solution - winner selection rule

- The government awards the project to the firm with the lowest value of

$$\underbrace{b(x)}_{\text{Non-pecuniary component}} + \underbrace{C(k) + \mathbb{1}_{k=L}\Upsilon(x)}_{\text{Pecuniary component}}$$

Firm expected execution cost Extra cost from private type

- Ties are broken randomly

1. Model

2. Data

3. Structural Estimation

4. Results

- Covers nearly all federal procurement contracts
 - including their initiations and subsequent modifications
- Provides detailed contract-level information:
 - Basic information:
procuring subagency, winning contractor, industry
 - Solicitation information:
competitive or non-competitive solicitations, number of bids
 - Contract terms:
contract type, base/variable payments, base/variable duration

- Covers nearly all federal procurement contracts
 - including their initiations and subsequent modifications
- Provides detailed contract-level information:
 - Basic information:
procuring subagency, winning contractor, industry
 - Solicitation information:
competitive or non-competitive solicitations, number of bids
 - Contract terms:
contract type, base/variable payments, base/variable duration

- Covers nearly all federal procurement contracts
 - including their initiations and subsequent modifications
- Provides detailed contract-level information:
 - Basic information:
procuring subagency, winning contractor, industry
 - Solicitation information:
competitive or non-competitive solicitations, number of bids
 - Contract terms:
contract type, base/variable payments, base/variable duration

- Covers nearly all federal procurement contracts
 - including their initiations and subsequent modifications
- Provides detailed contract-level information:
 - Basic information:
procuring subagency, winning contractor, industry
 - Solicitation information:
competitive or non-competitive solicitations, number of bids
 - Contract terms:
contract type, base/variable payments, base/variable duration

Political alignment between the firm and the subagency

- Firm political affiliation:
 - Political Action Committee (PAC) donations from FEC
 - Firm executives' political affiliation from L2 Inc
- Procuring subagency heads' political affiliation:
 - Official sources
e.g., official websites, Marquis Who's Who, U.S. Government Manual
 - Subagency heads' political affiliation from L2 Inc

Political alignment between the firm and the subagency

- Firm political affiliation:
 - Political Action Committee (PAC) donations from FEC
 - Firm executives' political affiliation from L2 Inc
- Procuring subagency heads' political affiliation:
 - Official sources
e.g., official websites, Marquis Who's Who, U.S. Government Manual
 - Subagency heads' political affiliation from L2 Inc

Firm characteristics data (Cont'd)

Carbon emission intensity: from Trucost

Female leadership dummy: Whether a firm has female executives

China connection: Whether a firm has a customer/supplier based in China

- Based on supply-chain relationship data from FactSet Revere

Controls: the firm's brand value from BAV, past contracting experience, and size

Firm characteristics data (Cont'd)

Carbon emission intensity: from Trucost

Female leadership dummy: Whether a firm has female executives

China connection: Whether a firm has a customer/supplier based in China

- Based on supply-chain relationship data from FactSet Revere

Controls: the firm's brand value from BAV, past contracting experience, and size

Firm characteristics data (Cont'd)

Carbon emission intensity: from Trucost

Female leadership dummy: Whether a firm has female executives

China connection: Whether a firm has a customer/supplier based in China

- Based on supply-chain relationship data from FactSet Revere

Controls: the firm's brand value from BAV, past contracting experience, and size

Firm characteristics data (Cont'd)

Carbon emission intensity: from Trucost

Female leadership dummy: Whether a firm has female executives

China connection: Whether a firm has a customer/supplier based in China

- Based on supply-chain relationship data from FactSet Revere

Controls: the firm's brand value from BAV, past contracting experience, and size

Outline

1. Model

2. Data

3. Structural Estimation

4. Results

Step 1 - Externally estimated distributions:

- Firm type and characteristics distribution, $g(k, x)$
- Outcome distribution of each type, $f_k(s)$

Step 2 - Bayesian approach to estimate the structural parameters:

- Assume

$$b(x) = \sum_{l \in \mathcal{L}} \beta_l x_l + \beta_\epsilon \epsilon, \quad \mathcal{L} = \{\text{poli, emit, fem, china, past, brand, size}\},$$

where ϵ captures characteristics unobserved by the econometrician

- Estimate joint posterior of parameters and ϵ for all observations

Step 1 - Externally estimated distributions:

- Firm type and characteristics distribution, $g(k, x)$
- Outcome distribution of each type, $f_k(s)$

Step 2 - Bayesian approach to estimate the structural parameters:

- Assume

$$b(x) = \sum_{l \in \mathcal{L}} \beta_l x_l + \beta_\epsilon \epsilon, \quad \mathcal{L} = \{\text{poli, emit, fem, china, past, brand, size}\},$$

where ϵ captures characteristics unobserved by the econometrician

- Estimate joint posterior of parameters and ϵ for all observations

Key structural estimates

Table: Estimates of the weights β on the four ideological characteristics

	Political alignment	Carbon emission	Female leadership	China connection
IT	-8.07 (1.53)	100.34 (2.96)	34.31 (2.81)	13.51 (5.17)
Office	-2.51 (0.82)	0.99 (1.90)	6.31 (1.20)	-0.65 (1.08)
T&L	14.39 (2.81)	7.86 (1.12)	1.86 (0.77)	6.75 (1.31)

A positive β means the government prefers this characteristic to be lower

But the magnitude of β is not directly comparable across characteristics and industries

Outline

1. Model

2. Data

3. Structural Estimation

4. Results

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77			
Office				
T&L				

IT: ↓ average political alignment ⇒ ↓ average cash flow from procurement

Firms less politically aligned derive slightly less cash flows from procurement

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77			
Office				
T&L				

IT: ↓ average political alignment ⇒ ↓ average cash flow from procurement

Firms less politically aligned derive slightly less cash flows from procurement

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77	10.06		
Office				
T&L				

IT: ↓ average carbon emission ⇒ ↑ average cash flow from procurement

Firms with lower emission derive significantly more cash flows from procurement

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77	10.06	9.62	
Office				
T&L				

IT: ↓ average female leadership presence ⇒ ↑ average cash flow from procurement

Firms with less female leadership presence derive significantly more cash flows

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77	10.06	9.62	2.92
Office				
T&L				

IT: ↓ average connection to China ⇒ ↑ average cash flow from procurement

Firms less connected to China derive slightly more cash flows

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77	10.06	9.62	2.92
Office	-9.02	2.97	17.67	0.42
T&L				

Office: Firms less politically aligned derive significantly less cash flows

Firms with less female leadership presence derive significantly more cash flows

Impact of firms' ideological characteristics

How do the firm's ideol. char. affect its cash flow from procurement?

- Simulate the median firm's type and characteristics over time
- Compute the firm's average cash flow from procurement
- Compute % diff. in cash flow with the firm with 1-STD lower average ideol. char.

(%)	Political alignment	Carbon emission	Female leadership	China connection
IT	-2.77	10.06	9.62	2.92
Office	-9.02	2.97	17.67	0.42
T&L	19.41	12.16	-0.38	6.89

Transportation & logistics : Firms that are less politically aligned, have lower emission, or are less connected to China derive significantly more cash flows

Measure ideological customer capital (ICC) attributed to the government

- Compute each procurement firm's expected cash flows conditional on ideol. char. We consider conditioning on all 4 ideol. char. and on each ideol. char.
- Aggregate procurement firms' expected cash flows to CRSP parent firm level
- Compute ICC as the ratio of expected procurement cash flows over income

$$ICC = \frac{\sum_{s \in \text{Subsidiary}} \mathbb{E}(\text{Procurement Cash Flow} | s\text{'s Ideol. Char.})}{\text{Firm Income}}$$

Asset Pricing Implications

What are the implications of ICC for asset prices?

- Examine the effect of ICC on firm exposure to aggregate cash flow risk

$$\tilde{r}_{i,t} = \beta_0 + \beta_1 \tilde{x}_t + \beta_2 ICC_{i,t-1} + \beta_3 \tilde{x}_t \times ICC_{i,t-1} + \epsilon_{i,t},$$

- $\tilde{r}_{i,t}$: firm i 's accumulated log excess return
- \tilde{x}_t : accumulated market log return on equity or log dividend growth
- $ICC_{i,t-1}$: the measures of ideological customer capital.

	(1) Overall	(2)	(3)	(4)	(5)
		Individual Ideological Characteristic			
		Political alignment	Carbon emission	Female leadership	China connection
A. Log ROE					
\tilde{x}_t	1.729 (0.150)	1.731 (0.150)	1.729 (0.150)	1.729 (0.150)	1.730 (0.150)
$\tilde{x}_t \times ICC_{i,t-1}$	-2.184 (0.231)	-2.484 (0.300)	-2.241 (0.256)	-2.088 (0.229)	-2.248 (0.255)
B. Dividend growth					
\tilde{x}_t	0.732 (0.055)	0.733 (0.055)	0.732 (0.055)	0.732 (0.055)	0.732 (0.055)
$\tilde{x}_t \times ICC_{i,t-1}$	-1.399 (0.478)	-1.517 (0.562)	-1.404 (0.504)	-1.299 (0.480)	-1.411 (0.499)

Asset Pricing Implications

What are the implications of ICC for asset prices?

- Examine the effect of ICC on firm exposure to aggregate cash flow risk

$$\tilde{r}_{i,t} = \beta_0 + \beta_1 \tilde{x}_t + \beta_2 \text{ICC}_{i,t-1} + \beta_3 \tilde{x}_t \times \text{ICC}_{i,t-1} + \epsilon_{i,t},$$

- $\tilde{r}_{i,t}$: firm i 's accumulated log excess return
- \tilde{x}_t : accumulated market log return on equity or log dividend growth
- $\text{ICC}_{i,t-1}$: the measures of ideological customer capital.

	(1) Overall	(2)	(3)	(4)	(5)
		Individual Ideological Characteristic			
		Political alignment	Carbon emission	Female leadership	China connection
A. Log ROE					
\tilde{x}_t	1.729 (0.150)	1.731 (0.150)	1.729 (0.150)	1.729 (0.150)	1.730 (0.150)
$\tilde{x}_t \times \text{ICC}_{i,t-1}$	-2.184 (0.231)	-2.484 (0.300)	-2.241 (0.256)	-2.088 (0.229)	-2.248 (0.255)
B. Dividend growth					
\tilde{x}_t	0.732 (0.055)	0.733 (0.055)	0.732 (0.055)	0.732 (0.055)	0.732 (0.055)
$\tilde{x}_t \times \text{ICC}_{i,t-1}$	-1.399 (0.478)	-1.517 (0.562)	-1.404 (0.504)	-1.299 (0.480)	-1.411 (0.499)

Conclusion

Develop and estimate an auction model for procurement process

- The government has the discretion to consider ideological factors
- We derive closed-form solutions and construct a novel dataset for estimation

Examine firms' ideological customer capital (ICC) attributed to the government

- Ideological characteristics significantly affect firm cash flow from procurement
These effects vary significantly across industries
- Construct empirical measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk

Develop and estimate an auction model for procurement process

- The government has the discretion to consider ideological factors
- We derive closed-form solutions and construct a novel dataset for estimation

Examine firms' ideological customer capital (ICC) attributed to the government

- Ideological characteristics significantly affect firm cash flow from procurement
These effects vary significantly across industries
- Construct empirical measures of ICC associated with all and each ideol. char.
- Firms with higher ICC are less exposed to aggregate cash flow risk