

Handout

"The Once and Future Global Imbalances? Interpreting the Post-Crisis Record"

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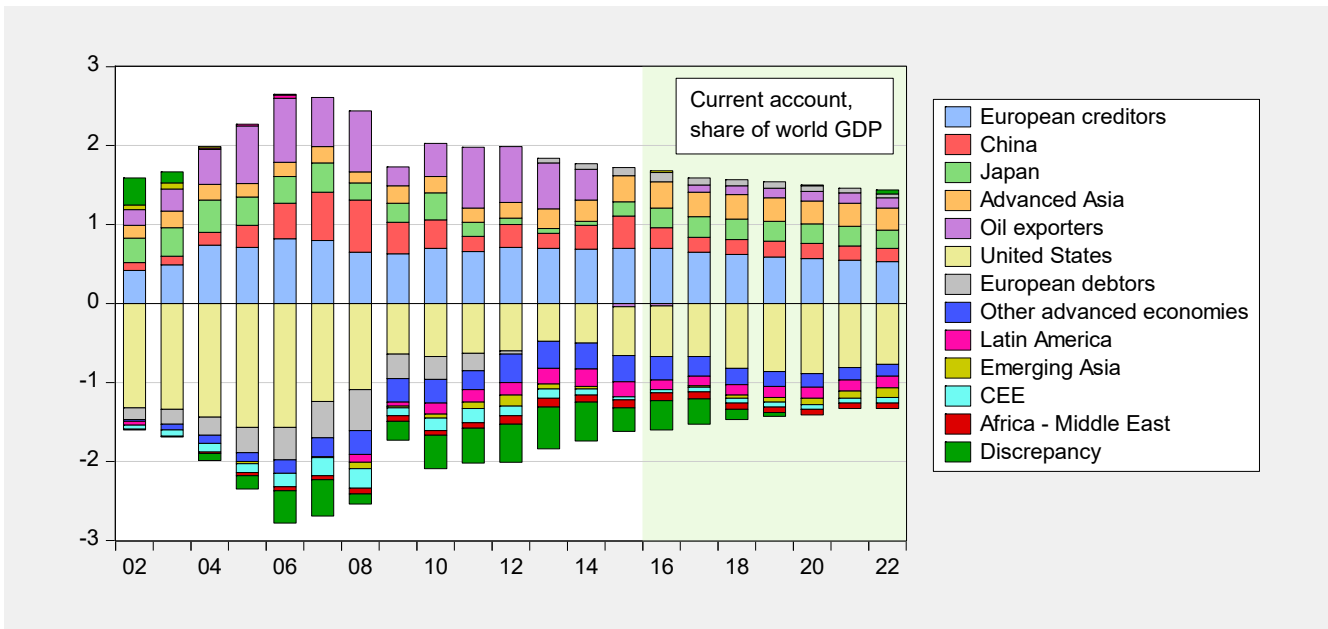


Figure 1: Global current balances for select country aggregates. Source: IMF, *World Economic Outlook*, April 2017.

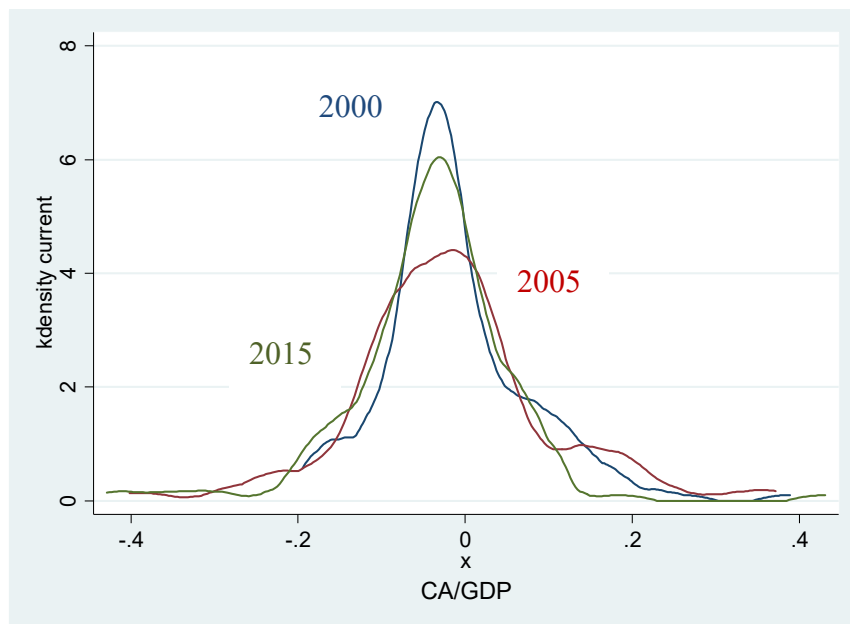
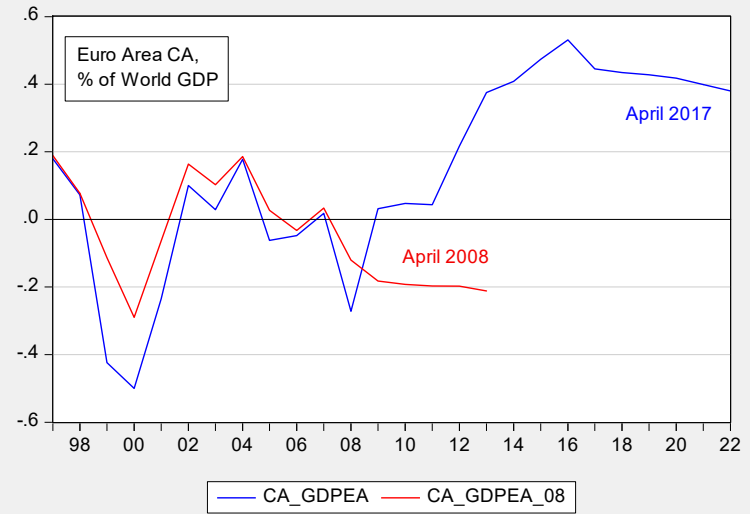
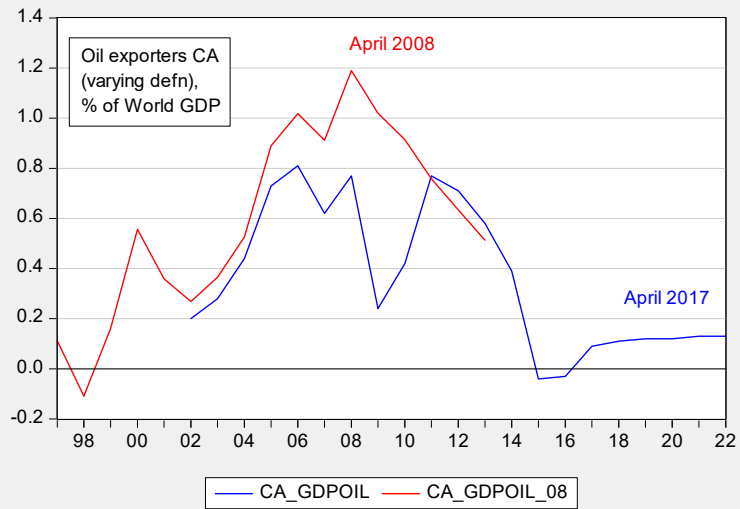
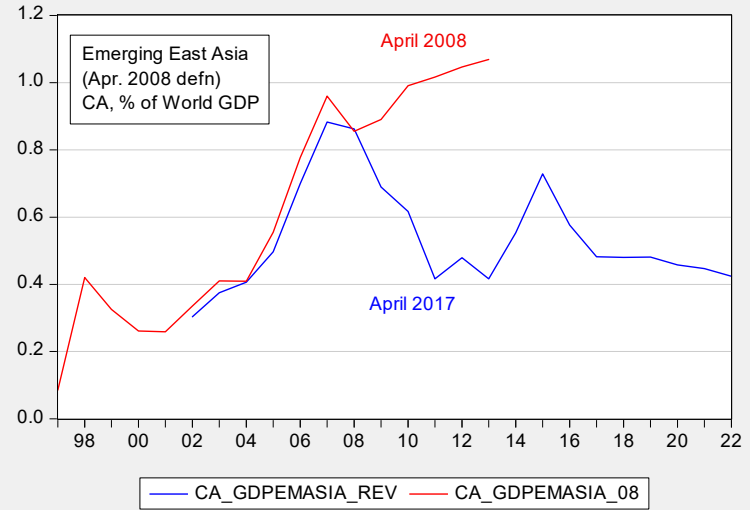
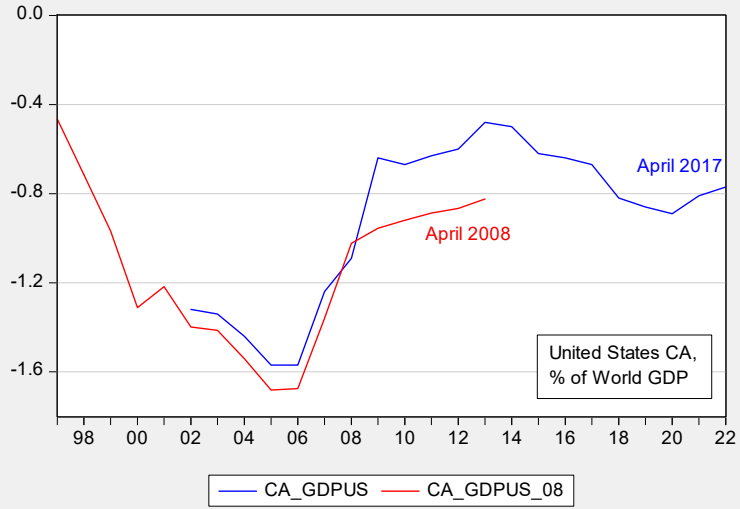


Figure 2: Distribution of current account balances, as share of national GDP.



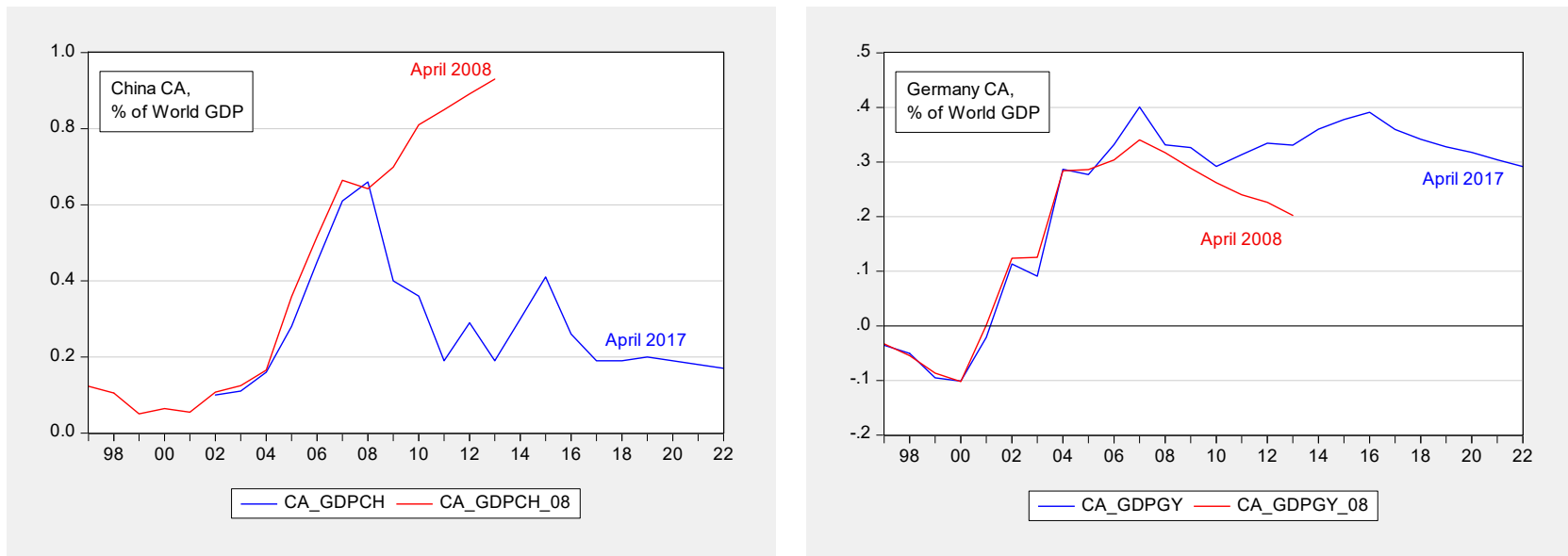


Figure 3: IMF economic projections from April 2008, and April 2017, for select economies.

Theories Old and New

- Textbook (intertemporal) view
- Fiscal policy, demographics, uncertainty
- Mercantilism and self-protection
- Global saving glut, safe assets, and exorbitant privilege
- Intervention, or “currency manipulation” Intentional or Not

Updating the Evidence

Basic Model: Current account modeled as function of:

- Fiscal variable (budget balance)
- Demographic variables (youth and elderly dependency ratio)
- Private credit
- Other control variables (growth, initial net international investment position, terms of trade volatility, relative income)

Table 1: The Basic Model

	FULL (1)	IDC (2)	LDC (3)	EMG (4)
Gov't budget	0.385 (0.058)***	0.568 (0.091)***	0.367 (0.063)***	0.223 (0.047)***
NFA (initial)	0.034 (0.006)***	0.022 (0.014)	0.034 (0.006)***	0.007 (0.009)
Relative income	0.229 (0.043)***	0.168 (0.055)***	0.388 (0.066)***	0.241 (0.072)***
Rel. inc sq	-0.228 (0.039)***	-0.170 (0.049)***	-0.379 (0.078)***	-0.216 (0.069)***
Rel. dep. (young)	-0.037 (0.011)***	-0.016 (0.019)	-0.039 (0.012)***	-0.017 (0.014)
Rel. dep. (old)	-0.006 (0.009)	0.000 (0.015)	-0.012 (0.010)	-0.017 (0.011)
PCGDP	0.002 (0.007)	-0.002 (0.010)	0.000 (0.010)	0.010 (0.012)
TOT volatility	0.118 (0.049)**	-0.410 (0.134)***	0.133 (0.050)***	0.132 (0.071)*
output growth	-0.351 (0.177)**	0.055 (0.195)	-0.374 (0.180)**	-0.035 (0.100)
Trade Openness	-0.005 (0.007)	0.017 (0.011)	-0.009 (0.009)	0.021 (0.013)
Dummy-2005	0.018 (0.013)	0.013 (0.010)	0.018 (0.018)	0.039 (0.015)**
Dummy-2010	-0.007 (0.014)	0.002 (0.010)	-0.010 (0.018)	0.018 (0.017)
Dummy-2015	-0.018 (0.014)	0.032 (0.010)***	-0.029 (0.018)	0.005 (0.015)
oil exporting	0.040 (0.010)***		0.038 (0.010)***	0.044 (0.013)***
<i>N</i>	1,104	201	903	338
Adj. R2	0.33	0.49	0.32	0.34

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Note: Time fixed effects are included in the estimation, but only those for the 2001-05, 2006-10, and 2011-15 periods are reported in the table

Basic Model Augmented with Saving Glut Variables: Add in

- Legal institutional variable
- Financial openness variable
- Interaction terms of Legal variable with private credit, financial openness

Table 2: Basic Model Augmented with Saving Glut Variables

	FULL (1)	IDC (2)	LDC (3)	EMG (4)
Gov't budget	0.334 (0.057)***	0.518 (0.101)***	0.325 (0.064)***	0.215 (0.054)***
NFA (initial)	0.033 (0.004)***	0.013 (0.014)	0.033 (0.003)***	0.038 (0.007)***
Relative income	0.180 (0.042)***	0.204 (0.069)***	0.286 (0.062)***	0.151 (0.062)**
Rel. inc. sq.	-0.180 (0.037)***	-0.199 (0.058)***	-0.280 (0.068)***	-0.143 (0.060)**
Rel. dep. (young)	-0.030 (0.011)***	-0.029 (0.021)	-0.033 (0.012)***	-0.008 (0.013)
Rel. dep.(old)	-0.008 (0.008)	0.016 (0.016)	-0.009 (0.008)	-0.014 (0.010)
PCGDP	-0.013 (0.008)	-0.007 (0.012)	-0.006 (0.015)	-0.041 (0.020)**
Legal	0.006 (0.003)**	0.009 (0.005)*	0.008 (0.006)	0.007 (0.008)
pcgdp x legal	-0.004 (0.004)	-0.006 (0.009)	-0.002 (0.007)	-0.017 (0.012)
Fin. Open.	0.003 (0.003)	-0.001 (0.004)	0.008 (0.006)	0.004 (0.008)
Fin. Open x legal	0.003 (0.001)***	0.009 (0.002)***	0.005 (0.002)**	0.006 (0.002)***
Fin Open xPCGDP	-0.005 (0.004)	0.020 (0.006)***	-0.004 (0.005)	-0.010 (0.007)
TOT volatility	0.160 (0.048)***	-0.281 (0.147)*	0.167 (0.049)***	0.267 (0.076)***
output growth	-0.128 (0.103)	0.091 (0.198)	-0.161 (0.110)	-0.029 (0.097)
Trade Openness	0.001 (0.007)	0.021 (0.012)*	-0.006 (0.010)	0.009 (0.014)
Dummy-2005	0.018 (0.009)**	0.013 (0.010)	0.018 (0.012)	0.044 (0.015)***
Dummy-2010	-0.004 (0.010)	0.005 (0.010)	-0.007 (0.013)	0.023 (0.015)
Dummy-2015	-0.013 (0.010)	0.033 (0.012)***	-0.026 (0.013)**	0.011 (0.014)
oil exporting	0.030 (0.011)***		0.028 (0.011)**	0.036 (0.013)***
N	928	192	736	329
Adj. R2	0.47	0.49	0.48	0.45

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Note: Time fixed effects are included in the estimation, but only those for the 2001-05, 2006-10, and 2011-15 periods are reported in the table

Decompositions Incorporating Saving Glut Variables



Figure 4: Current account balances and decompositions for select economies (change, for US)

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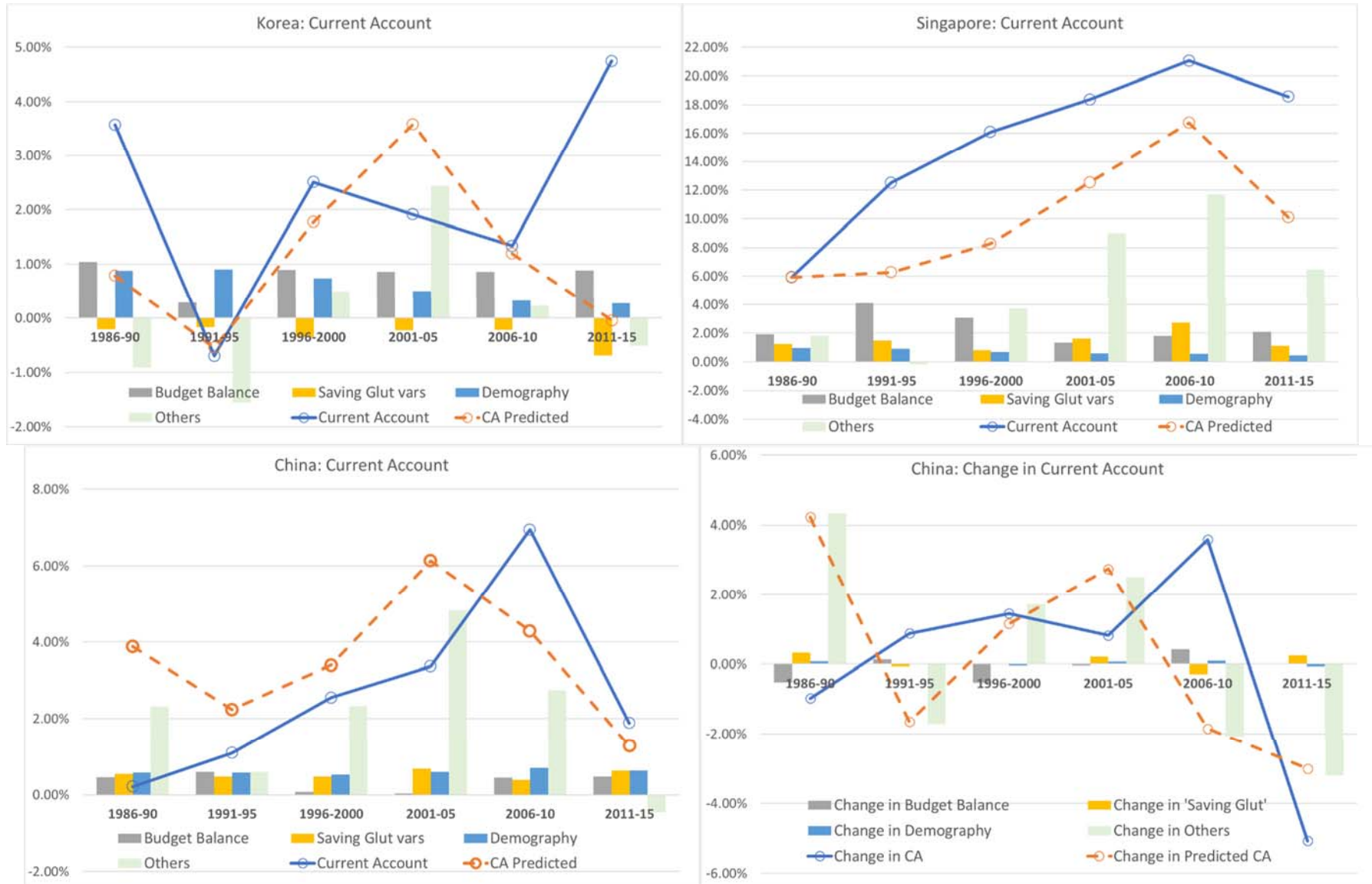


Figure 4: Current account balances and decompositions for select economies (change for China)

Basic Model Augmented with Net Official Flows: Add in

- Net official flows (incl. sovereign wealth funds)
- Omit Legal institutional variable, financial openness, interaction terms

Table 3: Basic Model Augmented with Net Official Flows

	FULL (1)	IDC (2)	LDC (3)	EMG (4)
Gov't budget	0.292 (0.062)***	0.504 (0.094)***	0.268 (0.065)***	0.129 (0.052)**
NFA (initial)	0.032 (0.006)***	0.013 (0.013)	0.032 (0.007)***	0.004 (0.008)
Relative income	0.225 (0.045)***	0.173 (0.063)***	0.348 (0.066)***	0.265 (0.067)***
Rel. inc. sq.	-0.226 (0.040)***	-0.173 (0.055)***	-0.335 (0.078)***	-0.246 (0.070)***
Rel. dep. (young)	-0.025 (0.014)*	-0.023 (0.021)	-0.029 (0.016)*	-0.008 (0.015)
Rel. dep. (old)	-0.009 (0.010)	0.020 (0.019)	-0.016 (0.011)	-0.010 (0.011)
Net off. flows	0.349 (0.129)***	0.491 (0.163)***	0.349 (0.132)***	0.390 (0.096)***
PCGDP	0.004 (0.007)	0.001 (0.012)	0.003 (0.009)	0.009 (0.010)
TOT volatility	0.108 (0.047)**	-0.615 (0.140)***	0.126 (0.049)***	0.167 (0.070)**
output growth	-0.526 (0.173)***	0.123 (0.220)	-0.549 (0.172)***	-0.195 (0.110)*
Trade Openness	-0.005 (0.006)	0.022 (0.012)*	-0.010 (0.008)	0.022 (0.011)**
Dummy-2005	0.029 (0.009)***	0.021 (0.010)**	0.029 (0.011)***	0.043 (0.012)***
Dummy-2010	0.004 (0.009)	0.010 (0.011)	0.003 (0.011)	0.026 (0.014)*
Dummy-2015	-0.008 (0.009)	0.034 (0.011)***	-0.017 (0.011)	0.014 (0.012)
oil exporting countries	0.029 (0.010)***		0.028 (0.010)***	0.041 (0.014)***
N	989	171	818	305
Adj. R2	0.45	0.54	0.45	0.42

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Note: Time fixed effects are included in the estimation, but only those for the 2001-05, 2006-10, and 2011-15 periods are reported in the table

Basic Model Augmented with Net Official Flows, Instrumented: Add in

- Net official flows (incl. sovereign wealth funds)
- Instrument with EMG, EMG interacted with per capita income, lagged net official flows
- Omit Legal institutional variable, financial openness, interaction terms

Table 4: Basic Model Augmented with Net Official Flows, Instrumented

	FULL (1)	LDC (2)
Gov't budget	0.203 (0.068)***	0.140 (0.074)*
NFA (initial)	0.032 (0.002)***	0.032 (0.003)***
Relative income	0.190 (0.069)***	0.243 (0.106)**
Rel. inc. sq	-0.194 (0.071)***	-0.225 (0.140)
Rel. dep. (young)	-0.013 (0.011)	-0.017 (0.012)
Rel. dep (old)	-0.003 (0.007)	-0.011 (0.009)
Net off. flows	0.756 (0.155)***	0.851 (0.161)***
PCGDP	0.003 (0.008)	-0.000 (0.011)
TOT volatility	0.150 (0.047)***	0.177 (0.051)***
output growth	-0.543 (0.071)***	-0.572 (0.077)***
Trade Openness	-0.005 (0.006)	-0.011 (0.008)
Dummy-2005	0.020 (0.010)**	0.019 (0.012)
Dummy-2010	-0.005 (0.009)	-0.007 (0.012)
Dummy-2015	-0.016 (0.009)*	-0.025 (0.011)**
oil exporting	0.019 (0.010)*	0.015 (0.011)
<i>N</i>	888	739
Adj. R2	0.41	0.38

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Note: Time fixed effects are included in the estimation, but only those for the 2001-05, 2006-10, and 2011-15 periods are reported in the table

Some Conclusions and Some Policy Implications

- Empirical models can explain up to half of variation in current account balances (without country fixed effects)
- No one-size-fits-all model explains bulk of variation in current account imbalances
- Fiscal policy potentially has a larger implied role than suggested in earlier analyses
- The need for both internal as well as external balance constrains the use of fiscal policy
- Financial development – as proxied in this study – does not promise a big impact over time
- If the save asset explanation is a dominant factor, then no clear implications for policy
- Monetary policy (via policy rate, balance sheet) has a potential role, but the empirics in this analysis do not speak to how
- Net official flows – or “intervention” – matters, so constraining intervention could have a big effect, regardless of motivation
- The question is how to induce limitations on net official flows when there is no overarching enforcement mechanism, and unilateral actions could carry unintended consequences