

State Capacity, Conflict and Development
2010 Agnar Sandmo Lecture

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Overall motivation – Fragile or weak states

Central concept in development policy community

states incapable to maintain basic economic functions,
deliver basic services to citizens, keep law and order
countries with massive poverty...

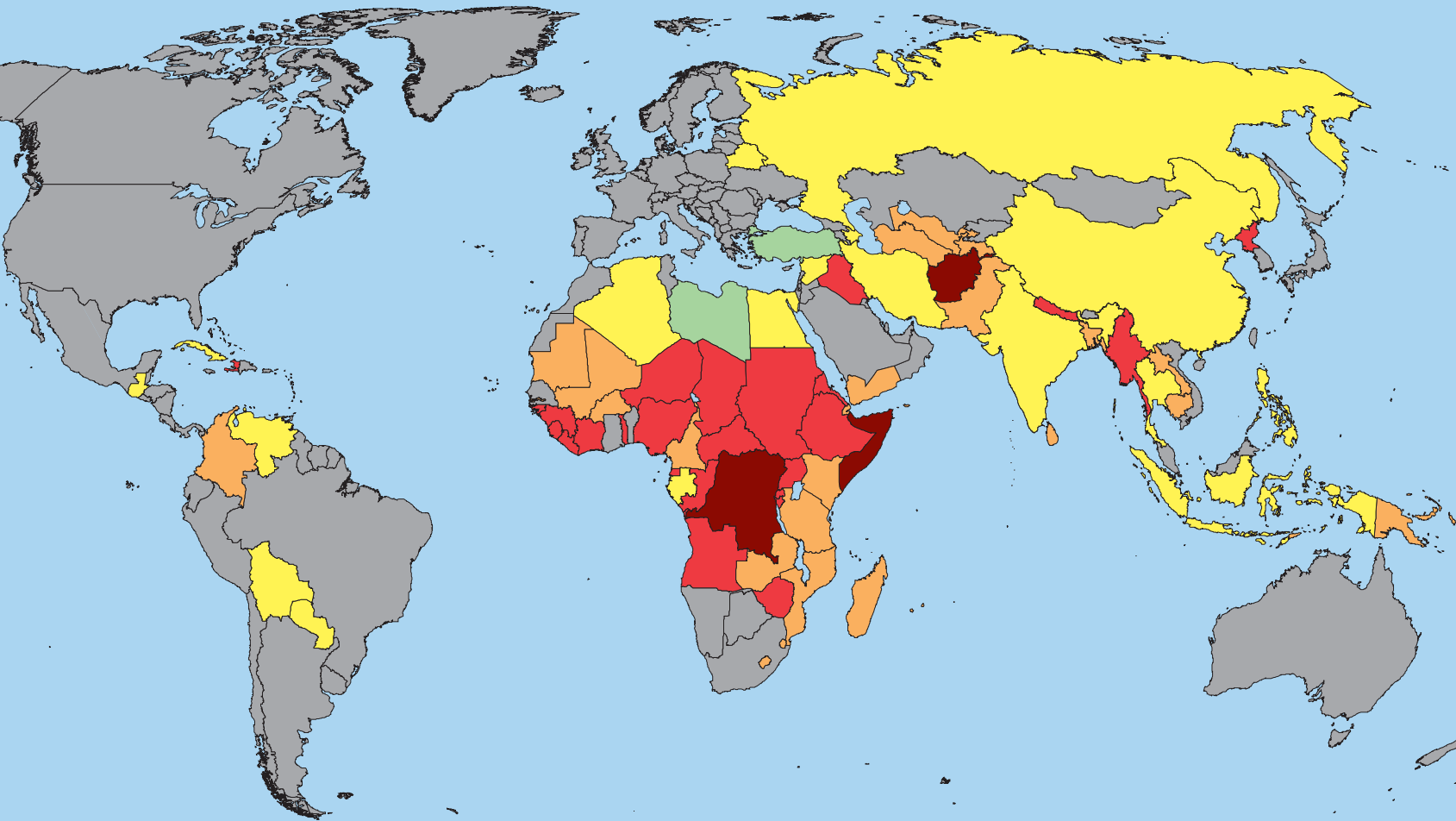
... and high risks of internal conflict and political violence

Multidimensional problem

clustering of massive policy failure, income, and violence
number of institutions dysfunctional at the same time

Quite frequent phenomenon

perhaps 20-30 states failed or seriously weak
equally many states weak, others in risk zone
mainly in sub-Saharan Africa, south/central Asia – see Map



Report on ongoing research program

Joint work with Tim Besley (LSE)

on economics and politics of state building and conflicts,
and their relation to development

two-fold goal: build new theory and uncover new evidence

Some questions

which economic and political factors determine a state's
capacity to raise revenue and support markets?

how does risk of conflict shape motives for state building?

does it matter if conflict is external or internal to the state?

in what ways may a weak, small state hamper income
and economic growth?

what relations should we expect between resource rents,
institutions, development, and civil wars?

Scope of lecture

Questions subject of much discussion and some research

Describe common theoretical framework to address them

- give a sense of how questions are related

- spell out some of main predictions of theory

- highlight implications and relations to existing work

Illustrate some empirical regularities

- show representative relations in the data

- mention some more serious empirical tests

Focus on ideas rather than formalism

More precise argument in underlying papers

"Wars and state capacity", *Journal of European Economic Association*, May 2008

"Repression or civil war?", *American Economic Review Papers and Proceedings*, May 2009

"The origins of state capacity: Property rights, taxation and politics", *American Economic Review*, September 2009

"State capacity, conflict and development", forthcoming in *Econometrica*

"The logic of political violence", unpublished manuscript

Road map to lecture

1. Introduction
- 2. Origins of state capacity**
3. Origins of internal conflict
4. Putting the pieces together

Motivation – Theory

State capacity to raise revenue, in political and economic history

fiscal powers important in themselves, for military success

and for state development, more generally

war major motive to build such capacity

‘war made the state and the state made war’ (Tilly, 1990)

Ignored, or implicitly assumed, in economic theory

state’s capacity to raise revenue from certain tax bases basically

assumed in public finance, development, political economics, ...

as is the capacity to support markets, e.g., to enforce contracts,

or to protect investors

Important to fill this lacuna

bring analysis of economic aspects of state capacity into

the mainstream of economics

Motivation – Data

Past investments shape today's state capacity

if infrastructure critical, past building of fiscal and legal capacity 'revealed' in current tax and market structures

Strong empirical pattern

clustering across countries: (financial) market development and tax capacity positively correlated with each other and GDP

Throughout lecture – illustrate with two specific measures of fiscal and legal capacity

fiscal capacity: total tax revenue as share of GDP, average from the late 1970s onwards

legal capacity: index of protection of property rights (widely used in academic literature), average over the 1980s and 1990s

– see Fig 1

Fiscal and Legal Capacity

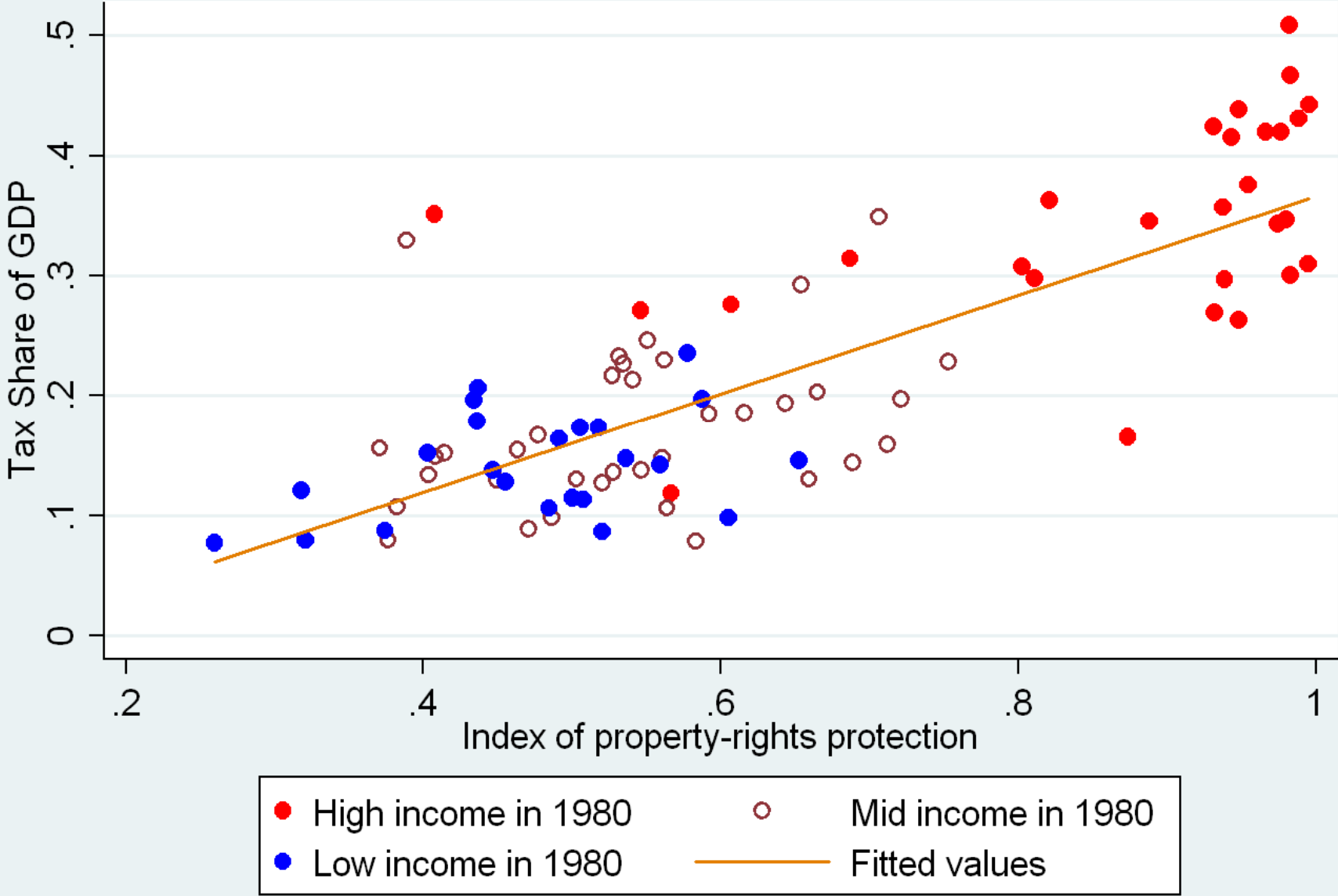


Figure 1 State capacity and income

Theoretical framework – Main building blocks

Distinguish institutions and policy

incumbent government's choice of today's taxation and regulation
constrained by existing state capacity and political institutions

Incumbent invests in tomorrow's state capacity

weigh current costs against future expected benefits,
under uncertainty about

future use of revenue: spending on public goods – e.g.,
defense against external military attack – vs. redistribution

future levels of non-tax revenue, such as resource rents, aid

future incumbency: may be replaced by opposition group

Identify major determinants

which economic, political and institutional features
promote building of fiscal and legal capacity?

Central complementarity result

Investment in each type of state capacity reinforces the other

if future legal capacity higher, market incomes and tax bases higher as well, which raise the gain of investment in fiscal capacity

if future fiscal capacity is higher, additional fiscal benefits of investing in legal capacity and expanding market incomes

Implications

generally, conditions that raise the gains to investments in one form of state capacity also tends to stimulate the other determinants of legal and fiscal capacity should be *common*

Prediction – Economic development

Countries with lower non-resource (market) income choose smaller investments in fiscal and legal capacity

returns to both types of investment lower, because size of market and prospective tax bases are smaller

if total income given, larger income share of resource rents cuts investment in state capacity – weak states in Africa

if level of natural resource rents given, prediction is that both forms of state capacity positively correlated with GDP, with causality from income to state capacity

simple way to understand observed clustering of institutions at different levels of development – recall Fig 1

Prediction – Value of public goods (external conflict)

Lower expected value of public goods diminishes investment in both forms of state capacity

weak common interests make fiscal capacity less valuable

prediction: risk of external conflict does indeed promote capacity to tax – cf. research in economic and political history

by complementarity, an auxiliary prediction: higher incentives to invest spill over to legal capacity to support markets

A look at the data – External conflict

Partial correlations: common-interest spending and state capacity?

How measure high demand for public goods?

share of years in external war from 1816/independence – now

How measure fiscal and legal capacity?

here: illustrate results for tax share and property rights index
(same variables as in Fig 1)

below: show correlations robust also for other proxies

What do we hold constant?

continental location, as well as other determinants

(see below): inclusive political institutions and legal origins

What do we find?

results consistent with theory – see Fig 2

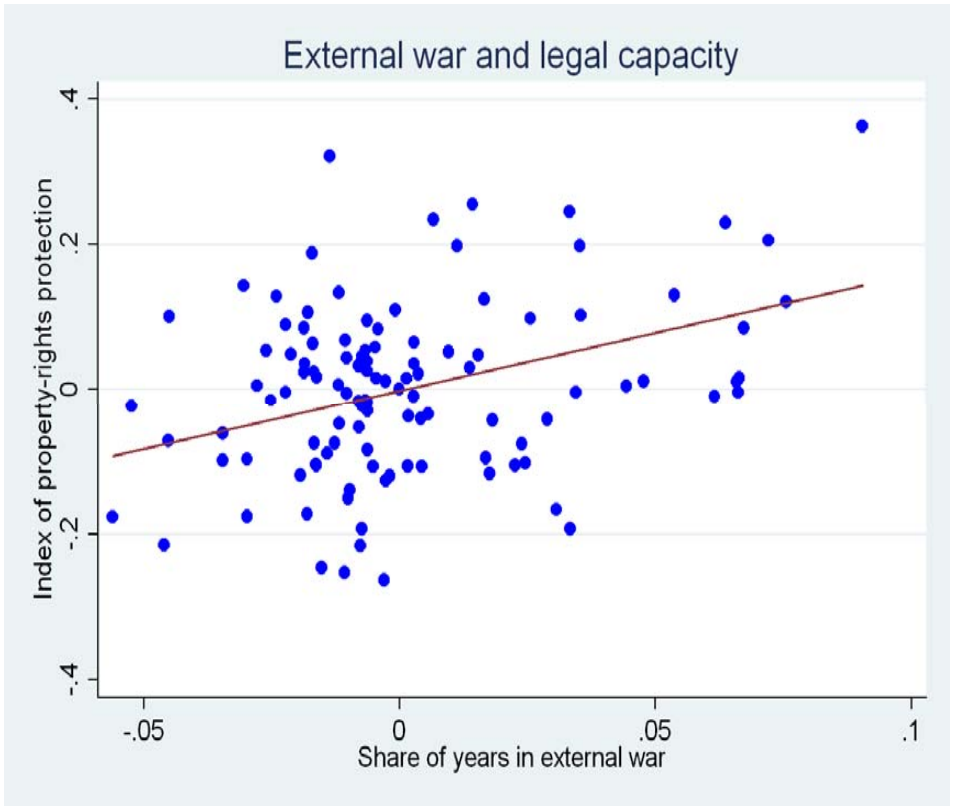
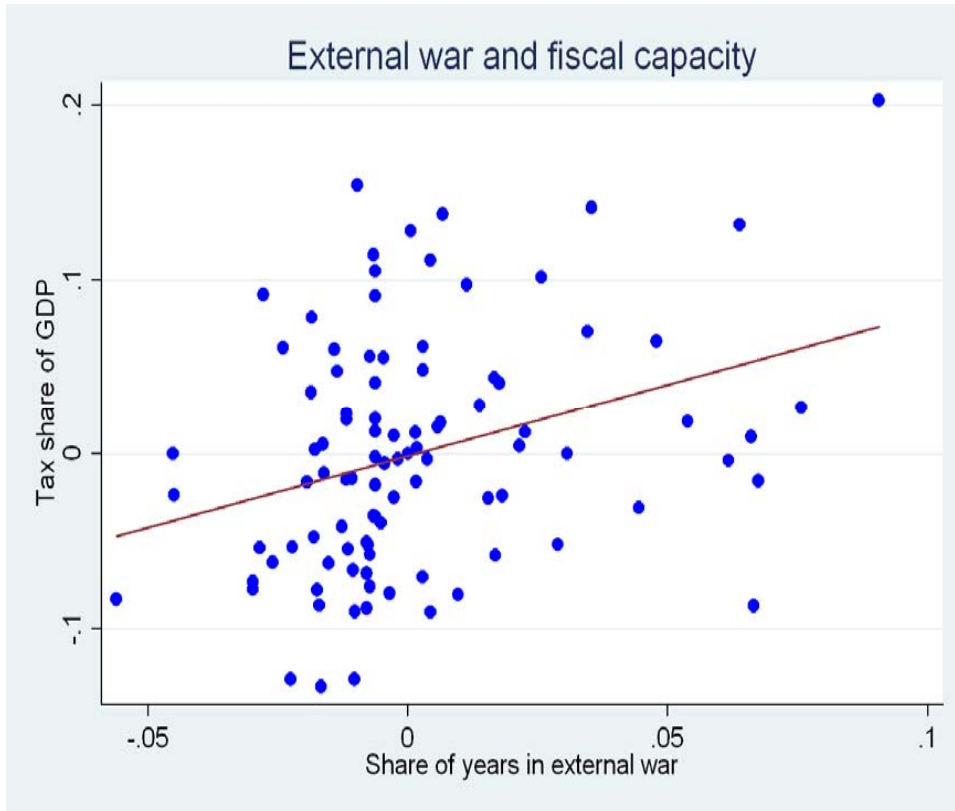


Figure 2 External war and state capacity

Prediction – Political instability

Higher political instability diminishes investment in state capacity

incumbent sees higher risk that future fiscal capacity will
be used to redistribute away from its own group

also prediction of interaction effect: instability more important
for state capacity if political institutions less inclusive – anecdotal
historical and contemporary evidence

but here political instability taken as given; often tied to risk of
internal conflict – will return to this in **3** below.

Prediction and data – Political institutions

Less inclusive political institutions reduce investments in state capacity (unless political stability is very high)

weak minority protection bad for investment because public goods supplied in few states of the world, as redistribution becomes more extensive

prediction: more inclusive political institutions, e.g., democracy or parliamentary democracy, raise investments in state capacity

What do the data say?

measure inclusive political institutions by the incidence of parliamentary democracy since 1800/independence
partial correlations, again, consistent with prediction of theory – see Fig 3

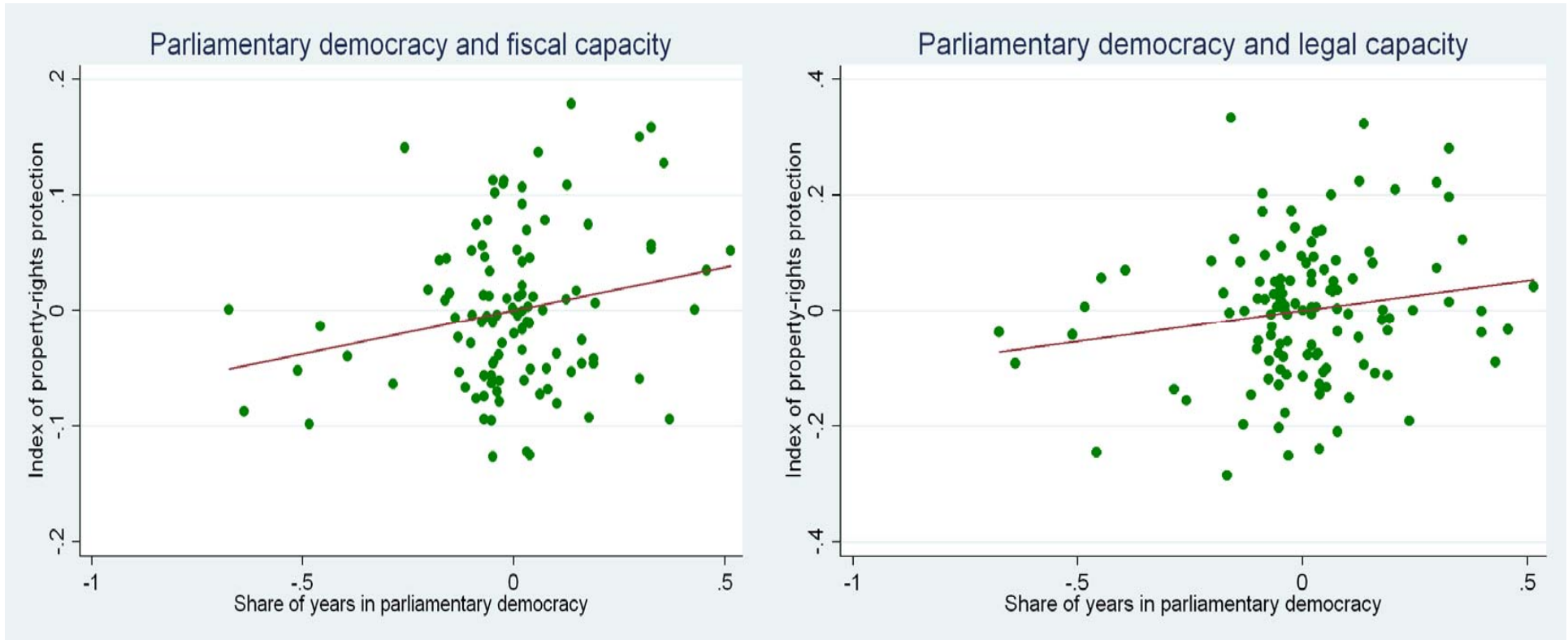


Figure 3 Parliamentary democracy and state capacity

Prediction – Costs of investments (legal origins)

Higher costs of either type of investment diminish both legal and fiscal capacity

a simple way to represent the “legal origins” hypothesis:
more costly support private markets with some legal traditions
by complementarity, and less trivially, this should also
spill over to willingness to invest in fiscal capacity

What do the data say?

use Shleifer et al measures of legal origin

find no systematic positive correlation for British (vs. French)
legal origin, but do for German and Scandinavian legal origin

A further look at the data

Use other proxies for fiscal capacity

share of formal (vs. informal) sector in GDP (World Bank)

share of income taxes in total taxes (IMF)

Use other proxies for legal capacity

private credit as share of GDP

index for contract enforcement (World Bank)

Earlier results robust?

yes, all measures of legal and fiscal capacity positively correlated with incidence of external conflict, incidence of democracy or parliamentary democracy, and German and Scandinavian legal origins – see Table 1

Table 1 Economic and political determinants of state capacity across countries

	Legal capacity			Fiscal capacity		
	(1) Private credit to GDP (1975-)	(2) Contract enforcement (circa 2005)	(3) GADP (1982-1997)	(4) 1 - share of informal sector (circa 2005)	(5) Income taxes in total taxes (1975-)	(6) Total taxes in GDP (1975-)
Past incidence of external conflict	0.604*** (0.142)	1.029*** (0.277)	0.635*** (0.122)	0.360*** (0.137)	0.437** (0.221)	0.325*** (0.108)
Past incidence of democracy	0.116 (0.081)	0.122** (0.052)	0.121** (0.057)	- 0.087* (0.051)	0.028 (0.057)	0.041 (0.027)
Past incidence of parliamentary democracy	- 0.024 (0.072)	- 0.010 (0.066)	0.139** (0.057)	0.212*** (0.052)	0.180*** (0.067)	0.099*** (0.031)
English legal origin	- 0.014 (0.036)	0.156** (0.060)	- 0.013 (0.044)	- 0.047 (0.037)	0.018 (0.046)	0.013 (0.025)
Socialist legal origin	—	0.023 (0.109)	0.011 (0.034)	0.096** (0.048)	- 0.190*** (0.066)	- 0.036 (0.034)
German legal origin	0.390*** (0.094)	0.409*** (0.070)	0.268*** (0.051)	0.178*** (0.049)	0.239*** (0.074)	0.104*** (0.030)
Scandinavian legal origin	0.351*** (0.034)	0.646*** (0.061)	0.321*** (0.052)	0.112*** (0.032)	0.156* (0.089)	0.171*** (0.049)
Observations	94	147	122	106	106	106
Adjusted R-squared	0.607	0.524	0.639	0.524	0.474	0.634

Robust standard errors in parentheses: * significant at 10%; ** significant at 5%; *** significant at 1%. All regression also include (seven) continental indicator variables. Socialist legal origin dropped in Col 1, as data on private credit not available in that category.

Broader implications – Growth and development

Growth by institutional deepening

more legal capacity augments efficiency of markets,
should show up as higher income growth (via TFP)

by complementarity, (expected) government size grows together
with legal capacity and income – recall Figure 1

Interesting perspective on existing empirical work

in macro data: hard find any association taxation – growth,
easy find positive correlation financial development – growth

Broader implications – The ‘genius of taxation’

Small government – low fiscal capacity

incumbent may try to boost group income, by distorting production; inefficient protection of property, tariffs, regulation rather than redistributing by broad taxes and transfers

When does fiscal capacity stay low?

if common interests weak, and political instability high
may be caught in ‘non-investment trap’, maintaining low state capacity and inefficient forms of redistribution

Implication – low fiscal capacity may be bad for income and growth

in Fig 1, positive relation between fiscal capacity and income
earlier: low fiscal capacity (and taxation) *related* to low income
(co-determined by other factors, or low income causes small state)
here: low fiscal capacity may actually *cause* low income

Fiscal and Legal Capacity

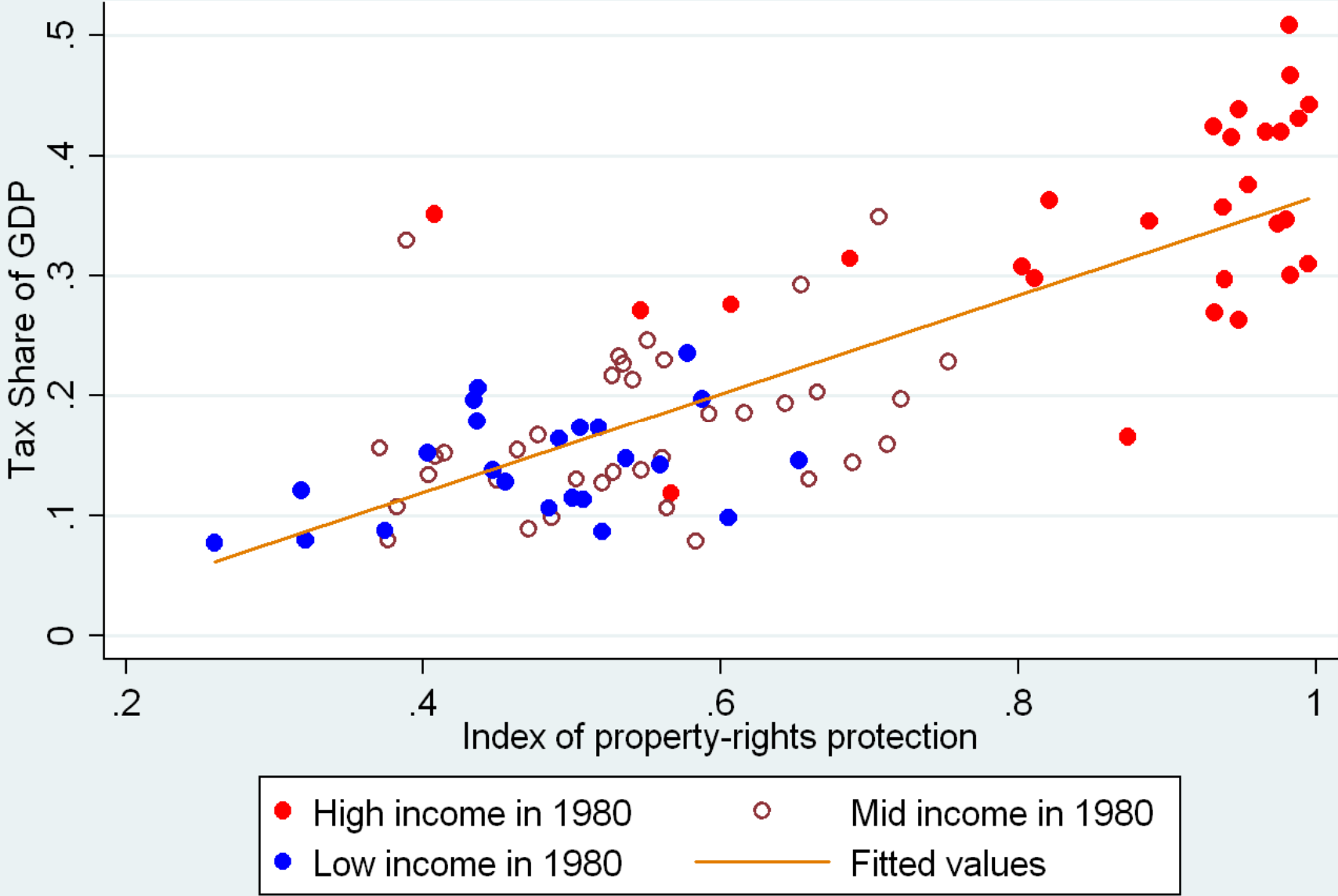


Figure 1 State capacity and income

Traditional development economics

**Economic
structure**

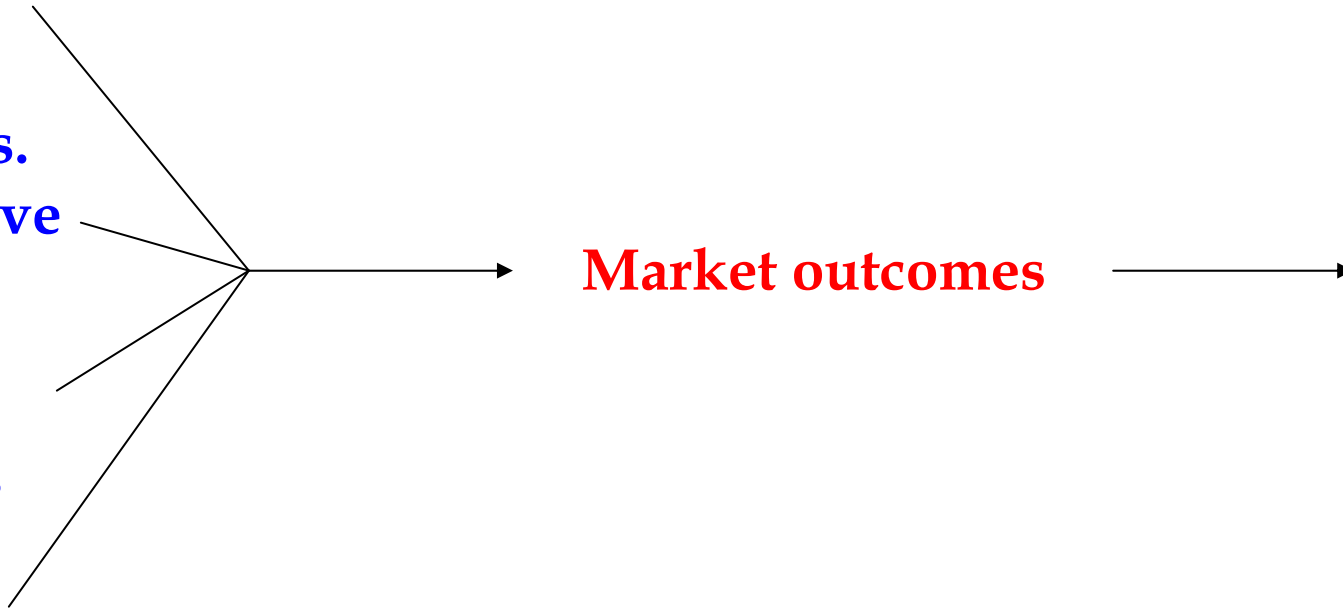
**Common vs.
redistributive
interests**

**Political
institutions**

**Legal
origins**

Market outcomes

**Economic
development**



Summary of argument in part 1

**Economic
structure**

**Common vs.
redistributive
interests**

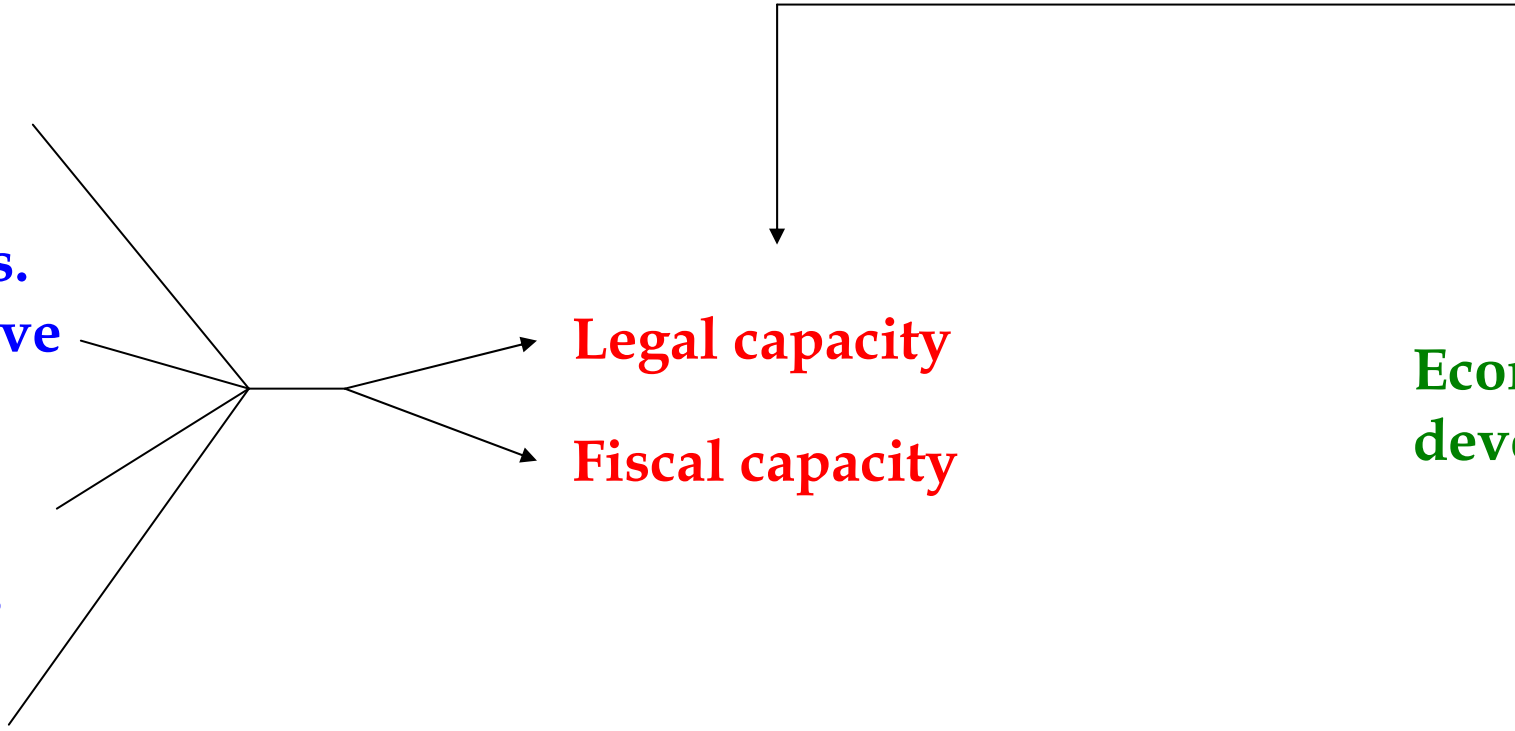
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Legal capacity

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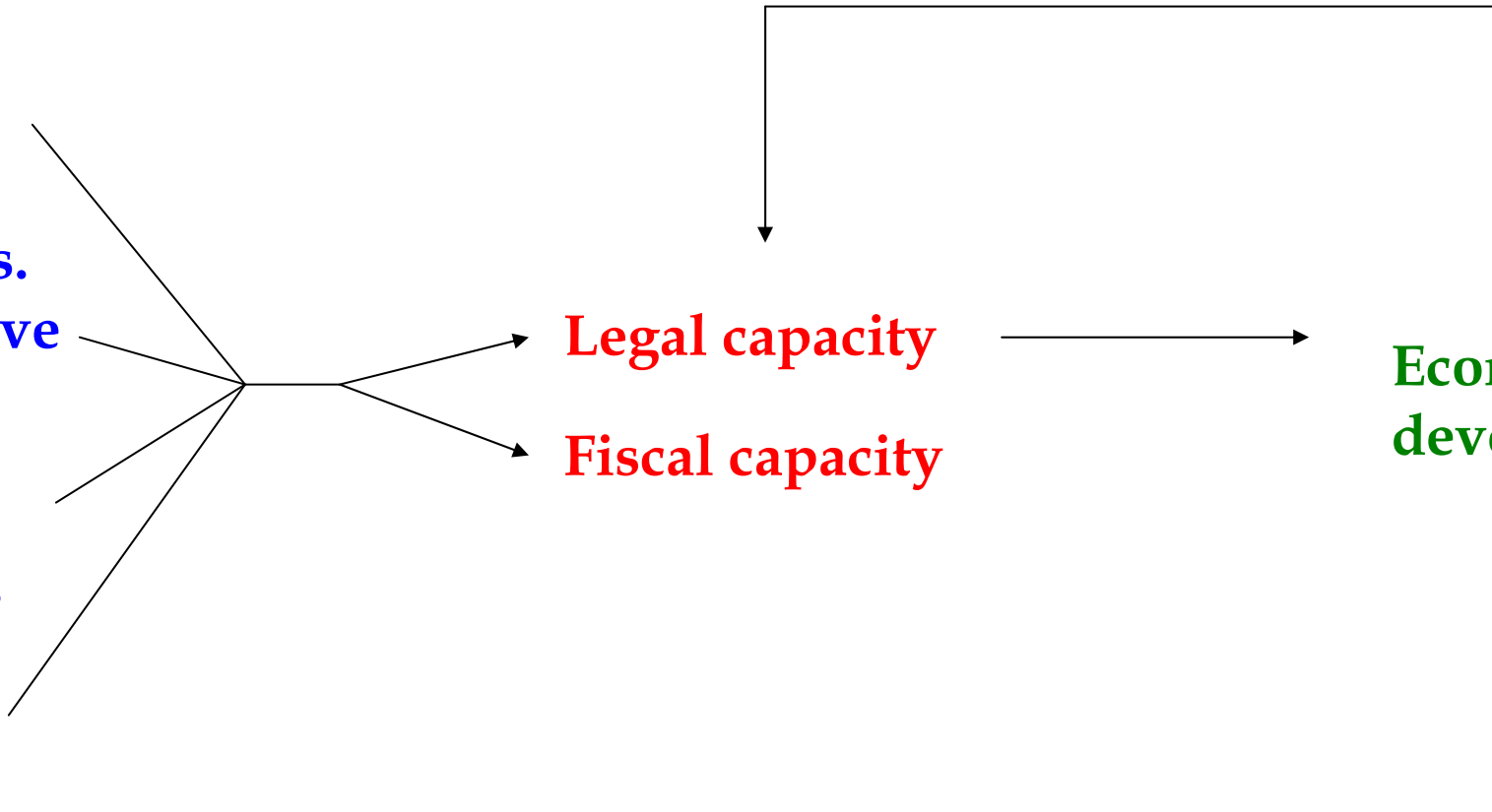
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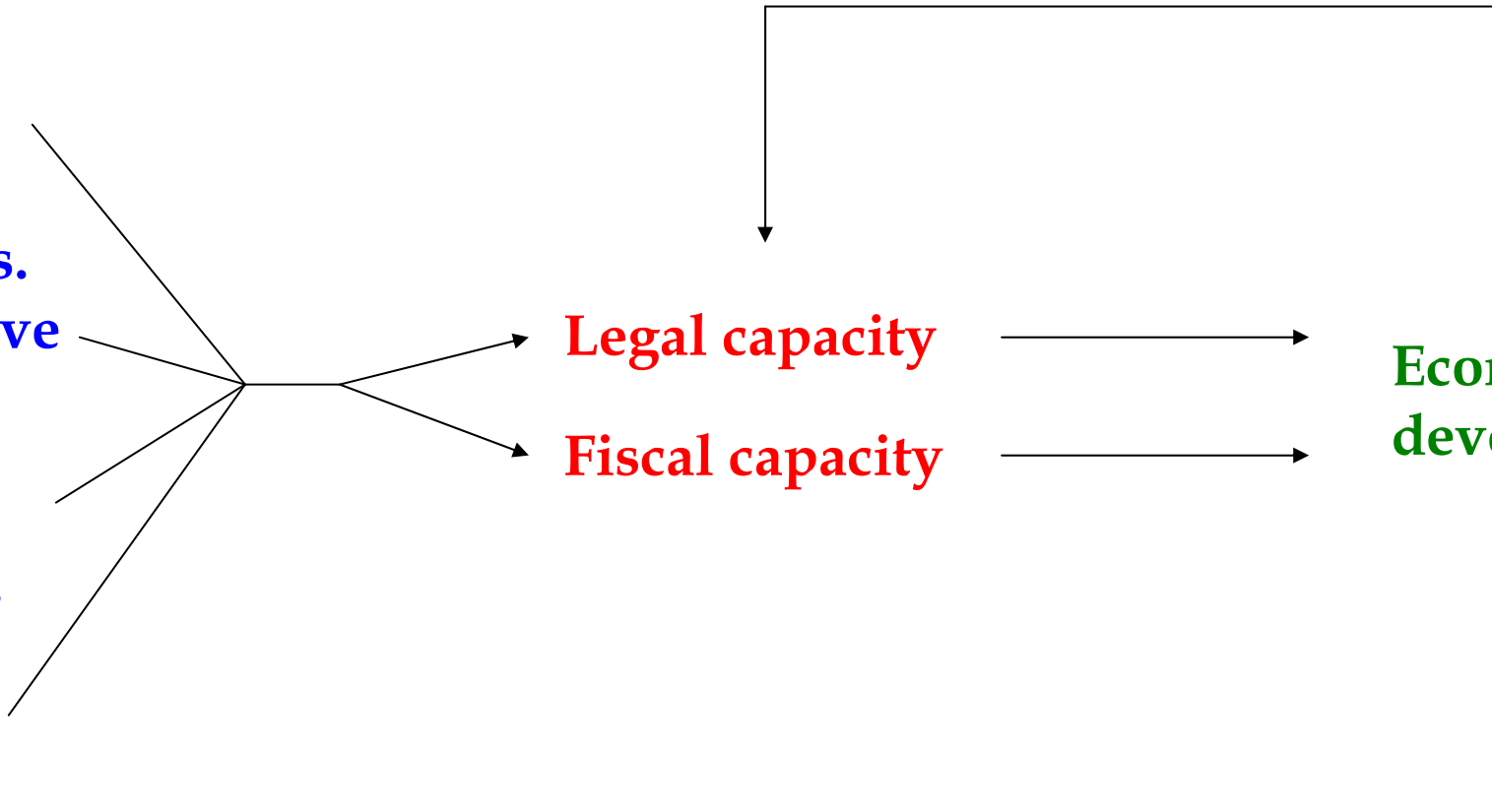
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Overall road map

1. Introduction
2. Origins of state capacity
- 3. Origins of internal conflict**
4. Putting the pieces together

Motivation – Conflict and state building

Risk of *external* violence

by analysis in **2**, such conflict can promote state building
boosts common interest, relative to redistributive (group) interest

How about *internal* political violence – civil war, repression?

not common interests – rather, extreme redistributive struggle
may entail radically different incentives for investing in strong
state institutions

Facts about civil war

Sadly, a widespread phenomenon

civil war has plagued many nations in postwar period
prevalence over all nations and years since 1950 above 10%,
cumulated death toll exceeds 15 million

Two big facts

prevalence varies greatly over years,
peaks above 15% in early 1990s

prevalence varies greatly over countries,
civil war and poverty (low GDP/capita) strongly correlated

see Fig 4

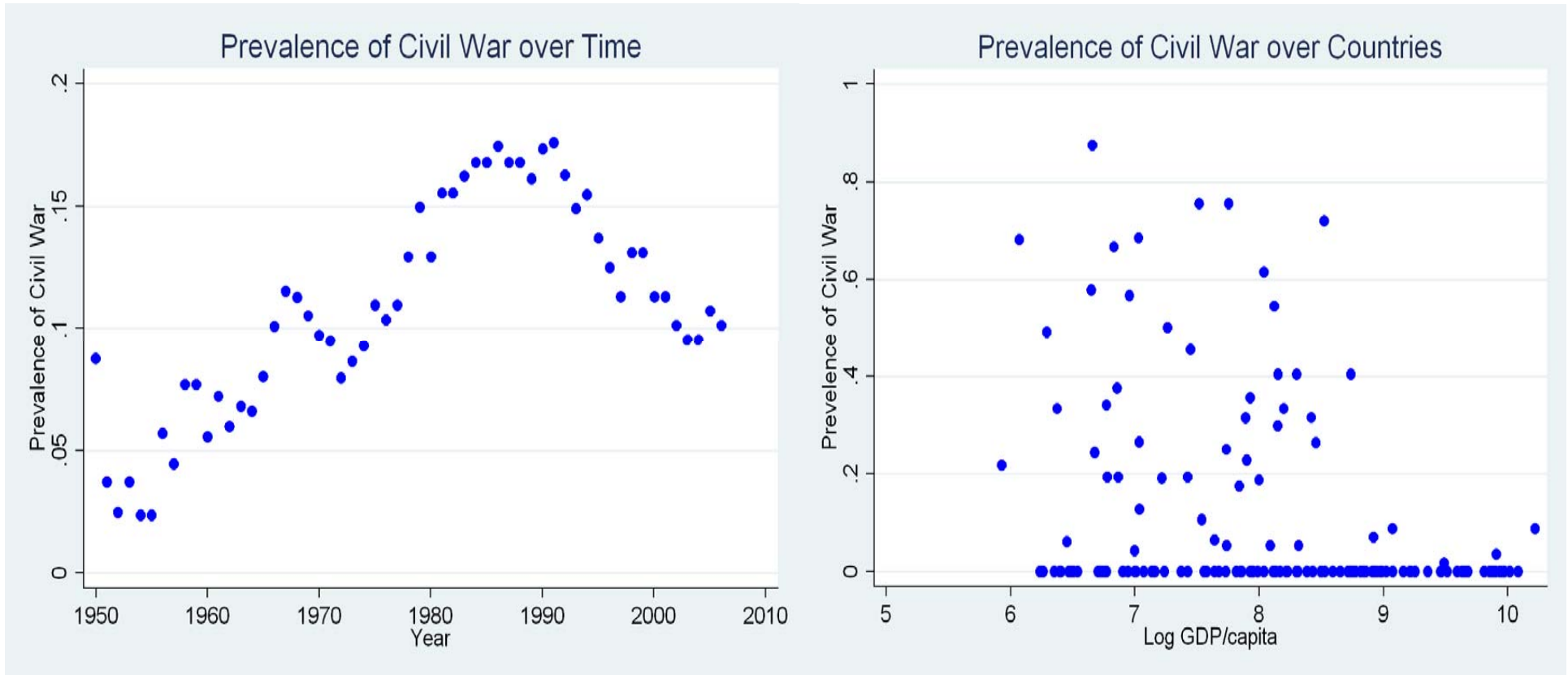


Figure 4 The prevalence of civil war

Facts about government repression

One-sided political violence

many governments use violent means to raise their probability of staying in power without civil war breaking out
such repression shows up in violations of human rights:
executions, political murders, imprisonments, brutality, ...

Prevalence?

by strict measure, purges, about 8% of country-years since 1950
by wider measure, human-rights violations, about 32%, 1976-2006

Relation to civil war and state capacity?

purges have opposite trend to civil wars until early 1990s
peaks among higher-income countries than civil war – see Fig 5
political violence clusters with state capacity – see Fig 6

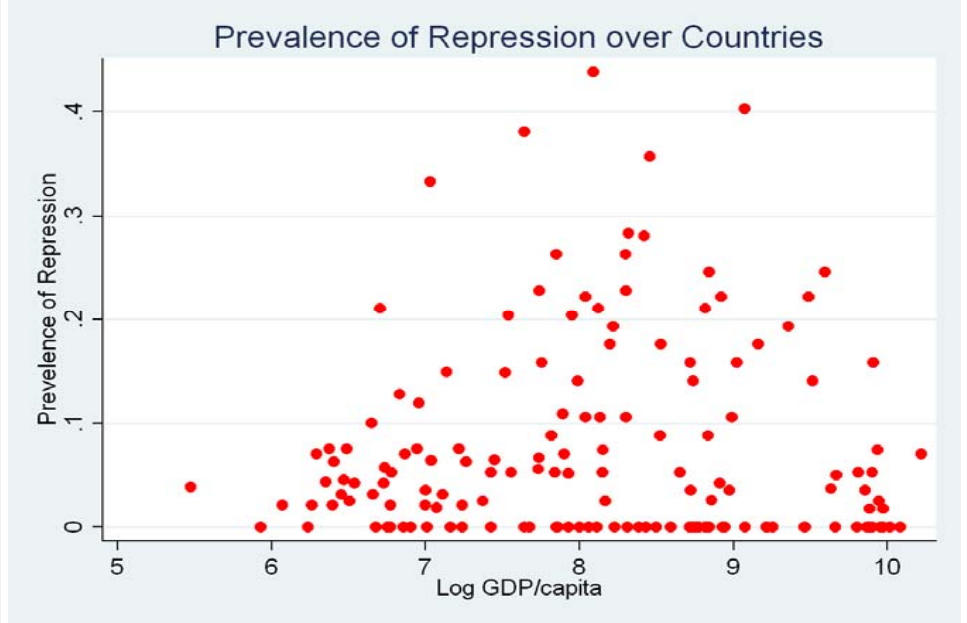
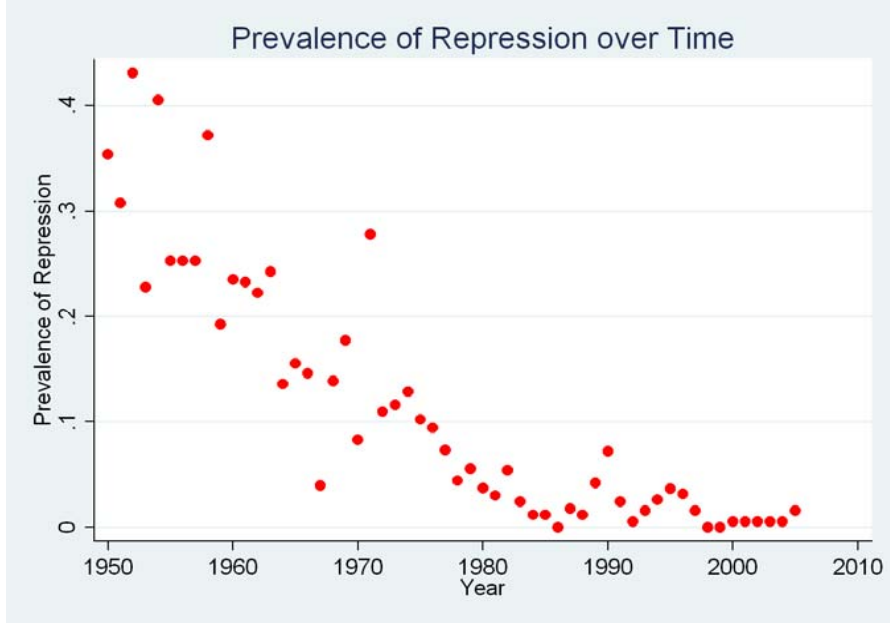
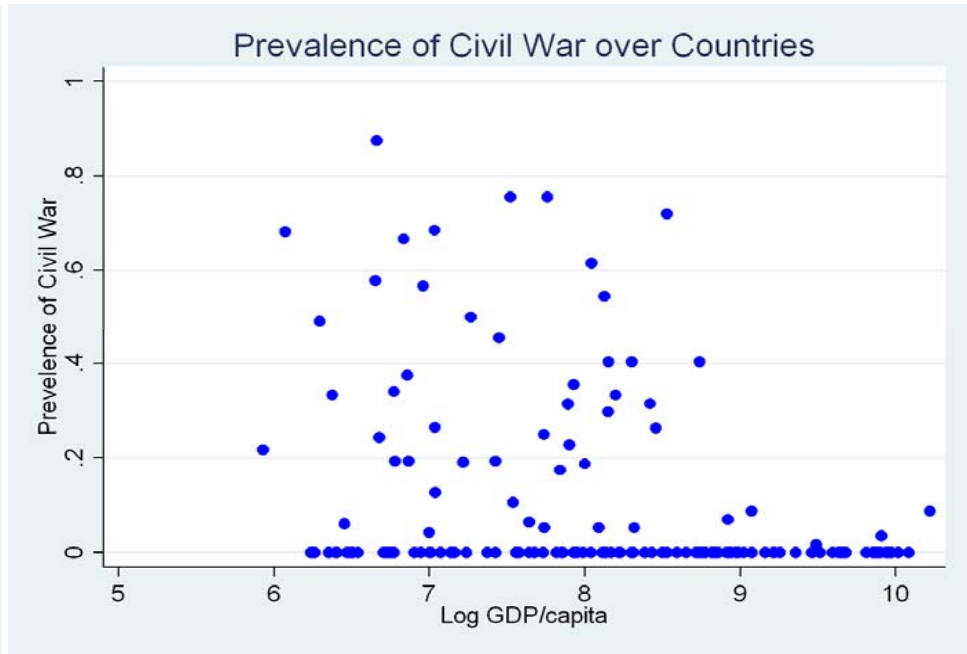
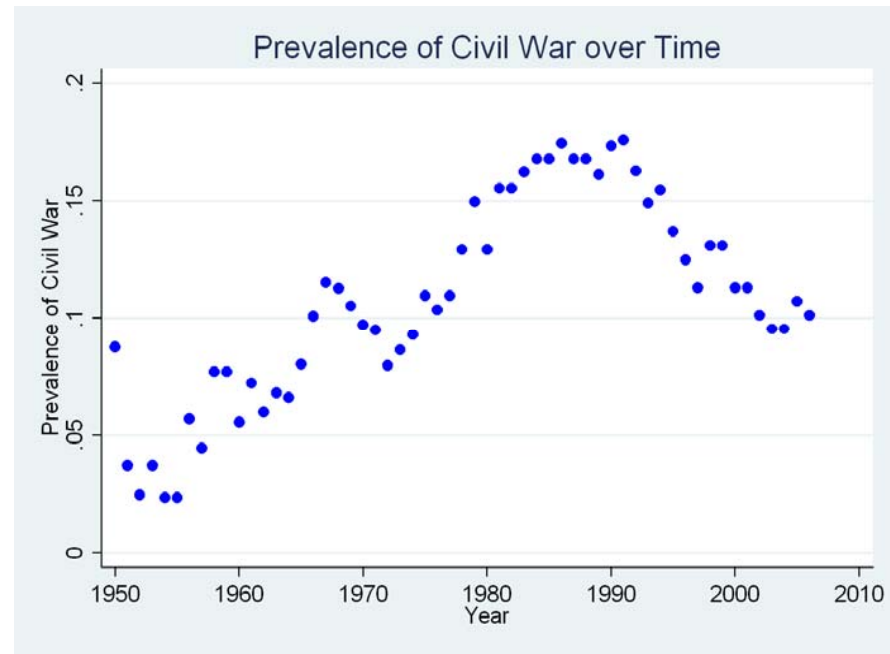


Figure 5 Prevalence of civil war and repression

Fiscal and Legal Capacity



Figure 6 State capacity and political violence

Need for theoretical work

Political violence, development, and state capacity?

two-way relations amongst these outcomes

also, economic and political background factors may cause all three – e.g., two parallel literatures on the ‘resource curse’

Very complex relations in the data – benefits of explicit theory

need guidance for empirical strategy

need take into account institutions and development

may enrich our understanding of civil war and its relation to repression – one-sided vs. two-sided political violence

Analytical approach

first study model of political violence, then embed in earlier framework with investments in state capacity

Simple theory of conflict – Main building blocks

Investments in violence by incumbent and opposition groups

opposition can mount insurgency to try and take over power,
financed within the group

incumbent can also arm, to raise its probability to stay in power,
financed out of public purse

no conscription: soldiers hired at market wages

Both groups face a trade-off when investing in violence

weigh costs against a higher probability of holding power,
controlling policy and seizing any redistributive cake

Which are the main drivers of conflict?

when should we observe violence, and of what type?

which economic, political and institutional determinants
promote one-sided and two-sided violence?

Three alternative regimes

1. Peace – no group invests in violence

real wages high, resource rents or aid low, public goods valuable, or political institutions inclusive

too expensive to fight, not enough to fight over, or winner does not get much of an extra share

2. Repression – incumbent, but not opposition, takes to violence

real wages lower, resource rents higher, public goods less valuable, or lower protection of minority interests

incumbent has lower violence threshold than opposition (because of cost advantage)

3. Civil war – both groups take to violence

even more at stake so both parties choose to fight

Prediction – Peace in common-interest states

Common-interest states are always peaceful

when most available revenue devoted to public goods,
or available revenue split equally because of inclusive institutions,
taking to violence is not worth the cost

in the data, very few country-years (about 0.3%) have
simultaneous external and internal conflict

General prediction – Repression and civil war close cousins

These regimes should have similar determinants

moreover, under specific conditions, peace, repression, and civil war become *ordered* states – e.g., countries and years in repression should have lower incomes than those in peace, but higher incomes than those in civil war

Cross-tabulation with determinants suggested by the theory

data suggest such an ordering for income per capita, parliamentary democracy, ethnic tensions,... – see Table 2

Table 2 Covariates by conflict type

	Peace	Repression	Civil war
GDP per capita (USD)	4711	2902	1880
Parliamentary democracy (0,1)	0.34	0.16	0.09
High constraints on executive (0,1)	0.33	0.13	0.12
Ethnic fractionalization (0-1)	0.40	0.42	0.53
Tax share of GDP	0.21	0.16	0.12
Index protection of property rights (0,1)	0.63	0.55	0.42

Specific predictions – Violence, government income, wages

In any given country, higher resource rents or aid, and lower real wages, raise likelihood of observing civil war or repression – unless political institutions are inclusive (protect minorities) enough

test in panel data, by exploiting shocks to three different and, arguably, exogenous proxies for these determinants

natural disasters – neg. shocks to wages – raise probability of repression and civil war, but only when political checks and balances weak/outside of parliamentary democracies

security-council memberships in cold war – pos. shocks to aid – raise probability of repression, but again only in presence of weak political institutions

higher country-specific export price indexes of commodities – pos. shocks to resource rents – raise probability of repression and civil war under weak political institutions

Summary of argument in part 2, so far

**Economic
structure**

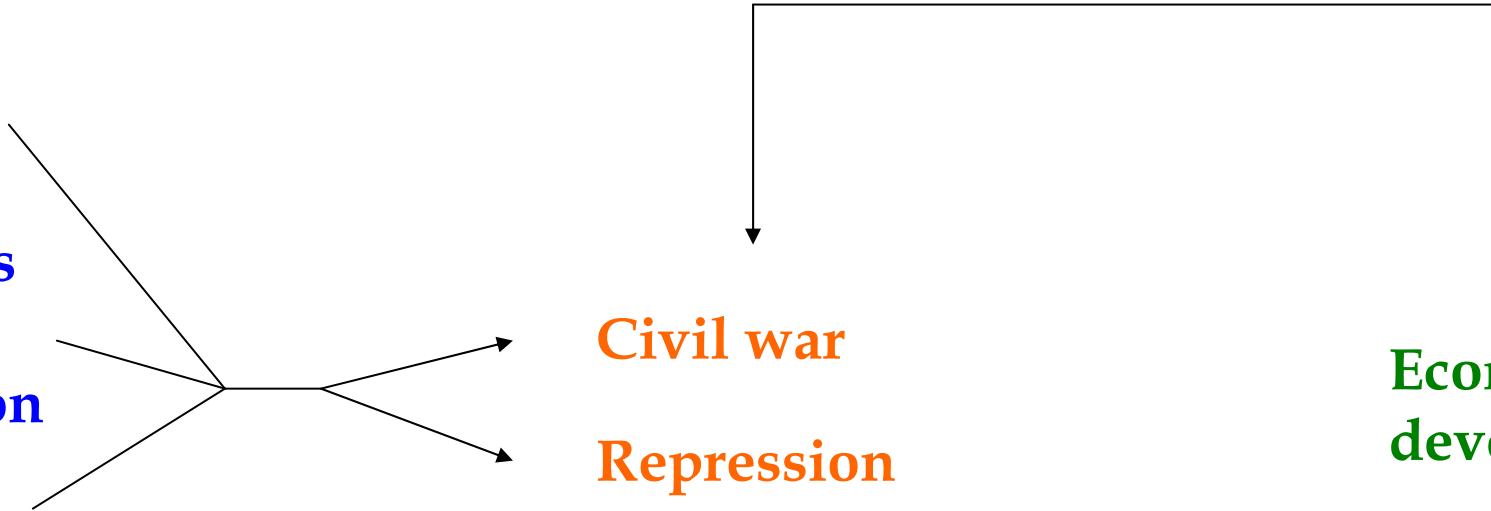
**Public goods
versus
redistribution**

**Political
institutions**

Civil war

Repression

**Economic
development**



Revisit investment in state capacity

Embed conflict model in earlier public-finance framework

shocks to factors that endogenously raise the probability of future civil war, also have a negative effect on investments in legal and fiscal capacity

one mechanism works via expected political instability,
another via the expected cost of future conflict

Predicted correlations

Expected patterns in the data

we should observe a negative correlation between prevalence of repression or civil war and fiscal and legal capacity

but this reflects a set of underlying determinants, which drive up the risk of conflict and down the incentives to invest

partial correlations in the data are consistent with this prediction, i.e., they have the opposite sign to the correlations with external conflict – see Fig 7

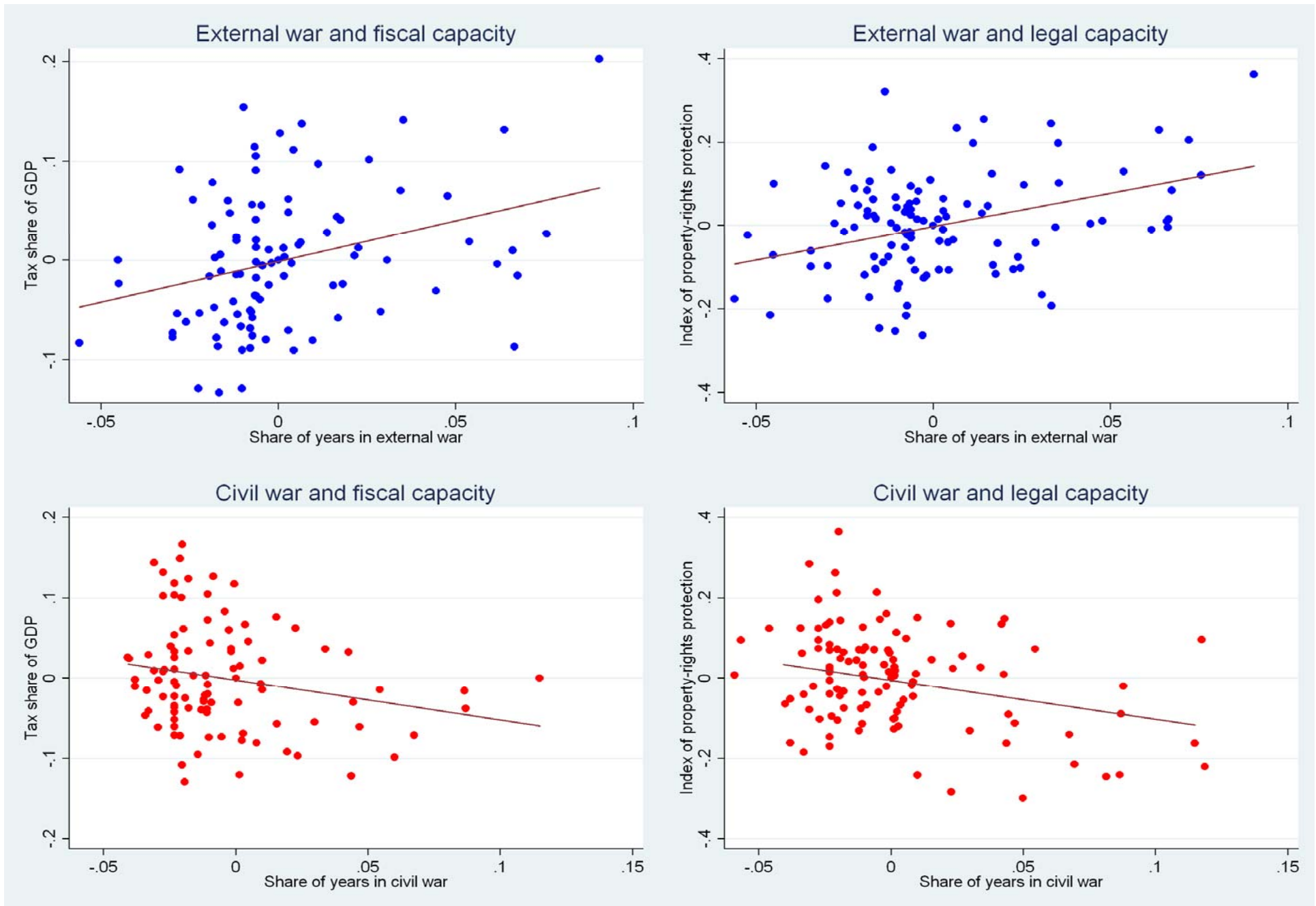


Figure 7 Different types of war and state capacity

Summary of argument in part 2

**Economic
structure**

**Public goods
versus
redistribution**

**Political
institutions**

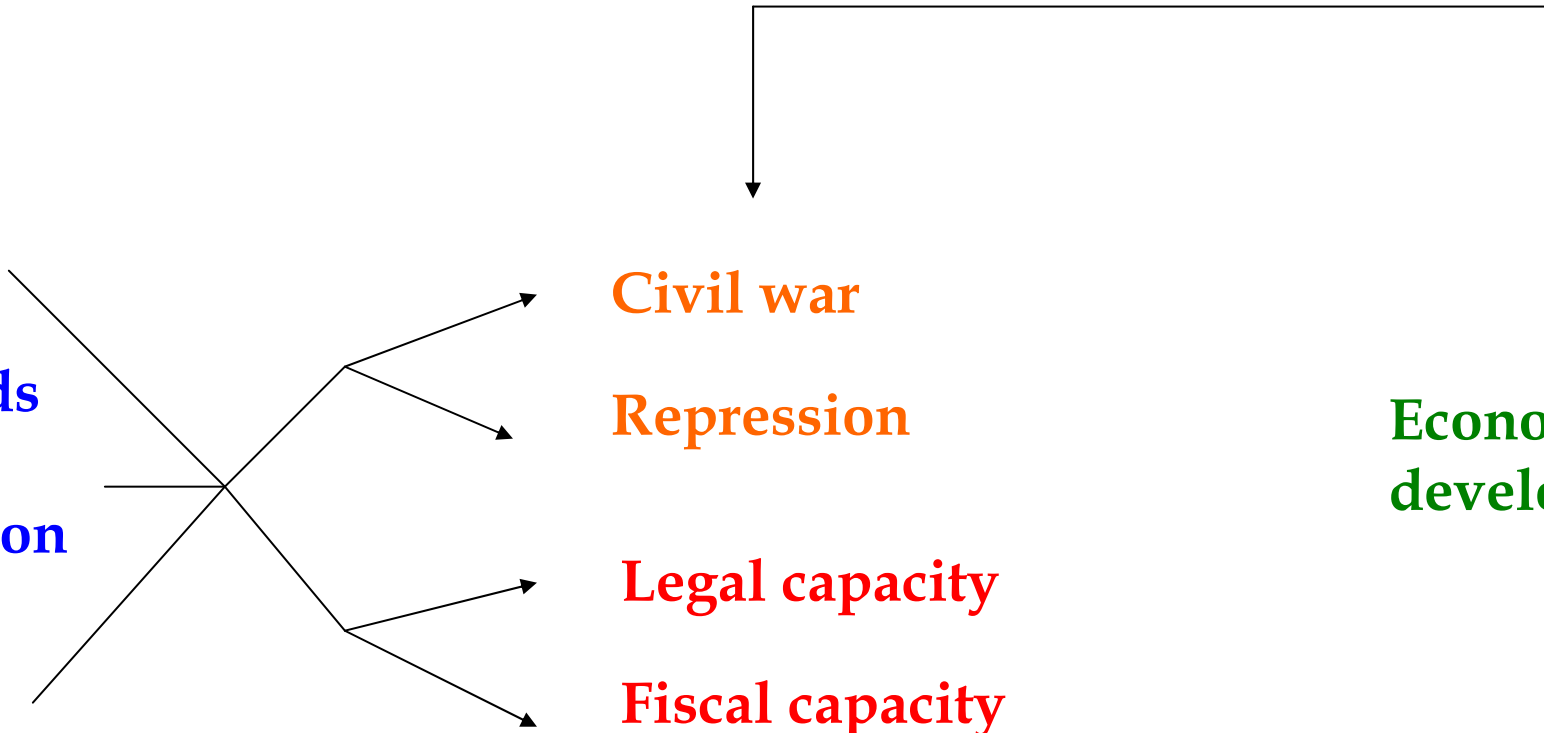
Civil war

Repression

Legal capacity

Fiscal capacity

**Economic
development**



Overall road map

1. Introduction
2. Origins of state capacity
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- 4. Putting the pieces together**

Putting together parts 1 and 2

Economic structure

Public goods versus redistribution

Political institutions

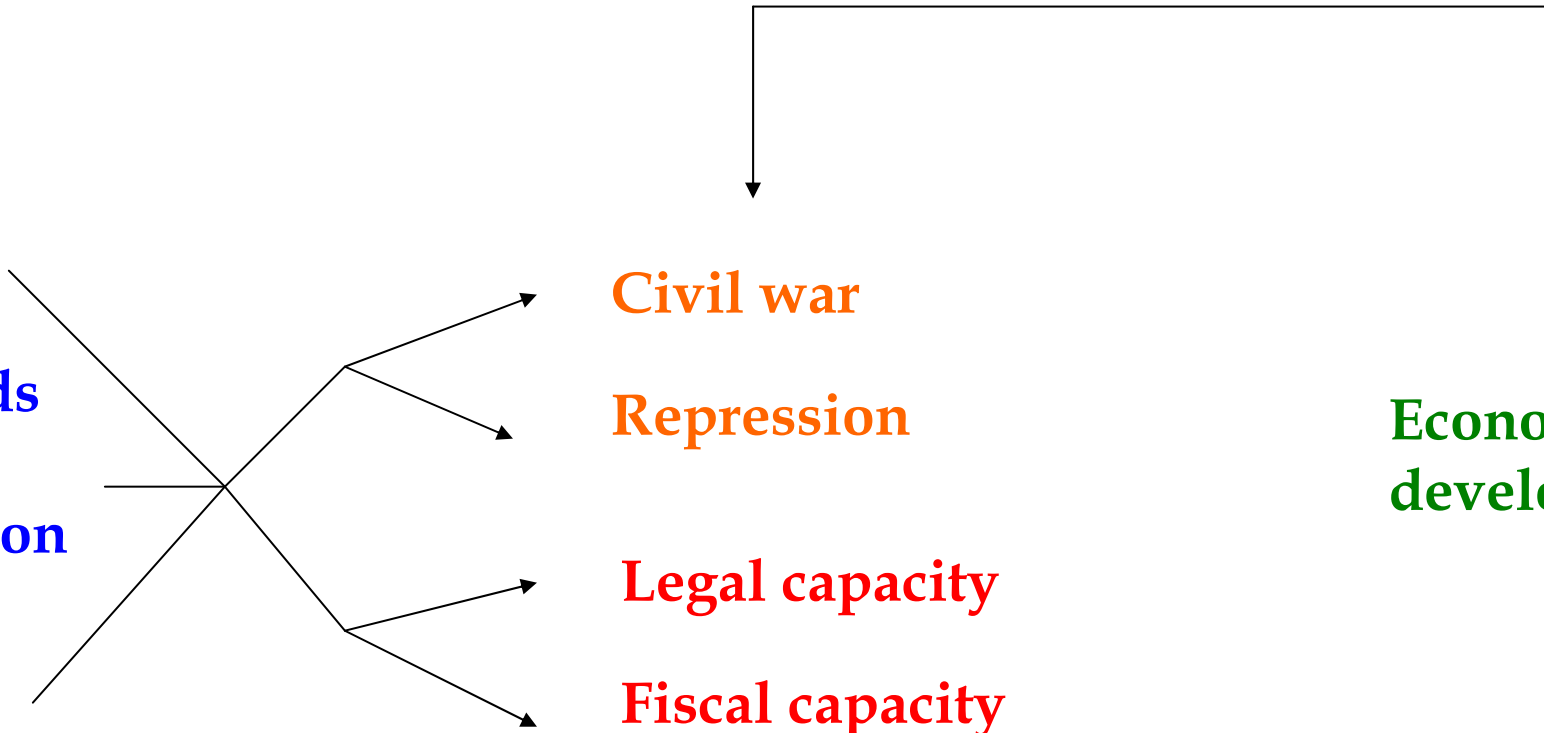
Civil war

Repression

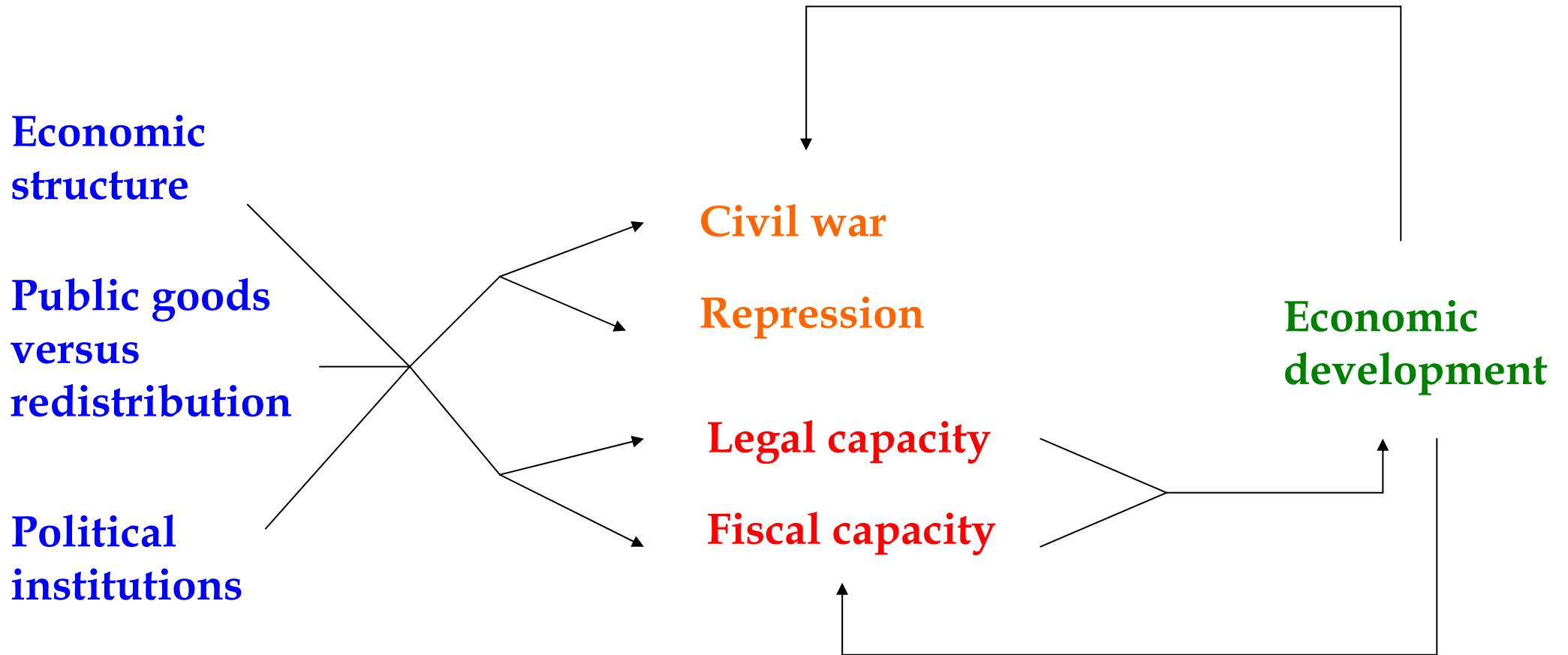
Legal capacity

Fiscal capacity

Economic development



Putting together parts 1 and 2



Application 1 – Problems in Africa?

Several factors contribute to weak states

dependence on resource rents and aid, low threat of external conflict, and weak (non-inclusive) political institutions

Same factors raise risk of internal conflict

societies become plagued by political violence, which further weakens motives to build fiscal and legal capacities of the state
invest in violence rather than in a strong state

Weak states hamper development

cannot support markets due to low legal capacity
may pursue inefficient policies due to low fiscal capacity

Feedbacks from low income

foster conflict and weak incentives to build the state

Application 2 – Lessons for development assistance?

Depends crucially on type of aid

can think of at least four types in this framework

(i) Budget support

already seen that this is mostly like resource rents

weaken motives for state building and raise the risk of repression or civil war, unless common interests strong enough

(ii) Infrastructure or project assistance

mostly like legal capacity (raise private incomes)

strengthen motive to build the state, lessen risk of conflict

Lessons for development assistance (continued)?

(iii) Military aid (to government)

mostly like incumbent advantage in financing army
raises the risk of violence and expands the range of outcomes
with government repression

(iv) Post-conflict settlement

mostly like inclusive institutions (minority protection)
cuts risk of conflict, indirectly raising motives for state building,
but only if credible (expected by everybody) *ex ante*

Research ahead?

Integrate other aspects of state capacity

ability to provide basic services (health, education)

further complementarities – clustering of institutions?

Endogenize political institutions

does better accountability and representation arise as

quid pro quo for significant expansion of taxation?

complementarity fiscal capacity – political institutions?

Just a few first steps

very simple theoretical frameworks

but helps approach the data in new ways

promising stepping stone for sorting out the complex interactions

between state capacity, conflict and development