



**University of  
Zurich** <sup>UZH</sup>

**Department of Political Science**

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# **Final presentation**

## **Capstone Course**

### **“Politische Stabilität und politische Risiken”**

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## Project overview

Why does political instability matter?



**In order to minimize business risk, political instability needs to be predicted**



## Project overview

### Project origin & goals



**Capstone: Politische Stabilität und politische Risiken – Demokratieforschung in der Praxis**

Duration: September 2018 – June 2019

Guidance: Dr. Simon Borschier

Principal: Swiss Re

### Assignment:

Developing a quantitative prediction model for political instability in **non-OECD** countries

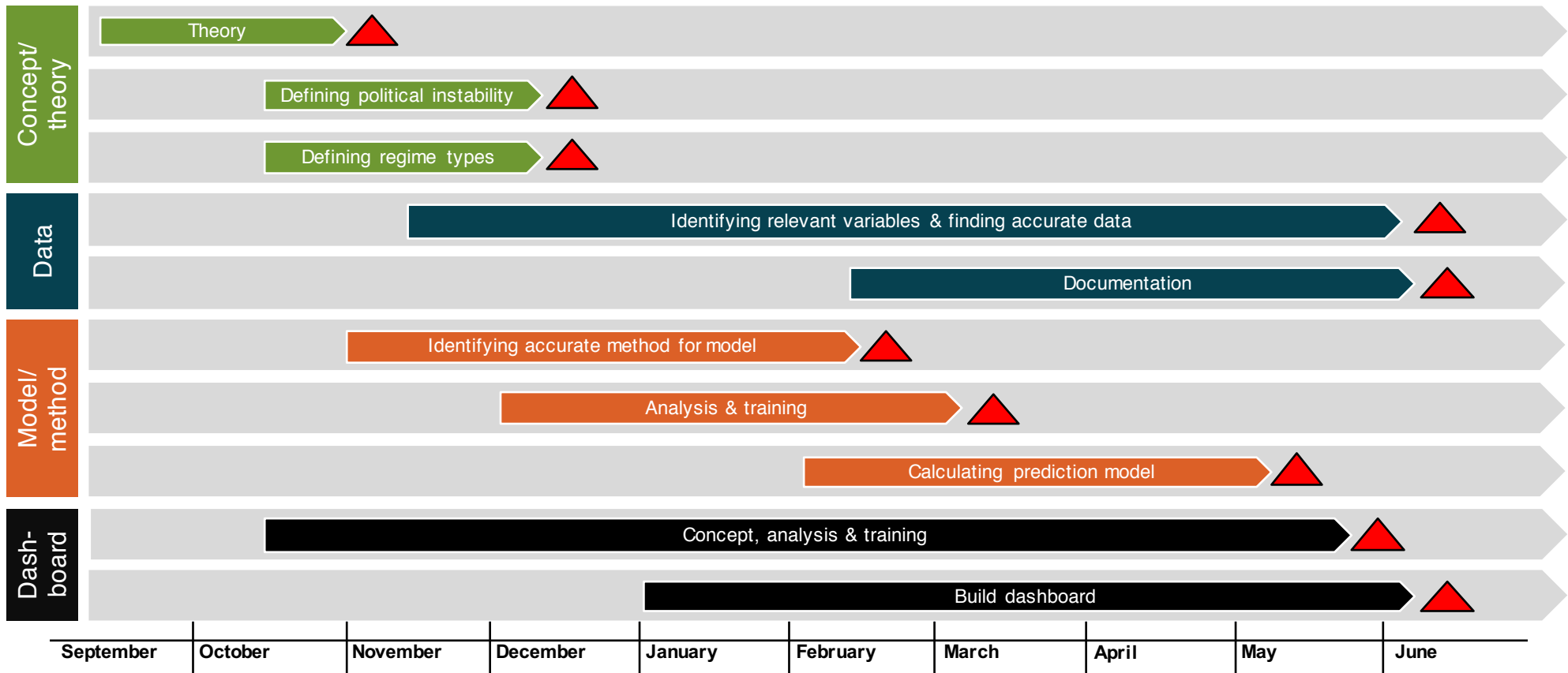


## Process

Conception	Implementation
<ul style="list-style-type: none"><li>• What is political instability and how do we measure it?</li><li>• What constitutes a regime? Which typology do we use?</li><li>• Does regime type matter?</li><li>• Which method will be applied to predict political instability?</li><li>• Which explanatory factors are we going to use?</li></ul>	<ul style="list-style-type: none"><li>• Where do we get the data from?</li><li>• How do we present our results?</li></ul>



# Roadmap





# Project overview Final product output

## Assignment scope

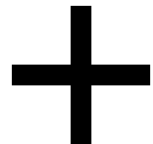
### Model & Documentation

*Predicting political instability & documenting R-Code and variables*

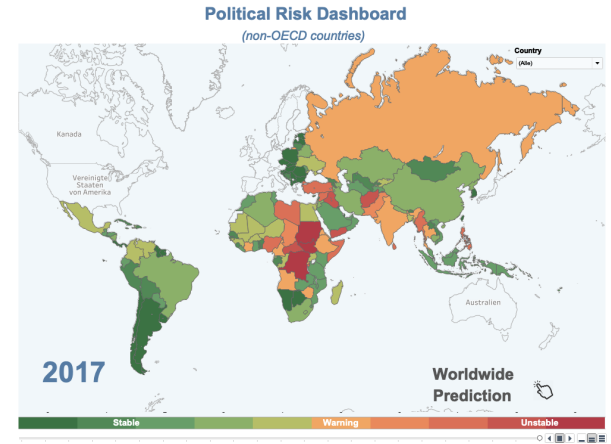
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```



### Dashboard Visualization





## Theory & data

### Our measure of political instability

Starting point	Our Political Instability Index	Our dependent variable: Fail
<ul style="list-style-type: none"><li>Multidimensional definition of political instability</li><li>149 non-OECD countries (as of 1989)</li><li>Continuous time-series data</li></ul>	<ol style="list-style-type: none"><li>War</li><li>State repression</li><li>Regime/Governance Stability</li></ol> <p>Score: 0 (stable) to 9 (unstable)</p>	<p>Dichotomous variable</p> <ul style="list-style-type: none"><li>Index decreases/steady = 0</li><li>Index increases = 1</li></ul>





## Theory & data

### Does regime type matter for political instability? **Yes!**

Closed autocracy

Electoral autocracy

Electoral democracy

Liberal democracy

*No multiparty elections*

*De-jure multiparty elections*

**BUT** *not free & fair or minimum freedom of media, association and expression*

*Free & fair elections and a minimum of freedom of media, association and expression*

**BUT** *minimum access to justice & intransparent law enforcement as well as no respect for separation of power*

*Free & fair elections*

**AND** *access to justice & transparent law enforcement as well as respect for separation of power*

Stable

Hybrid Cases

Stable



## Theory & data



### Sample of 70+ tested factors

- |                           |                                |
|---------------------------|--------------------------------|
| Inflation                 | Civil liberties                |
| Judicial reform           | Attacks on judiciary           |
| Factionalism              | Rule of law                    |
| Clientelism               | Accountability                 |
| Economic growth           | Executive oversight            |
| Public campaign finance   | Party ban                      |
| Foreign direct investment | Media critique                 |
| Suffrage                  | Clean elections                |
| Corruption                | Legislature controls resources |

### Explanatory factors

- Freedom of movement
- Federalism
- International autonomy
- Removal of judges
- National dominance of single party
- Authority over state territory
- Life expectancy
- Political civil liberties
- Regional restriction of civil liberties



## Methods & results

### Comparing, testing, predicting

**First:** Identifying countries that become more **unstable** and comparing them with cases in the same region that remain **stable**

**Then:** Using a two-year-lag we test all possible explanatory factors with a conditional logistic regression

**Finally:** Statistically significant explanatory factors are put into the prediction model

**2011**

**2009**



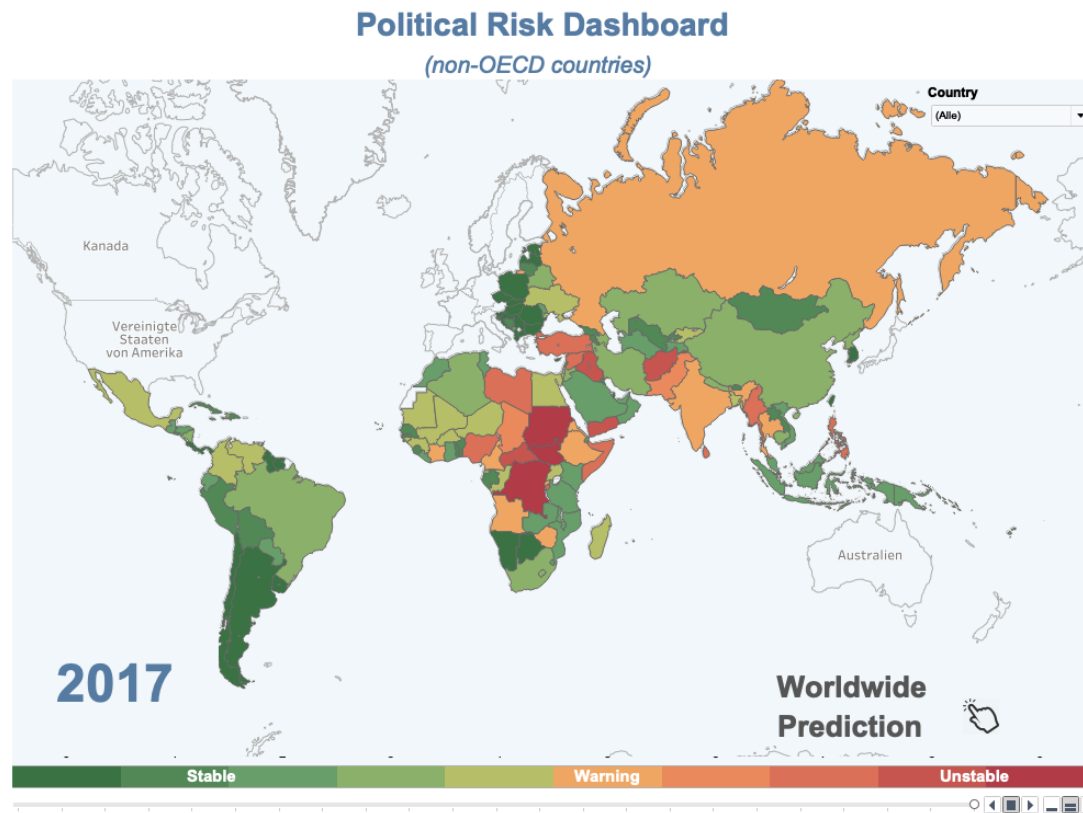


## Methods & results

2-year-model	5-year-model
<p>9 explanatory factors:</p> <ul style="list-style-type: none"><li>• Regime type</li><li>• Federalism</li><li>• Removal of judges</li><li>• National dominance of single party</li><li>• International autonomy</li><li>• State authority over territory</li><li>• Political civil liberties</li><li>• Regional restriction of civil liberties</li><li>• Life expectancy</li></ul> <p>Accuracy: 71%</p>	<p>4 explanatory factors:</p> <ul style="list-style-type: none"><li>• Regime type</li><li>• Freedom of movement</li><li>• National dominance of single party</li><li>• State authority over territory</li></ul> <p>Accuracy: 61%</p>



# Dashboard



Click for Tableau  
Global & Country Dashboard



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# Appendix



Layout work in progress

## Regression table conditional logistic regression – 2 year lag

Dependent variable:	
Political Instability	
Closed Autocracy	0.994** (0.423)
Electoral Autocracy	1.272*** (0.386)
Electoral Democracy	1.133*** (0.361)
Federalism	0.209*** (0.075)
National Dominance of Single Party	0.167** (0.066)
Removal of Judges	0.306*** (0.097)
International Autonomy	0.345** (0.165)
State Authority over Territory	0.653*** (0.239)
Delta Regional Restriction of Civil Liberties	1.784** (0.799)
Delta Political Civil Liberties	0.653 (0.429)
Delta Life Expectancy	5.962** (2.621)



## Tested factors of political instability (1/2)

<b>Refugee population</b> by country or territory of asylum
<b>Population density</b> (people per km <sup>2</sup> of land area)
<b>Foreign direct investment</b> (Balance of Payment in \$)
<b>Inflation</b> (consumer prices in %)
<b>Real GDP growth</b> (annual rate in %)
<b>Polarization of society</b>
Average people's <b>use of social media to organize offline action</b>
<b>Use of social media to organize offline violence</b>
<b>Privacy protection by law content</b>
<b>Privacy protection by law exists</b>
Government <b>social media censorship</b> in practice
Government <b>Internet shut down capacity</b>
Government <b>Internet filtering</b> in practice
<b>Gender equality</b> in respect for civil liberties
<b>Power distributed</b> by urban-rural location
<b>Person of the Leader</b>
<b>Direct election</b> dimension index
<b>Military</b> dimension index
<b>Hereditary</b> dimension index
<b>Exclusion by Political Group</b> index
<b>Exclusion by Socio-Economic Group</b>
<b>Exclusion by Social Group</b> index

<b>Infant mortality</b> rate
<b>Accountability</b> index
<b>Party institutionalization</b> index
<b>Division of power</b> index
<b>Political corruption</b> index
<b>Physical violence</b> index
<b>Clientelism</b> index
<b>Judicial corruption</b> decision
<b>Judicial purges</b>
<b>Public sector corrupt exchanges</b>
<b>Opposition parties autonomy</b>
<b>Legislature's control of resources</b>
<b>Executive oversight</b>
Percentage of population with <b>suffrage</b>
<b>Subnational elections</b> free and fair
<b>Public campaign finance</b>
<b>Civil society organizations</b> participatory environment
<b>Public sector corrupt exchanges</b>
<b>Executive bribery and corrupt exchanges</b>
Government <b>attacks on judiciary</b>
<b>Rule of law</b> index
<b>Private liberties</b> index





## Tested factors of political instability (2/2)

Political civil liberties index
Power distributed by social group
Power distributed by socioeconomic position
Print/broadcast media perspectives
Print/broadcast media critical
Media corruption
Media bias
International autonomy
Domestic autonomy
State authority over territory
Social group equality in respect for civil liberties
Social class equality in respect for civil liberty
Freedom of foreign movement
Freedom from political killings
Freedom of religion
Freedom of academic and cultural expression
Judicial reform
National party control
Party linkages
Party ban
Clean elections index
Subnational civil liberties unevenness



**66 factors are not significant  
for political instability**