# The Role of Economic Institutions in supporting Growth and Development

**Klaus Schmidt-Hebbel**

kschmidthebbel@gmail.com

**WEAI 15th International Conference**

**Keio University, Tokyo, Japan**

**21-24 March 2019**

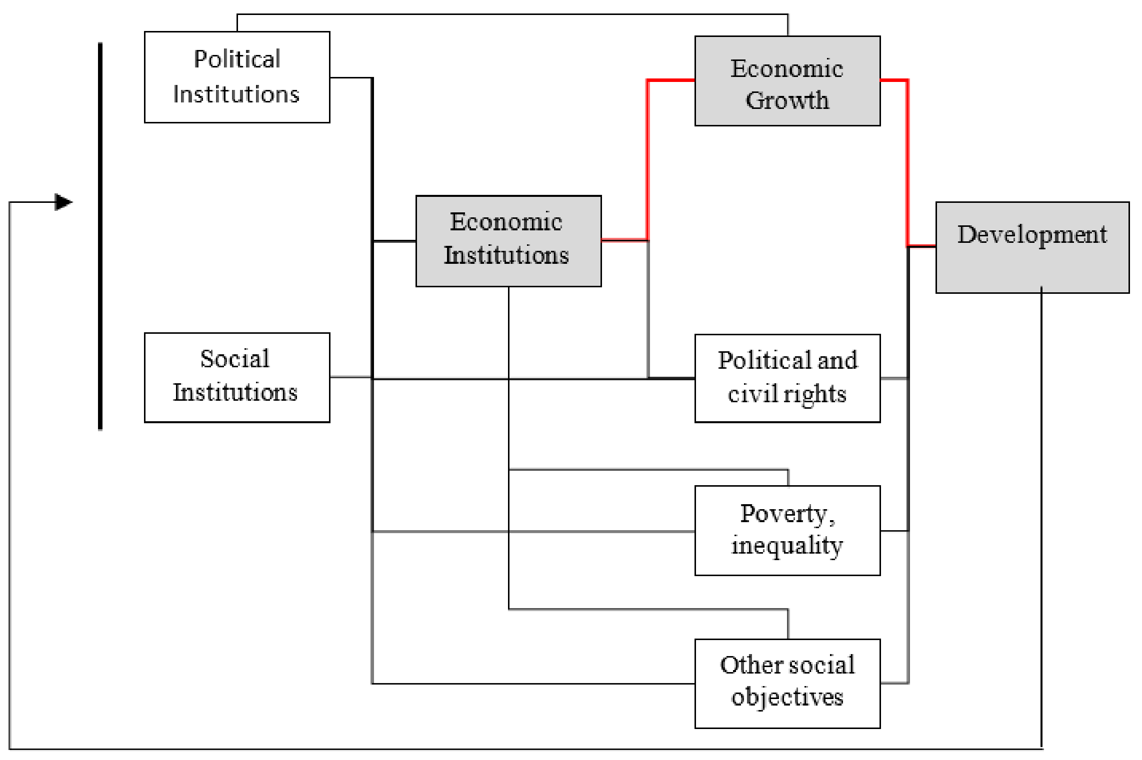
# Outline

1. **Motivation**
2. **Direct and indirect effects of economic institutions: <u>theory</u>**
3. **Direct and indirect effects of economic institutions: <u>empirical evidence</u>**
4. **What determines adoption of institutions?**
5. **On successful design, implementation, and upgrading of good institutions**
6. **Conclusions**

# 1. Motivation

# Motivation (1)

- (1) Good institutions are central in sustaining high growth (in a narrow sense) and achieving development (in a broad sense, including attainment of economic, social, and political objectives).



# Motivation (2)

- (2) Identifying which institutions are the key drivers of growth and development (G+D) is fraught by analytical and empirical questions.

  1. what are institutions, and how are they different from other human manifestations that determine civilizations and cultures?

  2. Is it possible to distinguish between institutions that are truly exogenous to and are necessary conditions for attaining growth and overall development, and those institutions that are a consequence of G+D?

  3. Among a broad set of institutional candidates, which are the key institutions that affect G+D?

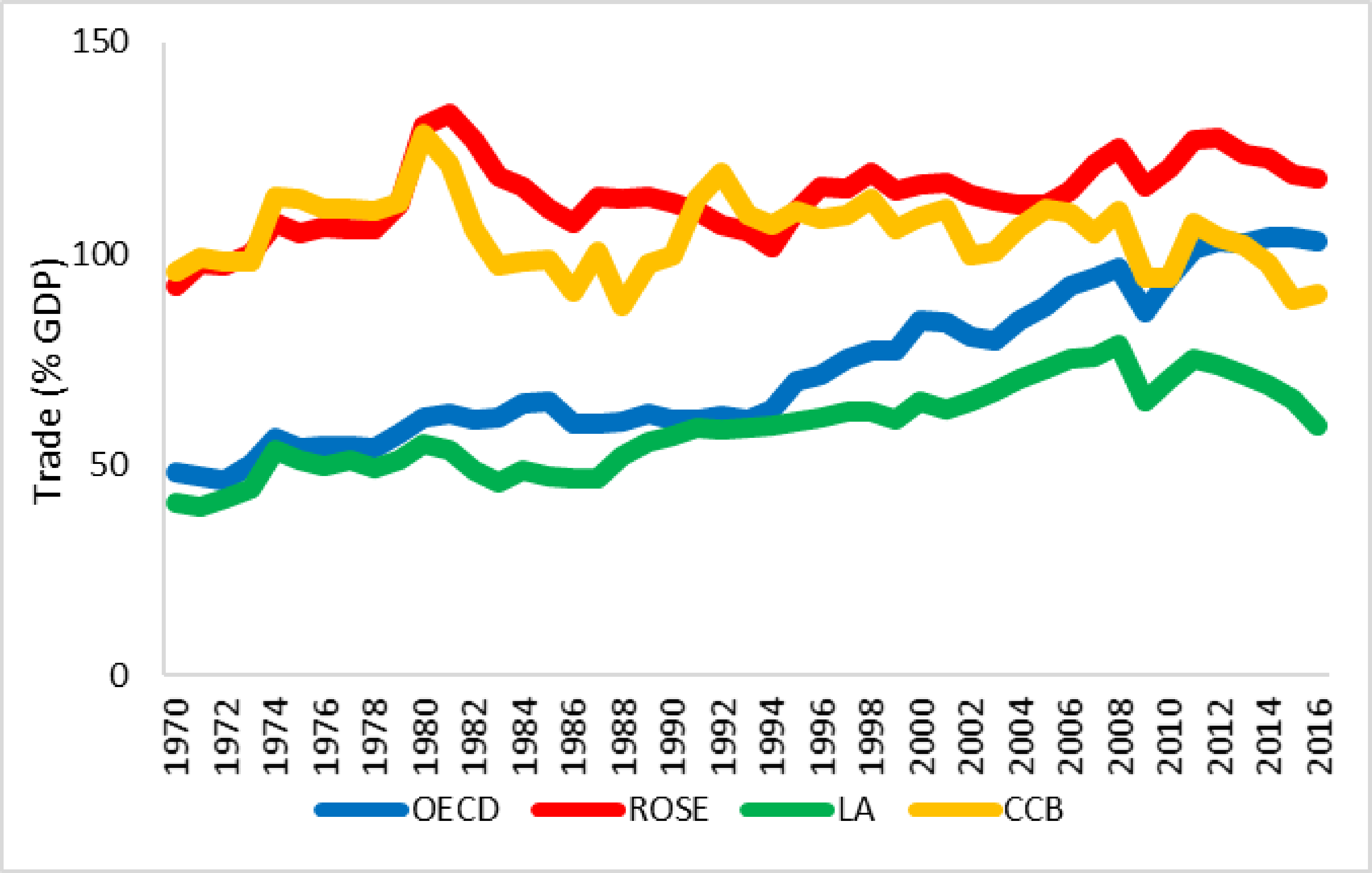
# Objetive

- This paper’s objective is to survey the analytical literature and empirical evidence available to date on the direct and indirect effects of key economic institutions and reforms on G+D.

- The paper focuses on national institutions related to three key economic management areas:
  1. international integration
  2. macroeconomic policies (fiscal policy, exchange-rate and monetary policies)
  3. financial-sector policies

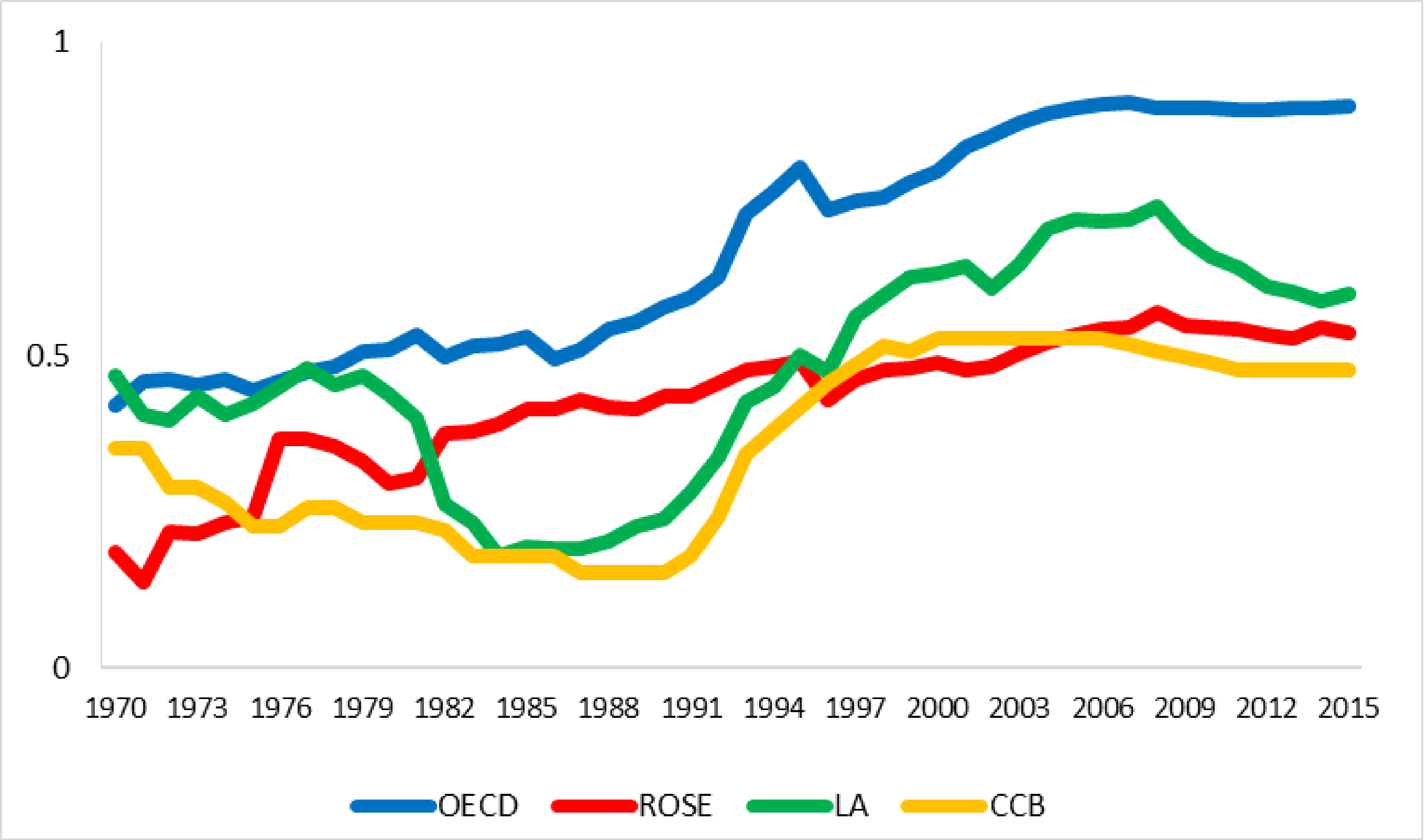
# Figure 1 Trade openness, 1970-2016

**(Sum of exports and imports as a share of GDP, percent)**

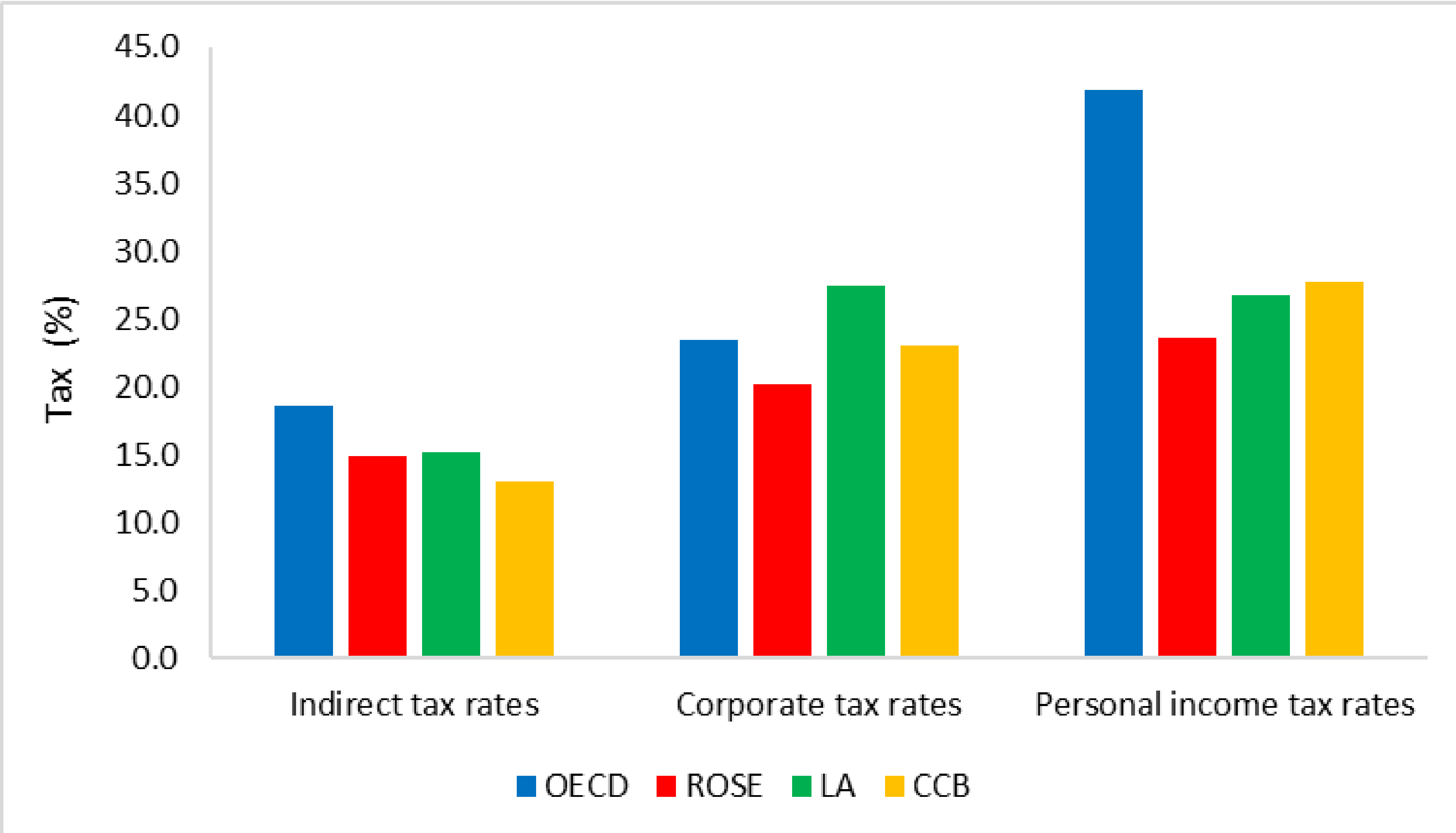


# Figure 2 Capital-account openness, 1970-2015

**(Chinn-Ito index normalized between 0 and 1)**

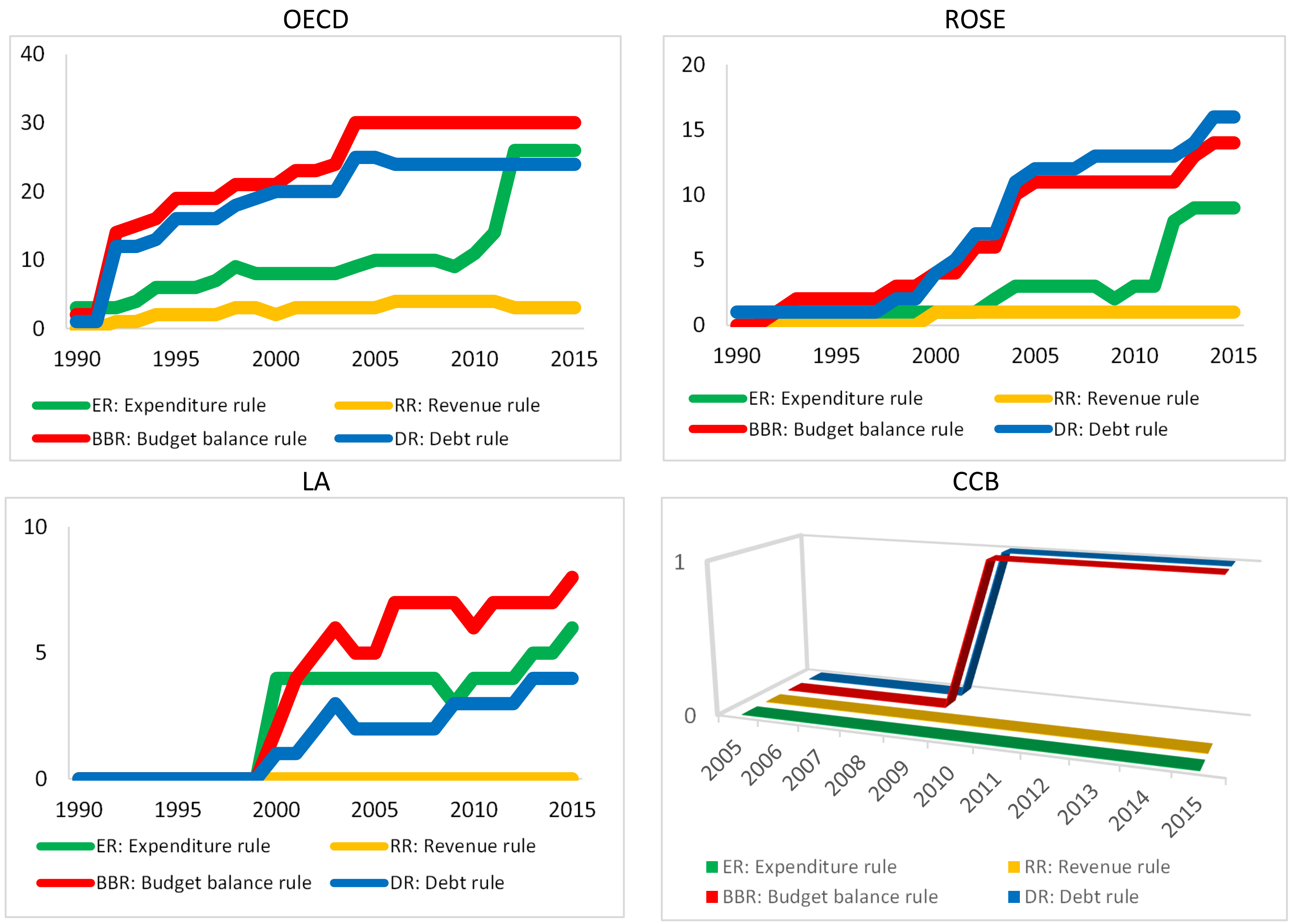


# Figure 3 Tax rates on transactions and income, 2018



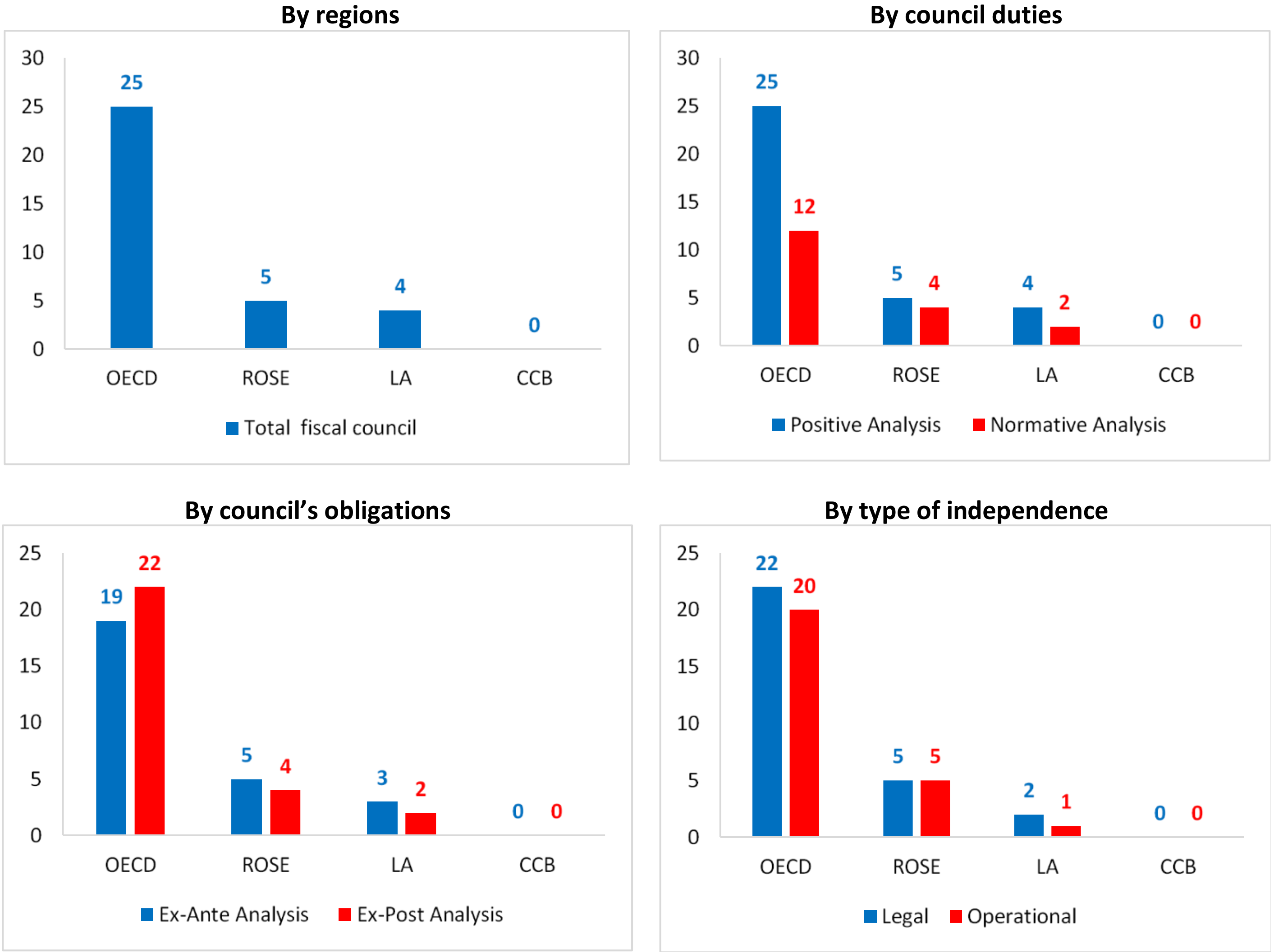
# Figure 4 Fiscal rules, 1985-2015

## Number of countries with fiscal rules, by regions and types of rules



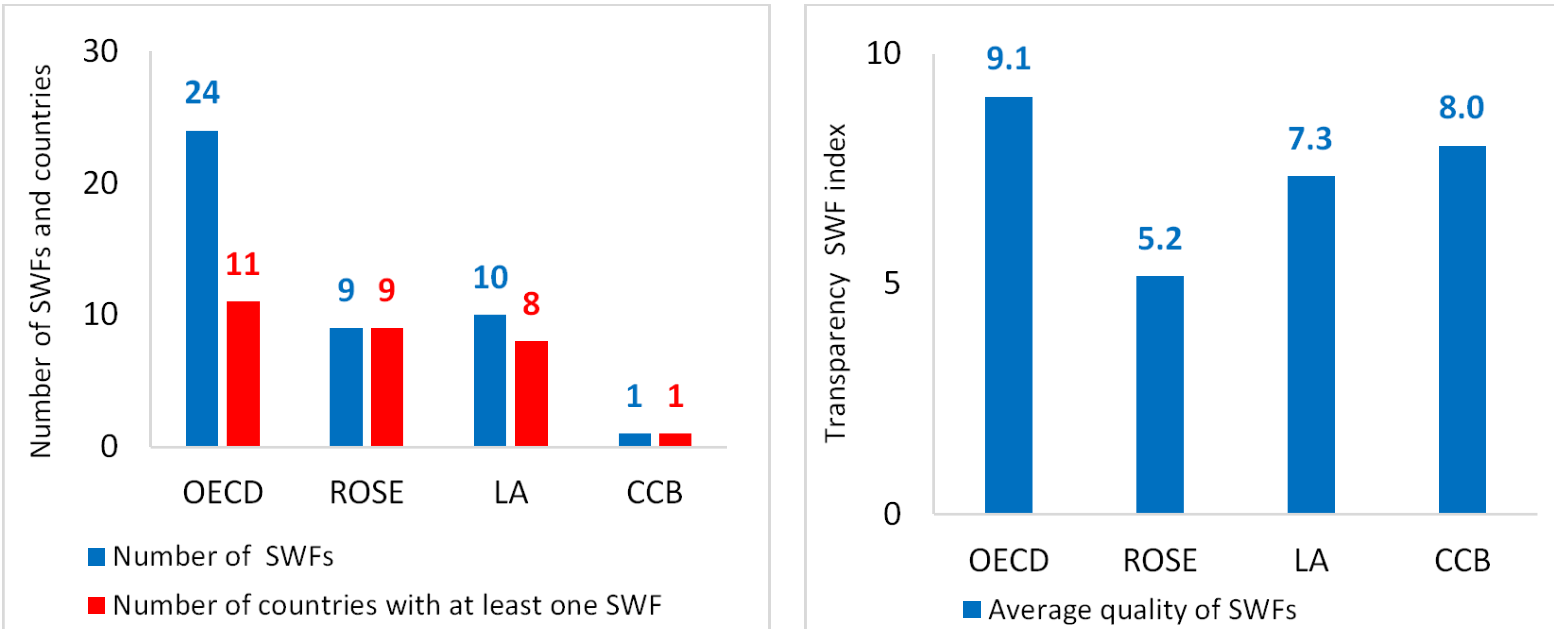
# Figure 5 Fiscal councils, 2017

## Number of countries with fiscal councils, by regions and types of councils



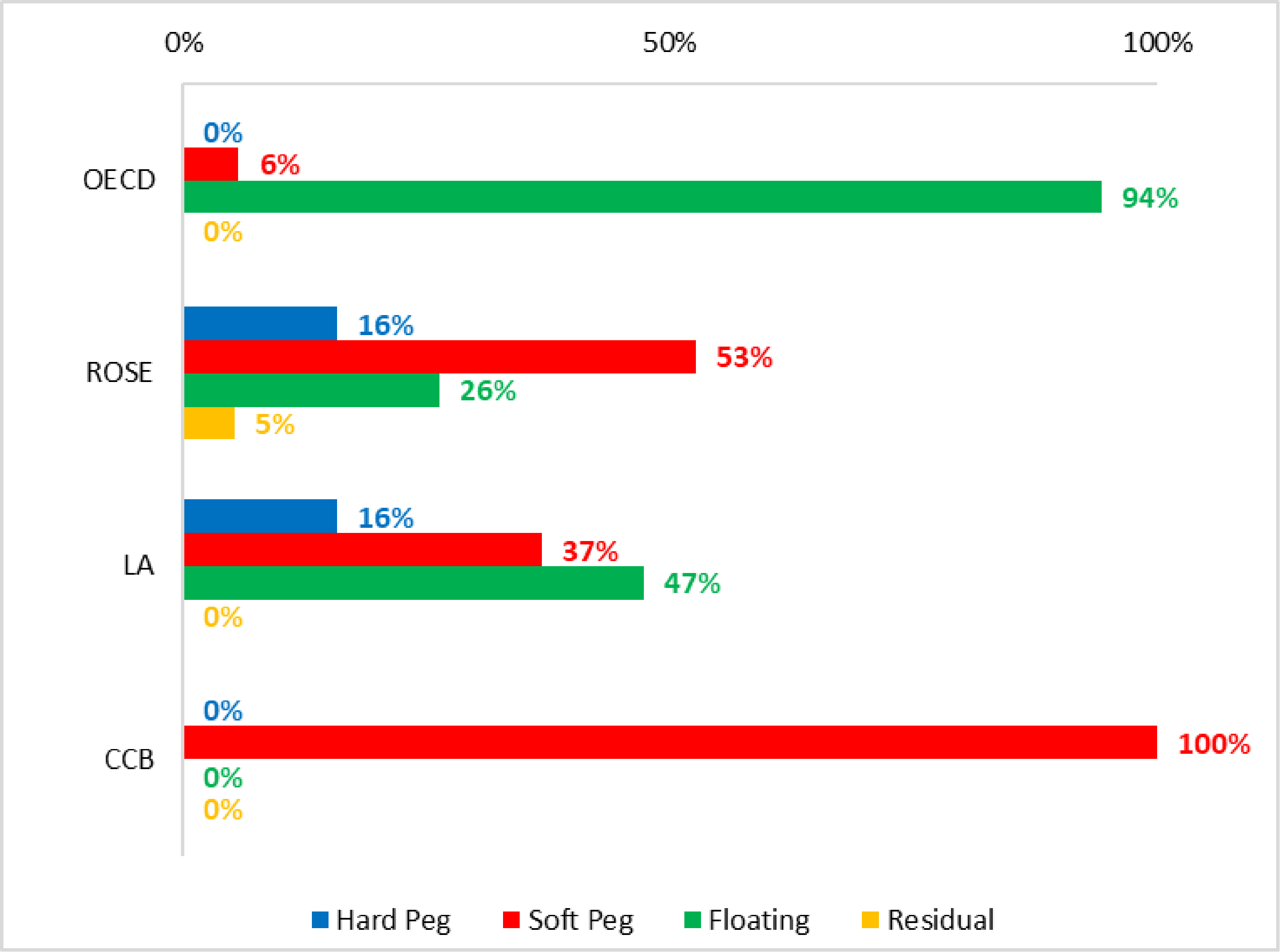
# Figure 6 Sovereign Wealth Funds, 2017

## Number of countries with sovereign wealth funds, by regions and by numbers and transparency



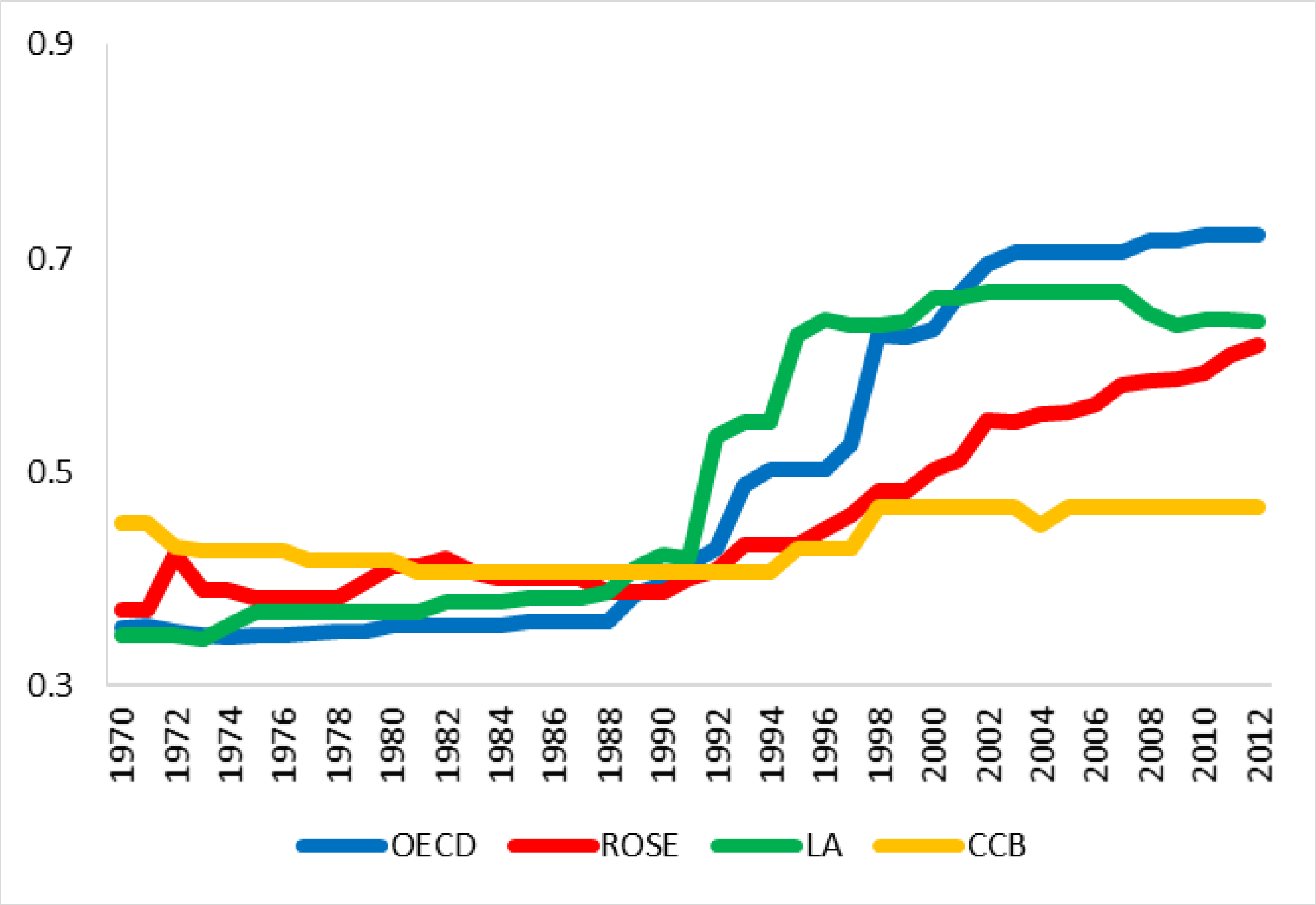
# Figure 8 Exchange-rate regimes, 2016

## Percent distribution of exchange-rate regimes by region



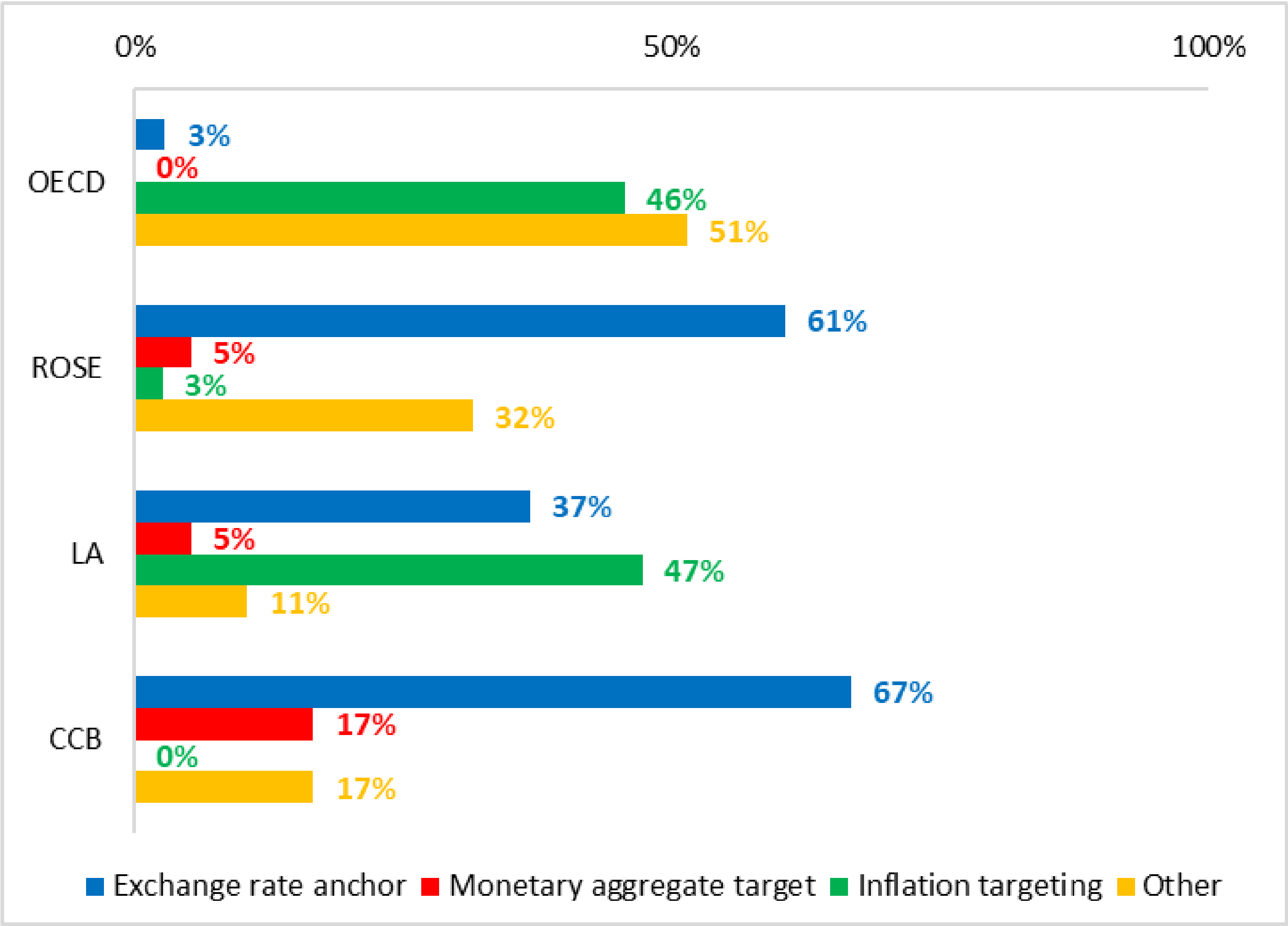
# Figure 9 Central Bank Independence, 1970-2012

## Regional averages of central bank independence



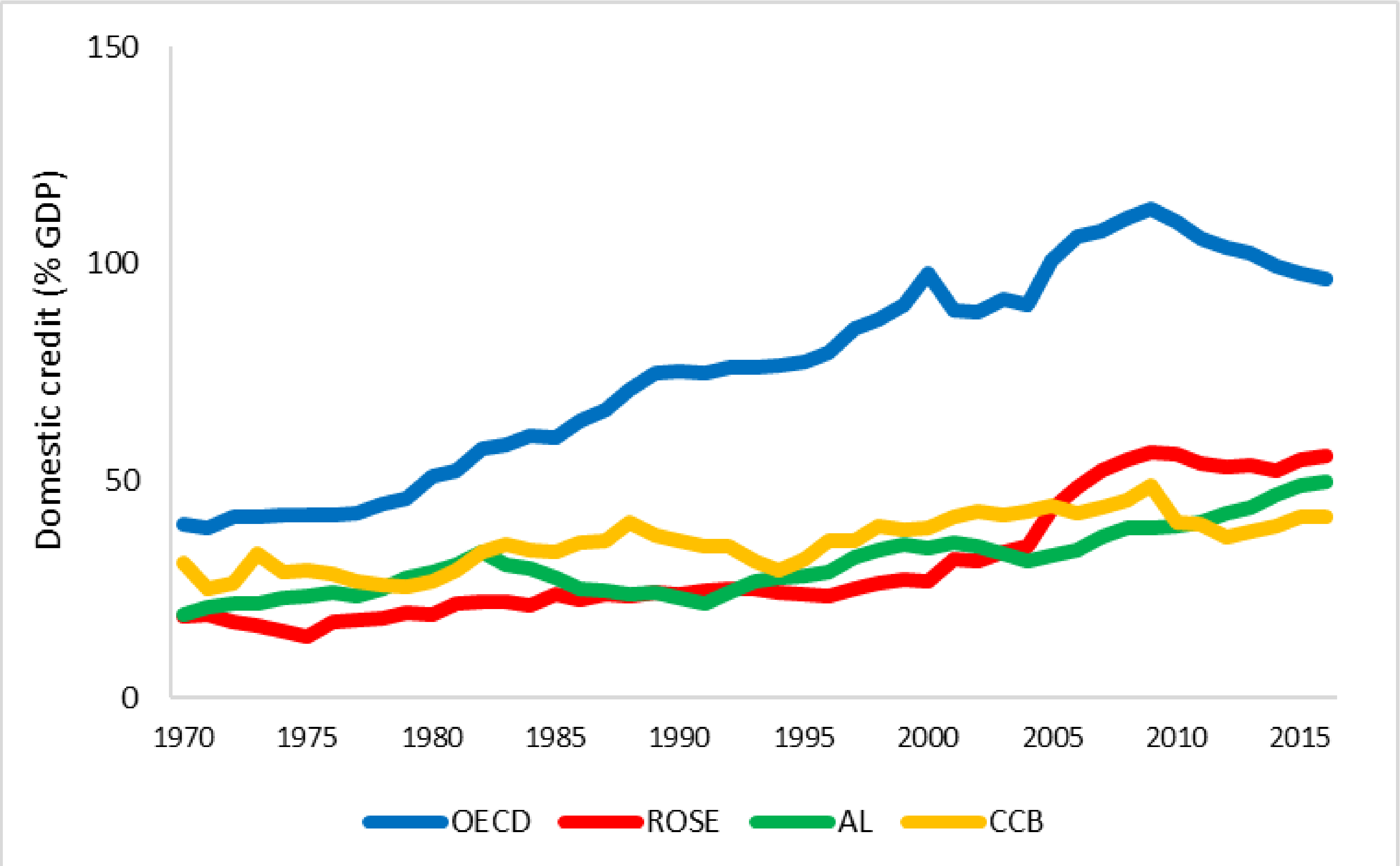
# Figure 10 Inflation targeting and other monetary regimes, 2016

## Percent distribution of monetary policy regimes by region



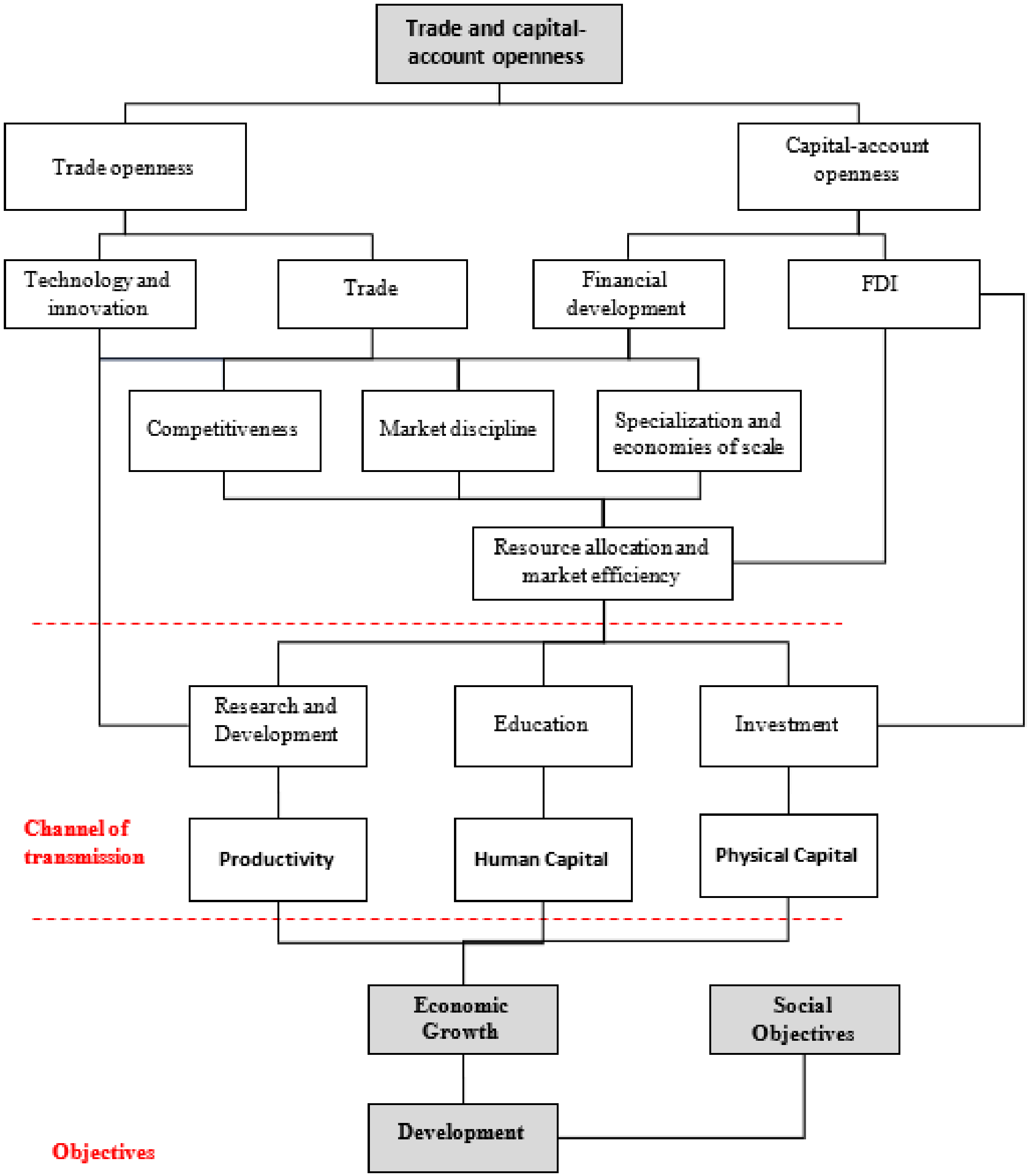
# Figure 11 Financial Development, 1970-2016

## Domestic credit to private sector as a percent of GDP

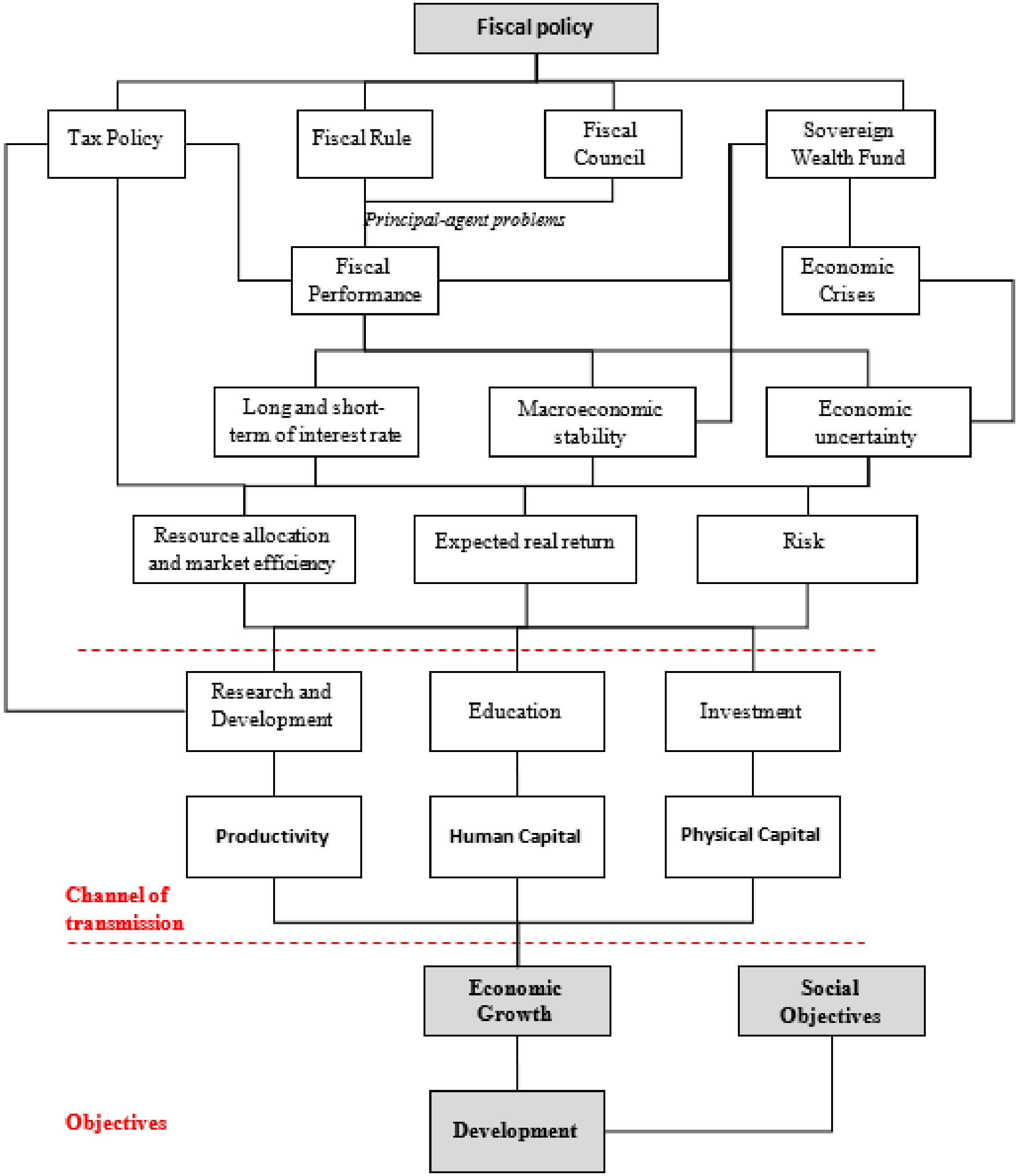


# 2. Direct and indirect effects of economic institutions: <u>theory</u>

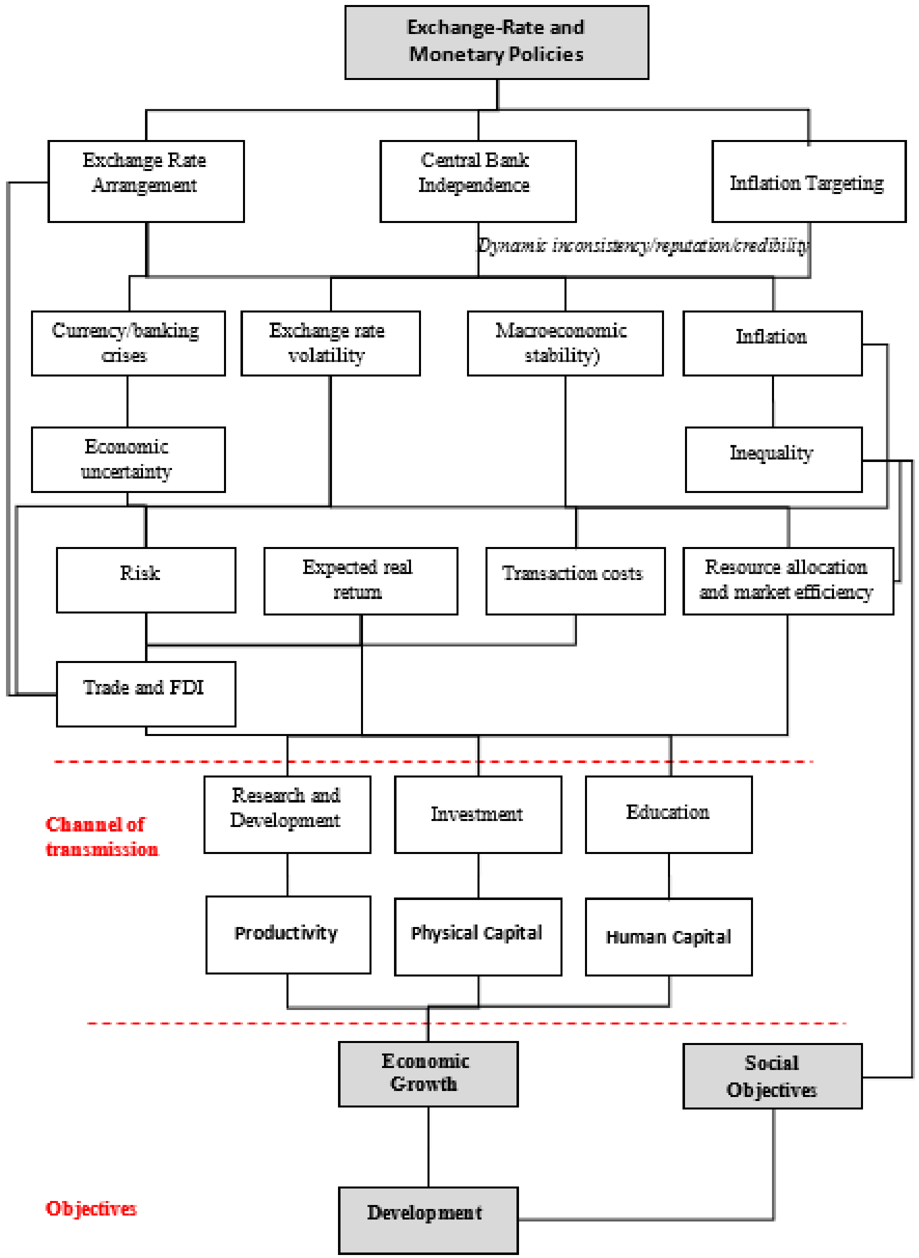
# International integration



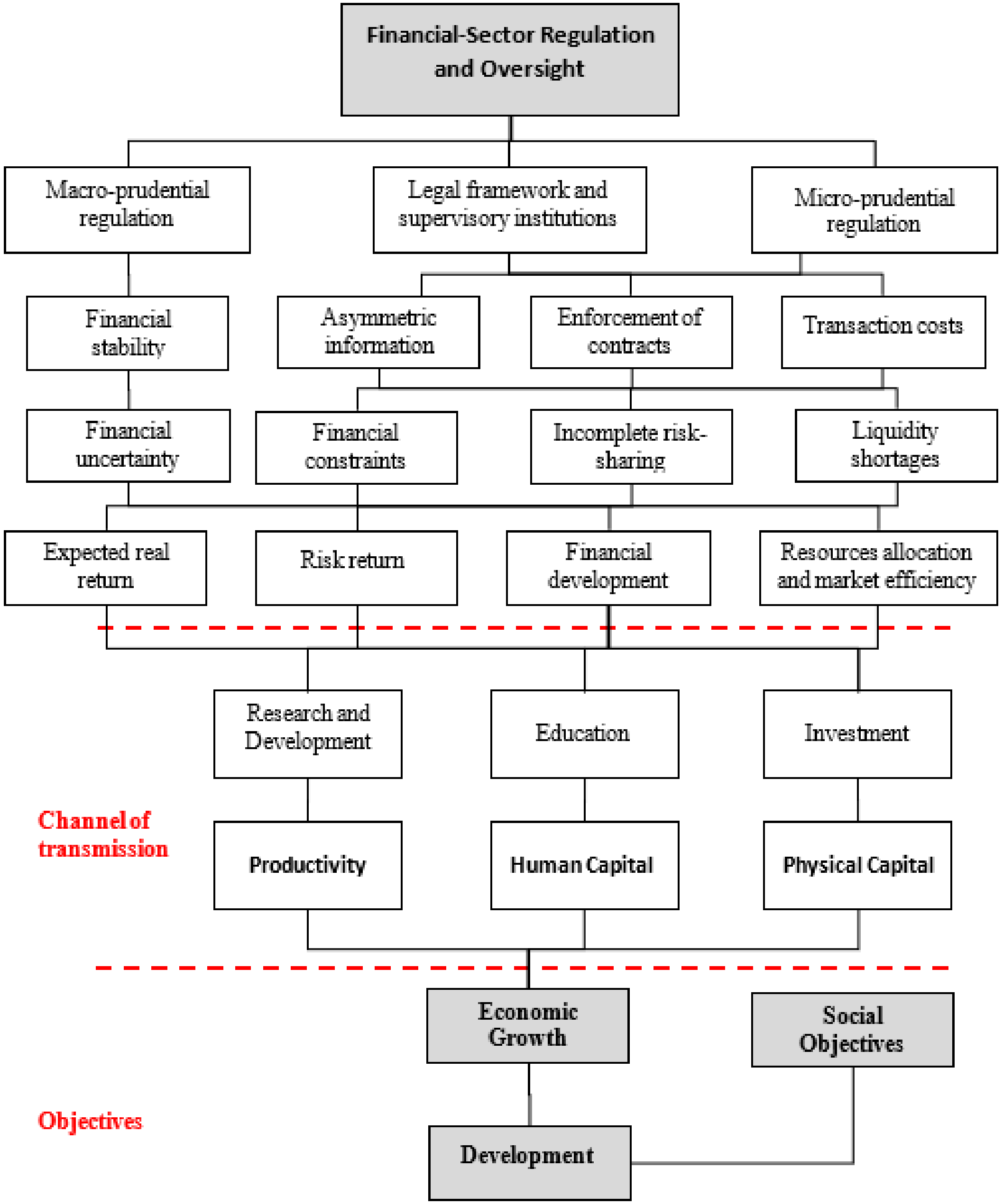
# Fiscal policies



# Exchange rate and monetary policies



# Financial sector



# 3. Direct and indirect effects of economic institutions: empirical evidence

# Survey

- This review comprises 123 empirical studies on the direct and indirect effects of 10 economic institutions on G+D.

- The aforementioned set is comprised by 113 multi-country (cross-section and panel-data) studies, 6 multi-state studies for a given country, and 4 country studies.

- Most studies were published between 2000 and 2018; a few were published between 1990 and 1999.

- The studies' multi-variate specifications are not derived from first principles but include potential causal variables as independent variables, which are broadly consistent with theory and previous empirical evidence.

# Example

**Table 9 Effects of inflation targeting**

| Dependent variable | Independent variable | Empirical findings |
|---|---|---|
| **Income and growth** | | |
| Growth of GDP per capita | Inflation targeting (D=1) | 0 or - (4) |
| Growth of GDP | Inflation targeting (D =1) | 0 (3); 0 or - (1); 0 or + (6, 8, 10) |
| | Soft inflation targeting (D =1) | + (5) |
| | Full inflation targeting (D =1) | + (5) |
| GDP per capita | Soft inflation targeting (D =1) | 0 or + (2) |
| | Full inflation targeting (D =1) | 0 or + (2) |
| **Macroeconomic variables** | | |
| CPI Inflation | Inflation targeting (D =1) | 0 (3, 6, 12, 19); 0 or - (1, 4, 7, 8, 10, 11, 13, 14, 15, 16, 20, 22); - (9, 17, 18) |
| Inflation expectations (one year ahead) | Inflation targeting (D =1) | 0 or - (10) |
| **Stability** | | |
| Inflation volatility | Inflation targeting (D =1) | 0 (3, 6, 19); 0 or - (1, 10, 11, 13, 14, 21); - (9); 0 or + (8) |
| GDP growth volatility | Inflation targeting (D =1) | 0 (3, 6, 8, 9); 0 or - (1); - (10, 12) |
| Output gap volatility | Inflation targeting (D =1) | - (9) |
| Volatility of short-term interest rate | Inflation targeting (D =1) | 0 or - (8, 10) |

Source: the sources are the corresponding tables and specific columns, rows, or regressions of the following studies: 1. Brito and Bystedt (2010) (table 2, columns 2-7) (table 3, columns 2-7); 2. Mollick et al. (2011) (table 2, columns 6-11) (table 3, columns 6-11); 3. Naqvi and Rizvi (2009) (tables 2-5); 4. Ayres et al. (2014) (table 4, columns 2-6) (table 6, columns 2-6); 5. de Guimarães e Souza et al. (2016) (table 1, columns 2-9) (table 2, columns 2-9); 6. Abo-Zaid and Tuzemen (2012) (table 13, columns 2-5) (table 14, columns 2-5); 7. Angeriz and Arestis (2006) (table A1, appendix, column 3); 8. Ball and Sheridan (2005) (table 6.3, panel B, columns 2-9)

# International integration

**Trade openness**

1. The direct effects of different measures of trade on GDP growth rates and per capita GDP levels are generally positive and significant.

2. Weak evidence that trade liberalization and lower trade barriers raise FDI.

3. Strong evidence that trade liberalization raises gross fixed-capital investment.

**Capital-account openness**

1. Financial liberalization has, on average, a weak but positive effect on growth.

# Tax reforms

- Tax cuts have generally positive effects on per capita GDP and GDP growth.

- Corporate tax cuts and VAT reforms tend to have indirect positive effects on G+D by raising investment, patents, R&D spending, and business density, and by reducing corporate debt

# Fiscal rules

- Significant positive effects of different measures of fiscal rules on per capita GDP growth.

- Positive and significant effects of different measures and types of fiscal rules on different measures of the budget balance.

- In most cases, different fiscal rules do not affect the cyclical correlation between the government budget and GDP or between government expenditure and GDP.

- The exception is the expenditure rule, which reduces the cyclical correlation between government expenditure and GDP.

# Fiscal councils

1. No evidence to date on direct effects of fiscal councils on GDP growth rates and levels, but negative significant effects on GDP growth forecast errors .

2. Several studies report that different measures of fiscal councils raise significantly primary budget balances and reduce significantly their forecast errors.

# Sovereign wealth funds

1. No evidence to date on the direct effects of SWFs on GDP growth rates and levels.

2. SWFs contribute to fiscal performance and stabilization.
   – SWFs reduce the level and growth rate of expenditure spending.
   – SWFs reduce the volatility of government expenditure (both aggregate and capital spending) and the volatility of the cyclically-adjusted fiscal balance.
   – Inflation levels decline and measures of volatility of broad money, inflation, and the effective real exchange rate are lowered by an oil fund

# Exchange rate regimes

- The empirical evidence is mixed regarding the growth effects of exchange-rate regimes in samples that are representative of all economies.

- However, in separate samples comprised by advanced (emerging and developing) economies, flexible (fixed) regimes are more likely to have positive effects.

- This is consistent with the fact that advanced (emerging and developing) economies tend to be larger (smaller), are more (less) likely to have a flexible (fixed or intermediate) exchange-rate system in place, and are more (less) likely to conduct an independent monetary policy.

# Central bank independence (CBI)

- CBI raises growth directly or indirectly (by lowering central bank turnover and boosting FDI).

- CBI  contributes to higher central bank independence and lower real interest rates on 10-year bonds.

- CBI contributes significantly and robustly to lower inflation.

- Positive effects of central bank turnover (which is lowered by central bank independence) on inflation.

# Inflation Targeting (IT)

- Weak but positive evidence that IT raises GDP growth.

- On inflation itself (and on inflation expectations) the results are also mixed: In EMDEs, adoption of IT leads to significantly lower inflation, compared to non-targeting EMDEs.

- Macroeconomic stability tends to be enhanced by inflation targeting.

- Most studies report negative effects of inflation targeting on the second moments of inflation, GDP growth, output gap, and short-term interest rates.

# Financial liberalization

- Positive effects of different ex post measures of financial depth and development on GDP levels and growth rates.
- Further indirect growth effects of financial development are likely to arise through improved innovation and growth stability.
    - number of patents
    - introduction of new technologies and products

# Summary

| Areas | Policy | Evidence |
|---|---|---|
| International integration | Trade openness | growth (+), investment (+ ) |
| | Capital Account openness | growth (+ ) |
| Fiscal policies | Tax reforms | growth (+) |
| | Fiscal rules | growth (+)<br>fiscal performance (+ ) |
| | Fiscal councils | fiscal performance (+ ) |
| | SWFs | fiscal performance (+)<br>stabilization (+) |
| Exchange rate and monetary policies | Flexible exchange rate regimes: Advanced economies | growth (+) |
| | Flexible exchange rate regimes: EMDEs | growth (+) |
| | Central Bank Independence | inflation (-) |
| | Inflation Targeting | inflation (EMDEs) (-), macro stabilization (+) |
| Financial sector | Financial liberalization | growth (+) |

# 4. What determines adoption of institutions?

Taxonomy of political-economy theories that explain adoption or rejection of institutional reforms (Lora and Olivera, 2004):

1. Distribution of costs and benefits: the distribution of costs and benefits among different
2. Crises beget reforms
3. Compensation schemes: compensating reform losers raises the likelihood of institutional change
4. Contagion: other (preceding or simultaneous) reforms that are perceived as successful raise acceptance of additional reforms
5. Optimal sequencing: a gradual, well-sequenced reform package is more likely to be adopted.
6. Other factors: changes in government, international influence, and state capacity.

# Major reform opponents and possible indirect compensation

| | Major opponents | Debilitating factors | Possible compensation |
|---|---|---|---|
| **Trade reform** | Import-competing firms and their workers | Domestic demand recession | Devaluation; trade agreements |
| **Domestic financial reform** | Large firms; targeted credit users; arge (especially stateowned) banks | Under high inflation: lower inflation tax | Reduce marginal income tax rates; better access to external credit |
| **Tax reform** | Medium to large firms, middle-class workers | Recession; lower wages; unemployment | Better access to credit and imported goods |
| **Privatization** | Workers of state - owned firms | Fiscal deficits; lower wages | Re-training programs and access to equity ownership |
| **Labor-market reform** | Wage earners; unions | Lower wages; unemployment | Better access to social security; freedom to unionize |

Lora and Olivera (2004)

# Conditions that determine implementation of structural reforms in OECD countries

| | Labor market reforms | Product market reforms | Reforms on framework conditions | Reforms on FDI barriers |
|---|---|---|---|---|
| Depth of recession | + | | | + |
| Unemployment rate | + | | | |
| Potential growth | - | - | - | |
| Change in the general government annual structural balance | + | | - | - |
| Short-term interest rate | - | | - | - |
| Financial assistance programmed by IMF | + | | + | + |
| Majority in all houses | + | + | + | |
| Single market | | + | | |
| Employment protection legislation: initial conditions | + | | | |
| Energy, transport and communication regulation: initial conditions | | + | | |
| Doing Business indicator; initial conditions | | | + | |
| Foreign direct investment legislation: initial conditions | | | | + |
| Past product market reforms | + | | | |

Da Silva et al., (2017)

## Evidence on reverse causality from G+D to institutional change and adoption (Schmidt-Hebbel and Martínez, 2019):

- Development matters: richer countries are more likely to adopt and have in place advanced economic institutions.
- Political regimes and political-economy conditions are also significant co-determinants of institutions.
- Few crises beget institutional reforms.
- Financial development is not a robust pre-condition or driver of institutions.
- Macroeconomic policy regimes matter; for example, a floating exchange rate contributes to adoption of inflation targeting.
- Favorable macroeconomic conditions make adoption of macroeconomic institutions more likely.
- Globalization matters: international integration and financial assistance provided by international financial institutions raise the likelihood of institutional reforms.

# 5. On successful design, implementation, and upgrading of good institutions

The international experience in successful design, implementation, and upgrading of good economic institutions – those that contribute to G+D – suggest the following concluding points.

1. Current international best practice in key economic institutions
2. Dynamic evolution of best practice in economic institutions
3. Complexity
4. Legal barriers to institutional change
5. Learning
6. One size does not fit all
7. Timing, sequencing, and gradualism
8. International technical assistance

# 6. Conclusions

(1) This paper has surveyed the analytical literature and empirical evidence – gathered from 123 empirical studies – on the direct and indirect effects of key economic institutions and reforms on growth and development (G+D).

(2) The paper has focused on ten formal economic institutions in three key areas of economic management:

- international integration (2)
- macroeconomic policies; fiscal policy (4), exchange-rate and monetary policy (3)
- financial-sector policies (1)

(3) There is evidence that seven of ten institutions – trade openness, financial openness, lower tax rates, fiscal rules, central bank independence, inflation targeting, and financial depth – contribute positively and statistically significantly to higher GDP growth rates and/or higher per capita GDP levels.

(5) Fiscal rules, fiscal councils, and sovereign wealth funds improve significantly different measures of fiscal performance.

(6) Reverse causality from G+D to institutional change and adoption is important (Schmidt-Hebbel and Martínez, 2019).

(7) Beyond adoption of institutions, this paper has reviewed specific conditions that affect institutional design, implementation, and upgrading over time.

(8) The current international best practice represents a combination of several key economic institutions: high levels of international integration; a developed fiscal framework; appropriate exchange-rate and monetary policy regimes; and competitive, well-regulated, and well-supervised financial markets.

# The Role of Economic Institutions in supporting Growth and Development

**Klaus Schmidt-Hebbel**

kschmidthebbel@gmail.com

**WEAI 15th International Conference**

**Keio University, Tokyo, Japan**

**21-24 March 2019**