

# Financial markets and development

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(with thanks to Valpy FitzGerald for useful material)

Seminar for Fourth Oxford/UNDP Human Development Training  
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# Outline

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- Excuses first
- Overview of issues
  - Finance and development are linked
  - Standard approach has led policy (including to CAL)
  - But: financial markets *are* different so need...
- Empirical findings, cross-country and country study
  - Empirical view 1: Finance leads development?
  - Country research 1: access to financial services
  - Country research 2: access to business finance
  - Empirical view 2: Corporate finance leads growth?
- Capital account liberalisation
  - Growth effects?
  - Costs of CAL
- Ways forward



# Overview I – the standard approach

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- One thing to hold on to: finance and development have indisputable link.
- But: *nature* of that link?
  1. Savings → investment level → growth
  2. Mkt efficiency → inv't quality → growth
  3. Diversification, liquidity → stability, certainty → growth
    - Growth →← financial markets?
    - [Poverty? Inequality? HD?]
- Policy agenda: domestic financial and institutional reform; and capital account liberalisation



## The standard approach (ctd)

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- Financial markets not so different;
  - Regulation and institutional support but minimal intervention; and
  - Competition within and across sectors.
- Policies fairly clear;
  - Banking: deregulation, privatisation, foreign entry → efficiency, competition, technology → greater saving, investment, access to finance
  - NBFIs: liberalisation, privatisation, entry → greater range of options for both saving and investment finance
  - Stock markets (and bond markets): creation/liberalisation, foreign entry
  - Ultimately full CAL...



# Still standard?

## Capital account liberalisation

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- Comparative data – capital flows
  - LICs
  - LMICs
  - UMICs
- Controls? FDI, FPI, lending...
- Theoretical benefits of CAL
  - Less volatility (diversification, cons'n smoothing)
  - Growth benefits from capital inflows
  - Better policy (market discipline)
  - Lower cost of capital (global alloc. efficiency)



# Financial markets *are* different

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- Information asymmetries → imperfect market... Lemons! and equilibrium rationing.
- Competition effects: positive (wider range of services, quicker technology adoption) but also negative (greater emphasis on profit can → marginal business eliminated)
- Financial markets serve different clientele (e.g. extent of poverty or firm size distribution) – so maybe one size doesn't fit all...



# Cross-country empirics I: Finance leads development?

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VF: e.g. King & Levine (1993):

- Regress growth (1960-89) on *previous* financial depth (M2/Y in 1960) to avoid endogeneity of contemporary M2/Y (cash plus checking and savings accounts, non-institutional money market accounts). 77 OECD and developing countries included in cross-section.
- Significant and stable coefficient (about 0.03) despite various economic and political controls the basis for claiming a causal directionality.
- But:
  1. Statistical significance of financial depth variable  $(M2/Y)_{1960}$  reduced by controls, and almost eliminated by highly significant regional dummies
  2. When contemporary correlation between financial depth and growth is accounted for, predictive power fails (Arestis & Demetriades)
  3. M2/Y rather unreliable indicator of structure - it varies enormously over time with policy as well as across countries.



# Country findings I

## Access to financial services

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- Positive effects of competition (including foreign entry): better services, e.g. longer opening hours, investment in bigger branch networks, ATMs, credit cards – all found by Brownbridge & Gayi (1999, for Bangladesh, Laos, Nepal, Madagascar, Malawi, Tanzania, Zambia and Uganda).
- But mainly urban benefits. Mosley (1999) finds (for Kenya, Malawi, Uganda, Lesotho fin lib'ns) that only microfinance institutions' innovations had positive benefits for rural, and B&G only observed one episode of rural extension (Zambia).
- Costs of competition: Zarutskie (2006) finds that after banking deregulation – even in the US – 'newly formed firms used significantly less external debt, were smaller, and realized higher returns on assets, consistent with their investing less due to greater financial constraints.' Developing country evidence?



## Country findings II

### Access to finance for business

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- Large firms access generally good (except crises), and stock and bond markets not assist SMEs (Demirguc-Kunt & Maksimovic 1999). But more efficient financial markets could assist smaller firms...
- Important because, as Cook & Nixon (2000) show, financial constraints on SMEs even **tighter** in developing countries. But evidence suggest financial sector liberalisations have **not** eased this.
- Government is major borrower – private sector borrowing remained <10% after lib'n in the 8 countries above. Only real (non-priv'n) increase in Uganda.
- Evidence suggests any observed increases are simply switch from informal to formal sector – e.g. Kariuki (95) for 5 years of Kenyan lib'n finds falling credit volume for firms.
- Lib'n expected to increase cost of borrowing – hurts SMEs most.
- Most positive evidence: IMF paper on Ecuador found credit switch to more 'technologically efficient' firms; but while this should be good news, essentially was to LCs away from previously subsidised SMEs. More unemployment.



# Cross-country empirics II: Corporate finance leads growth?

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*Key paper:* Rajan and Zingales (1998) try to get beyond the finance-growth abstraction, consider industries using finance:

- Calculate measure of 'external financial dependence' by industry, then regress industry growth (1980-90) on financial depth (private sector credit/Y) for 41 countries cross-section. 'Accounting standards' as instrument.
- Finding: 'industrial sectors that are relatively more in need of external finance develop disproportionately faster in countries with more-developed financial markets' (p.559).
- But: external financial development measures based on large, listed US firms only – a real problem if
  - dependence differs across firms of different sizes; and
  - firm size distribution differs across countries.
- Claim to explain 1/3 of growth differences, those due to differences in growth in existing establishments – as vs 2/3 from growth in *number of establishments*. The latter unsurprising given firm size differences in entry and exit.



# CAL – research findings

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- Klein & Olivei (1999)
  - Volume of capital flows has significant impact on growth; except (!) if outside OECD, then no impact at all.
- Kraay (1998)
  - Institutions/policies have opposite effect on post-CAL investment to those predicted – bad institutions and policies are *rewarded* by liberalisation.
  - ‘Little evidence’ that capital flows are more volatile in more open economies.
- Durham (2000)
  - FDI ambiguous
  - FPI generally negative in long run
  - Previous stock market development counts - i.e. benefits for some MICs but not LICs
  - Volatility of equity flows negative in all cases
- Stulz (2000)
  - ‘Financial globalisation’ has reduced cost of capital - i.e. international markets have indeed become more efficient.



# Costs of CAL I

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- **Market discipline**

- (i) stock markets dominated by small number of foreign investors

- (ii) foreign investors base decisions on relatively little information

- Effect: after an inflow period, markets very sensitive to a few policy variables.
    - But if inflows have little impact on growth, why does the danger of outflows matter? Potential for great volatility.
    - Govt behaviour constrained – typically lower inflation and lower deficits, but lower expenditure on infrastructure and social spending especially.

- **Capital inflow management**

- Post-liberalisation inflows trigger currency appreciation (damaging balance of trade effects). Governments purchase forex reserves to negate this, through bond sales (*sterilisation*) so as not to increase money supply and cause inflation.

- Problems:

- interest rate differential – significant cost to government
    - long-term viability questionable
    - increases govt dominance of bond market



# Costs of CAL II

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- **Instability**

Volatility of: capital markets + govt. revenues, spending + aid flows (Pallage & Robe)

= Increased uncertainty about economy

+ increased uncertainty about financing

= More volatile investments.

Since empirical evidence: no increase in investment, net effect:  
*Lower and less stable employment.*

Small and medium-sized enterprises suffer particularly, and since they are the major and most stable providers of employment in industrialised countries, this potentially very damaging (but research!)

- **Taxation**

- Increased capital mobility makes it harder to tax, so burden of taxation will tend to fall more on labour – income earners, which targets the poor more than capital taxation – and immobile (i.e. non-MNE) business, i.e. main employment providers.

- Competition for international capital inflows reduces the benefits of investment for host countries while increasing those for investors.

- Capital mobility compounds instability of government finance sources – output, employment and profit all more volatile



# Where does that leave us?

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*The bottom line is that some of the extreme polemic claims made about the effects of financial globalization on developing countries, both pro and con, are far less easy to substantiate than either side generally cares to admit.*

*– Kose, Prasad, Rogoff and Wei ([2006](#)).*

- Some innovative ideas, e.g. GDP-indexed bonds (SGJ)
- Some institutional openness – IMF rethinking...
- More academic openness...
- ... and the lack of a central framework.

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## Two-way Analysis of Variance: Rajan and Zingales external financial dependence

Source of variation	Partial SS	df	MS	F	p-value
Country	262.77	5	52.55	<b>2.19</b>	0.0556
Sector	350.60	17	20.62	<b>0.86</b>	0.6218
Firm size	421.64	2	210.82	<b>8.79</b>	0.0002
Residual	6065.33	253			
Total	7143.16	277			

The table presents the result of two-way ANOVA on the Rajan and Zingales measure of external financial dependence, for three categorical variables. The sample covers six EMU member countries, three firm size classes and eighteen industry sectors for the period 1988-2002. The extent of variation which each categorical variable is able to explain can be seen from the  $F$  value, highlighted.

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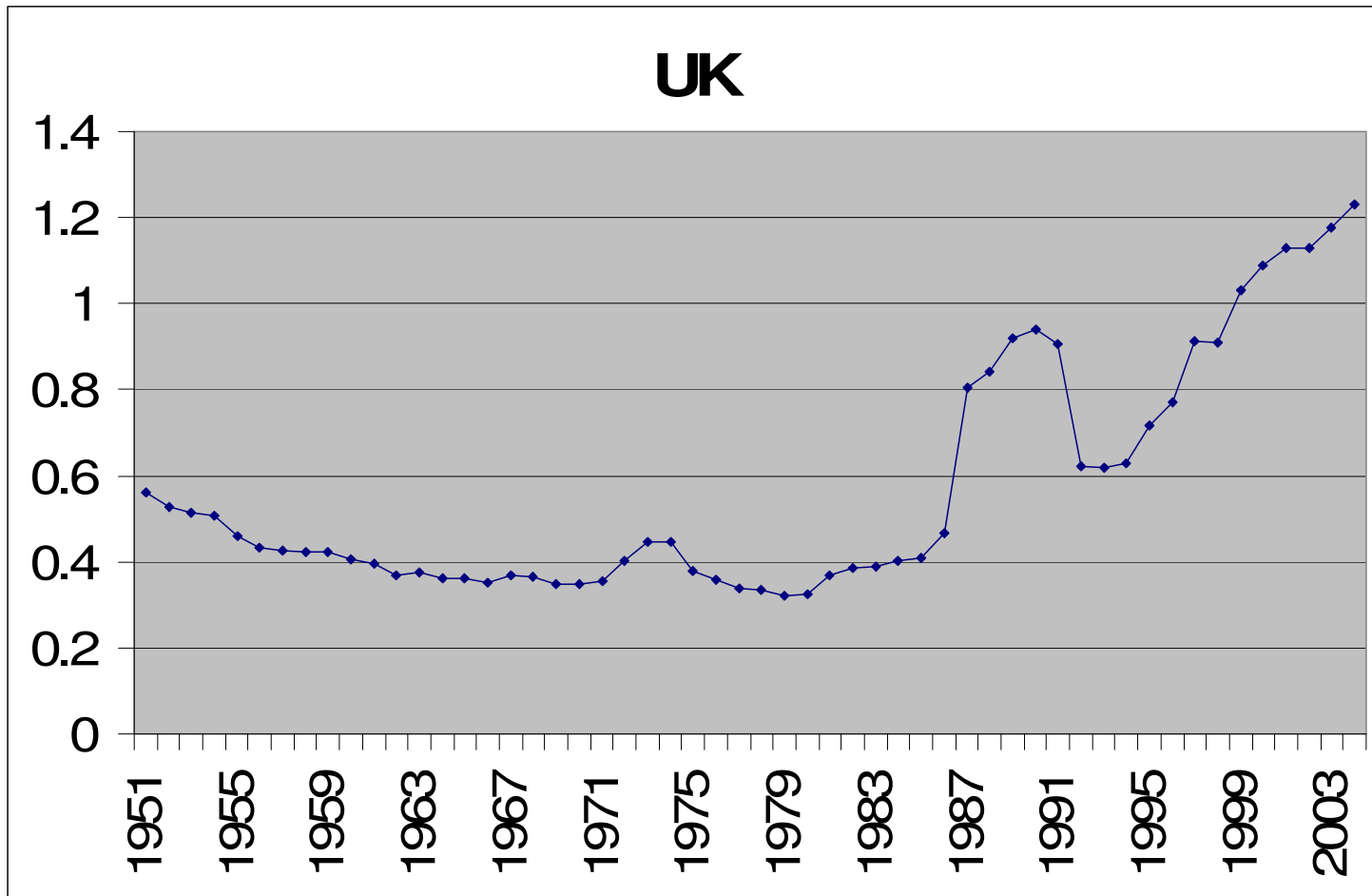
## Employment by MSMEs, % of total (2004)

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New Zealand	29.2	Armenia	31.3
Sweden	39.3	Georgia	50.6
Norway	56.9	Slovenia	64.1
Canada	65.0	Ghana	66.0
Austria	65.3	Lithuania	70.6
Iceland	76.6	Mexico	71.9
Japan	88.0	Bangladesh	80.0
Cyprus	97.4	Chile	95.0

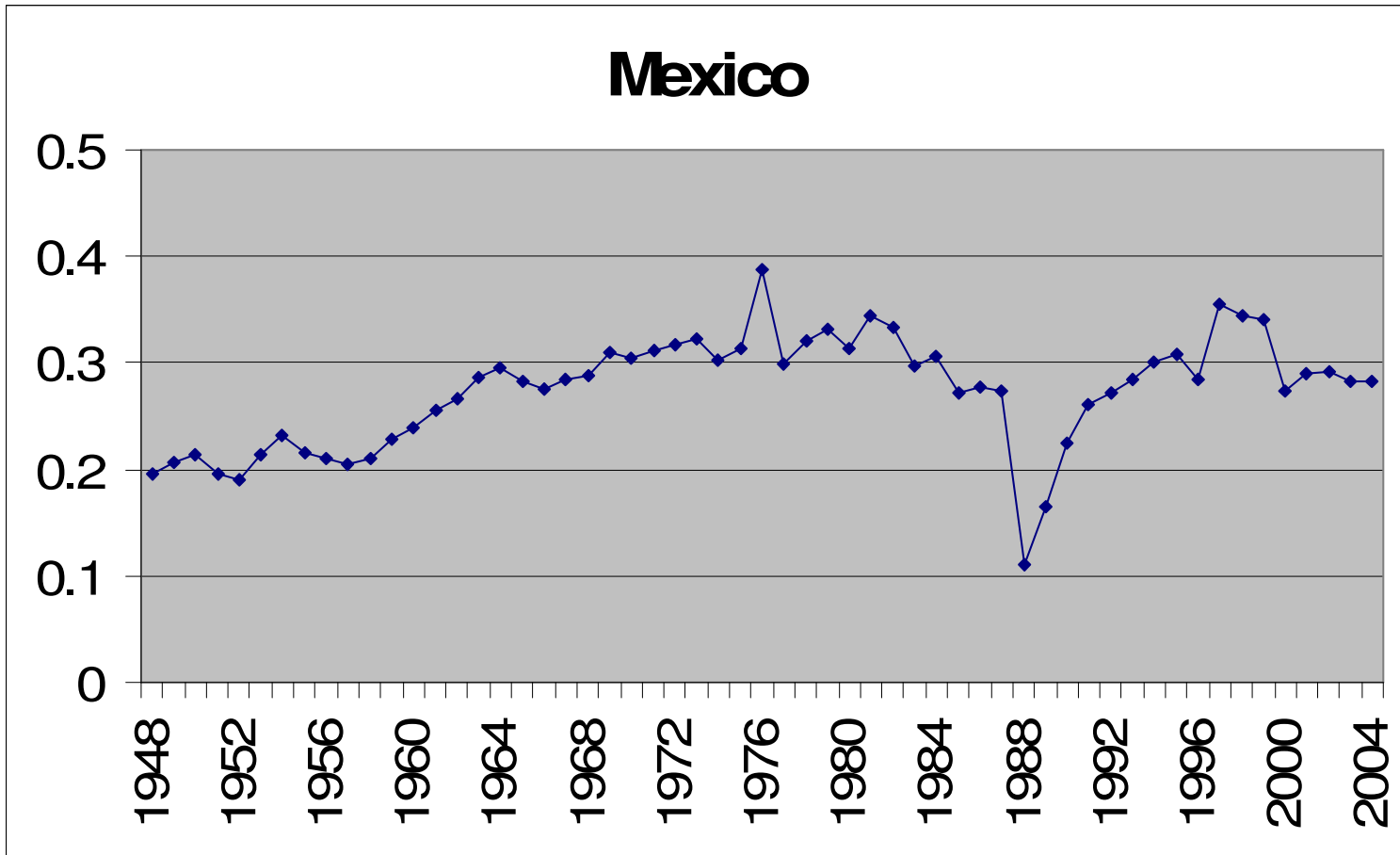
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# Financial development? M2/Y



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# Financial development? M2/Y



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## Entry (% of employment in size class)

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<b>Firm size: employees</b>	<b>Fra</b>	<b>Ger</b>	<b>Ita</b>	<b>UK</b>	<b>US</b>
<b>&lt;20</b>	9.4	5.1	5.8	13.1	8.2
<b>20-49</b>	4.8	2.3	3.6	5.8	5.1
<b>50-99</b>	3.3	1.7	3.4	4.1	4.2
<b>100-499</b>	2.7	1.2	2.9	3.1	3.0
<b>&gt;500</b>	1.7	.	3.3	3.6	0.8
<b>Total &gt;20</b>	2.6	1.3	3.1	3.7	2.0
<b>Total</b>	3.7	.	4.0	4.8	3.1

Source: calculations on OECD data;  
sample period is 1989-97.

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## Exit (% of employment in size class)

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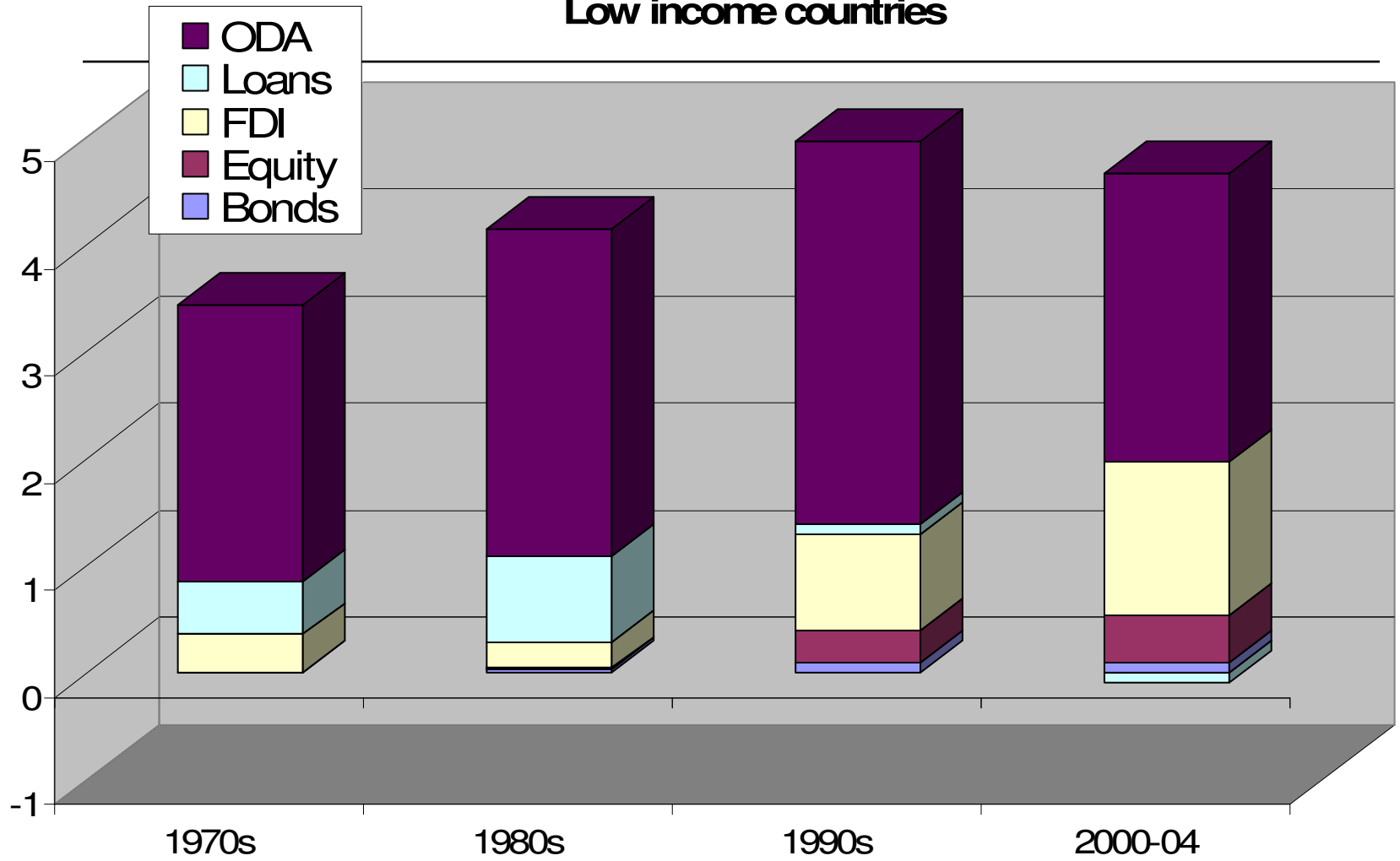
<b>Firm size: employees</b>	<b>Fra</b>	<b>Ger</b>	<b>Ita</b>	<b>UK</b>	<b>US</b>
<b>&lt;20</b>	7.0	4.4	5.7	11.7	6.6
<b>20-49</b>	5.0	1.6	3.1	7.0	4.4
<b>50-99</b>	4.2	0.8	2.6	6.8	3.6
<b>100-499</b>	3.6	0.3	2.5	6.1	2.7
<b>&gt;500</b>	2.0		2.0	5.2	1.1
<b>Total &gt;20</b>	3.2	0.5	2.4	5.9	2.0
<b>Total</b>	3.8		3.6	6.5	2.9

Source: calculations on OECD data;  
sample period is 1989-97.

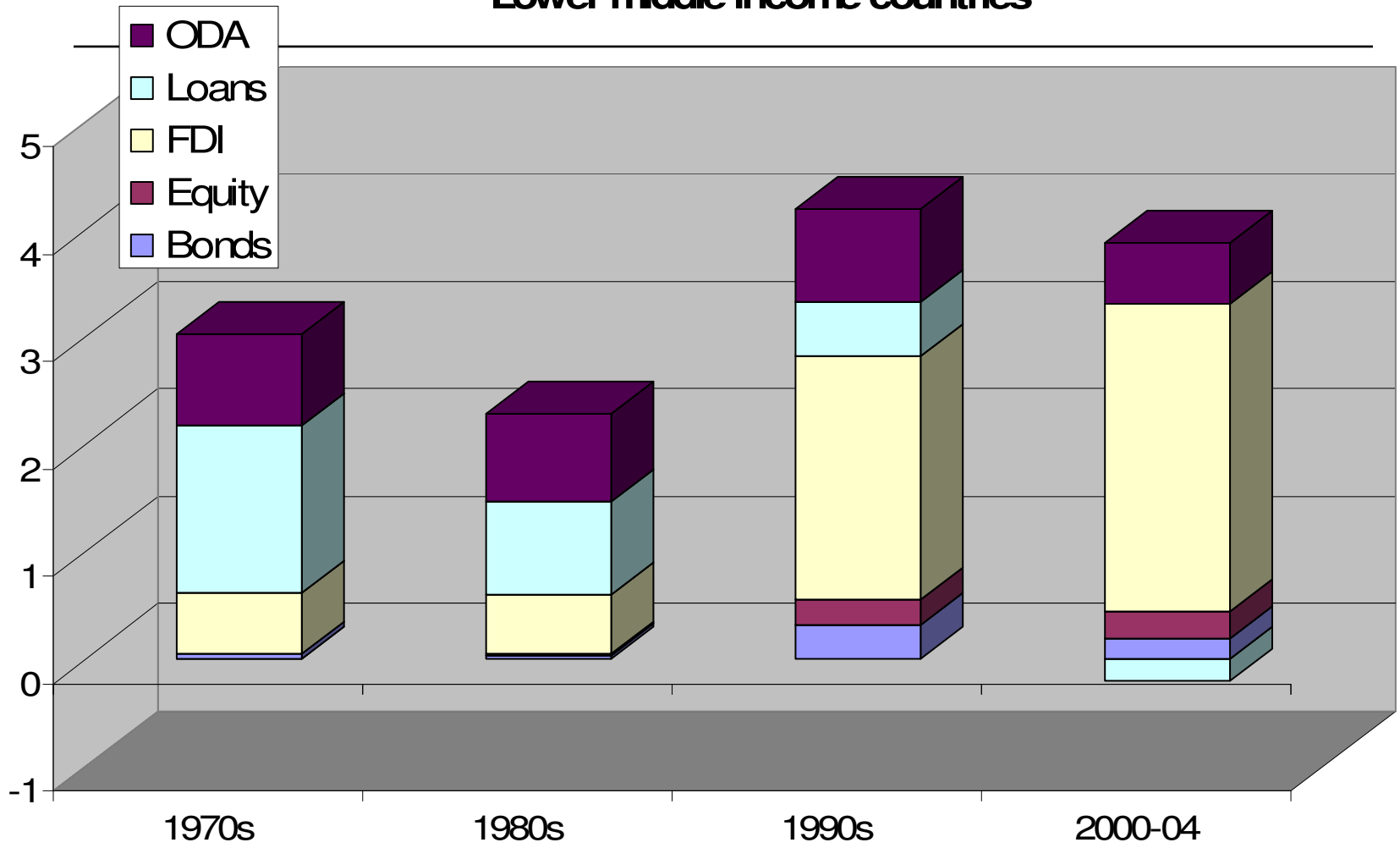
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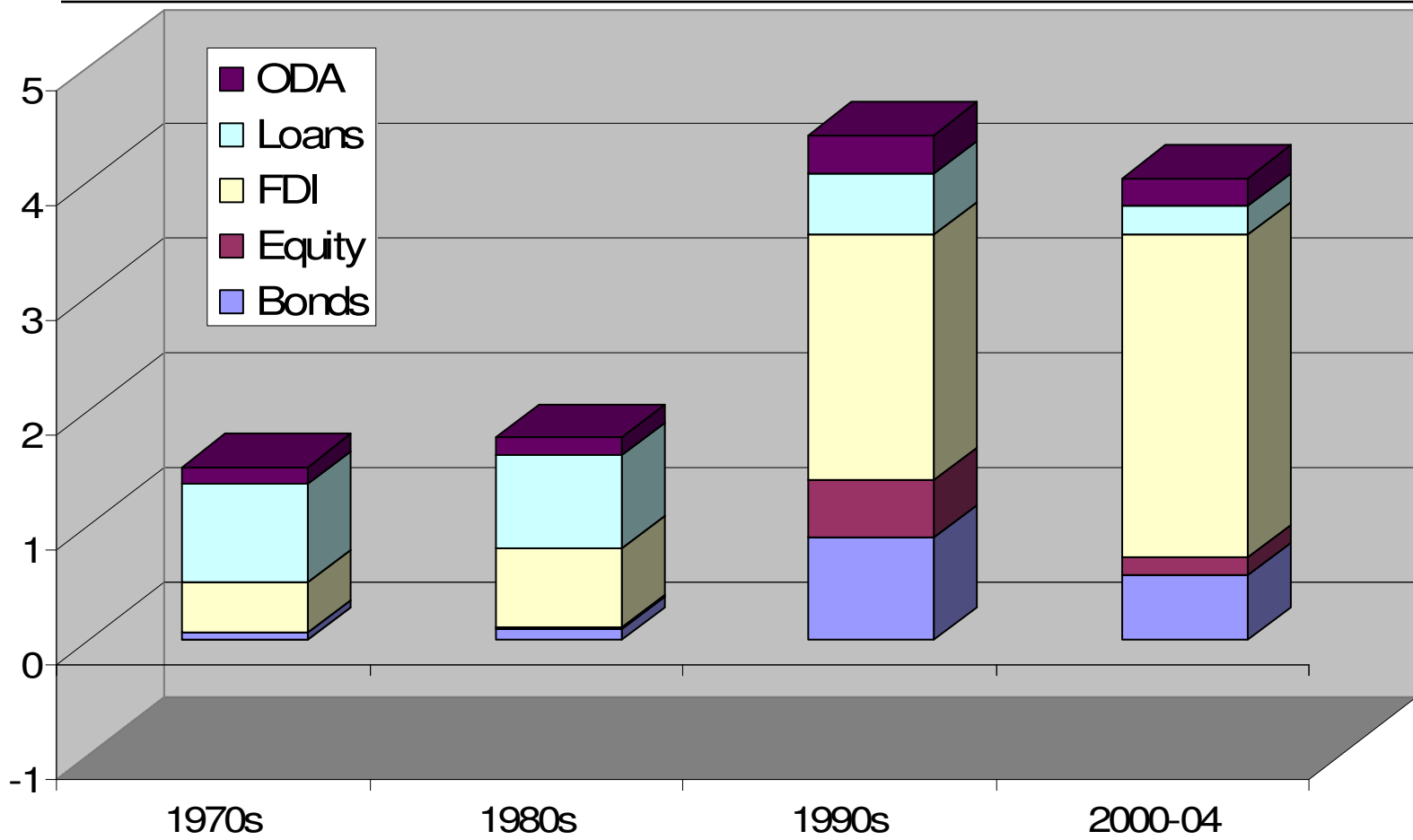
### Low income countries



## Lower middle income countries

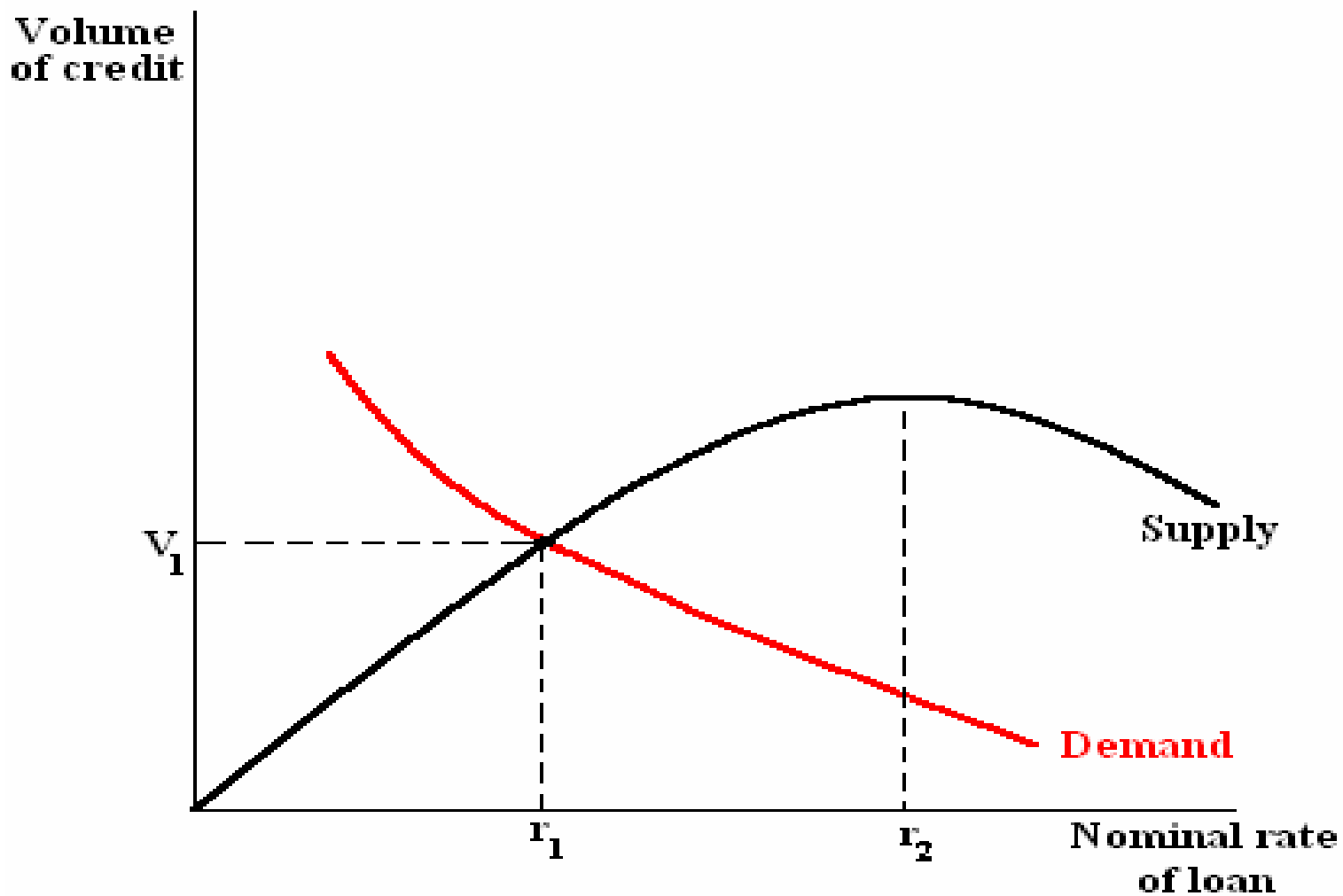


## Upper middle income countries

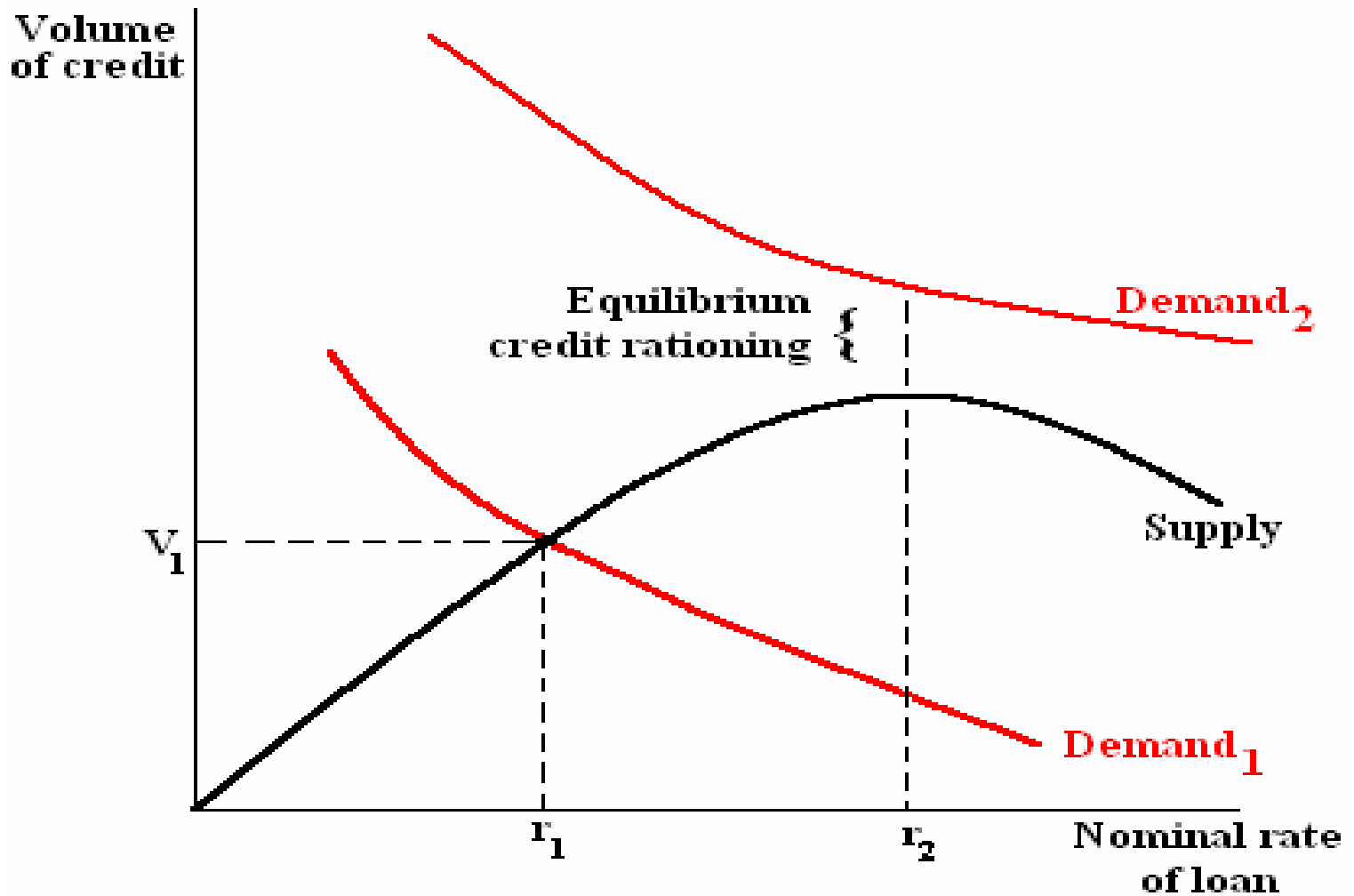


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# Credit rationing I (Stiglitz-Weiss)



# Credit rationing II (Stiglitz-Weiss)



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## Expenditure trends during periods of real declines, 1970-84

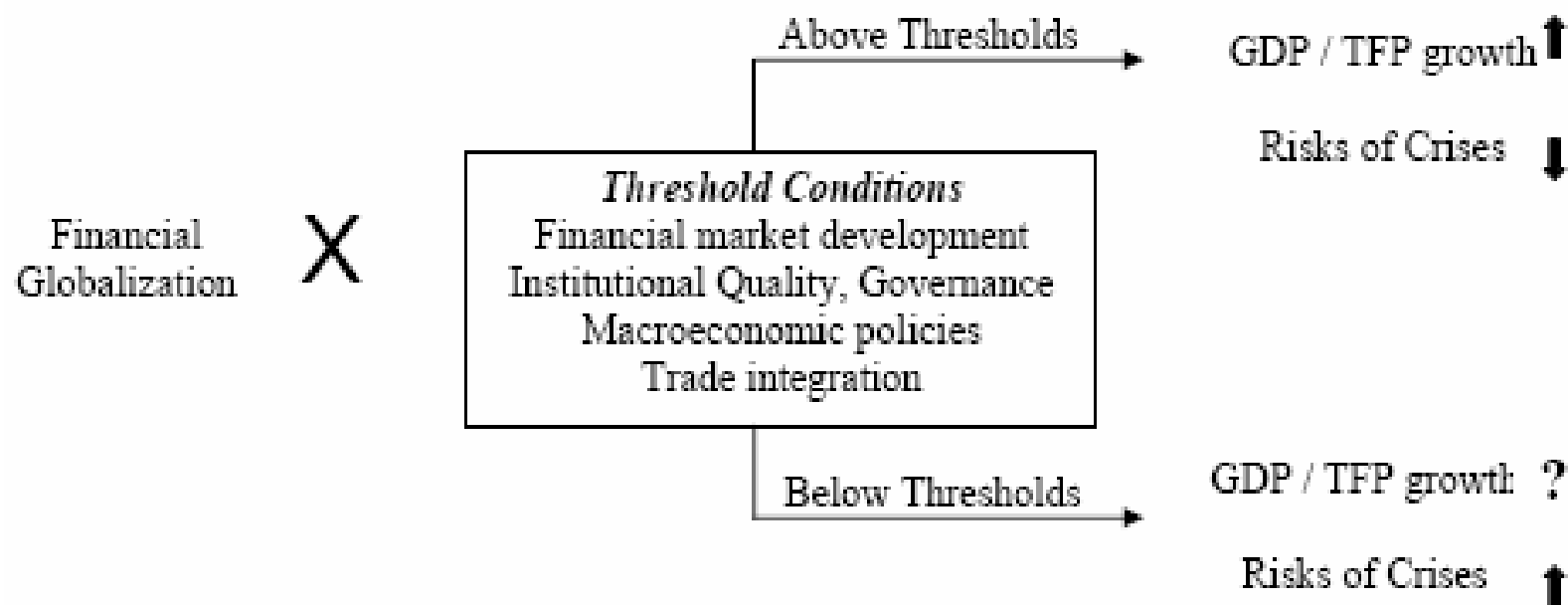
	Reduction (%)	Elasticity
Total expenditure	16.8	1.00
General public	9.2	0.53
Defence	6.25	0.38
Social sectors	11.25	0.66
Productive	18.7	1.08
Infrastructure	25.4	1.47
Others, including interest	1.4	0.08

Source: Hicks (1991), quoted in Toye (2000).

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# A threshold view – Kose et al 06

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'Financial Development', 1990s  
(Asset capitalisation/GDP, % - World Bank)

	Banks	NBFIs	Stock Markets
LICs	23	5	4
LMICs	34	12	12
UMICs	40	21	11
HICs	81	41	33

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