

Financing innovation in small businesses and start-up firms: policy issues

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Structure course

- **Introduction**
- **The nature and financing of innovative enterprises**
- **From ideas to start-ups: the role of public initiatives**
- **Business angels and early-stage financing**
- **Early-stage growth: venture capital and other financial intermediaries**
- **Financial development and public financial markets**
- **Design, implementation and evaluation of early-stage policies**
- **Recapitulation and conclusions**

Module 4

Early-stage growth: Venture Capital and Other Financial Intermediaries

Module objectives

- **Understanding the venture capital cycle**
 - Nature and operation of VC funds
 - Best practices of VC fund management
 - The levers of the VC investment process
- **The role of traditional financial intermediaries**
- **Mechanisms for policy intervention**

Financing early-stage growth

- **Capturing commercial potential requires**
 - **Financial, managerial, and technological resources**
 - **Managerial and strategic expertise**
- **Hurdles faced by new ventures**
 - **Where and how to compete?**
 - **Acquiring customers**
 - **Establishing relationships with suppliers**
 - **Hiring personnel**

The intermediary function of VC firms

- **Channel funds from institutional investors to high-potential enterprises**
- **Provide specialized investment expertise**
 - **Identify potential investments**
 - **Monitor, provide financing in stages**
 - **Add value through oversight and guidance**
- **Depend on smooth flow of funds from institutional investors and back (with returns)**

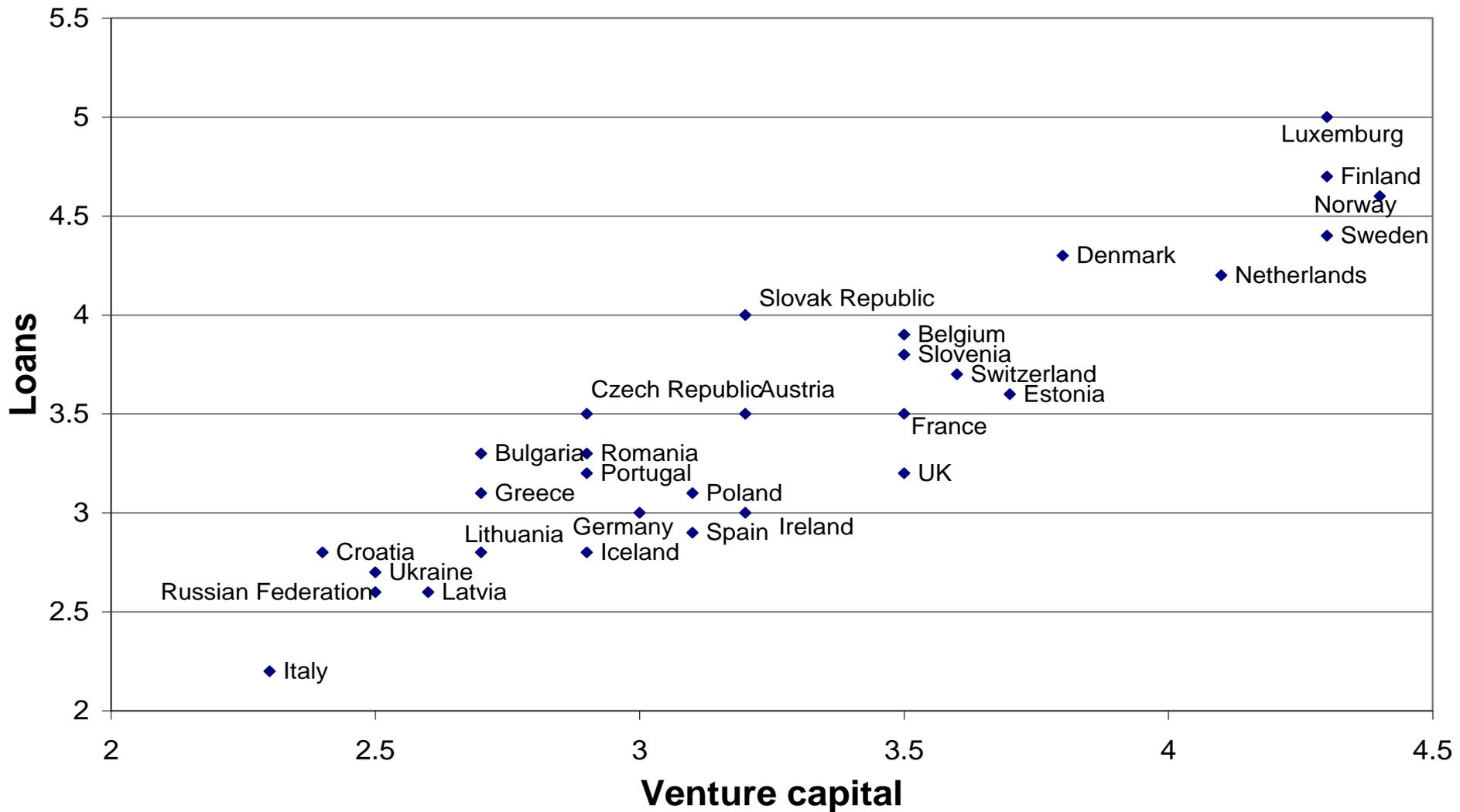
A note on terminology

- **Private equity - provision of equity capital to enterprises not quoted on a stock market.**
- **Venture capital – provision of equity capital for the launch, early development, or expansion of a business (i.e. a subset of private equity)**

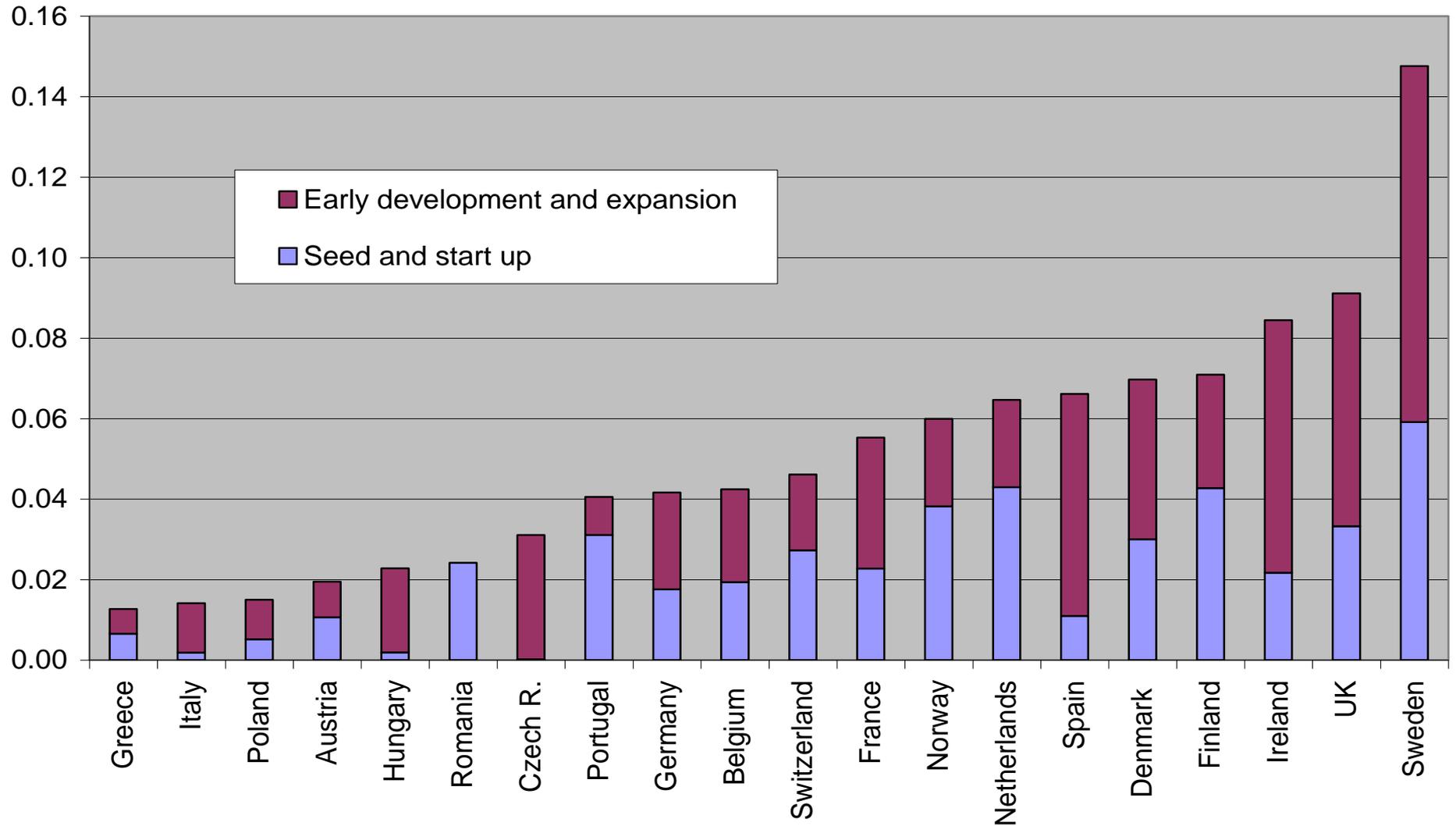
Overview of venture capital

- **Provision of professionally managed equity capital to promising enterprises**
- **Anticipation of exit (liquidity event) in 5-7 years**
- **“Patient” capital – illiquid before exit**
- **The bulk (70-80%) goes to early-growth or expansion-stage companies**

European diversity



Venture capital landscape



Limitations venture capital

- **Scarce presence in early-stage financing (high risk, small deal size)**
- **Poor investment record of European VC funds in early-stage**

Investment by stage of development

As percentage total PE

	2007	2008
Seed	0.2	0.6
Start-up	3.2	4.6
Later stage venture	7.5	7.9
Total Venture	10.9	13.1

Internal rate of return

Cumulative Fund Type Performance (end 2008)

	Sample size	Pooled average
Early-stage VC	351	-1.3
Development stage VC	219	7.4
Balanced VC	204	3.0
All Venture	774	3.0
All Buyout	431	13.0
Generalist	126	9.0
All Private Equity	1,331	9.5

Source: EVCA

How does a VC fund work?

- **Typically structured as LLP**
 - **Fund investors are limited partners (i.e. prohibited from active engagement)**
 - **VC firm manager(s) act as general partners and are responsible for all investment decisions (subject to some contractual limitations)**
 - **Fixed-term life, typically 10-12 years**
- **Fees and compensation**
 - **Management fee, 2-3% of fund capital**
 - **Carried interest - 20-30% of excess returns**
 - **Strong incentive to increase the upside**

Advantages of the LLP structure

- **Avoidance of double taxation – distributions flow through and are taxed at the limited partners**
- **Securities can be transferred to the limited partners without tax liability until they are sold**
- **Transfer of stakes and early withdrawals are prohibited**
- **Automatic dissolution at the end of its term**

How do VC firms add value?

- **Provide incentives**
 - Capital provision linked to achievement of milestones
 - Entrepreneurs retain the the residual value
- **Provide expertise**
 - Discern opportunities and threats
 - Operational and strategic guidance
 - Professionalization of management
- **Provide network and legitimacy**
 - Lend extensive network of relationships
 - Ease the concerns of customers or suppliers

Taxonomy of VC funds

- **Public vs. private**
- **National vs. regional**
- **Captive vs. independent**
- **Fund-of-funds**
- **Sidecar funds**

VC investment process

- **Pre-investment**
 - **Origination, prospecting**
 - **Screening and due diligence**
 - **Structuring**
- **Post-investment**
 - **Monitoring and oversight**
 - **Value adding**
 - **Exiting**

Investment decision considerations

● Initial screening

- Does it meet the fund's basic investment criteria?
- Is there a personal referral?
- Quality of the business plan (executive summary)

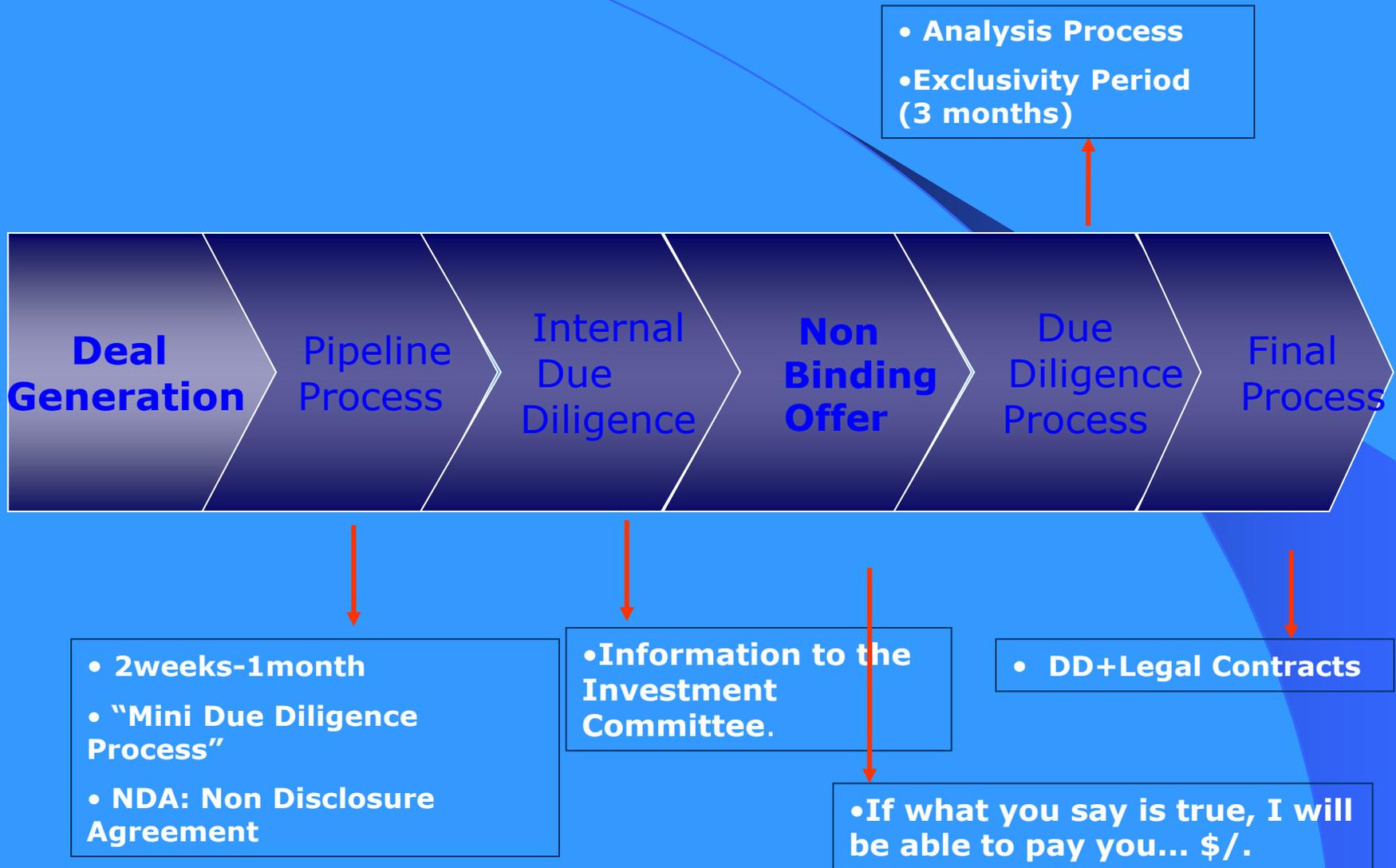
● Detailed evaluation

- Potential market impact
- Strength of competitive position
- Management team quality

● Due diligence

- Third-party opinions on underlying technology
- Corroboration of estimates and assumptions

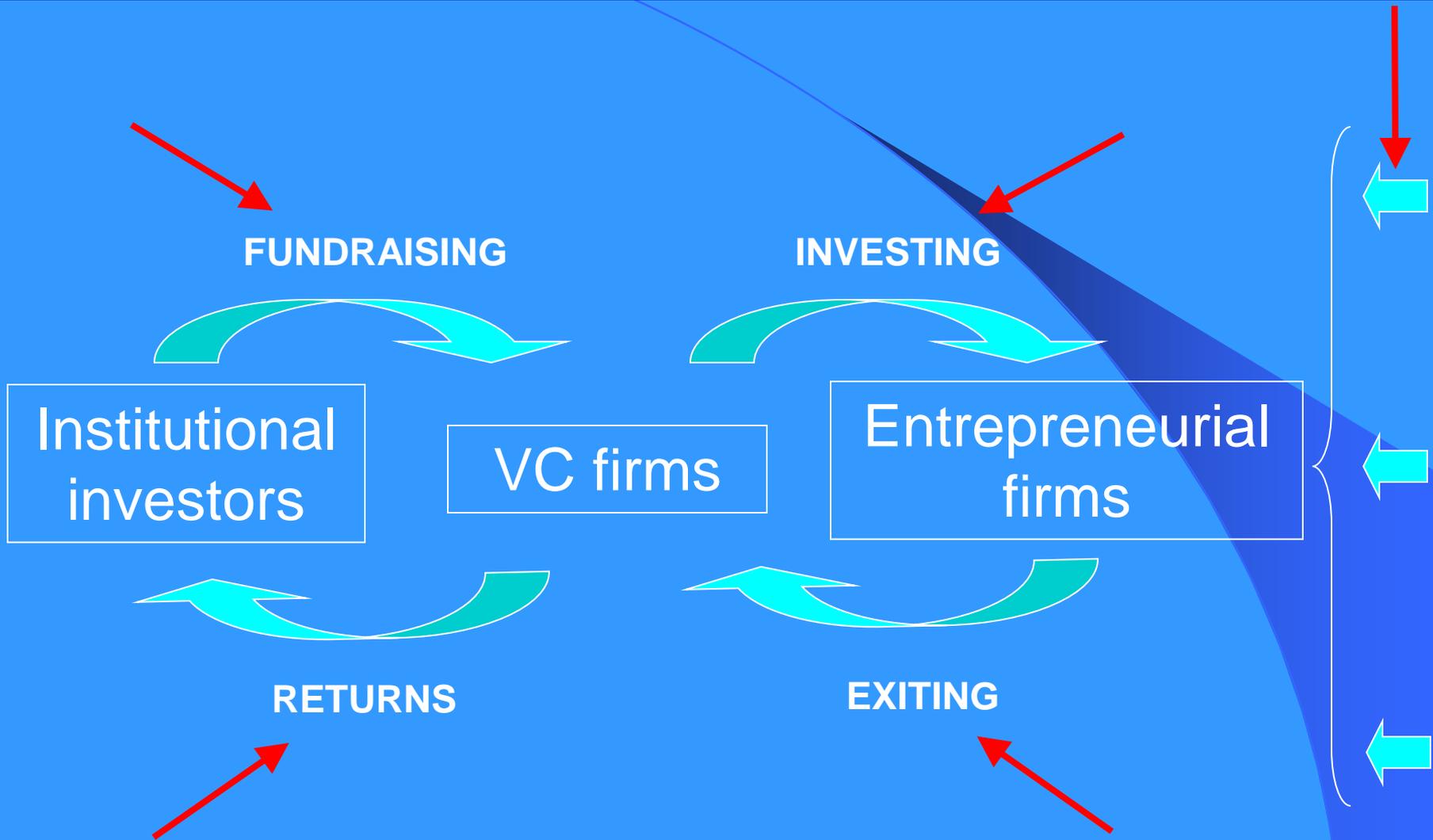
Sample VC financing Process



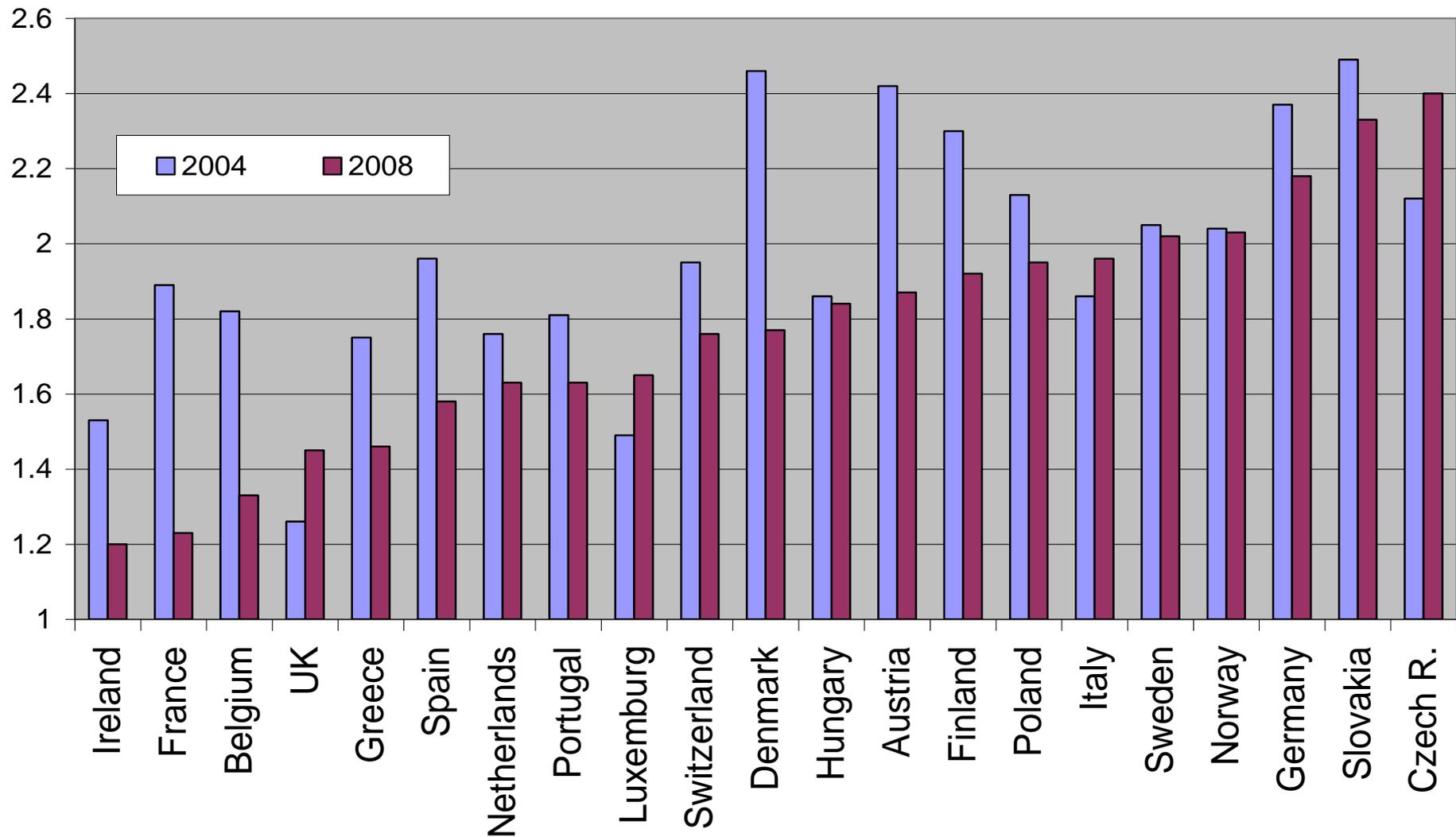
Good practices of VC fund management

- **Proper structure for patience and performance incentives**
- **Long-term relationships with institutional investors**
- **Entrepreneurial and relevant industry experience of the VC managers**
- **Retention of in-residence industry experts**
- **Use of convertible preferred stock**
- **Manageable number of companies to oversee**
- **Long-term relationships with investment banks**

The levers of VC finance



Tax and legal environment



Issues in fundraising

- **Enticing institutional investors**

- Education on VC nature and return profile
- Qualms about new funds, new managers
- Natural cycles of ebbs and flows

- **Tax issues**

- Existence of dedicated or suitable structure
- Exemption for cross-border fundraising
- Capital gain taxation

- **Regulatory issues**

- Restrictions for “alternative” asset classes
- “Safe haven” and “prudent man” rules

Issues in investing

- **Availability of investment opportunities**
 - R&D environment
 - Entrepreneurship as a career option; relevant education
 - Availability of financing at earlier stages (grants, BA)
- **Recognition and selection of opportunities**
 - Support network for deal referrals and due diligence
 - Industry specific skills and connections of VC managers
 - Proper risk-return profile
- **Effective contracts**
 - Tax treatments of convertible preferred stock
 - Rule of law in enforcing contractual provisions

Government intervention

Direct – Public resources invested by public servants.

Examples: Finish Investment Industry Programme, Danish Business Development Finance

Problems: Incentives and expertise

Indirect- Harnessing private expertise in the investment process

But does this expertise exist?

Hybrid funds

Public private-partnerships are the dominant form of intervention:

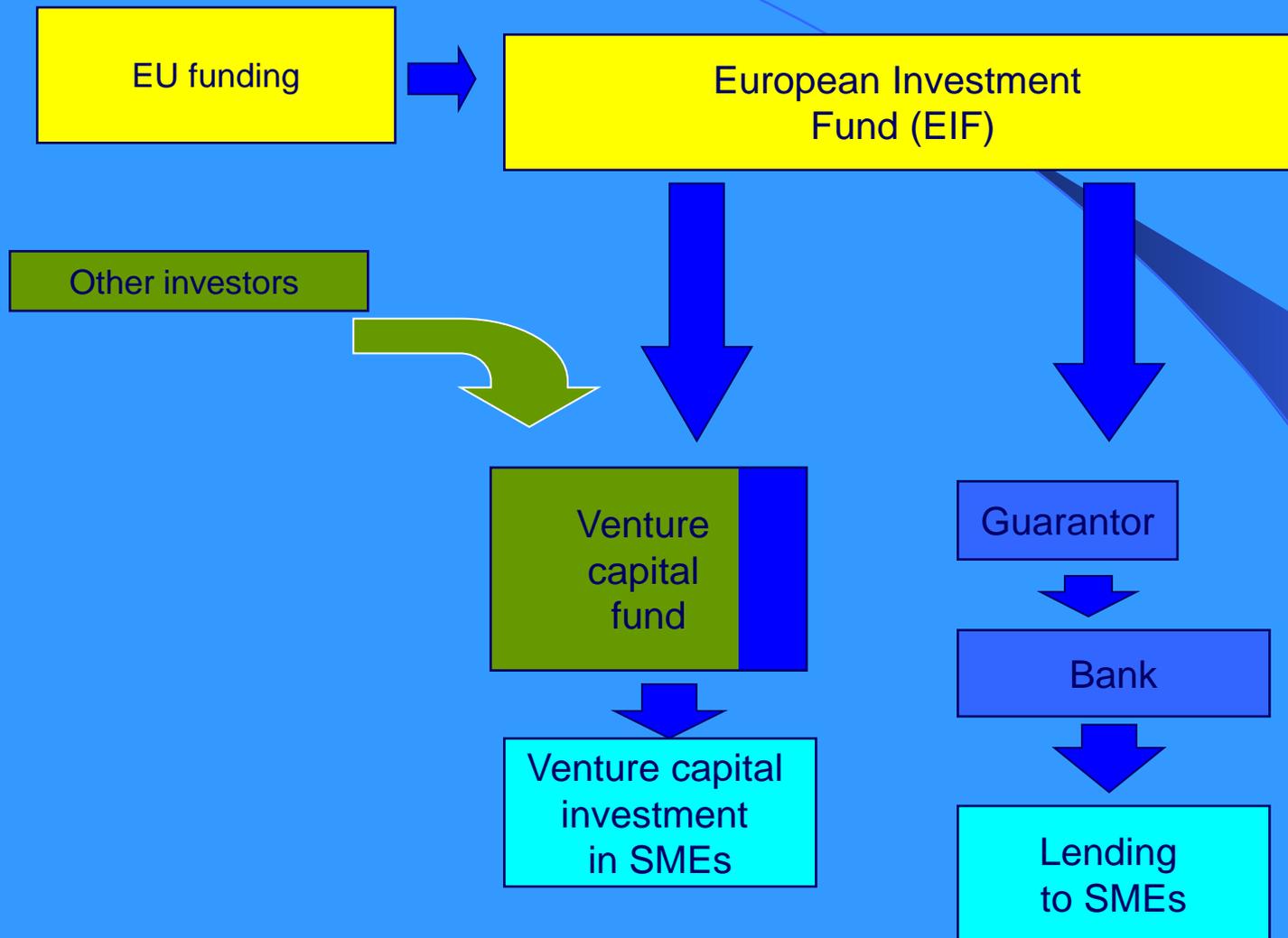
**Pari passu – benefits for private sector:
certification effect, building a track record,
lower due diligence and setting up costs**

**Asymmetric sharing of risk and rewards
Fund –of-funds structures are popular**

Types of hybrid funds

- **Co-investment private-public – European Investment Fund**
- **Capped returns for public investors**
- **Buy-option for private investors**
- **Fund operating costs**
- **Timing of cash flows**
- **Downside protection**

Competitiveness and Innovation Framework Programme



Issues in value adding

- **Incentives to provide value added**
 - Stake in the upside
 - Loss guarantees can be counter-productive
 - Leveraging of lower-cost, public funds
- **Ability to provide follow-on financing**
 - Small funds can be diluted in later rounds
- **Possession of proper skills by the VC investors**
 - Career paths from high-technology settings
 - Mobility of managers across firms and countries

Downside protection

Popular but problematic, given its impact on incentives

Keeping the upside better than protecting in the downside to attract the right calibre of managers

Examples: Germany KfW Venture Capital Programme, SOFARIS in France

Developing the industry

- **Publicly-sponsored public sector provide a training ground to develop skills.**
- **This is clearly understood in European countries with less developed VC sectors.**
- **EU: Capacity Building Scheme to improve the investment and technology expertise of funds.**

Issues in exiting

- **IPOs and trade sales are most lucrative routes**
- **Returns are sensitive to 1-2 big hits**
- **Successful IPOs require active stock markets, open to new securities**
- **IPO windows are sensitive to economic conditions (e.g. 2008-2009)**

Challenges for traditional banks

- **Lack of tangible assets (collateral)**
- **Volatility in cash flows**
- **Lack of historical operating performance**
- **No gain from the enterprise success, beyond the repayment of principal and interest**
- **Need to align the risk-return parameters (credit enhancement)**

Forms of credit enhancement

- **Provision of guarantees**

- **Promise to reimburse lenders for losses up to pre-specified amounts**
- **Enterprises can use guarantees to obtain financing**
- **Enterprises pay premium for the guarantee**
- **Pre-specified parameters (e.g. amount, time)**

- **Counter-guarantees or co-guarantees**

- **Securitization (asset-backed securities)**

- **Pooling of risks**
- **Transfer of risks to separate entities**

Challenges to administering guarantees

- **Eligibility criteria need to be clearly specified**
- **Need for rigid and effective selection methods to ensure properly motivated entrepreneurs**