

The Role of Academic Institutions in Economic Development: The Case of Vietnam

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Context: 1975-1986

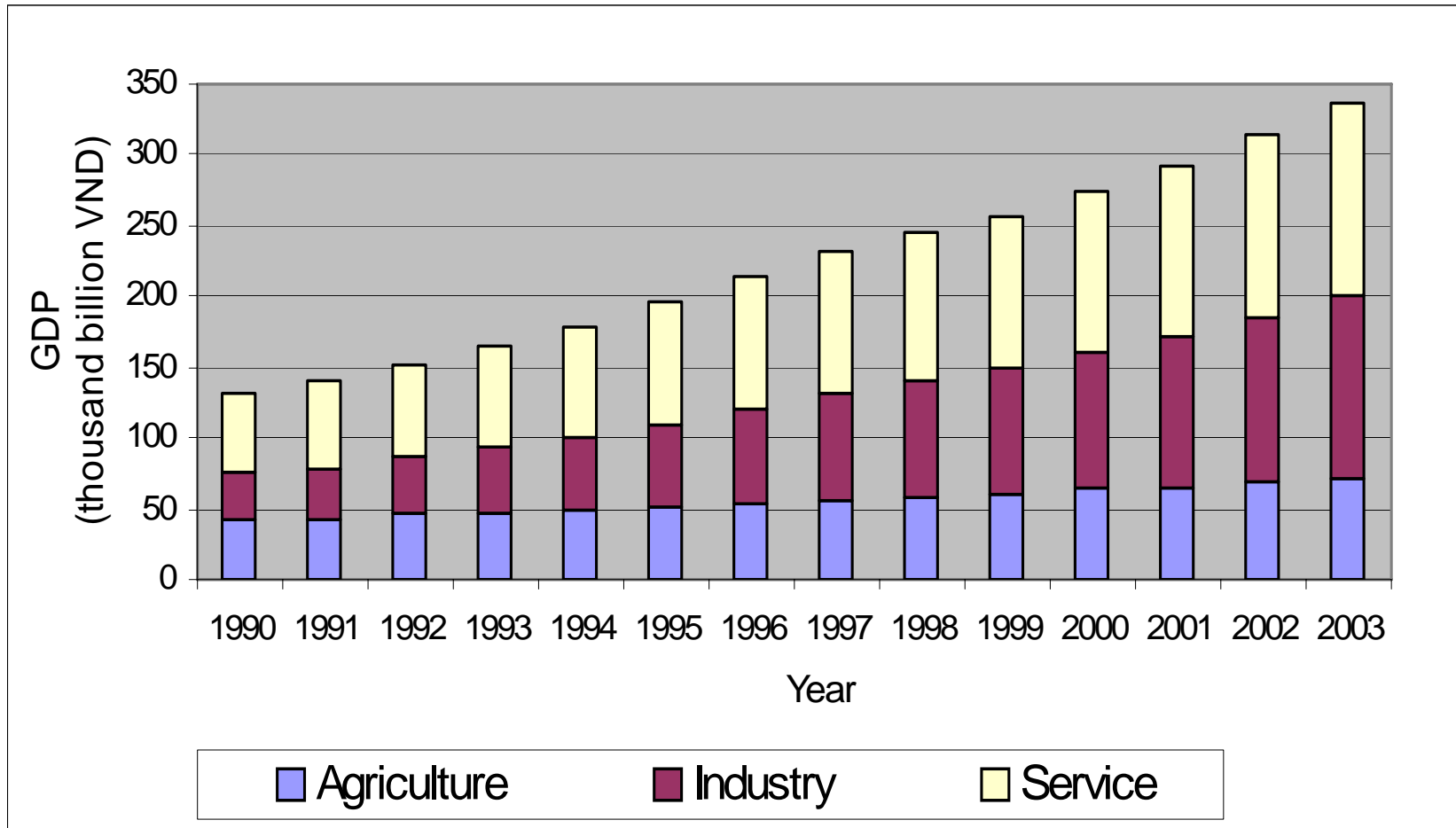
- Central planning economy
- Two sector growth model with priority put on heavy industry
- SOEs belong to line ministries and local gov. (SMEs)
- S&T sector:
 - universities for training (M. of Higher Education), but also research, problem solving.
 - academic inst. for research (Scientific Academy of Vietnam, National Committee on S&T)
 - engineering institutes (line ministries).
 - technical divisions of SOEs
 - hospitals
- Although economic operation was problematic, S&T sector worked quite well

Context: Since 1986

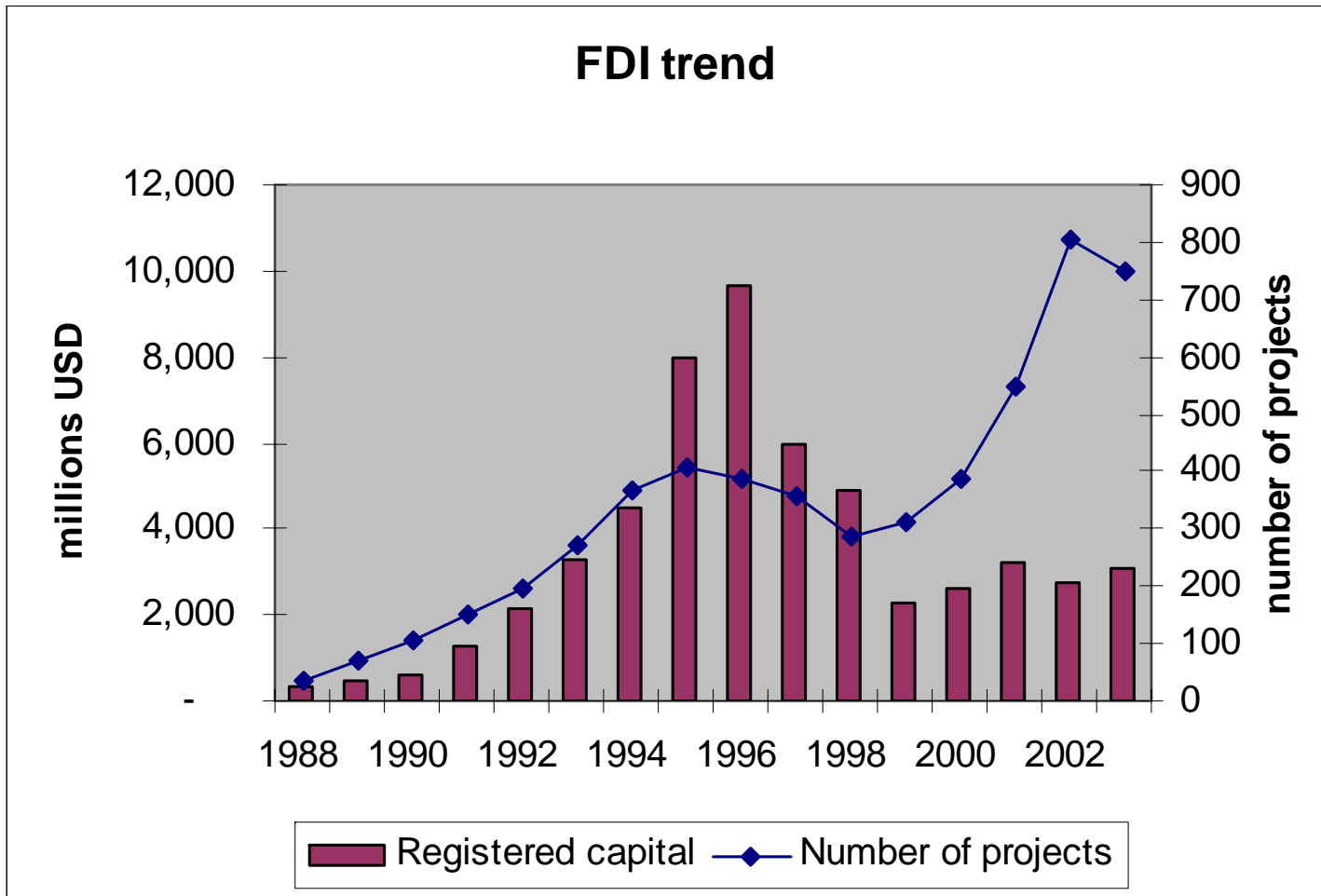
- Gradual process of liberalization and stabilization
 - Introduction of competition
 - Emerging of private sector
 - Market institutions development
- Market oriented
 - Explore comparative advantage
 - Acquire technology embedded in capital goods
 - Import materials for export
 - Link up to the world market
- FDI
 - Market development
 - Production base
 - Imported “private sector”

GDP growth by sector

(thousand billion VND, constant price 1994)



FDI trend



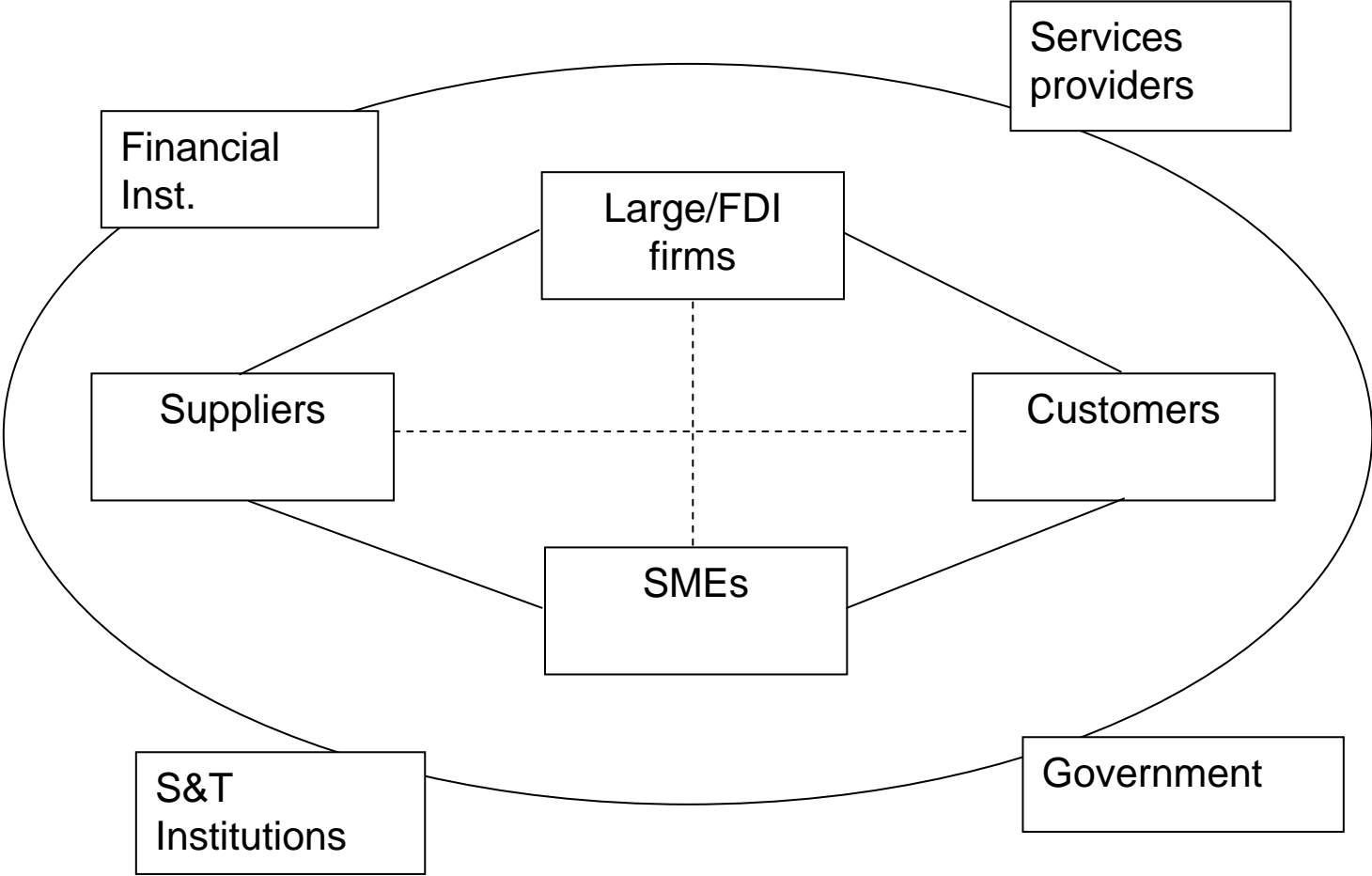
Innovation environment

- SMEs with diversified and specific problems
- Influenced by international production network
- Failures in technical services market
- Codified common technical knowledge in Vietnamese is not well organized
- Informality
- Failures in financial market
- Rent – seeking vs. Innovation

Characteristics of Innovation

- Incremental and/or new to the firms
- technology diffusion, technology learning, problem solving
- Acquisition of embedded technology via capital goods
- Learning through commercial links
- “second best” approach with a lot of “trial and error”

Lock-out situation of S&T in Sector Innovation system



Scientific Organizations

	2000	2001	2002	2003
Public sector	517	611	631	668
- Line ministries	342	423	437	466
- Higher education	120	129	134	141
- State own Enterprises	55	59	60	61
Collective Sector	311	399	440	487
Private Sector	25	41	44	44
Total	853	1051	1115	1199

S&T organizations (2005)

No.	Line Ministries / Government Bodies	Parent only	Parent& Affiliate	Number of organizations funded by government		
				funded	semi-funded	not funded
1	Ministry of Agriculture and Rural Development	38	87	1	82	4
2	Ministry of Industry	23	35	1	26	8
3	Ministry of Health	18	20	8	10	2
8	Ministry of Construction	15	15	1	12	2
9	Ministry of Resources and Environment	3	9	1	8	
19	Ministry of Transportation	10	23	3	19	1
20	Vietnam Academy of Science and Technology	26	44	23	5	16
21	Vietnam Academy of Social Science	28	28	26	1	1
22	Ministry of Defense	8	19	19		
23	Ministry of Police	10	10	9	1	
27	Ministry of Science and Technology	8	33	1	25	7
28	Ministry of Education and Training	18	155	3	21	131
	Others
	Total	230	521	122	225	174

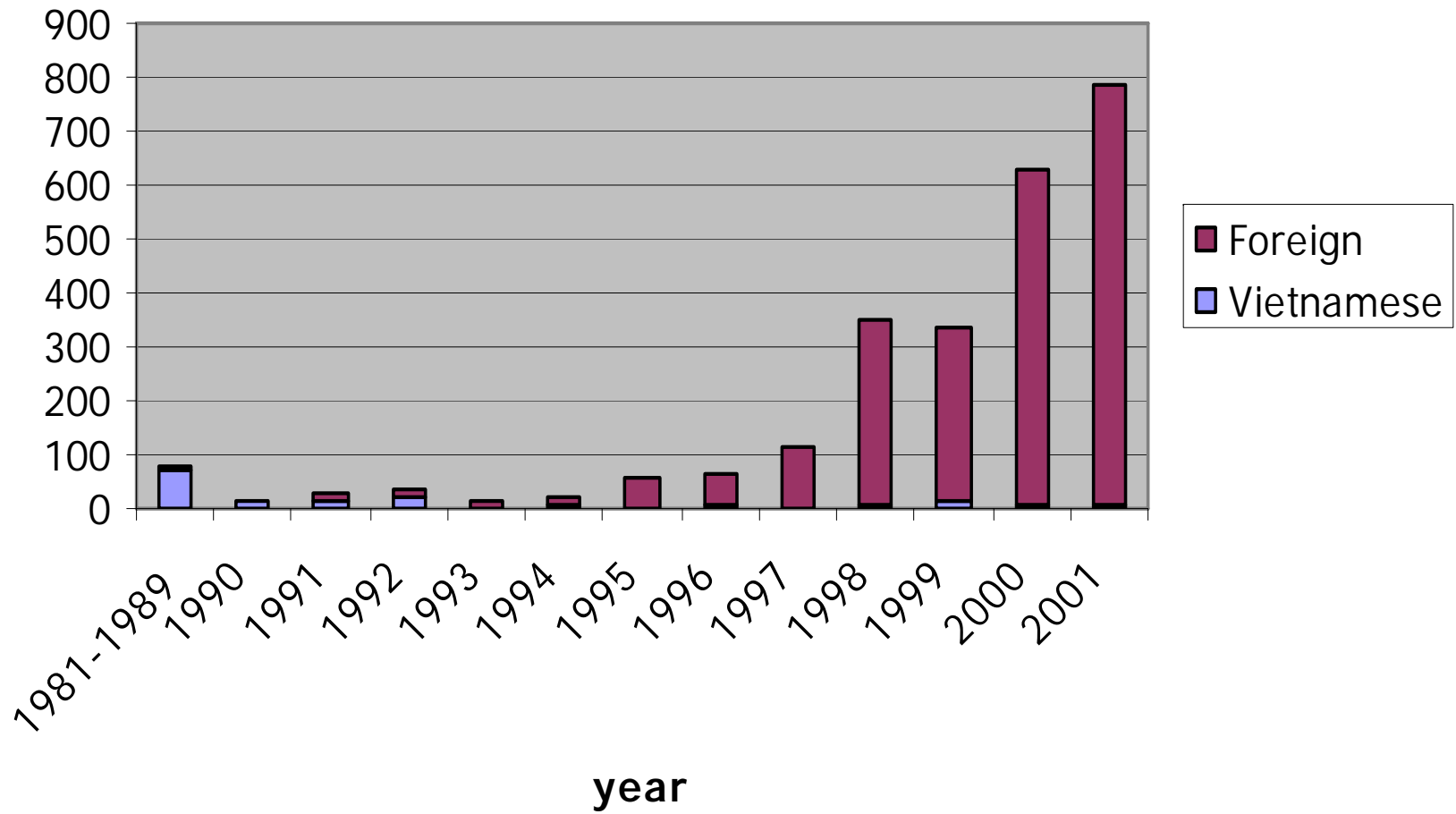
Universities & Colleges

	1995	2000	2001	2002	2003	2004
Universities and Colleges		178	191	202	214	230
Public	109	148	168	179	187	201
Non-public		30	23	23	27	29
Teachers (thousand)		32.4	35.9	38.7	40.0	47.6
Public	22.8	27.9	31.4	33.4	34.9	40.0
Non-public		4.5	4.5	5.3	5.1	7.6

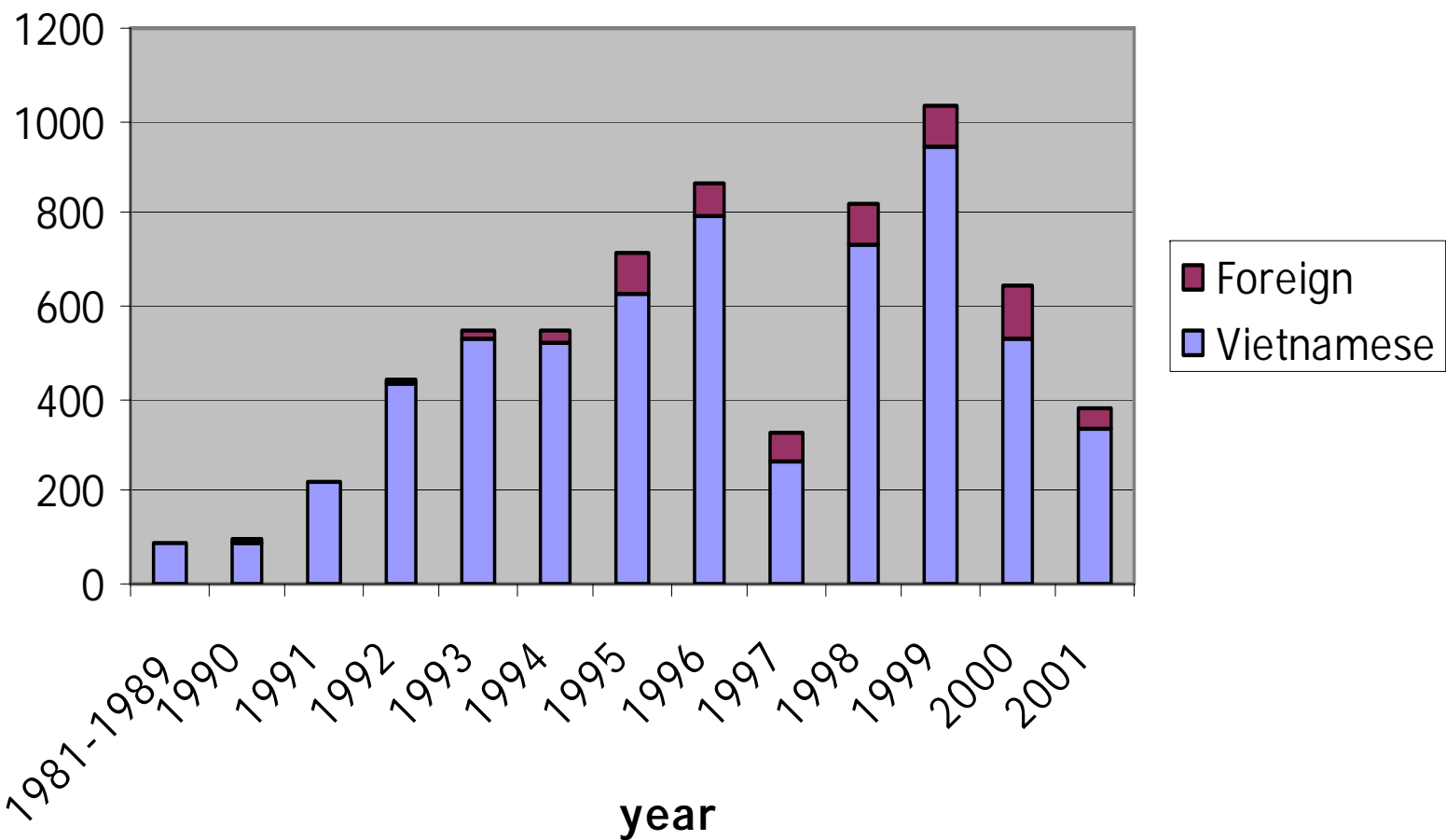
Students

	1995	2000	2001	2002	2003	2004
Students (thousand)		899.5	974.1	1020.7	1131.0	1319.8
Public	297.9	795.6	873.0	908.8	993.9	1182.0
Non-public		103.9	101.1	111.9	137.1	137.8
<i>In which: full-time training</i>	173.1	552.5	579.2	604.4	653.7	729.4
Public		452.4	480.8	493.8	529.6	601.8
Non-public		100.1	98.4	110.6	124.1	127.6
Graduates (thousand)		162.5	168.9	166.8	165.7	195.6
Public	58.5	149.8	157.5	152.6	152.6	180.8
Non-public		12.6	11.4	14.2	13.1	14.8

Patents for Inventions



Patents for Industrial Designs



Debate

(scientific organizations)

- Lack of convinced impacts on social & economic activities
- Limited & scattered resources (0.5%GDP)
- Introduction of market principles
 - More autonomy
 - Compete for grants
 - Income generating activities
- Bayh-Dole Acts style regulation
- Public good vs. private good

Debate

(Higher education)

- Conflicting objectives
- Commercial value vs. scientific value
- “artificial” demand vs. real demand
- Certificate vs. Learning
- Theoretical principles vs. Problem solving
- Textbook vs. Manuals/Reference
- Ageing staff

Changing role of S&T sector

- Respond to increasing demand for trained labour force
- Centre for knowledge & solutions
 - Source of solutions for diversified and specific problems,
 - Technical services providers
 - Address local problems
 - Package of solutions, not only technical issues but also economic & social issues
- Entrepreneurial university
- Social responsibility

Conclusion

- A few success stories
- But generally lagged behind economic growth
- Demand side approach is important
- Serious commitments are needed
- Better coordination is required

Thank you