

IT-use and broadband in the Swedish business sector

- Presented by Hans-Olof Hagén at Statistics Sweden at the OECD seminar in London 22.5.2007
- Some tentative IT composite indicators
- Relationship between IT use, broadband and productivity
- Broadband penetration in the Swedish business sector



Construction of composite indicator for IT

- Internet use=Number of business activities
- Business system integration level = types of activities integrated with orders and purchase systems
- Online purchasing in percent of total purchase
- Online sales in percent of total sales
- IT-level=Internet use + business system integration level+0.1* (online purchasing in percent + online sales in percent)

Relation between IT-indicators and VALP and GPMFP year 2002



Statistics Sweden

Statistiska centralbyrån

	VALP	GPMFP
Internet use 02	0.18	0.09
Business system integration 02	0.15	0.08
Total network sales 02	0.09 NS	0.12 NS
Internet purchase 02	-0.09	-0.16
IT level 02	0.20	0.11
Broadband under 2MB	0.05	0.12
Fast broadband	0.14	-0.04



Relation between IT indicators 2002 and the growth of VALP and GPMFP 2002 to 2004



	VALP0204	GPMFP0204
Internet use 02	0.02 NS	0.07
Business system integration 02	-0.01 NS	-0.01 NS
Total network sales 02	0.02 NS	0.09
Internet purchase 02	0.10 NS	0.15 NS
IT level 02	0.01 NS	0.04 (5% level)
Broadband under 2MB	0.02 NS	-0.01 NS
Fast broadband	0.01 NS	0.05



Relation between IT use, broadband and the VALP 2002



Statistics Sweden

R-Square 0.22

Controlled for size and industry

Adj R-Sq 0.21

Parameter Estimates

Statistiska centralbyrån

Variable	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	5.72	0.04	138.08	<.0001
IT level 02	0.02	0.00	4.36	<.0001
Broadband < 2MB 02	0.12	0.03	4.08	<.0001
Fast broadband 02	0.19	0.04	5.52	<.0001



Relation between IT use, broadband and GPMFP 2002

R-Square 0.61

Controlled for size
and industry

Adj R-Sq 0.60

Parameter Estimates

Variable	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	2.865	0.0355	80.74	<.0001
IT level 02	0.007	0.04	1.98	0.071
Broadband < 2MB 02	-0.0271	0.0248	-1.09	0.2737
Fast broadband 02	-0.073	0.030	-2.42	0.015

Relation between IT-indicators 2002 and the GPMFP growth 2002-2004



Statistics Sweden

Statistiska centralbyrån

R-Square 0.20

Controlled for size and industry

Adj R-Sq 0.19

Parameter Estimates

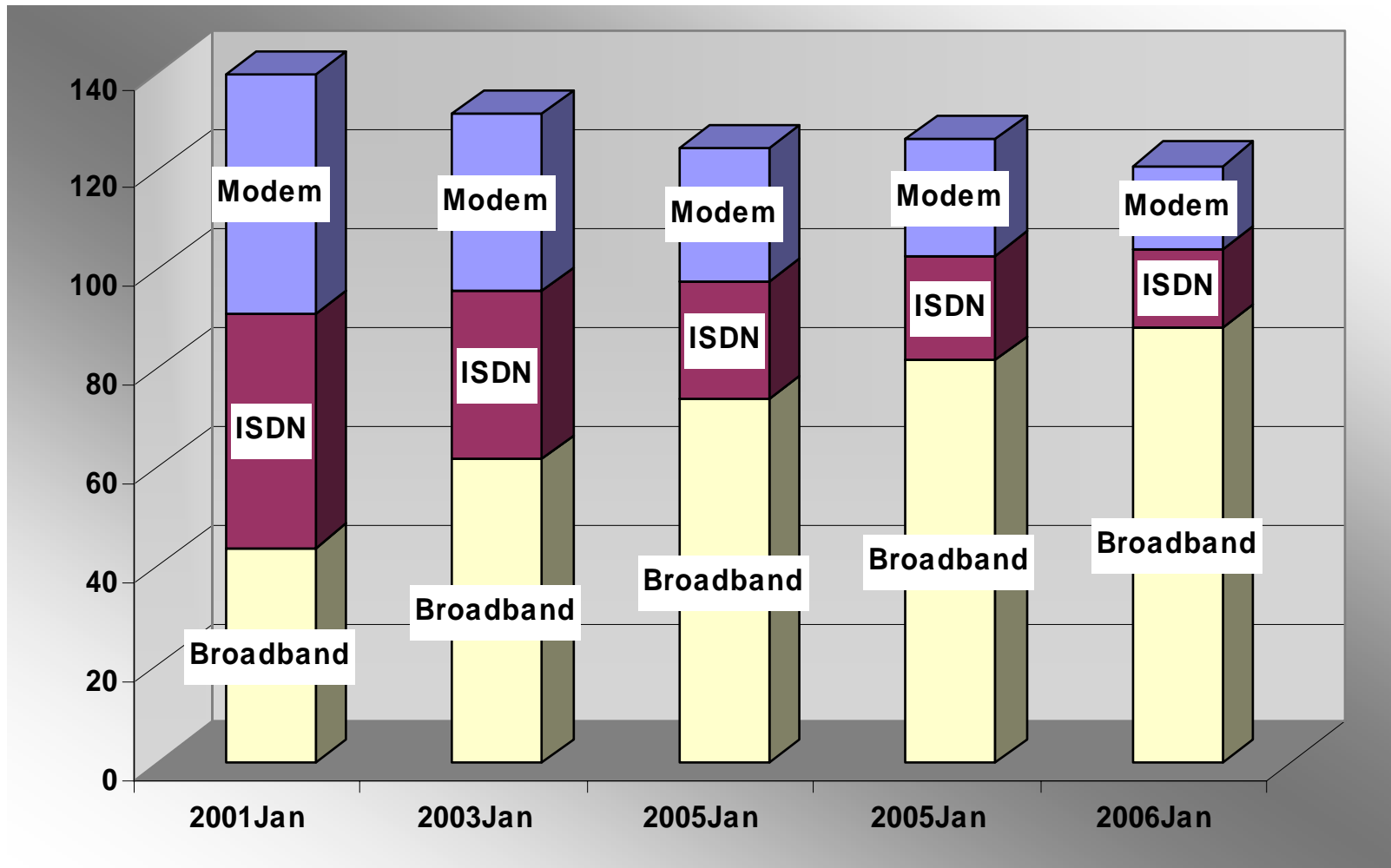
Variable	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	0.444	0.066	6.77	<.0001
IT level 02	-0.005	0.003	-1.66	0.097
Fast broadband 02	0.038	0.020	1.95	0.051



The increased broadband penetration in the Swedish business sector



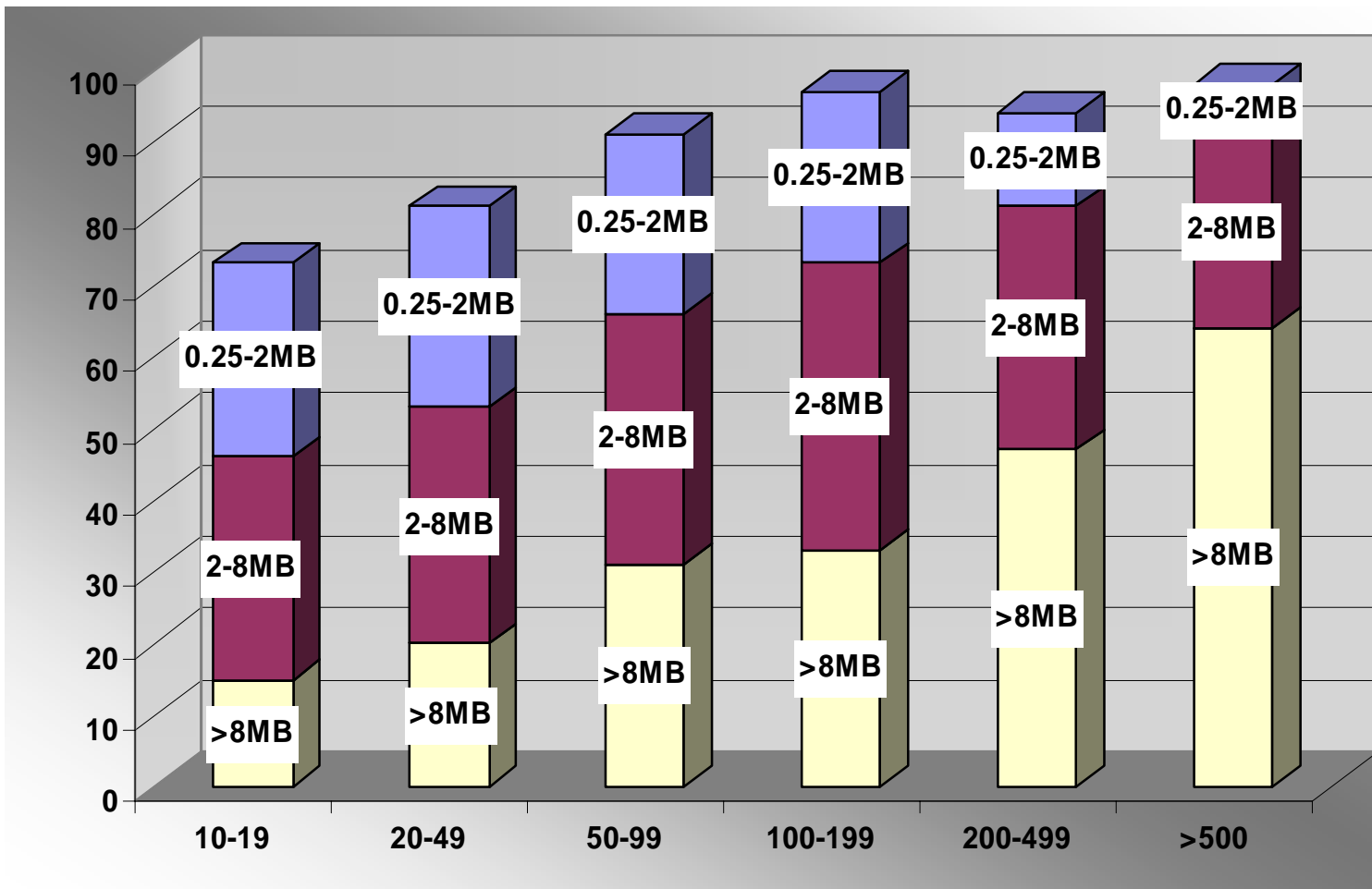
Statistiska centralbyrån Statistics Sweden



Broadband use in different firms size January 2006



Statistiska centralbyrån Statistics Sweden



Conclutions

- There is a relation between IT use and broadband and productivity 2002
- There also seems to be a relation between IT-use and broadband and the development in GPMFP 2002-2004
- Then controlled for industry and size the IT-use and broadband could explain some of the VALP 2002 but only the IT-use some of the GPMFP differences
- Then controlled for industry and size and fast broadband, but not the IT-use, 2002 could explain some of the growth in GPMFP
- There seems to be little need for a broad broadband policy in Sweden to promote broadband access and use in the business sector