

# Trade in Services: IT and Task Content

Andrea Ariu<sup>1</sup> Giordano Mion<sup>2</sup>

NBB, 14-15 October 2010

---

<sup>1</sup>UCL, NBB and FELU

<sup>2</sup>LSE and CEPR

# Why Services?

Dramatic change of the role of services in the economy

- in 1950 30% of GDP and a negligible share of trade
- in 2010 75% of GDP and at least 20% of world trade
- double digit growth in the past years

# Why Services?

Dramatic change of the role of services in the economy

- in 1950 30% of GDP and a negligible share of trade
- in 2010 75% of GDP and at least 20% of world trade
- double digit growth in the past years

We know very little about services

- few contributions from the international trade literature

# Research Question

Research Question:

**Why services have become tradable?**

# Research Question

Research Question:

**Why services have become tradable?**

We focus on:

- one country: Belgium, for 10 years
- both import and export
- firm-level approach
- extensive margin

# Research Question

Research Question:

**Why services have become tradable?**

We focus on:

- one country: Belgium, for 10 years
- both import and export
- firm-level approach
- extensive margin

Our idea:

- Technological change

## 1 Introduction

## 2 Data

## 3 Empirical strategy and results

## 4 Conclusions

# Literature review

## Services Trade:

- Freund and Weinhold (2002)
- Breinlich and Criuscolo (2009)
- Kelle and Kleinert (2010)

## Task approach:

- Autor et al. (2003)
- Spitz-Oener (2006)
- Oldenski (2009)
- Grossman and Rossi-Hansberg (2008)

# What is trade in services?

Four modes of trade in services:

- *Mode 1 (Cross-Border)*: when the service is produced in the territory of one country and consumed in the territory of any other country;
- *Mode 2 (Consumption Abroad)*: when the service is consumed in the territory of one country by the resident of another country;
- *Mode 3 (Presence Abroad)*: when the service is provided by a supplier of one country, through commercial presence in the territory of any other country;
- *Mode 4 (Presence of Natural Person)*: when the service supplier of one country, through presence of natural persons provides the service in the territory of any other country.

# Data

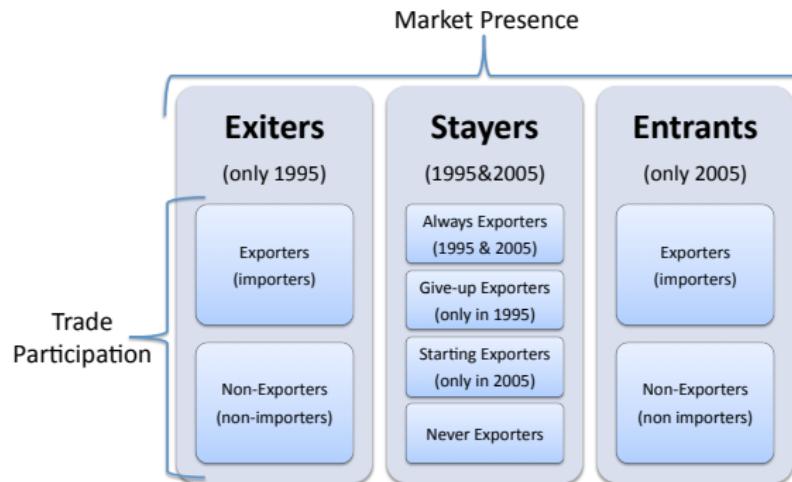
## Firm level data of the NBB

Firm-level panel with balance-sheet information on Belgian firms covering the period 1995-2005 augmented with trade in services by product type and origin/destination.

## Qualification and Career Survey, BIBB/IAB

Five cross-sections (1979, 1985/86, 1991/92, 1998/99 and 2005/06) with information on the tasks performed by employees.

# Sorting firms:



# Decomposing the increase: Exports

		Aggregate		Extensive Margins		Intensive Margins	
		1995	2005	1995	2005	1995	2005
<b>Entrants</b>	<b>Non Exp</b>	-	0.00	-	-	-	-
	<b>Exp</b>	-	11,562.26	-	6,360	-	1.8180
<b>Stayers</b>	<b>Non Exp</b>	0.00	0.00	-	-	-	-
	<b>Give-up Exp</b>	1,435.59	0.00	1,852	-	0.7752	-
	<b>Start Exp</b>	0.00	2,609.08	-	4,808	-	0.5427
	<b>Always Exp</b>	13,247.54	50,258.96	1,861	1,861	7.1185	27.0064
<b>Exiters</b>	<b>Non Exp</b>	0.00	-	-	-	-	-
	<b>Exp</b>	3,531.67	-	1,633	-	2.1627	-
<b>TOTAL</b>		18,214.80	64,430.30	5346	13029	3.3521*	9.7890*
<b>GROWTH</b>		253.73%		143.71%		192.02%	
<b>YEARLY GROWTH</b>		13.5%		9.3%		11.3%	

\*mean

Values are in million euros

# Decomposing the increase

<b>Extensive Margins</b>								
	<b>Export</b>				<b>Import</b>			
	1995	Perc.	2005	Perc.	1995	Perc.	2005	Perc.
<b>Manufacturing</b>	868	16%	1065	8%	1439	28%	1880	20%
<b>Services</b>	4478	84%	11963	92%	3611	72%	7482	80%
<b>Total</b>	5346		13028		5050		9363	

<b>Aggregate</b>								
	<b>Export</b>				<b>Import</b>			
	1995	Perc.	2005	Perc.	1995	Perc.	2005	Perc.
<b>Manufacturing</b>	1866.10	10%	9110.93	14%	2864.85	15%	9583.97	16%
<b>Services</b>	16348.68	90%	55318.45	86%	15751.18	85%	50172.87	84%
<b>Total</b>	18214.79		64429.39		18616.04		59756.84	

# Decomposing the increase

		<b>Export</b>	
<b>Rank</b>	<b>Sector</b>		<b>Change</b>
1	Professional, Scientific and Technical Activities		3539
2	Information, art and communication		766
3	Construction		660
4	Transport Services		639
5	Wholesale and retail trade		620
6	Other Services		572
7	Hotel and restaurants		257
8	Insurance, reinsurance and pension funding		158
9	Health and veterinary		144
10	<i>Manufacture of fabricated metal products</i>		75

# Measuring Technological Change

## Use of computers

It is a dummy variable that takes value one if the worker uses computers, terminals and electronic data processing machines

$$Comp_k = \frac{\text{number of workers in sector } k \text{ using computers}}{\text{total number of workers in sector } k}$$

1979	1985	1992	1998	2005
0.06	0.12	0.28	0.53	0.68

# Measuring Technological Change

- tasks performed by 30,000 individuals, classified by occupation and industry
- tasks classified by repetitiveness and cognitive content

Classification	Task
N-R Analytical	researching, analyzing, evaluating and planning, making plans, constructions, designing, sketching, working out rules/prescriptions, using and interpreting rules
N-R Interactive	negotiating, lobbying, coordinating, organizing, teaching or training, selling, buying, advising customers, advertising, entertaining or presenting, employ or manage personnel
N-R Manual	repairing or renovating houses, apartments and machines, restoring of art/monuments, serving or accommodating
Routine Cognitive	calculating, bookkeeping, correcting of texts/data, measuring of length/weight/temperature
Routine Manual	operating or controlling machines, equip machines



# Measuring Technological Change

$$Task_{i,j,t} = \frac{\text{number of activities in category } j, \text{ performed by } i \text{ at time } t}{\text{total number of activities in category } j \text{ at time } t}$$

Where:  $t = (1992, 2005)$  and

$$j = \left\{ \begin{array}{ll} 1 & : \text{analytical tasks} \\ 2 & : \text{interactive tasks} \\ 3 & : \text{routine cognitive tasks} \\ 4 & : \text{routine manual tasks} \\ 5 & : \text{non-routine manual tasks} \end{array} \right\}$$

# Measuring Technological Change

	Non Routine Tasks			Routine Tasks	
	Analytic	Interactive	Manual	Cognitive	Manual
1979	4.3207	9.2181	14.9391	35.7309	31.3286
1985	9.6879	10.0509	21.2473	34.4865	27.4534
1992	11.4382	17.0881	19.8563	27.5687	23.4034
1998	11.9421	31.2207	27.5000	20.4292	17.1051
2005	12.4212	31.5947	23.3416	15.8105	23.6850

# Empirical Strategy for stayers and exiters

We use an Heckman (1979) two-step procedure to make stayers and exiters comparable (survival):

- Selection equation:

$$Stayer_i = \beta_0 + \beta_1 Age_i + \beta_2 Prod_i + \beta_3 Size_i + \beta_4 \frac{k}{I_i} + \beta_5 \frac{ik}{I_i} + \beta_6 \frac{w}{I_i} + \beta_7 Ind_k + \mu_i$$

# Empirical Strategy for stayers and exiters

We use an Heckman (1979) two-step procedure to make stayers and exiters comparable (survival):

- Selection equation:

$$Stayer_i = \beta_0 + \beta^1 Age_i + \beta^2 Prod_i + \beta^3 Size_i + \beta^4 \frac{k}{I_i} + \beta^5 \frac{ik}{I_i} + \beta^6 \frac{w}{I_i} + \beta^7 Ind_k + \mu_i$$

- Two strategies for the outcome equation for stayers and exiters

- ① Use of computer

$$Exp_i = \alpha_0^0 + \alpha^1 Prod_i + \alpha^2 Size_i + \alpha^3 \frac{k}{I_i} + \alpha^4 \frac{w}{I_i} + \alpha^5 \frac{ik}{I_i} + \alpha^6 IM_i + \eta^0 \Delta WC_k + \eta^1 \Delta Comp_k + v_i$$

- ② Tasks  $j$

$$Exp_i = \alpha_0^0 + \alpha^1 Prod_i + \alpha^2 Size_i + \alpha^3 \frac{k}{I_i} + \alpha^4 \frac{w}{I_i} + \alpha^5 \frac{ik}{I_i} + \alpha^6 IM_i + \eta^0 \Delta WC_k + \eta^j \Delta Task_{j,k} + v_i$$

# Empirical Strategy for entrants

No need to use an Heckman (1979) two-step procedure since there are no selection issues:

- Similarly to the outcome equation we saw before (no IM ratio):

$$Exp_i = \alpha_0^0 + \alpha^1 Prod_i + \alpha^2 Size_i + \alpha^3 \frac{k}{I_i} + \alpha^4 \frac{w}{I_i} + \alpha^5 \frac{ik}{I_i} + \eta^0 \Delta WC_k + \eta^1 \Delta Comp_k + v_i$$

$$Exp_i = \alpha_0^0 + \alpha^1 Prod_i + \alpha^2 Size_i + \alpha^3 \frac{k}{I_i} + \alpha^4 \frac{w}{I_i} + \alpha^5 \frac{ik}{I_i} + \eta^0 \Delta WC_k + \eta^j \Delta Task_{j,k} + v_i$$

# Results Export, spec. 1

	Selection	Robust standard errors				Selection	Clustered standard errors			
		Stayers			Exitors		Stayers			Entrants
		Start	Give up	Always	(0.012)	(0.003)	(0.002)	(0.007)	(0.005)	(0.009)
Age	0.0814 <sup>a</sup> (0.012)	0.0215 <sup>a</sup> (0.008)	0.0131 <sup>a</sup> (0.002)	0.0197 <sup>a</sup> (0.001)	0.0327 <sup>a</sup> (0.003)	0.0381 <sup>a</sup> (0.002)	0.0814 <sup>a</sup> (0.013)	0.0215 <sup>a</sup> (0.021)	0.0131 <sup>a</sup> (0.007)	0.0197 <sup>a</sup> (0.005)
Productivity	0.2050 <sup>a</sup> (0.008)	0.0215 <sup>a</sup> (0.002)	0.0131 <sup>a</sup> (0.001)	0.0197 <sup>a</sup> (0.001)	0.0327 <sup>a</sup> (0.003)	0.0381 <sup>a</sup> (0.002)	0.2050 <sup>a</sup> (0.021)	0.0215 <sup>a</sup> (0.007)	0.0131 <sup>a</sup> (0.005)	0.0197 <sup>a</sup> (0.004)
Size	0.0538 <sup>a</sup> (0.004)	0.0260 <sup>a</sup> (0.001)	0.0178 <sup>a</sup> (0.001)	0.0317 <sup>a</sup> (0.001)	0.0432 <sup>a</sup> (0.002)	0.0401 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0260 <sup>a</sup> (0.006)	0.0178 <sup>a</sup> (0.002)	0.0317 <sup>a</sup> (0.007)
Capital Int.	0.0988 <sup>a</sup> (0.003)	0.0043 <sup>a</sup> (0.001)	-0.0001 <sup>a</sup> (0.000)	0.0015 <sup>a</sup> (0.000)	0.0051 <sup>a</sup> (0.001)	-0.0051 <sup>a</sup> (0.001)	0.0988 <sup>a</sup> (0.003)	0.0043 <sup>a</sup> (0.003)	-0.0001 <sup>a</sup> (0.002)	0.0015 <sup>a</sup> (0.002)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0035 <sup>a</sup> (0.001)	0.0010 <sup>a</sup> (0.001)	-0.0020 <sup>b</sup> (0.001)	0.0060 <sup>a</sup> (0.002)	0.0077 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0035 <sup>a</sup> (0.003)	0.0010 <sup>a</sup> (0.002)	-0.0020 <sup>a</sup> (0.002)
Int Capital Int	-0.0035 <sup>a</sup> (0.001)	-0.0001 <sup>a</sup> (0.000)	0.0003 <sup>b</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	0.0005 <sup>b</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	-0.0001 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.001)
Δ White Collar	0.0656 <sup>a</sup> (0.015)	0.0271 <sup>a</sup> (0.009)	0.0799 <sup>a</sup> (0.011)	0.3804 <sup>a</sup> (0.035)	0.4415 <sup>a</sup> (0.021)	0.0656 <sup>a</sup> (0.012)	0.0271 <sup>a</sup> (0.044)	0.0799 <sup>a</sup> (0.065)	0.3804 <sup>b</sup> (0.166)	0.4415 <sup>b</sup> (0.187)
Δ Computer	0.0503 <sup>a</sup> (0.006)	0.0075 <sup>b</sup> (0.004)	0.0076 <sup>c</sup> (0.004)	0.0495 <sup>a</sup> (0.012)	0.1837 <sup>a</sup> (0.009)	0.0503 <sup>a</sup> (0.082)	0.0075 <sup>b</sup> (0.012)	0.0076 <sup>c</sup> (0.049)	0.0495 <sup>a</sup> (0.069)	0.1837 <sup>a</sup> (0.129)
IM	0.0968 <sup>a</sup> (0.011)	0.0127 <sup>b</sup> (0.006)	0.0514 <sup>a</sup> (0.008)	0.1328 <sup>a</sup> (0.020)	0.0968 <sup>a</sup> (0.010)	0.0968 <sup>a</sup> (0.009)	0.0127 <sup>b</sup> (0.079)	0.0514 <sup>a</sup> (0.045)	0.1328 <sup>a</sup> (0.044)	0.0968 <sup>a</sup> (0.086)
Constant	0.7549 <sup>a</sup> (0.027)	-0.0166 <sup>a</sup> (0.005)	0.0067 <sup>b</sup> (0.003)	-0.0087 <sup>b</sup> (0.004)	-0.0293 <sup>a</sup> (0.010)	0.0110 <sup>a</sup> (0.003)	0.7549 <sup>a</sup> (0.048)	-0.0166 <sup>a</sup> (0.019)	0.0067 <sup>b</sup> (0.030)	-0.0087 <sup>b</sup> (0.049)
Industry Dummies	Yes						Yes			
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512	95512
R <sup>2</sup>	.	0.0218	0.0310	0.0741	0.0825	0.0753	.	0.0218	0.0310	0.0741
	Robust standard errors in parentheses * p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1						Industry clustered st. err. in parentheses * p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1			

# Results Export, spec. 2

	Selection	Robust standard errors				Clustered standard errors			
		Stayers			Exitors	Stayers			Exitors
		Start	Give up	Always		Start	Give up	Always	
Age	0.0814 <sup>a</sup> (0.012)					0.0814 <sup>a</sup> (0.013)			
Productivity	0.2050 <sup>a</sup> (0.008)	0.0309 <sup>a</sup> (0.002)	0.0165 <sup>a</sup> (0.001)	0.0285 <sup>a</sup> (0.002)	0.0413 <sup>a</sup> (0.003)	0.0361 <sup>a</sup> (0.002)	0.2050 <sup>a</sup> (0.021)	0.0309 <sup>a</sup> (0.008)	0.0165 <sup>a</sup> (0.004)
Size	0.0538 <sup>a</sup> (0.004)	0.0289 <sup>a</sup> (0.001)	0.0188 <sup>a</sup> (0.001)	0.0344 <sup>a</sup> (0.001)	0.0455 <sup>a</sup> (0.002)	0.0397 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0289 <sup>a</sup> (0.007)	0.0188 <sup>a</sup> (0.001)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0089 <sup>a</sup> (0.001)	0.0016 <sup>a</sup> (0.001)	0.0058 <sup>a</sup> (0.001)	0.0096 <sup>a</sup> (0.001)	-0.0045 <sup>a</sup> (0.001)	0.0988 <sup>a</sup> (0.003)	0.0089 <sup>b</sup> (0.004)	0.0016 <sup>c</sup> (0.001)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0072 <sup>a</sup> (0.001)	-0.0004 <sup>a</sup> (0.001)	-0.0055 <sup>a</sup> (0.002)	0.0020 <sup>a</sup> (0.001)	0.0084 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0072 <sup>c</sup> (0.004)	-0.0004 <sup>c</sup> (0.002)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	-0.0003 <sup>a</sup> (0.000)	0.0003 <sup>b</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0005 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	-0.0003 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.000)
Δ White Collar	0.0023 <sup>a</sup> (0.017)	0.0070 <sup>a</sup> (0.010)	0.0270 <sup>b</sup> (0.012)	-0.2555 <sup>a</sup> (0.077)	-0.1712 <sup>b</sup> (0.067)		0.0023 <sup>a</sup> (0.066)	0.0070 <sup>a</sup> (0.044)	0.0270 <sup>a</sup> (0.042)
Δ Routine Cognitive	-0.0001 <sup>a</sup> (0.000)	0.0000 <sup>c</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)		-0.0001 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)
Δ Routine Manual	-0.0016 <sup>a</sup> (0.000)	-0.0005 <sup>a</sup> (0.000)	-0.0011 <sup>a</sup> (0.000)	-0.0021 <sup>a</sup> (0.000)	-0.0015 <sup>a</sup> (0.000)		-0.0016 <sup>c</sup> (0.001)	-0.0005 <sup>c</sup> (0.000)	-0.0011 <sup>b</sup> (0.001)
Δ Non-Routine Manual	0.0004 <sup>a</sup> (0.000)	0.0004 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0011 <sup>a</sup> (0.000)	0.0013 <sup>a</sup> (0.000)		0.0004 <sup>a</sup> (0.001)	0.0004 <sup>c</sup> (0.000)	0.0006 <sup>c</sup> (0.000)
Δ Interactive	-0.0035 <sup>a</sup> (0.000)	-0.0013 <sup>a</sup> (0.000)	-0.0027 <sup>a</sup> (0.000)	-0.0049 <sup>a</sup> (0.000)	-0.0072 <sup>a</sup> (0.000)		0.0035 <sup>a</sup> (0.001)	-0.0013 <sup>a</sup> (0.001)	-0.0027 <sup>a</sup> (0.001)
Δ Analytical	0.0033 <sup>a</sup> (0.000)	0.0008 <sup>a</sup> (0.000)	0.0014 <sup>a</sup> (0.000)	0.0019 <sup>a</sup> (0.000)	0.0078 <sup>a</sup> (0.000)		0.0033 <sup>a</sup> (0.001)	0.0008 <sup>b</sup> (0.000)	0.0014 <sup>b</sup> (0.001)
IM	0.2043 <sup>a</sup> (0.016)	0.0518 <sup>a</sup> (0.010)	0.1510 <sup>a</sup> (0.012)	0.2262 <sup>a</sup> (0.025)		0.2043 <sup>b</sup> (0.085)	0.0518 <sup>a</sup> (0.036)	0.1510 <sup>b</sup> (0.055)	0.2262 <sup>a</sup> (0.059)
Constant	0.7549 <sup>a</sup> (0.027)	0.0017 <sup>a</sup> (0.007)	0.0104 <sup>b</sup> (0.005)	-0.0114 <sup>b</sup> (0.005)	0.0136 <sup>a</sup> (0.012)	0.1518 <sup>a</sup> (0.006)	0.7549 <sup>a</sup> (0.001)	0.0017 <sup>a</sup> (0.031)	0.0104 <sup>a</sup> (0.017)
Industry Dummies		Yes					Yes		
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512
R <sup>2</sup>	.	0.0328	0.0343	0.0864	0.0958	0.1053	.	0.0328	0.0343
Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1 Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1									



# Robustness Checks

Does offshoring matter?

# Robustness Checks

Does offshoring matter?

- Becker et al. (2009): tasks change induced by offshoring

# Robustness Checks

Does offshoring matter?

- Becker et al. (2009): tasks change induced by offshoring
- We get rid of all firms that:
  - are multinationals
  - have foreign affiliates
  - import services

# Robustness Checks

Does offshoring matter?

- Becker et al. (2009): tasks change induced by offshoring
- We get rid of all firms that:
  - are multinationals
  - have foreign affiliates
  - import services
- Results hold

# Robustness Checks

Does liberalization matter?

# Robustness Checks

Does liberalization matter?

- Hoekman (2006): does liberalization play a role in the growth of trade in services?

# Robustness Checks

Does liberalization matter?

- Hoekman (2006): does liberalization play a role in the growth of trade in services?
- Hoekman (2006), Francois and Hoekman (2010) and Hoekman et al. (2007): liberalization process took truly place only in EU.

# Robustness Checks

Does liberalization matter?

- Hoekman (2006): does liberalization play a role in the growth of trade in services?
- Hoekman (2006), Francois and Hoekman (2010) and Hoekman et al. (2007): liberalization process took truly place only in EU.
- We use only firms that trade outside the EU

# Robustness Checks

Does liberalization matter?

- Hoekman (2006): does liberalization play a role in the growth of trade in services?
- Hoekman (2006), Francois and Hoekman (2010) and Hoekman et al. (2007): liberalization process took truly place only in EU.
- We use only firms that trade outside the EU
- Results hold

# Further Results

Are results driven by service firms?

# Further Results

Are results driven by service firms?

- We run separate regressions for Service and Manufacturing firms

# Further Results

Are results driven by service firms?

- We run separate regressions for Service and Manufacturing firms
- Results hold only for Services firms

# Further Results

Does technology matter also in level terms?

# Further Results

Does technology matter also in level terms?

- We add levels to the baseline regressions

# Further Results

Does technology matter also in level terms?

- We add levels to the baseline regressions
- Levels matter: a sort of “Increasing Returns to Technological Change”

# Further Results

Heterogeneous effects?

# Further Results

## Heterogeneous effects?

- We interact the computer dummy and the tasks variables with Size, Productivity, Capital and Skill intensity

# Further Results

## Heterogeneous effects?

- We interact the computer dummy and the tasks variables with Size, Productivity, Capital and Skill intensity
- We find that:
  - for the computer interaction, productivity (+) and capital intensity (-) matter especially for entrants
  - for the tasks interaction, productivity and size have a positive effect on the likelihood of trading services

# Conclusions

- Churning is at work

# Conclusions

- Churning is at work
- Computer use is a crude measure of the technological change for trade in services

# Conclusions

- Churning is at work
- Computer use is a crude measure of the technological change for trade in services
- Multidimensional tasks change over time provides finer and richer results

# Conclusions

- Churning is at work
- Computer use is a crude measure of the technological change for trade in services
- Multidimensional tasks change over time provides finer and richer results
- Churning works for services sector firms only

# Conclusions

- Churning is at work
- Computer use is a crude measure of the technological change for trade in services
- Multidimensional tasks change over time provides finer and richer results
- Churning works for services sector firms only
- Technology has heterogeneous effects across firms

# Conclusions

- Churning is at work
- Computer use is a crude measure of the technological change for trade in services
- Multidimensional tasks change over time provides finer and richer results
- Churning works for services sector firms only
- Technology has heterogeneous effects across firms
- Results are robust controlling for liberalization and offshoring

# Thank you!

# Decomposing the increase: Imports

		Aggregate		Extensive Margins		Intensive Margins	
		1995	2005	1995	2005	1995	2005
<b>Entrants</b>	<b>Non Imp</b>	-	0.00	-	-	-	-
	<b>Imp</b>	-	10,400.96	-	3,522	-	2.928
<b>Stayers</b>	<b>Non Imp</b>	0.00	0.00	-	-	-	-
	<b>Give-up Imp</b>	1,208.29	0.00	1,521	-	0.7944	-
	<b>Start Imp</b>	0.00	3,645.49	-	3,720	-	0.9799
	<b>Always Exp</b>	14,103.75	45,722.35	2,131	2,131	6.6183	21.455
<b>Exiters</b>	<b>Non Imp</b>	0.00	-	-	-	-	-
	<b>Imp</b>	3,303.99	-	1,397	-	2.3650	-
<b>TOTAL</b>		18,616.03	59,768.80	5,049	9,373	3.6870*	6.3766*
<b>GROWTH</b>		221.06%		85.64%		72.94%	
<b>YEARLY GROWTH</b>		12.4%		6.3%		5.6%	

\*mean

Values are in million euros

# Decomposing the increase

Rank	Sector	Import	Change
1	Professional, Scientific and Technical Activities		1476
2	Wholesale and retail trade		809
3	Information, art and communication		331
4	Other Services		300
5	Construction		288
6	Transport Services		275
7	<i>Manufacture of fabricated metal products</i>		113
8	Hotel and restaurants		109
9	Financial Services		88
10	<i>Chemical Industry, Rubber and Synthetic Material</i>		85

# Trading Countries

Table: Top 10 trading countries (number of firms)

Export				
Rank	Country	1995	Country	2005
1	Nederland	1,978	Nederland	5,176
2	France	1,813	France	4,512
3	Germany	1,459	Germany	3,010
4	Great Britain	1,131	Great Britain	2,736
5	USA	1,095	Luxembourg	1,670
6	Switzerland	604	USA	1,530
7	Luxembourg	541	Switzerland	1,110
8	Italy	462	Italy	1,065
9	Spain	351	Spain	903
10	Sweden	272	Sweden	547

# No offshoring firms, export, spec.1

	Robust standard errors						Clustered standard errors					
	Selection	Stayers			Exitors	Entrants	Selection	Stayers			Exitors	Entrants
		Start	Give up	Always				Start	Give up	Always		
Age	0.0814 <sup>a</sup> (0.012)				0.0169 <sup>a</sup> (0.002)	0.0381 <sup>a</sup> (0.002)	0.0814 <sup>a</sup> (0.013)				0.0169 <sup>a</sup> (0.001)	0.0381 <sup>a</sup> (0.009)
Productivity	0.2050 <sup>a</sup> (0.008)	0.0162 <sup>a</sup> (0.001)	0.0058 <sup>a</sup> (0.001)	0.0032 <sup>a</sup> (0.001)	0.0169 <sup>a</sup> (0.002)	0.0381 <sup>a</sup> (0.002)	0.2050 <sup>a</sup> (0.021)	0.0162 <sup>a</sup> (0.006)	0.0058 <sup>b</sup> (0.002)	0.0032 <sup>a</sup> (0.001)	0.0169 <sup>a</sup> (0.006)	0.0381 <sup>a</sup> (0.009)
Size	0.0538 <sup>a</sup> (0.004)	0.0178 <sup>a</sup> (0.001)	0.0065 <sup>a</sup> (0.000)	0.0055 <sup>a</sup> (0.000)	0.0205 <sup>a</sup> (0.001)	0.0401 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0178 <sup>b</sup> (0.007)	0.0065 <sup>a</sup> (0.001)	0.0055 <sup>b</sup> (0.002)	0.0205 <sup>a</sup> (0.005)	0.0401 <sup>a</sup> (0.010)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0034 <sup>a</sup> (0.001)	0.0002 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.001)	0.0016 <sup>c</sup> (0.001)	-0.0051 <sup>a</sup> (0.001)	0.0988 <sup>a</sup> (0.003)	0.0034 <sup>a</sup> (0.002)	0.0002 <sup>a</sup> (0.001)	-0.0001 <sup>a</sup> (0.000)	0.0016 <sup>a</sup> (0.002)	-0.0051 <sup>b</sup> (0.002)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0026 <sup>b</sup> (0.001)	0.0009 <sup>a</sup> (0.001)	0.0009 <sup>a</sup> (0.000)	0.0039 <sup>b</sup> (0.002)	0.0077 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0026 <sup>a</sup> (0.003)	0.0009 <sup>a</sup> (0.001)	0.0009 <sup>a</sup> (0.001)	0.0039 <sup>a</sup> (0.003)	0.0077 <sup>b</sup> (0.003)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>c</sup> (0.000)	-0.0001 <sup>b</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	0.0005 <sup>b</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>c</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.001)
Δ White Collar		0.0504 <sup>a</sup> (0.014)	0.0292 <sup>a</sup> (0.006)	0.0243 <sup>a</sup> (0.005)	0.2069 <sup>a</sup> (0.027)	0.4415 <sup>a</sup> (0.021)		0.0504 <sup>a</sup> (0.091)	0.0292 <sup>a</sup> (0.026)	0.0243 <sup>a</sup> (0.023)	0.2069 <sup>c</sup> (0.105)	0.4415 <sup>b</sup> (0.187)
Δ Computer		0.0375 <sup>a</sup> (0.006)	0.0021 <sup>a</sup> (0.003)	-0.0052 <sup>b</sup> (0.002)	0.0151 <sup>c</sup> (0.009)	0.1837 <sup>a</sup> (0.009)		0.0375 <sup>a</sup> (0.067)	0.0021 <sup>a</sup> (0.011)	-0.0052 <sup>a</sup> (0.018)	0.0151 <sup>a</sup> (0.045)	0.1837 <sup>a</sup> (0.129)
IM		0.0704 <sup>a</sup> (0.009)	0.0083 <sup>b</sup> (0.004)	0.0042 <sup>a</sup> (0.003)	0.0590 <sup>a</sup> (0.016)		0.0704 <sup>a</sup> (0.060)	0.0083 <sup>a</sup> (0.021)	0.0042 <sup>a</sup> (0.011)	0.0590 <sup>a</sup> (0.051)		
Constant	0.7549 <sup>a</sup> (0.027)	-0.0107 <sup>b</sup> (0.005)	0.0039 <sup>c</sup> (0.002)	0.0045 <sup>b</sup> (0.002)	-0.0043 <sup>a</sup> (0.008)	0.0110 <sup>a</sup> (0.003)	0.7549 <sup>a</sup> (0.001)	-0.0107 <sup>a</sup> (0.038)	0.0039 <sup>a</sup> (0.010)	0.0045 <sup>a</sup> (0.010)	-0.0043 <sup>a</sup> (0.030)	0.0110 <sup>a</sup> (0.037)
Industry Dummies	Yes						Yes					
Observations	125093	88498	88498	88498	28577	58550	125093	88498	88498	88498	28577	58550
R <sup>2</sup>	.	0.0113	0.0080	0.0089	0.0318	0.0753	.	0.0113	0.0080	0.0089	0.0318	0.0753

Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Industry clustered st. err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# No offshoring firms, export, spec.2

	Robust standard errors				Clustered standard errors							
	Selection	Stayers			Exitors	Entrants	Selection	Stayers			Exitors	Entrants
		Start	Give up	Always				Start	Give up	Always		
Age	0.0814 <sup>a</sup> (0.012)	0.0247 <sup>a</sup> (0.008)	0.0078 <sup>a</sup> (0.002)	0.0068 <sup>a</sup> (0.001)	0.0250 <sup>a</sup> (0.003)	0.0361 <sup>a</sup> (0.002)	0.0814 <sup>a</sup> (0.013)	0.0247 <sup>a</sup> (0.021)	0.0078 <sup>a</sup> (0.007)	0.0068 <sup>b</sup> (0.002)	0.0250 <sup>a</sup> (0.003)	0.0361 <sup>a</sup> (0.004)
Productivity	0.2050 <sup>a</sup> (0.008)	0.0214 <sup>a</sup> (0.004)	0.0075 <sup>a</sup> (0.001)	0.0069 <sup>a</sup> (0.001)	0.0230 <sup>a</sup> (0.002)	0.0397 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0247 <sup>a</sup> (0.007)	0.0078 <sup>a</sup> (0.001)	0.0068 <sup>b</sup> (0.003)	0.0250 <sup>a</sup> (0.003)	0.0361 <sup>a</sup> (0.008)
Size	0.0538 <sup>a</sup> (0.004)	0.0214 <sup>a</sup> (0.003)	0.0075 <sup>a</sup> (0.001)	0.0069 <sup>a</sup> (0.001)	0.0230 <sup>a</sup> (0.002)	0.0397 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0214 <sup>a</sup> (0.007)	0.0075 <sup>a</sup> (0.001)	0.0069 <sup>b</sup> (0.003)	0.0230 <sup>a</sup> (0.005)	0.0397 <sup>a</sup> (0.010)
Capital Intensity	0.0968 <sup>a</sup> (0.003)	0.0074 <sup>a</sup> (0.001)	0.0011 <sup>a</sup> (0.000)	0.0016 <sup>a</sup> (0.001)	0.0057 <sup>a</sup> (0.001)	-0.0045 <sup>a</sup> (0.001)	0.0968 <sup>a</sup> (0.003)	0.0074 <sup>c</sup> (0.004)	0.0011 <sup>a</sup> (0.001)	0.0016 <sup>a</sup> (0.001)	0.0057 <sup>a</sup> (0.002)	-0.0045 <sup>c</sup> (0.002)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0059 <sup>a</sup> (0.001)	0.0001 <sup>a</sup> (0.000)	-0.0006 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.002)	0.0084 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0059 <sup>a</sup> (0.004)	0.0001 <sup>a</sup> (0.001)	-0.0006 <sup>a</sup> (0.001)	0.0003 <sup>a</sup> (0.002)	0.0084 <sup>b</sup> (0.003)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	-0.0002 <sup>a</sup> (0.000)	-0.0002 <sup>c</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0005 <sup>b</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	-0.0002 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0002 <sup>c</sup> (0.000)	-0.0005 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.001)
Δ White Collar	-0.0080 (0.016)	0.0187 <sup>b</sup> (0.007)	0.0022 (0.005)	-0.2527 <sup>a</sup> (0.059)	-0.1712 <sup>b</sup> (0.067)	-0.0080 (0.063)	0.0187 (0.024)	0.0022 (0.015)	-0.2527 <sup>b</sup> (0.094)	-0.1712 <sup>b</sup> (0.292)	-0.0080 (0.292)	-0.2527 <sup>b</sup> (0.292)
Δ Routine Cognitive	-0.0001 <sup>b</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0001 <sup>c</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)
Δ Routine Manual	-0.0013 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	-0.0016 <sup>a</sup> (0.000)	-0.0015 <sup>a</sup> (0.000)	-0.0013 <sup>c</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0004 <sup>c</sup> (0.000)	-0.0013 <sup>a</sup> (0.001)	-0.0002 <sup>a</sup> (0.001)	-0.0004 <sup>c</sup> (0.001)	-0.0015 <sup>a</sup> (0.001)
Δ Non-Routine Manual	0.0003 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0007 <sup>a</sup> (0.000)	0.0013 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.001)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0007 <sup>b</sup> (0.000)	0.0013 <sup>c</sup> (0.000)	0.0013 <sup>c</sup> (0.001)
Δ Interactive	-0.0028 <sup>a</sup> (0.000)	-0.0009 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0034 <sup>a</sup> (0.000)	-0.0072 <sup>a</sup> (0.000)	-0.0028 <sup>a</sup> (0.001)	-0.0009 <sup>a</sup> (0.000)	-0.0008 <sup>b</sup> (0.000)	-0.0008 <sup>b</sup> (0.000)	-0.0034 <sup>a</sup> (0.000)	-0.0072 <sup>a</sup> (0.002)	-0.0072 <sup>a</sup> (0.002)
Δ Analytical	0.0026 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0078 <sup>a</sup> (0.000)	0.0026 <sup>a</sup> (0.001)	0.0006 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0078 <sup>a</sup> (0.000)	0.0078 <sup>a</sup> (0.002)	0.0078 <sup>a</sup> (0.002)
IM	0.1627 <sup>a</sup> (0.014)	0.0306 <sup>a</sup> (0.007)	0.0428 <sup>a</sup> (0.005)	0.1442 <sup>a</sup> (0.020)	0.1627 <sup>b</sup> (0.023)	0.1627 <sup>b</sup> (0.074)	0.0306 <sup>c</sup> (0.017)	0.0428 <sup>c</sup> (0.023)	0.1442 <sup>a</sup> (0.032)	0.1627 <sup>b</sup> (0.017)	0.0306 <sup>c</sup> (0.017)	0.1442 <sup>a</sup> (0.031)
Constant	0.7549 <sup>a</sup> (0.027)	0.0011 (0.006)	0.0073 <sup>b</sup> (0.003)	-0.0015 (0.002)	0.0124 (0.009)	0.1518 <sup>a</sup> (0.006)	0.7549 <sup>a</sup> (0.001)	0.0011 (0.025)	0.0073 <sup>a</sup> (0.009)	-0.0015 (0.006)	0.0124 (0.017)	0.1518 <sup>a</sup> (0.031)
Industry Dummies	Yes	125093 (125093)	88498 (88498)	88498 (88498)	28577 (28577)	58550 (58550)	125093 (125093)	88498 (88498)	88498 (88498)	28577 (28577)	58550 (58550)	
Observations	-	88498 (88498)	88498 (88498)	88498 (88498)	28577 (28577)	58550 (58550)	-	88498 (88498)	88498 (88498)	28577 (28577)	58550 (58550)	
R <sup>2</sup>	-	0.0207 (0.0105)	0.0105 (0.0129)	0.0415 (0.0405)	0.1053 (0.1053)	-	0.0207 (0.0105)	0.0105 (0.0129)	0.0415 (0.0415)	0.1053 (0.1053)	-	
Robust standard errors in parentheses * p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.1												
Industry clustered st. err. in parentheses * p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.1												

# Non EU export, spec.1

	Robust standard errors				Clustered standard errors							
	Selection	Stayers			Exiters	Entrants	Selection	Stayers			Exiters	Entrants
		Start	Give up	Always				Start	Give up	Always		
Age	0.0814 <sup>a</sup> (0.012)	0.0067 <sup>a</sup> (0.008)	0.0069 <sup>a</sup> (0.001)	0.0089 <sup>a</sup> (0.001)	0.0130 <sup>a</sup> (0.002)	0.0132 <sup>a</sup> (0.001)	0.0814 <sup>a</sup> (0.013)	0.0067 <sup>b</sup> (0.021)	0.0069 <sup>a</sup> (0.003)	0.0089 <sup>a</sup> (0.002)	0.0130 <sup>a</sup> (0.004)	0.0132 <sup>a</sup> (0.003)
Productivity	0.2050 <sup>a</sup> (0.008)	0.0067 <sup>a</sup> (0.001)	0.0069 <sup>a</sup> (0.001)	0.0089 <sup>a</sup> (0.001)	0.0130 <sup>a</sup> (0.002)	0.0132 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0067 <sup>b</sup> (0.003)	0.0069 <sup>a</sup> (0.002)	0.0089 <sup>a</sup> (0.002)	0.0130 <sup>a</sup> (0.004)	0.0132 <sup>a</sup> (0.003)
Size	0.0538 <sup>a</sup> (0.004)	0.0094 <sup>a</sup> (0.001)	0.0103 <sup>a</sup> (0.001)	0.0114 <sup>a</sup> (0.001)	0.0151 <sup>a</sup> (0.001)	0.0141 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0094 <sup>a</sup> (0.003)	0.0103 <sup>a</sup> (0.002)	0.0114 <sup>a</sup> (0.002)	0.0151 <sup>a</sup> (0.004)	0.0141 <sup>a</sup> (0.004)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0011 <sup>a</sup> (0.000)	0.0006 <sup>b</sup> (0.000)	0.0009 <sup>a</sup> (0.001)	0.0032 <sup>a</sup> (0.001)	-0.0016 <sup>a</sup> (0.000)	0.0988 <sup>a</sup> (0.003)	0.0011 <sup>a</sup> (0.001)	0.0006 <sup>a</sup> (0.001)	0.0009 <sup>a</sup> (0.001)	0.0032 <sup>b</sup> (0.002)	-0.0016 <sup>b</sup> (0.001)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0008 <sup>a</sup> (0.001)	0.0005 <sup>a</sup> (0.001)	-0.0021 <sup>a</sup> (0.001)	0.0024 <sup>b</sup> (0.001)	0.0023 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0008 <sup>a</sup> (0.002)	0.0005 <sup>a</sup> (0.001)	-0.0021 <sup>c</sup> (0.001)	0.0024 <sup>a</sup> (0.002)	0.0023 <sup>c</sup> (0.001)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	0.0002 <sup>c</sup> (0.000)	0.0002 <sup>c</sup> (0.000)	0.0002 <sup>c</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	0.0003 <sup>b</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	0.0003 <sup>b</sup> (0.000)
Δ White Collar	0.0191 <sup>b</sup> (0.009)	0.0072 <sup>a</sup> (0.006)	0.0236 <sup>a</sup> (0.007)	0.1268 <sup>a</sup> (0.021)	0.1315 <sup>a</sup> (0.011)	0.0191 <sup>a</sup> (0.011)	0.0191 <sup>a</sup> (0.032)	0.0072 <sup>a</sup> (0.021)	0.0236 <sup>a</sup> (0.022)	0.1268 <sup>c</sup> (0.066)	0.1315 <sup>b</sup> (0.051)	
Δ Computer	0.0171 <sup>a</sup> (0.003)	0.0101 <sup>a</sup> (0.003)	0.0099 <sup>a</sup> (0.002)	0.0297 <sup>a</sup> (0.007)	0.0447 <sup>a</sup> (0.005)	0.0171 <sup>a</sup> (0.005)	0.0171 <sup>a</sup> (0.024)	0.0101 <sup>a</sup> (0.010)	0.0099 <sup>a</sup> (0.012)	0.0297 <sup>a</sup> (0.028)	0.0447 <sup>a</sup> (0.033)	
IM	0.0326 <sup>a</sup> (0.006)	0.0186 <sup>a</sup> (0.005)	0.0284 <sup>a</sup> (0.005)	0.0700 <sup>a</sup> (0.013)	0.0700 <sup>a</sup> (0.013)	0.0326 <sup>a</sup> (0.013)	0.0326 <sup>a</sup> (0.028)	0.0186 <sup>a</sup> (0.022)	0.0284 <sup>a</sup> (0.018)	0.0700 <sup>c</sup> (0.035)		
Constant	0.7549 <sup>a</sup> (0.027)	-0.0092 <sup>a</sup> (0.003)	-0.0051 <sup>b</sup> (0.002)	-0.0109 <sup>a</sup> (0.002)	-0.0260 <sup>a</sup> (0.006)	0.0033 <sup>b</sup> (0.001)	0.7549 <sup>a</sup> (0.001)	-0.0092 <sup>a</sup> (0.015)	-0.0051 <sup>a</sup> (0.010)	-0.0109 <sup>a</sup> (0.010)	-0.0260 <sup>a</sup> (0.020)	0.0033 <sup>a</sup> (0.009)
Industry Dummies	Yes	125093	95512	95512	95512	29563	58550	Yes	125093	95512	95512	95512
Observations	.	125093	95512	95512	95512	29563	58550	.	125093	95512	95512	95512
R <sup>2</sup>	.	0.0108	0.0219	0.0319	0.0336	0.0327	.	0.0108	0.0219	0.0319	0.0336	0.0327

Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Industry clustered st. err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Non EU export, spec.2

	Selection	Robust standard errors				Clustered standard errors			
		Stayers			Exitors	Stayers			Exitors
		Start	Give up	Always		Start	Give up	Always	
Age	0.0814 <sup>a</sup> (0.012)					0.0814 <sup>a</sup> (0.013)			
Productivity	0.2050 <sup>a</sup> (0.008)	0.0092 <sup>a</sup> (0.001)	0.0085 <sup>a</sup> (0.001)	0.0109 <sup>a</sup> (0.001)	0.0150 <sup>a</sup> (0.002)	0.0126 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0092 <sup>a</sup> (0.003)	0.0085 <sup>a</sup> (0.002)
Size	0.0538 <sup>a</sup> (0.004)	0.0102 <sup>a</sup> (0.001)	0.0108 <sup>a</sup> (0.001)	0.0120 <sup>a</sup> (0.001)	0.0157 <sup>a</sup> (0.001)	0.0140 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0102 <sup>a</sup> (0.003)	0.0108 <sup>a</sup> (0.001)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0023 <sup>a</sup> (0.000)	0.0014 <sup>a</sup> (0.000)	0.0019 <sup>a</sup> (0.001)	0.0044 <sup>a</sup> (0.001)	-0.0014 <sup>a</sup> (0.000)	0.0988 <sup>a</sup> (0.003)	0.0023 <sup>a</sup> (0.001)	0.0014 <sup>a</sup> (0.001)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0017 <sup>b</sup> (0.001)	-0.0002 <sup>a</sup> (0.001)	-0.0029 <sup>a</sup> (0.001)	0.0015 <sup>a</sup> (0.001)	0.0024 <sup>a</sup> (0.000)	-0.1009 <sup>a</sup> (0.008)	-0.0017 <sup>a</sup> (0.002)	-0.0002 <sup>b</sup> (0.001)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	0.0001 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	0.0004 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	0.0001 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)
Δ White Collar	0.0078 <sup>a</sup> (0.010)	-0.0004 <sup>a</sup> (0.007)	0.0136 <sup>c</sup> (0.008)	-0.0704 <sup>c</sup> (0.037)	0.0545 <sup>a</sup> (0.035)		0.0078 <sup>a</sup> (0.021)	-0.0004 <sup>a</sup> (0.022)	0.0136 <sup>a</sup> (0.020)
Δ Routine Cognitive	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>c</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)
Δ Routine Manual	-0.0004 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	-0.0006 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)		-0.0004 <sup>a</sup> (0.000)	-0.0003 <sup>b</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)
Δ Non-Routine Manual	0.0003 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0004 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)		0.0003 <sup>c</sup> (0.000)	0.0002 <sup>b</sup> (0.000)	0.0002 <sup>b</sup> (0.000)
Δ Interactive	-0.0013 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)	-0.0017 <sup>a</sup> (0.000)	-0.0019 <sup>a</sup> (0.000)		-0.0013 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)
Δ Analytical	0.0011 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0022 <sup>a</sup> (0.000)		0.0011 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)
IM	0.0625 <sup>a</sup> (0.009)	0.0375 <sup>a</sup> (0.007)	0.0515 <sup>a</sup> (0.008)	0.0933 <sup>a</sup> (0.016)			0.0625 <sup>b</sup> (0.026)	0.0375 <sup>b</sup> (0.017)	0.0515 <sup>b</sup> (0.019)
Constant	0.7549 <sup>a</sup> (0.027)	-0.0006 <sup>a</sup> (0.004)	-0.0009 <sup>a</sup> (0.004)	-0.0096 <sup>a</sup> (0.003)	-0.0058 <sup>a</sup> (0.007)	0.3072 <sup>a</sup> (0.003)	0.7549 <sup>a</sup> (0.001)	-0.0006 <sup>a</sup> (0.010)	-0.0009 <sup>a</sup> (0.008)
Industry Dummies		Yes					Yes		
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512
R <sup>2</sup>	.	0.0161	0.0246	0.0355	0.0398	0.0425	.	0.0161	0.0246
Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1									
Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1									



# Non EU import, spec.1

	Robust standard errors					Clustered standard errors						
	Selection	Stayers			Exitors	Entrants	Selection	Stayers			Exitors	Entrants
		Start	Give up	Always				Start	Give up	Always		
Age	0.0814 <sup>a</sup> (0.012)						0.0814 <sup>a</sup> (0.013)					
Productivity	0.2050 <sup>a</sup> (0.008)	0.0107 <sup>a</sup> (0.001)	0.0078 <sup>a</sup> (0.001)	0.0104 <sup>a</sup> (0.001)	0.0137 <sup>a</sup> (0.002)	0.0147 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0107 <sup>a</sup> (0.003)	0.0078 <sup>a</sup> (0.002)	0.0104 <sup>a</sup> (0.002)	0.0137 <sup>a</sup> (0.004)	0.0147 <sup>a</sup> (0.002)
Size	0.0538 <sup>a</sup> (0.004)	0.0148 <sup>a</sup> (0.001)	0.0099 <sup>a</sup> (0.001)	0.0150 <sup>a</sup> (0.001)	0.0157 <sup>a</sup> (0.001)	0.0167 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0148 <sup>a</sup> (0.002)	0.0099 <sup>a</sup> (0.001)	0.0150 <sup>a</sup> (0.003)	0.0157 <sup>a</sup> (0.003)	0.0167 <sup>a</sup> (0.003)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0011 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0012 <sup>a</sup> (0.000)	0.0025 <sup>a</sup> (0.001)	-0.0010 <sup>a</sup> (0.000)	0.0988 <sup>a</sup> (0.003)	0.0011 <sup>a</sup> (0.001)	0.0001 <sup>a</sup> (0.001)	0.0012 <sup>a</sup> (0.002)	0.0025 <sup>a</sup> (0.001)	
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0022 <sup>a</sup> (0.001)	-0.0012 <sup>b</sup> (0.001)	-0.0032 <sup>a</sup> (0.001)	-0.0002 <sup>a</sup> (0.001)	0.0009 <sup>b</sup> (0.000)	-0.1009 <sup>a</sup> (0.008)	-0.0022 <sup>a</sup> (0.001)	-0.0012 <sup>b</sup> (0.001)	-0.0032 <sup>b</sup> (0.001)	-0.0002 <sup>a</sup> (0.002)	0.0009 <sup>a</sup> (0.001)
Intangible Capital Int.	-0.0035 <sup>a</sup> (0.001)	0.0003 <sup>b</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	0.0003 <sup>a</sup> (0.000)	0.0003 <sup>c</sup> (0.000)	0.0006 <sup>b</sup> (0.000)	0.0001 <sup>a</sup> (0.001)	0.0006 <sup>a</sup> (0.000)
Δ White Collar		0.0438 <sup>a</sup> (0.010)	0.0065 <sup>a</sup> (0.007)	0.0225 <sup>a</sup> (0.007)	0.1608 <sup>a</sup> (0.021)	0.1404 <sup>a</sup> (0.011)		0.0438 <sup>a</sup> (0.034)	0.0065 <sup>a</sup> (0.020)	0.0225 <sup>a</sup> (0.026)	0.1608 <sup>a</sup> (0.052)	0.1404 <sup>a</sup> (0.043)
Δ Computer		0.0216 <sup>a</sup> (0.003)	0.0112 <sup>a</sup> (0.002)	0.0178 <sup>a</sup> (0.002)	0.0359 <sup>a</sup> (0.006)	0.0344 <sup>a</sup> (0.004)		0.0216 <sup>b</sup> (0.010)	0.0112 <sup>a</sup> (0.004)	0.0178 <sup>b</sup> (0.007)	0.0359 <sup>b</sup> (0.014)	0.0344 <sup>c</sup> (0.017)
IM		0.0401 <sup>a</sup> (0.006)	0.0113 <sup>b</sup> (0.004)	0.0273 <sup>a</sup> (0.005)	0.0662 <sup>a</sup> (0.012)			0.0401 <sup>a</sup> (0.031)	0.0113 <sup>a</sup> (0.021)	0.0273 <sup>a</sup> (0.022)	0.0662 <sup>c</sup> (0.035)	
Constant	0.7549 <sup>a</sup> (0.027)	-0.0126 <sup>a</sup> (0.003)	-0.0030 <sup>a</sup> (0.002)	-0.0123 <sup>a</sup> (0.002)	-0.0272 <sup>a</sup> (0.006)	0.0048 <sup>a</sup> (0.001)	0.7549 <sup>a</sup> (0.001)	-0.0126 <sup>a</sup> (0.014)	-0.0030 <sup>a</sup> (0.009)	-0.0123 <sup>a</sup> (0.010)	-0.0272 <sup>a</sup> (0.018)	0.0048 <sup>a</sup> (0.005)
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512	95512	29563	58550
R <sup>2</sup>	.	0.0232	0.0220	0.0455	0.0363	0.0449	.	0.0232	0.0220	0.0455	0.0363	0.0449

Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Non EU import, spec.2

	Selection	Robust standard errors				Clustered standard errors			
		Stayers			Exitors	Stayers			Exitors
		Start	Give up	Always		Start	Give up	Always	
Age	0.0814 <sup>a</sup> (0.012)	0.0126 <sup>a</sup> (0.008)	0.0083 <sup>a</sup> (0.001)	0.0114 <sup>a</sup> (0.001)	0.0131 <sup>a</sup> (0.002)	0.0146 <sup>a</sup> (0.001)	0.0814 <sup>a</sup> (0.013)		
Productivity	0.2050 <sup>a</sup> (0.008)	0.0126 <sup>a</sup> (0.001)	0.0083 <sup>a</sup> (0.001)	0.0114 <sup>a</sup> (0.001)	0.0131 <sup>a</sup> (0.002)	0.0146 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0126 <sup>a</sup> (0.003)	0.0085 <sup>a</sup> (0.002)
Size	0.0538 <sup>a</sup> (0.004)	0.0154 <sup>a</sup> (0.001)	0.0100 <sup>a</sup> (0.001)	0.0153 <sup>a</sup> (0.001)	0.0156 <sup>a</sup> (0.001)	0.0167 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0154 <sup>a</sup> (0.002)	0.0108 <sup>a</sup> (0.001)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0020 <sup>a</sup> (0.000)	0.0004 <sup>a</sup> (0.000)	0.0017 <sup>a</sup> (0.000)	0.0024 <sup>a</sup> (0.000)	-0.0009 <sup>a</sup> (0.000)	0.0988 <sup>a</sup> (0.003)	0.0020 <sup>b</sup> (0.001)	0.0014 <sup>c</sup> (0.001)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0029 <sup>a</sup> (0.001)	-0.0014 <sup>b</sup> (0.001)	-0.0036 <sup>a</sup> (0.001)	-0.0000 <sup>a</sup> (0.001)	0.0009 <sup>b</sup> (0.000)	-0.1009 <sup>a</sup> (0.008)	-0.0029 <sup>b</sup> (0.001)	-0.0002 <sup>a</sup> (0.001)
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	0.0002 <sup>b</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0007 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	0.0002 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)
White Collar	0.0361 <sup>a</sup> (0.011)	0.0054 <sup>a</sup> (0.008)	0.0163 <sup>c</sup> (0.009)	0.0514 <sup>a</sup> (0.050)	0.1464 <sup>a</sup> (0.044)		0.0361 <sup>a</sup> (0.035)	-0.0004 <sup>a</sup> (0.022)	0.0163 <sup>a</sup> (0.027)
Routine Cognitive	0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	0.0000 <sup>a</sup> (0.000)
Routine Manual	-0.0004 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	-0.0003 <sup>c</sup> (0.000)	0.0001 <sup>a</sup> (0.000)		-0.0004 <sup>c</sup> (0.000)	-0.0003 <sup>b</sup> (0.000)	-0.0003 <sup>c</sup> (0.000)
Non-Routine Manual	0.0005 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	0.0002 <sup>c</sup> (0.000)	0.0003 <sup>a</sup> (0.000)		0.0005 <sup>a</sup> (0.000)	0.0002 <sup>b</sup> (0.000)	0.0002 <sup>a</sup> (0.000)
Interactive	-0.0010 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)	-0.0009 <sup>a</sup> (0.000)	-0.0012 <sup>a</sup> (0.000)		-0.0010 <sup>a</sup> (0.000)	-0.0007 <sup>a</sup> (0.000)	-0.0007 <sup>b</sup> (0.000)
Analytical	0.0010 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0010 <sup>a</sup> (0.000)	0.0017 <sup>a</sup> (0.000)		0.0010 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)
IM	0.0619 <sup>a</sup> (0.010)	0.0176 <sup>b</sup> (0.007)	0.0386 <sup>a</sup> (0.008)	0.0626 <sup>a</sup> (0.015)			0.0619 <sup>b</sup> (0.025)	0.0375 <sup>b</sup> (0.017)	0.0386 <sup>a</sup> (0.026)
Constant	0.7549 <sup>a</sup> (0.027)	-0.0036 <sup>a</sup> (0.005)	0.0021 <sup>a</sup> (0.004)	-0.0031 <sup>a</sup> (0.004)	-0.0036 <sup>a</sup> (0.007)	0.0279 <sup>a</sup> (0.003)	0.7549 <sup>a</sup> (0.001)	-0.0036 <sup>a</sup> (0.012)	-0.0009 <sup>a</sup> (0.008)
Industry Dummies	Yes						Yes		
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512
R <sup>2</sup>	-	0.0266	0.0231	0.0485	0.0379	0.0496	-	0.0266	0.0246
Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1									
Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1									



# Export, spec.1, only services firms

	Robust standard errors					Clustered standard errors				
	Stayers			Exitors	Entrants	Stayers			Exitors	Entrants
	Start	Give up	Always			Start	Give up	Always		
Productivity	0.0246 <sup>a</sup> (0.002)	0.0136 <sup>a</sup> (0.001)	0.0213 <sup>a</sup> (0.001)	0.0549 <sup>a</sup> (0.004)	0.0383 <sup>a</sup> (0.002)	0.0246 <sup>b</sup> (0.009)	0.0136 <sup>b</sup> (0.005)	0.0213 <sup>a</sup> (0.006)	0.0549 <sup>a</sup> (0.017)	0.0383 <sup>a</sup> (0.010)
Size	0.0281 <sup>a</sup> (0.001)	0.0152 <sup>a</sup> (0.001)	0.0331 <sup>a</sup> (0.001)	0.0510 <sup>a</sup> (0.002)	0.0408 <sup>a</sup> (0.001)	0.0281 <sup>a</sup> (0.009)	0.0152 <sup>a</sup> (0.002)	0.0331 <sup>a</sup> (0.010)	0.0510 <sup>a</sup> (0.011)	0.0408 <sup>a</sup> (0.012)
Capital Intensity	0.0056 <sup>a</sup> (0.001)	0.0002 (0.000)	0.0020 <sup>a</sup> (0.001)	0.0146 <sup>a</sup> (0.002)	-0.0053 <sup>a</sup> (0.001)	0.0056 (0.004)	0.0002 (0.002)	0.0020 (0.002)	0.0146 <sup>c</sup> (0.008)	-0.0053 <sup>b</sup> (0.002)
Skill Intensity	-0.0044 <sup>a</sup> (0.001)	0.0014 <sup>c</sup> (0.001)	-0.0022 <sup>b</sup> (0.001)	-0.0027 (0.002)	0.0085 <sup>a</sup> (0.001)	-0.0044 (0.004)	0.0014 (0.002)	-0.0022 (0.002)	-0.0027 (0.008)	0.0085 <sup>b</sup> (0.004)
Intangible Capital Int.	-0.0003 <sup>c</sup> (0.000)	-0.0000 (0.000)	-0.0001 (0.000)	-0.0008 <sup>b</sup> (0.000)	0.0004 <sup>c</sup> (0.000)	-0.0003 (0.000)	-0.0000 (0.000)	-0.0001 (0.000)	-0.0008 (0.001)	0.0004 (0.001)
Δ White Collar	0.0987 <sup>a</sup> (0.018)	0.0115 (0.010)	0.0856 <sup>a</sup> (0.012)	0.7872 <sup>a</sup> (0.061)	0.5141 <sup>a</sup> (0.021)	0.0987 (0.140)	0.0115 (0.053)	0.0856 (0.088)	0.7872 <sup>b</sup> (0.293)	0.5141 <sup>b</sup> (0.228)
Δ Computer	0.0663 <sup>a</sup> (0.007)	-0.0026 (0.004)	0.0081 <sup>c</sup> (0.005)	0.1370 <sup>a</sup> (0.017)	0.2078 <sup>a</sup> (0.010)	0.0663 (0.086)	-0.0026 (0.017)	0.0081 (0.055)	0.1370 (0.084)	0.2078 (0.140)
IM	0.1310 <sup>a</sup> (0.012)	0.0239 <sup>a</sup> (0.006)	0.0662 <sup>a</sup> (0.009)	0.3456 <sup>a</sup> (0.036)		0.1310 (0.097)	0.0239 (0.048)	0.0662 (0.052)	0.3456 <sup>c</sup> (0.166)	
Constant	-0.0339 <sup>a</sup> (0.006)	0.0035 (0.003)	-0.0149 <sup>a</sup> (0.004)	-0.1401 <sup>a</sup> (0.019)	0.0071 <sup>b</sup> (0.003)	-0.0339 (0.054)	0.0035 (0.021)	-0.0149 (0.034)	-0.1401 (0.087)	0.0071 (0.040)
Observations	82278	82278	82278	25661	53754	82278	82278	82278	25661	53754
R-squared	0.0224	0.0258	0.0732	0.0911	0.0775	0.0224	0.0258	0.0732	0.0911	0.0775

Robust st.err. in parentheses \* p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Ind. clustered st.err. in par. \* p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Export, spec.2, only services firms

	Robust standard errors				Clustered standard errors			
	Stayers		Exitors	Entrants	Stayers		Exitors	Entrants
	Start	Give up	Always	Start	Give up	Always	Start	Start
Productivity	0.0413 <sup>a</sup> (0.003)	0.0208 <sup>a</sup> (0.002)	0.0338 <sup>a</sup> (0.002)	0.0528 <sup>a</sup> (0.005)	0.0363 <sup>a</sup> (0.002)	0.0413 <sup>a</sup> (0.008)	0.0208 <sup>a</sup> (0.005)	0.0338 <sup>a</sup> (0.005)
Size	0.0334 <sup>a</sup> (0.001)	0.0175 <sup>a</sup> (0.001)	0.0370 <sup>a</sup> (0.001)	0.0505 <sup>a</sup> (0.002)	0.0404 <sup>a</sup> (0.001)	0.0334 <sup>a</sup> (0.009)	0.0175 <sup>a</sup> (0.002)	0.0370 <sup>a</sup> (0.010)
Capital Intensity	0.0138 <sup>a</sup> (0.001)	0.0037 <sup>a</sup> (0.001)	0.0082 <sup>a</sup> (0.001)	0.0144 <sup>a</sup> (0.002)	-0.0047 <sup>a</sup> (0.001)	0.0138 <sup>a</sup> (0.004)	0.0037 <sup>b</sup> (0.001)	0.0082 <sup>a</sup> (0.003)
Skill Intensity	-0.0111 <sup>a</sup> (0.002)	-0.0015 (0.001)	-0.0073 <sup>a</sup> (0.001)	-0.0019 (0.003)	0.0091 <sup>a</sup> (0.001)	-0.0111 <sup>b</sup> (0.004)	-0.0015 (0.001)	-0.0073 <sup>b</sup> (0.003)
Intangible Capital Int.	-0.0006 <sup>a</sup> (0.000)	-0.0002 (0.000)	-0.0003 <sup>b</sup> (0.000)	-0.0009 <sup>b</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	-0.0006 <sup>b</sup> (0.000)	-0.0002 (0.000)	-0.0003 (0.000)
Δ White Collar	-0.0031 (0.021)	-0.0180 (0.011)	0.0130 (0.014)	-0.4374 <sup>a</sup> (0.127)	-0.5762 <sup>a</sup> (0.095)	-0.0031 (0.091)	-0.0180 (0.053)	0.0130 (0.055)
Routine Cognitive	0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	0.0000 (0.000)	-0.0002 <sup>c</sup> (0.000)	0.0000 (0.000)	0.0001 (0.000)	-0.0001 (0.000)	0.0000 (0.000)
Routine Manual	-0.0027 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0016 <sup>a</sup> (0.000)	-0.0033 <sup>a</sup> (0.001)	-0.0027 <sup>a</sup> (0.000)	-0.0027 <sup>a</sup> (0.001)	-0.0008 <sup>b</sup> (0.000)	-0.0016 <sup>a</sup> (0.000)
Non-Routine Manual	0.0008 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0008 <sup>a</sup> (0.000)	0.0015 <sup>a</sup> (0.000)	0.0016 <sup>a</sup> (0.000)	0.0008 (0.001)	0.0006 <sup>a</sup> (0.000)	0.0008 <sup>c</sup> (0.000)
Interactive	-0.0035 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0027 <sup>a</sup> (0.000)	-0.0048 <sup>a</sup> (0.001)	-0.0089 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0027 <sup>a</sup> (0.001)
Analytical	0.0048 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0018 <sup>a</sup> (0.000)	0.0015 <sup>b</sup> (0.001)	0.0079 <sup>a</sup> (0.000)	0.0048 <sup>a</sup> (0.001)	0.0005 (0.000)	0.0018 <sup>b</sup> (0.001)
IM	0.3198 <sup>a</sup> (0.023)	0.1049 <sup>a</sup> (0.013)	0.2084 <sup>a</sup> (0.018)	0.3350 <sup>a</sup> (0.039)	0.3198 <sup>a</sup> (0.080)	0.1049 <sup>b</sup> (0.040)	0.2084 <sup>a</sup> (0.053)	0.3350 <sup>a</sup> (0.080)
Constant	-0.0439 <sup>a</sup> (0.012)	-0.0222 <sup>a</sup> (0.007)	-0.0329 <sup>a</sup> (0.009)	-0.0313 (0.020)	0.1828 <sup>a</sup> (0.008)	-0.0439 (0.039)	-0.0222 (0.019)	-0.0329 (0.024)
Observations	82278	82278	82278	25661	53754	82278	82278	82278
R-squared	0.0389	0.0294	0.0894	0.1023	0.1117	0.0389	0.0294	0.0894

Robust st. err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Ind. clustered st. err. in par. <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1



# Import, spec.1, only services firms

	Robust standard errors				Clustered standard errors			
	Stayers			Exitors	Stayers			Exitors
	Start	Give up	Always	Entrants	Start	Give up	Always	Entrants
Productivity	0.0213 <sup>a</sup> (0.002)	0.0130 <sup>a</sup> (0.001)	0.0240 <sup>a</sup> (0.001)	0.0477 <sup>a</sup> (0.004)	0.0332 <sup>a</sup> (0.001)	0.0213 <sup>b</sup> (0.007)	0.0130 <sup>b</sup> (0.005)	0.0240 <sup>a</sup> (0.007)
Size	0.0310 <sup>a</sup> (0.001)	0.0133 <sup>a</sup> (0.001)	0.0333 <sup>a</sup> (0.001)	0.0420 <sup>a</sup> (0.002)	0.0383 <sup>a</sup> (0.001)	0.0310 <sup>a</sup> (0.004)	0.0133 <sup>a</sup> (0.002)	0.0333 <sup>a</sup> (0.006)
Capital Intensity	0.0028 <sup>a</sup> (0.001)	-0.0002 (0.000)	0.0017 <sup>a</sup> (0.000)	0.0130 <sup>a</sup> (0.002)	-0.0036 <sup>a</sup> (0.001)	0.0028 (0.003)	-0.0002 (0.002)	0.0017 (0.003)
Skill Intensity	-0.0038 <sup>a</sup> (0.001)	-0.0005 (0.001)	-0.0054 <sup>a</sup> (0.001)	-0.0044 <sup>c</sup> (0.002)	0.0039 <sup>a</sup> (0.001)	-0.0038 (0.003)	-0.0005 (0.002)	-0.0054 (0.003)
Intangible Capital Int.	0.0002 (0.000)	-0.0001 (0.000)	0.0004 <sup>a</sup> (0.000)	-0.0006 <sup>b</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0002 (0.000)	-0.0001 (0.000)	0.0004 <sup>a</sup> (0.000)
Δ White Collar	0.0436 <sup>a</sup> (0.014)	0.0053 (0.009)	0.0191 (0.012)	0.6257 <sup>a</sup> (0.055)	0.3248 <sup>a</sup> (0.016)	0.0436 (0.094)	0.0053 (0.037)	0.0191 (0.071)
Δ Computer	0.0199 <sup>a</sup> (0.005)	-0.0116 <sup>a</sup> (0.003)	0.0066 <sup>c</sup> (0.004)	0.1072 <sup>a</sup> (0.015)	0.0747 <sup>a</sup> (0.007)	0.0199 (0.033)	-0.0116 (0.010)	0.0066 (0.025)
IM	0.0744 <sup>a</sup> (0.010)	0.0174 <sup>a</sup> (0.006)	0.0623 <sup>a</sup> (0.008)	0.2995 <sup>a</sup> (0.032)	0.0744 (0.078)	0.0174 (0.040)	0.0623 (0.064)	0.2995 <sup>b</sup> (0.130)
Constant	-0.0102 <sup>b</sup> (0.005)	0.0060 <sup>b</sup> (0.003)	-0.0157 <sup>a</sup> (0.004)	-0.1233 <sup>a</sup> (0.016)	0.0202 <sup>a</sup> (0.002)	-0.0102 (0.035)	0.0060 (0.017)	-0.0157 (0.029)
Observations	82278	82278	82278	25661	53754	82278	82278	82278
R-squared	0.0379	0.0246	0.0830	0.0805	0.0848	0.0379	0.0246	0.0830
	Robust st.err. in parentheses * p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1					Ind. clustered st.err. in par. * p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1		

# Import, spec.2, only services firms

	Robust standard errors					Clustered standard errors				
	Stayers			Exitors	Entrants	Stayers			Exitors	Entrants
	Start	Give up	Always	Start	Give up	Always	Start	Give up	Always	Start
Productivity	0.0349 <sup>a</sup> (0.002)	0.0215 <sup>a</sup> (0.002)	0.0347 <sup>a</sup> (0.002)	0.0479 <sup>a</sup> (0.004)	0.0322 <sup>a</sup> (0.001)	0.0349 <sup>a</sup> (0.006)	0.0208 <sup>a</sup> (0.005)	0.0347 <sup>a</sup> (0.007)	0.0479 <sup>a</sup> (0.012)	0.0322 <sup>a</sup> (0.005)
Size	0.0352 <sup>a</sup> (0.001)	0.0159 <sup>a</sup> (0.001)	0.0366 <sup>a</sup> (0.001)	0.0421 <sup>a</sup> (0.002)	0.0381 <sup>a</sup> (0.001)	0.0352 <sup>a</sup> (0.003)	0.0175 <sup>a</sup> (0.002)	0.0366 <sup>a</sup> (0.005)	0.0421 <sup>a</sup> (0.006)	0.0381 <sup>a</sup> (0.007)
Capital Intensity	0.0095 <sup>a</sup> (0.001)	0.0039 <sup>a</sup> (0.001)	0.0069 <sup>a</sup> (0.001)	0.0133 <sup>a</sup> (0.002)	-0.0033 <sup>a</sup> (0.001)	0.0095 <sup>a</sup> (0.002)	0.0037 <sup>b</sup> (0.001)	0.0069 <sup>a</sup> (0.002)	0.0133 <sup>a</sup> (0.004)	-0.0033 <sup>c</sup> (0.002)
Skill Intensity	-0.0094 <sup>a</sup> (0.001)	-0.0041 <sup>a</sup> (0.001)	-0.0098 <sup>a</sup> (0.001)	-0.0046 <sup>c</sup> (0.002)	0.0042 <sup>a</sup> (0.001)	-0.0094 <sup>a</sup> (0.002)	-0.0015 <sup>a</sup> (0.001)	-0.0098 <sup>a</sup> (0.003)	-0.0046 <sup>a</sup> (0.007)	0.0042 <sup>a</sup> (0.003)
Intangible Capital Int.	-0.0001 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	-0.0006 <sup>b</sup> (0.000)	0.0011 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	0.0002 <sup>a</sup> (0.000)	-0.0006 <sup>a</sup> (0.000)	0.0011 <sup>b</sup> (0.000)
Δ White Collar	-0.0344 <sup>b</sup> (0.017)	-0.0320 <sup>a</sup> (0.011)	-0.0363 <sup>a</sup> (0.014)	-0.0255 <sup>a</sup> (0.108)	0.1860 <sup>b</sup> (0.078)	-0.0344 <sup>a</sup> (0.089)	-0.0180 <sup>a</sup> (0.053)	-0.0363 <sup>a</sup> (0.059)	-0.0255 <sup>a</sup> (0.127)	0.1860 <sup>a</sup> (0.250)
Routine Cognitive	-0.0001 <sup>b</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0001 <sup>c</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)	-0.0003 <sup>a</sup> (0.000)	-0.0001 <sup>a</sup> (0.000)
Routine Manual	-0.0017 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0013 <sup>a</sup> (0.000)	-0.0021 <sup>a</sup> (0.001)	-0.0002 <sup>a</sup> (0.000)	-0.0017 <sup>a</sup> (0.001)	-0.0008 <sup>b</sup> (0.000)	-0.0013 <sup>a</sup> (0.000)	-0.0021 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.001)
Non-Routine Manual	0.0007 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0008 <sup>a</sup> (0.000)	0.0014 <sup>a</sup> (0.000)	0.0012 <sup>a</sup> (0.000)	0.0007 <sup>a</sup> (0.000)	0.0006 <sup>a</sup> (0.000)	0.0008 <sup>a</sup> (0.000)	0.0014 <sup>a</sup> (0.000)	0.0012 <sup>a</sup> (0.001)
Interactive	-0.0017 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	-0.0014 <sup>a</sup> (0.000)	-0.0012 <sup>a</sup> (0.001)	-0.0030 <sup>a</sup> (0.000)	-0.0017 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0014 <sup>a</sup> (0.000)	-0.0012 <sup>c</sup> (0.001)	-0.0030 <sup>a</sup> (0.001)
Analytical	0.0015 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	0.0007 <sup>a</sup> (0.000)	0.0009 <sup>b</sup> (0.001)	0.0037 <sup>a</sup> (0.000)	0.0015 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0007 <sup>a</sup> (0.000)	0.0009 <sup>c</sup> (0.000)	0.0037 <sup>a</sup> (0.001)
IM	0.2274 <sup>a</sup> (0.021)	0.1121 <sup>a</sup> (0.012)	0.1838 <sup>a</sup> (0.017)	0.3040 <sup>a</sup> (0.035)	0.2274 <sup>a</sup> (0.057)	0.1049 <sup>b</sup> (0.040)	0.1838 <sup>a</sup> (0.047)	0.3040 <sup>a</sup> (0.099)	0.2274 <sup>a</sup> (0.0449)	0.1049 <sup>b</sup> (0.0222)
Constant	-0.0449 <sup>a</sup> (0.011)	-0.0365 <sup>a</sup> (0.006)	-0.0473 <sup>a</sup> (0.009)	-0.0874 <sup>a</sup> (0.018)	0.0745 <sup>a</sup> (0.006)	-0.0449 <sup>a</sup> (0.027)	-0.0222 <sup>a</sup> (0.019)	-0.0473 <sup>b</sup> (0.019)	-0.0874 <sup>a</sup> (0.019)	0.0745 <sup>a</sup> (0.051)
Observations	82278	82278	82278	25661	53754	82278	82278	82278	25661	53754
R-squared	0.0446	0.0273	0.0914	0.0842	0.0970	0.0446	0.0294	0.0914	0.0842	0.0970

Robust st.err. in parentheses \* p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.1

Ind. clustered st.err. in par. \* p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Export, spec.1, using levels

	Robust standard errors								Clustered standard errors							
	Selection			Stayers		Exitors		Selection			Stayers		Exitors		Entrants	
		Start	Give up	Always					Start	Give up	Always					
Age	0.0814 <sup>a</sup> (0.012)	0.0241 <sup>a</sup> (0.002)	0.0144 <sup>a</sup> (0.001)	0.0223 <sup>a</sup> (0.001)	0.0341 <sup>a</sup> (0.003)	0.0365 <sup>a</sup> (0.002)	0.0814 <sup>a</sup> (0.013)	0.2050 <sup>a</sup> (0.008)	0.0241 <sup>a</sup> (0.021)	0.0144 <sup>a</sup> (0.005)	0.0223 <sup>a</sup> (0.004)	0.0341 <sup>a</sup> (0.003)	0.0365 <sup>a</sup> (0.008)	0.0365 <sup>a</sup> (0.008)		
Productivity	0.2050 <sup>a</sup> (0.008)	0.0241 <sup>a</sup> (0.002)	0.0144 <sup>a</sup> (0.001)	0.0223 <sup>a</sup> (0.001)	0.0341 <sup>a</sup> (0.003)	0.0365 <sup>a</sup> (0.002)	0.2050 <sup>a</sup> (0.013)	0.0241 <sup>a</sup> (0.021)	0.0144 <sup>a</sup> (0.005)	0.0223 <sup>a</sup> (0.004)	0.0341 <sup>a</sup> (0.003)	0.0365 <sup>a</sup> (0.008)	0.0365 <sup>a</sup> (0.008)			
Size	0.0538 <sup>a</sup> (0.004)	0.0269 <sup>a</sup> (0.001)	0.0182 <sup>a</sup> (0.001)	0.0325 <sup>a</sup> (0.001)	0.0436 <sup>a</sup> (0.002)	0.0393 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0269 <sup>a</sup> (0.006)	0.0182 <sup>a</sup> (0.002)	0.0325 <sup>a</sup> (0.007)	0.0436 <sup>a</sup> (0.008)	0.0393 <sup>a</sup> (0.010)				
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0056 <sup>a</sup> (0.001)	0.0006 <sup>a</sup> (0.000)	0.0028 <sup>a</sup> (0.000)	0.0061 <sup>a</sup> (0.001)	-0.0046 <sup>a</sup> (0.001)	0.0988 <sup>a</sup> (0.003)	0.0056 <sup>b</sup> (0.002)	0.0006 <sup>a</sup> (0.002)	0.0028 <sup>a</sup> (0.001)	0.0061 <sup>c</sup> (0.003)	-0.0046 <sup>c</sup> (0.002)				
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0045 <sup>a</sup> (0.001)	0.0005 <sup>a</sup> (0.001)	-0.0030 <sup>a</sup> (0.001)	0.0053 <sup>a</sup> (0.002)	0.0081 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0045 <sup>c</sup> (0.002)	0.0005 <sup>a</sup> (0.002)	-0.0030 <sup>c</sup> (0.002)	0.0053 <sup>a</sup> (0.004)	0.0081 <sup>b</sup> (0.003)				
Intangible Capital Intensity	-0.0035 <sup>a</sup> (0.001)	-0.0002 <sup>a</sup> (0.000)	0.0003 <sup>b</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.000)	0.0005 <sup>b</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	-0.0002 <sup>a</sup> (0.000)	0.0003 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	-0.0002 <sup>a</sup> (0.001)	0.0005 <sup>a</sup> (0.001)				
Δ White Collar	0.0577 <sup>a</sup> (0.015)	0.0231 <sup>a</sup> (0.009)	0.0722 <sup>a</sup> (0.011)	0.2430 <sup>a</sup> (0.037)	0.1789 <sup>a</sup> (0.024)	0.1789 <sup>a</sup> (0.024)	0.0577 <sup>a</sup> (0.009)	0.0231 <sup>a</sup> (0.042)	0.0722 <sup>a</sup> (0.060)	0.2430 <sup>a</sup> (0.151)	0.1789 <sup>a</sup> (0.205)					
Δ Computer	0.0807 <sup>a</sup> (0.007)	0.0229 <sup>a</sup> (0.004)	0.0374 <sup>a</sup> (0.005)	0.0760 <sup>a</sup> (0.012)	0.0792 <sup>a</sup> (0.009)	0.0807 <sup>a</sup> (0.009)	0.0807 <sup>a</sup> (0.074)	0.0229 <sup>c</sup> (0.013)	0.0374 <sup>a</sup> (0.039)	0.0760 <sup>a</sup> (0.054)	0.0792 <sup>a</sup> (0.133)					
Computer 1995	0.0586 <sup>a</sup> (0.004)	0.0296 <sup>a</sup> (0.002)	0.0574 <sup>a</sup> (0.003)	0.0864 <sup>a</sup> (0.008)	0.1324 <sup>a</sup> (0.006)	0.0586 <sup>c</sup> (0.034)	0.0296 <sup>b</sup> (0.013)	0.0574 <sup>a</sup> (0.015)	0.0864 <sup>a</sup> (0.027)	0.1324 <sup>c</sup> (0.078)						
IM	0.1286 <sup>a</sup> (0.011)	0.0288 <sup>a</sup> (0.007)	0.0825 <sup>a</sup> (0.008)	0.1516 <sup>a</sup> (0.020)			0.1286 <sup>c</sup> (0.063)	0.0288 <sup>a</sup> (0.034)	0.0825 <sup>a</sup> (0.025)	0.1516 <sup>b</sup> (0.074)						
Constant	0.7549 <sup>a</sup> (0.027)	-0.0560 <sup>a</sup> (0.007)	-0.0132 <sup>a</sup> (0.004)	-0.0472 <sup>a</sup> (0.004)	-0.0703 <sup>a</sup> (0.011)	-0.0380 <sup>a</sup> (0.004)	0.7549 <sup>a</sup> (0.001)	-0.0560 <sup>a</sup> (0.046)	-0.0132 <sup>a</sup> (0.014)	-0.0472 <sup>b</sup> (0.022)	-0.0703 <sup>a</sup> (0.042)	-0.0380 <sup>a</sup> (0.036)				
Industry Dummies	Yes						Yes									
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512	95512	29563	58550				
R <sup>2</sup>	.	0.0238	0.0321	0.0781	0.0866	0.0831	.	0.0238	0.0321	0.0781	0.0866	0.0831				

Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Export, spec.2, using levels

	Robust standard errors					Clustered standard errors						
	Selection	Stayers		Exitors	Entrants	Selection	Stayers		Exitors	Entrants		
		Start	Give up	Always			Start	Give up	Always			
Δ White Collar		0.0010	-0.0419 <sup>a</sup>	0.0262 <sup>c</sup>	-0.3245 <sup>a</sup>	0.1051	0.0010	-0.0419	0.0262	-0.3245 <sup>b</sup>	0.1051	
		(0.019)	(0.011)	(0.014)	(0.102)	(0.088)	(0.059)	(0.044)	(0.039)	(0.140)	(0.229)	
Δ Routine Cognitive		0.0022 <sup>a</sup>	0.0019 <sup>a</sup>	0.0021 <sup>a</sup>	0.0033 <sup>a</sup>	0.0017 <sup>a</sup>	0.0022 <sup>a</sup>	0.0019 <sup>a</sup>	0.0021 <sup>a</sup>	0.0033 <sup>a</sup>	0.0017 <sup>b</sup>	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Δ Routine Manual		-0.0012 <sup>a</sup>	-0.0001	-0.0013 <sup>a</sup>	-0.0016 <sup>a</sup>	0.0044 <sup>a</sup>	-0.0012 <sup>a</sup>	-0.0001	-0.0013 <sup>a</sup>	-0.0016 <sup>a</sup>	0.0044 <sup>a</sup>	
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	
Δ Non-Routine Manual		-0.0004 <sup>a</sup>	-0.0013 <sup>a</sup>	0.0000	-0.0018 <sup>a</sup>	0.0004	-0.0004	-0.0013 <sup>a</sup>	0.0000	-0.0018 <sup>c</sup>	0.0004	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	
Δ Interactive		-0.0018 <sup>a</sup>	0.0018 <sup>a</sup>	-0.0001	-0.0004	-0.0020 <sup>a</sup>	-0.0018 <sup>b</sup>	0.0018 <sup>b</sup>	-0.0001	-0.0004	-0.0020	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Δ Analytical		0.0006 <sup>b</sup>	0.0008 <sup>a</sup>	0.0002	0.0018 <sup>a</sup>	0.0011	0.0006	0.0008 <sup>a</sup>	0.0002	0.0018 <sup>a</sup>	0.0011	
		(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.003)	
Routine Cognitive 1995		0.0020 <sup>a</sup>	0.0021 <sup>a</sup>	0.0026 <sup>a</sup>	0.0030 <sup>a</sup>	-0.0006	0.0020 <sup>a</sup>	0.0021 <sup>a</sup>	0.0026 <sup>a</sup>	0.0030 <sup>a</sup>	-0.0006	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.002)	
Routine Manual 1995		-0.0024 <sup>a</sup>	0.0001	-0.0012 <sup>a</sup>	-0.0014 <sup>a</sup>	-0.0037 <sup>a</sup>	-0.0024 <sup>a</sup>	0.0001	-0.0012 <sup>a</sup>	-0.0014 <sup>a</sup>	-0.0037 <sup>a</sup>	
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	
Non-Routine Manual 1995		-0.0003 <sup>a</sup>	-0.0006 <sup>a</sup>	0.0001	-0.0009 <sup>a</sup>	-0.0011 <sup>a</sup>	-0.0003 <sup>b</sup>	-0.0006 <sup>a</sup>	0.0001	-0.0009 <sup>b</sup>	-0.0011 <sup>c</sup>	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	
Interactive 1995		-0.0023 <sup>a</sup>	0.0024 <sup>a</sup>	0.0007 <sup>b</sup>	0.0028 <sup>a</sup>	-0.0060 <sup>a</sup>	-0.0023 <sup>a</sup>	0.0024 <sup>a</sup>	0.0007	0.0028 <sup>b</sup>	-0.0060 <sup>a</sup>	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	
Analytical 1995		0.0047 <sup>a</sup>	0.0014 <sup>a</sup>	0.0026 <sup>a</sup>	0.0038 <sup>a</sup>	0.0046 <sup>a</sup>	0.0047 <sup>a</sup>	0.0014 <sup>b</sup>	0.0026 <sup>a</sup>	0.0038 <sup>a</sup>	0.0046 <sup>b</sup>	
		(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	
IM		0.3067 <sup>a</sup>	0.1199 <sup>a</sup>	0.2364 <sup>a</sup>	0.3280 <sup>a</sup>		0.3067 <sup>a</sup>	0.1199 <sup>a</sup>	0.2364 <sup>a</sup>	0.3280 <sup>a</sup>		
		(0.019)	(0.013)	(0.015)	(0.033)		(0.038)	(0.028)	(0.033)	(0.059)		
Constant		0.7549 <sup>a</sup>	-0.0516 <sup>b</sup>	-0.1468 <sup>a</sup>	-0.1558 <sup>a</sup>	-0.1811 <sup>a</sup>	0.3499 <sup>a</sup>	0.7549 <sup>a</sup>	0.0017	0.0104	-0.0114	
		(0.027)	(0.025)	(0.020)	(0.020)	(0.046)	(0.033)	(0.001)	(0.031)	(0.017)	(0.021)	
Industry Dummies	Yes						Yes					
Observations	125093	95512	95512	95512	29563	58550	125093	95512	95512	95512	29563	58550
R <sup>2</sup>	.	0.0417	0.0367	0.0931	0.0981	0.1112	.	0.0417	0.0367	0.0931	0.0981	0.1112
Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1												
Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1												

# Import, spec.1, using levels

	Robust standard errors						Clustered standard errors					
	Selection	Stayers			Exitors	Entrants	Selection	Stayers			Exitors	Entrants
		Start	Give up	Always				Start	Give up	Always		
Age	0.0814 <sup>a</sup> (0.012)						0.0814 <sup>a</sup> (0.013)					
Productivity	0.2050 <sup>a</sup> (0.008)	0.0219 <sup>a</sup> (0.002)	0.0142 <sup>a</sup> (0.001)	0.0278 <sup>a</sup> (0.001)	0.0358 <sup>a</sup> (0.003)	0.0337 <sup>a</sup> (0.001)	0.2050 <sup>a</sup> (0.021)	0.0219 <sup>a</sup> (0.005)	0.0142 <sup>a</sup> (0.004)	0.0278 <sup>a</sup> (0.005)	0.0358 <sup>a</sup> (0.008)	0.0337 <sup>a</sup> (0.005)
Size	0.0538 <sup>a</sup> (0.004)	0.0312 <sup>a</sup> (0.001)	0.0157 <sup>a</sup> (0.001)	0.0434 <sup>a</sup> (0.001)	0.0449 <sup>a</sup> (0.002)	0.0416 <sup>a</sup> (0.001)	0.0538 <sup>a</sup> (0.012)	0.0312 <sup>a</sup> (0.003)	0.0157 <sup>a</sup> (0.002)	0.0434 <sup>a</sup> (0.002)	0.0449 <sup>a</sup> (0.006)	0.0416 <sup>a</sup> (0.005)
Capital Intensity	0.0988 <sup>a</sup> (0.003)	0.0035 <sup>a</sup> (0.001)	0.0006 <sup>a</sup> (0.000)	0.0033 <sup>a</sup> (0.000)	0.0080 <sup>a</sup> (0.001)	-0.0023 <sup>a</sup> (0.001)	0.0988 <sup>a</sup> (0.003)	0.0035 <sup>a</sup> (0.002)	0.0006 <sup>a</sup> (0.001)	0.0033 <sup>a</sup> (0.002)	0.0080 <sup>a</sup> (0.002)	-0.0023 <sup>a</sup> (0.003)
Skill Intensity	-0.1009 <sup>a</sup> (0.008)	-0.0041 <sup>a</sup> (0.001)	-0.0013 <sup>c</sup> (0.001)	-0.0086 <sup>a</sup> (0.001)	-0.0015 <sup>a</sup> (0.002)	0.0039 <sup>a</sup> (0.001)	-0.1009 <sup>a</sup> (0.008)	-0.0041 <sup>a</sup> (0.003)	-0.0013 <sup>c</sup> (0.001)	-0.0086 <sup>a</sup> (0.003)	-0.0015 <sup>a</sup> (0.005)	0.0039 <sup>a</sup> (0.002)
Intangible Capital Int.	-0.0035 <sup>a</sup> (0.001)	0.0002 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0011 <sup>a</sup> (0.000)	0.0004 <sup>a</sup> (0.000)	0.0011 <sup>a</sup> (0.000)	-0.0035 <sup>a</sup> (0.002)	0.0002 <sup>a</sup> (0.000)	0.0001 <sup>a</sup> (0.000)	0.0011 <sup>b</sup> (0.000)	0.0004 <sup>a</sup> (0.001)	0.0011 <sup>b</sup> (0.000)
Δ White Collar	0.0623 <sup>a</sup> (0.014)	0.0220 <sup>a</sup> (0.008)	0.0728 <sup>a</sup> (0.012)	0.3422 <sup>a</sup> (0.038)	0.2431 <sup>a</sup> (0.021)	0.2431 <sup>a</sup> (0.021)	0.0623 <sup>a</sup> (0.072)	0.0220 <sup>a</sup> (0.033)	0.0728 <sup>a</sup> (0.063)	0.3422 <sup>b</sup> (0.125)	0.2431 <sup>c</sup> (0.128)	
Δ Computer	0.0534 <sup>a</sup> (0.006)	0.0125 <sup>a</sup> (0.003)	0.0559 <sup>a</sup> (0.004)	0.0881 <sup>a</sup> (0.011)	0.0432 <sup>a</sup> (0.007)	0.0432 <sup>a</sup> (0.007)	0.0534 <sup>a</sup> (0.023)	0.0125 <sup>a</sup> (0.014)	0.0559 <sup>a</sup> (0.031)	0.0881 <sup>a</sup> (0.031)	0.0432 <sup>a</sup> (0.078)	
Computer 1995	0.0396 <sup>a</sup> (0.004)	0.0217 <sup>a</sup> (0.002)	0.0450 <sup>a</sup> (0.003)	0.0434 <sup>a</sup> (0.006)	0.0575 <sup>a</sup> (0.004)	0.0575 <sup>a</sup> (0.015)	0.0396 <sup>b</sup> (0.015)	0.0217 <sup>c</sup> (0.011)	0.0450 <sup>a</sup> (0.016)	0.0434 <sup>b</sup> (0.020)	0.0575 <sup>a</sup> (0.051)	
IM	0.0798 <sup>a</sup> (0.010)	0.0279 <sup>a</sup> (0.006)	0.0768 <sup>a</sup> (0.008)	0.1650 <sup>a</sup> (0.021)			0.0798 <sup>a</sup> (0.055)	0.0279 <sup>a</sup> (0.031)	0.0768 <sup>a</sup> (0.046)		0.1650 <sup>b</sup> (0.068)	
Constant	0.7549 <sup>a</sup> (0.027)	-0.0313 <sup>a</sup> (0.006)	-0.0099 <sup>a</sup> (0.003)	-0.0455 <sup>a</sup> (0.004)	-0.0722 <sup>a</sup> (0.011)	-0.0022 <sup>a</sup> (0.003)	0.7549 <sup>a</sup> (0.001)	-0.0313 <sup>a</sup> (0.024)	-0.0099 <sup>a</sup> (0.014)	-0.0455 <sup>c</sup> (0.025)	-0.0722 <sup>c</sup> (0.036)	-0.0022 <sup>a</sup> (0.015)
Observations	125093 R <sup>2</sup> 0.0945	95512 0.0394	95512 0.0281	95512 0.1118	29563 0.0918	58550 0.0967	125093 0.0394	95512 0.0281	95512 0.1118	29563 0.0918	58550 0.0967	

Robust standard errors in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

Industry clustered st.err. in parentheses <sup>a</sup> p<0.01, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1

# Import, spec.2, using levels

	Selection	Robust standard errors				Clustered standard errors					
		Stayers		Exitors	Entrants	Stayers		Exitors	Entrants		
		Start	Give up	Always		Start	Give up	Always			
△ White Collar		-0.0342 <sup>c</sup> (0.018)	-0.0396 <sup>a</sup> (0.011)	-0.0415 <sup>a</sup> (0.016)	-0.2476 <sup>b</sup> (0.116)	0.0104 (0.098)	-0.0342 (0.070)	-0.0419 (0.044)	-0.0415 (0.053)	-0.2476 (0.160)	0.0104 (0.342)
△ Routine Cognitive		0.0024 <sup>a</sup> (0.000)	0.0014 <sup>a</sup> (0.000)	0.0038 <sup>a</sup> (0.000)	0.0045 <sup>a</sup> (0.001)	0.0007 <sup>a</sup> (0.000)	0.0024 <sup>a</sup> (0.001)	0.0019 <sup>a</sup> (0.000)	0.0038 <sup>a</sup> (0.001)	0.0045 <sup>a</sup> (0.001)	0.0007 (0.001)
△ Routine Manual		-0.0004 <sup>b</sup> (0.000)	-0.0002 <sup>b</sup> (0.000)	-0.0002 (0.000)	-0.0004 (0.000)	0.0012 <sup>b</sup> (0.001)	-0.0004 (0.000)	-0.0001 (0.000)	-0.0002 (0.000)	-0.0004 (0.001)	0.0012 (0.002)
△ Non-Routine Manual		-0.0013 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0019 <sup>a</sup> (0.000)	-0.0032 <sup>a</sup> (0.001)	-0.0003 (0.000)	-0.0013 <sup>a</sup> (0.000)	-0.0013 <sup>a</sup> (0.000)	-0.0019 <sup>b</sup> (0.001)	-0.0032 <sup>b</sup> (0.001)	-0.0003 (0.002)
△ Interactive		0.0014 <sup>a</sup> (0.000)	0.0020 <sup>a</sup> (0.000)	0.0045 <sup>a</sup> (0.000)	0.0045 <sup>a</sup> (0.001)	-0.0026 <sup>a</sup> (0.001)	0.0014 (0.001)	0.0018 <sup>b</sup> (0.001)	0.0045 <sup>c</sup> (0.002)	0.0045 <sup>c</sup> (0.003)	-0.0026 (0.002)
△ Analytical		0.0010 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	0.0008 <sup>a</sup> (0.000)	0.0016 <sup>a</sup> (0.000)	0.0028 <sup>a</sup> (0.001)	0.0010 <sup>c</sup> (0.001)	0.0008 <sup>a</sup> (0.000)	0.0008 (0.001)	0.0016 (0.001)	0.0028 (0.003)
Routine Cognitive 1995		0.0025 <sup>a</sup> (0.000)	0.0017 <sup>a</sup> (0.000)	0.0044 <sup>a</sup> (0.001)	0.0044 <sup>a</sup> (0.001)	0.0008 (0.001)	0.0025 <sup>a</sup> (0.001)	0.0021 <sup>a</sup> (0.001)	0.0044 <sup>a</sup> (0.002)	0.0044 <sup>b</sup> (0.002)	0.0008 (0.003)
Routine Manual 1995		-0.0001 (0.000)	0.0004 <sup>a</sup> (0.000)	0.0005 <sup>a</sup> (0.000)	-0.0000 (0.000)	-0.0001 (0.000)	-0.0001 (0.000)	0.0001 (0.000)	0.0005 <sup>c</sup> (0.000)	-0.0000 (0.000)	-0.0001 (0.001)
Non-Routine Manual 1995		-0.0008 <sup>a</sup> (0.000)	-0.0004 <sup>a</sup> (0.000)	-0.0009 <sup>a</sup> (0.001)	-0.0015 <sup>a</sup> (0.001)	-0.0013 <sup>a</sup> (0.000)	-0.0008 <sup>a</sup> (0.000)	-0.0006 <sup>a</sup> (0.000)	-0.0009 <sup>a</sup> (0.000)	-0.0015 <sup>a</sup> (0.001)	-0.0013 <sup>c</sup> (0.001)
Interactive 1995		0.0019 <sup>a</sup> (0.000)	0.0024 <sup>a</sup> (0.000)	0.0050 <sup>a</sup> (0.001)	0.0055 <sup>a</sup> (0.001)	0.0002 (0.001)	0.0019 <sup>c</sup> (0.001)	0.0024 <sup>a</sup> (0.001)	0.0050 <sup>b</sup> (0.002)	0.0055 <sup>a</sup> (0.002)	0.0002 (0.003)
Analytical 1995		0.0028 <sup>a</sup> (0.000)	0.0009 <sup>a</sup> (0.000)	0.0041 <sup>a</sup> (0.001)	0.0047 <sup>a</sup> (0.001)	0.0011 <sup>c</sup> (0.001)	0.0028 <sup>a</sup> (0.001)	0.0014 <sup>b</sup> (0.001)	0.0041 <sup>b</sup> (0.002)	0.0047 <sup>b</sup> (0.002)	0.0011 (0.003)
IM		0.2298 <sup>a</sup> (0.018)	0.1161 <sup>a</sup> (0.013)	0.2757 <sup>a</sup> (0.017)	0.3484 <sup>a</sup> (0.034)		0.2298 <sup>a</sup> (0.045)	0.1199 <sup>a</sup> (0.028)	0.2757 <sup>a</sup> (0.066)	0.3484 <sup>a</sup> (0.083)	
Constant		0.7549 <sup>a</sup> (0.027)	-0.1733 <sup>a</sup> (0.026)	-0.1480 <sup>a</sup> (0.020)	-0.3686 <sup>a</sup> (0.026)	-0.3605 <sup>a</sup> (0.053)	0.7549 <sup>a</sup> (0.001)	-0.1733 <sup>a</sup> (0.058)	-0.1468 <sup>a</sup> (0.044)	-0.3686 <sup>a</sup> (0.130)	0.8045 (0.136)
Industry Dummies	Yes	125093 .	95512 0.0463	95512 0.0325	95512 0.1272	29563 0.1008	58550 0.1080	125093 .	95512 0.0463	95512 0.0367	
Observations											
$R^2$											

Robust standard errors in parentheses \* p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.1

Industry clustered st. err. in parentheses \* p<0.01, <sup>a</sup> p<0.05, <sup>b</sup> p<0.05, <sup>c</sup> p<0.1