

The real time estimation methodology

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Content

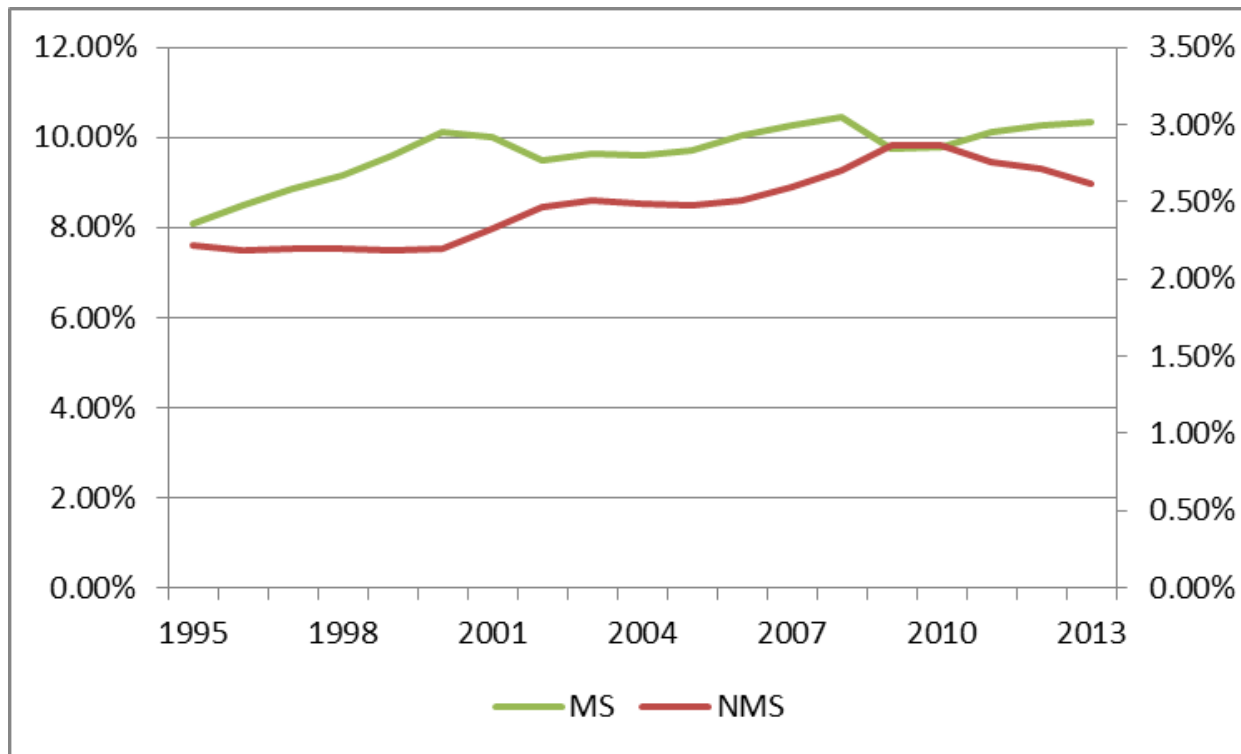
- Timeliness problem and data available (nominal investment)
- Algorithm for real time estimation
 - data available
 - Ex. Italy
- Next steps

Ragged dataset: countries

	Organisational capital	Training	Advertising	Design	Software R&D
1995					
...					
2011		Use table			
2012					
2013					
2014					National account

Ragged dataset: country

USA: Intangible Investment as % of GDP 2013 and soon 2014



Source TCBE

What we need S13-S15

Growth Rate between year t and year t-1						
	M72	O84	P85	Q86	Q87-Q88	R90-R92
Organisational Capital						
Advertising						
Design						
Training						
Total						



What we have 2011

2011 -Italy S13-S15

	M72	O84	P85	Q86	Q87-Q88	R90-R92		Total S13 -M72-R92
Organisational capital	44	1,383	719	805	517	118	...	3,586
Design	66	264	436	872	235	33	...	1,906
Advertising	3	65	93	82	25	65	...	333
Training	5	918	360	185	142	25	...	1,634
	
Total S1	4,434	31,516	10,720	47,378	10,844	15,457		

Information for real time - 1

Total intermediate consumption for industry

National Accounts aggregates by industry (up to NACE A*64) [nama_10_a64]						
Last update		24.10.15				
Extracted on		27.10.15				
Source of data	Eurostat					
UNIT	CP_MEUR - Current prices, million euro					
NA_ITEM	P2 - Intermediate consumption					
GEO	IT - Italy					
NACE_R2	NACE_R2(L)/TIME	2010	2011	2012	2013	2014
TOTAL	Total - All NACE activities	1,673,556.4	1,743,101.3	1,683,002.1	1,639,348.8	1,618,436.0
M72	Scientific research and development	4,421.1	4,433.9	4,932.6	4,622.6	4,809.6
O	Public administration and defence; compulsory social security	33,449.2	31,516.4	30,263.8	30,419.4	29,627.4
P	Education	10,782.6	10,720.0	10,978.0	10,928.5	11,296.1
Q86	Human health activities	45,906.4	47,377.5	47,606.9	47,332.4	48,608.9
Q87-Q88	Residential care activities and social work activities without accommodation	10,982.4	10,844.1	10,903.6	10,828.5	11,183.2
R90-R92	Creative, arts and entertainment activities; libraries, archives, museums	14,541.9	15,457.1	16,148.4	16,462.2	

Information for real time - 2



ANNUAL ACCOUNTS BY INSTITUTIONAL SECTOR Italy 2013

(millions of national currency - euro fixed series, current prices)

date of transmission of non-financial accounts: 01/10/2014

Uses						Current accounts	
Households including NPISH (S.14+S.15)	General government (S.13)	Financial corporations (S.12)	Non-financial corporations (S.11)	Total economy (S.1)	Rest of the World (S.2) Extra-EA	Sum over sectors (S.1+S.2)	
							PRODUCTION ACCOUNT
							P.1 Output
132,403	87,251	55,291	1,375,739	1,650,684			P.2 Intermediate consumption
454,179	218,781	70,505	713,338	1,456,803			B.1g Gross value added
							D.21-D.31 Taxes less subsidies on products
				1,618,904			B.1g*⁽¹⁾ Gross Domestic Product (GDP)
86,815	43,794	4,394	163,277	298,280			P.51C Consumption of fixed capital
367,364	174,987	66,111	550,061	1,320,624			B.1n / B.1n*⁽¹⁾ Net value added / Net domestic product

Information for real time - 3



31 August 2015

Quarterly Turnover in Services II quarter 2015

The Services Turnover Index measures the quarterly change recorded in sales at current prices by enterprises belonging to the domain of services. Starting from the first quarter of 2013 the indices are calculated with reference to the base year 2010 using the Ateco 2007 classification (Italian edition of Nace Rev. 2).

Information for real time - 4

- There is not information on STS turnover for Training
- We use hours worked from national accounts (industry P)

The method: step 1 S13 estimation for industry

Households including NPISH (S.14+S.15)	General government (S.13)	Financial corporations (S.12)	Non-financial corporations (S.11)	Total economy (S.1)
2010				
136,374	87,356 5.22	54,043	1,395,784	1,673,556
2011				
139,677	87,166 5.00	52,836	1,463,423	1,743,100
	-4.20			

2011 -Italy S13-S15 estimated **Industry**

	M72	O84	P85	Q86	Q87-Q88	R90-R92	
Organisational capital							...
Design							...
Advertising							...
Training							...

Total S13-15	113	2520	1540	1863	880	230	7,145
Total S1	4,434	31,516	10,720	47,378	10,844	15,457	120,349
		-4.20					-4.20

step 2: estimation for asset | total industry

2011 -Italy S13-S15 estimated **Industry**

	M72	O84	P85	Q86	Q87-Q88	R90-R92	...	Total S13 -M72-R92
Organisational capital	42	1,451	712	782	512	119	...	3,619
Design	63	204	407	831	216	30	...	1,750
Advertising	3	60	86	77	22	58	...	306
Training	5	805	335	173	129	23	...	1,470
	
Total S13-15	113	2520	1540	1863	880	230	7,145	

step 2: estimation product using STS+NA

2011 -Italy S13-S15 estimated **STS+NA**

	M72	O84	P85	Q86	Q87-Q88	R90-R92		Total S13 -M72-R92
Organisational capital	41	1,647	761	836	558	124	...	3,968
Design	59	224	422	863	229	30	...	1,828
Advertising	3	67	90	81	24	59	...	325
Training	5	906	355	183	140	24	...	1,613
	
Total S13-15	108	2845	1629	1963	951	238		7,734
Total S1	4,434	31,516	10,720	47,378	10,844	15,457	120,349	

step 3: average from step 1 - 2

2011 -Italy S13-S15 Final average

	M72	O84	P85	Q86	Q87-Q88	R90-R92			Total S13 -M72-R92
Organisational capital	41	1,549	737	809	535	122	...		3,793
Design	61	214	415	847	223	30	...		1,789
Advertising	3	63	88	79	23	58	...		315
Training	5	856	345	178	135	24	...		1,542
Total S13-15	110	2,682	1,584	1,913	915	234	...		7,440

Error

2011 -Italy S13-S15 error

	M72	O84	P85	Q86	Q87-Q88	R90-R92		Total S13 -M72-R92
Organisational capital		12.0					...	5.8
Design							...	-6.1
Advertising							...	-5.4
Training							...	-5.7
Total S13-15	-6.5	2.0	-1.4	-1.6	-0.3	-2.6	...	0.3

Next steps:

- Check for improvements in the methodology
- Complete the evaluation for all countries
- Complete the estimation for all countries (some missing data for total intermediate consumption, ex. R90-R92)