



# HIGH-GROWTH FIRMS IN TURKEY, AS A POLICY OPTION

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# OUTLINE

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# What is High-Growth Firm (HGF) phenomenon and implications?

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- ▶ HGFs is a term to distinguish high potential ones from typical firms.
- ▶ Typical firms do not grow or even intend to do it,
- ▶ Small proportion of firms, create disproportionately most of jobs and wealth in an economy.
- ▶ This type of firms are called as Gazelles or High-growth Firms (HGFs)
- ▶ Policy makers need to review the SME and business policies in order to exploit more from these outstanding performers.



# What is High-Growth Firm (HGF) phenomenon and implications?

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- ▶ HGFs have taken place in national and international policy documents, such as
  - ▶ Europe 2020,
  - ▶ A new indicator in European Innovation Scoreboard
  - ▶ The 10th Development Plan, Turkey
  - ▶ SME Strategic and Action Plan, Turkey
- ▶ HGFs' priority and importance have been emphasised but little known about them



# Theoretical Background

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- ▶ David Birch, (1979) Job Generation Process Report, “**Small firms**” generate most of the jobs. Then he revised his main argument that not all the small firms but small proportion of firms responsible for the job creation. He coined the term “**Gazelles**” to HGFs.
- ▶ In 2010, Henrekson&Johanson, meta analysis, they identified 20 studies from 1990 to 2010, found some common characteristics of HGFs.
- ▶ Most of the studies, basically focus on the proportion of HGFs by number, their contribution to the net job creation and commonalities of them such as age, size and sectoral concentrations in different countries.



# Theoretical Background

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- ▶ Some of the studies analysed the innovativeness of HGFs (OECD 2002, Baldwin and Gellatly 2006, Mason et. al 2009)
- ▶ Regional impacts of HGFs (Mason et al 2009)
- ▶ Industrial impacts of HGFs (Bos and Stam 2013)
- ▶ Employment attitudes of HGFs (Halabisky et. al 2006, Coad et. al 2014)



# Common Characteristics of HGFs

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- ▶ HGFs account for small proportion of firms (1-10 %)
- ▶ HGFs create most of the new jobs (50% or more)
- ▶ HGFs are relatively young and small, but rarely start-ups
- ▶ HGFs are likely innovative but can be found in all sectors
- ▶ Contrary to general acceptations, they are not overrepresented in high-tech industries,
- ▶ HGFs are more likely to be found in service sectors rather than manufacturing sectors.
- ▶ HGFs have erratic growth patterns and mostly one time event



# Policy Discussions

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- ▶ Rather than increasing the number of entrepreneurs or firms, focus on existing or potential HGFs (Mason et. al 2009, Shane 2009)
- ▶ High growth is a temporary and unpredictable event, therefore concentrate on framework conditions, business environment and removing barriers to growth (Hölzl 2011, Daunfeldt&Halvarsson 2012)





# The Challenging Issues

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- ▶ Heterogeneity in definition of growth
  - ▶ Absolute? Relative? Or Both (combination of them)?
  - ▶ In Sales? In Employment? Or Productivity?
  - ▶ All firms? 10+ employees? 20+ employees? Or more than certain amount of annual sales?
  - ▶ Eurostat-OECD Definition (Firms with 10 or more employees and annual growth in employment or sales more than 20 % in three year period )
- ▶ Erratic nature of high growth, hard to predict ex ante



# The Research Question

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- ▶ Do HGFs in Turkey have common characteristics with others?
- ▶ And, How does the use of different definitions change the group of HGFs?



# Data and Methodology

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## ▶ DATA SET

- ▶ drawn from KOSGEB SME data base
- ▶ SMEs, who regularly submit their SME Statements (Official Document for proofing SME status)
- ▶ In two consecutive four year periods
- ▶ 2006 -2009                      2010-2013
- ▶ 7.950 SMEs                      14.372 SMEs

## ▶ Descriptive Analysed Issues

- ▶ Age & size
- ▶ Sectoral distribution
- ▶ Persistence of Growth
- ▶ Utilisation of KOSGEB supports



# Data and Methodology

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## ▶ **Growth Grouping in Relative Terms (Sales or Employment)**

- ▶ Negative Growth       $G < 0\%$
- ▶ Steady Growth       $0\% < G < 10\%$
- ▶ Modest Growth       $10\% < G < 20\%$
- ▶ High Growth       $G > 20\%$

## ▶ **Growth in Birch Index (Employment)**

- ▶ Birch Index ( $BI_{Emp}$ )       $(E_t/E_{t-3}) * (E_t - E_{t-3})$
- ▶  $E_t$  = firm total employment in year (t)
- ▶  $E_{t-3}$  = firm total employment in year (t-3)



# Importance of The Study

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- ▶ Almost the first comprehensive research on HGFs in Turkey (only two identified)
  - ▶ Cansız (2013) analysed social backgrounds of 32 High Growth Entrepreneurs in technology development regions in Turkey.
  - ▶ Güzel and Giray (2014) did a policy review
- ▶ Longitudinal data, comprising economic crisis and recovery periods
- ▶ By not sticking to one definition, It gives the opportunity to question different definitions and measurements
  - ▶ Employment Growth in Relative Terms (more than 20% annual growth)
  - ▶ Sales Growth in Relative Terms (more than 20% annual growth)
  - ▶ Birch Index (combination of relative and absolute growth)



# Findings

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**Table 1: Average Age and Size of The Firms**

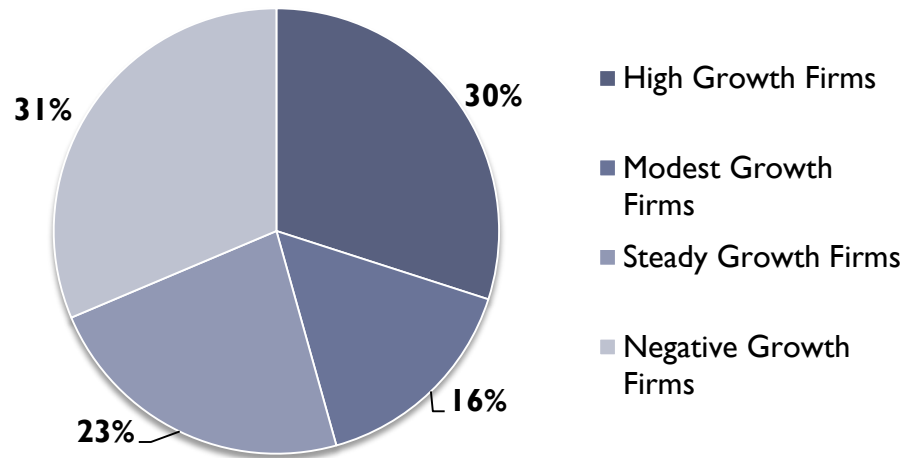
<b>Growth Levels*</b>	<b>Age old years</b>	<b>Size # employees</b>
<b>Negative Growth Firms</b>	13	35
<b>Steady Growth Firms</b>	12	27
<b>Modest Growth Firms</b>	11	19
<b>High Growth Firms</b>	<b>8</b>	<b>9</b>

\* Employment Growth in reative terms in first period

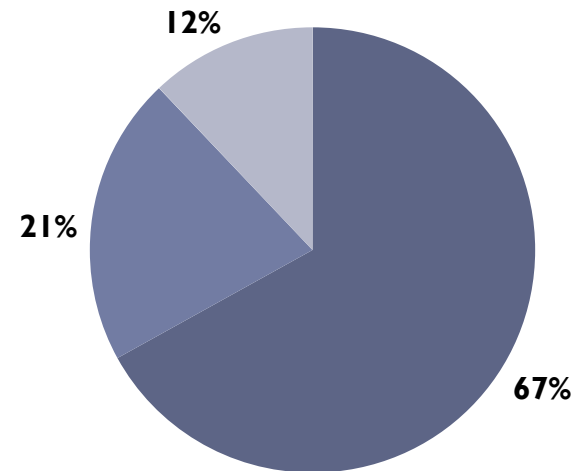


# Findings

**Graph 1: Firm Groupings By Number**



**Graph 2: Firm Groupings By Job Creation**



**\* In this study we use gross job creation but most of the previous studies use net job creation, this preference exaggerates the contribution of HGFs. For instance, in net job creation the contribution of HGFs in this study would be 120%.**





# Findings

**Table 2: Comparison of HGFs in Different Measures**

Firm Size # Empl.	Relative (Employment)				Relative (Sales)		BI (Employment)			
	HGFs		Job Creation		# HGFs		# HGFs		# Jobs Creation	
	#firm	%	#jobs	%	#firm	%	#firm	%	#jobs	%
<b>1-9</b>	<b>1.766</b>	<b>74</b>	<b>17.702</b>	<b>46%</b>	<b>1.640</b>	<b>54</b>	<b>499</b>	<b>63</b>	<b>10.036</b>	<b>38%</b>
<b>10-19</b>	337	14	7.374	19%	613	20	87	11	3.557	13%
<b>20-49</b>	227	10	9.455	24%	624	21	131	16	7.127	27%
<b>50-249</b>	52	2	4.136	11%	148	5	78	10	5.760	22%
<b>Total</b>	<b>2.382</b>	100	38.667	100%	<b>3.025</b>	100	<b>795</b>	100	26.480	100%





# Findings

**Table 3: Sales Growth Performances of HGFs in Employment Growth**

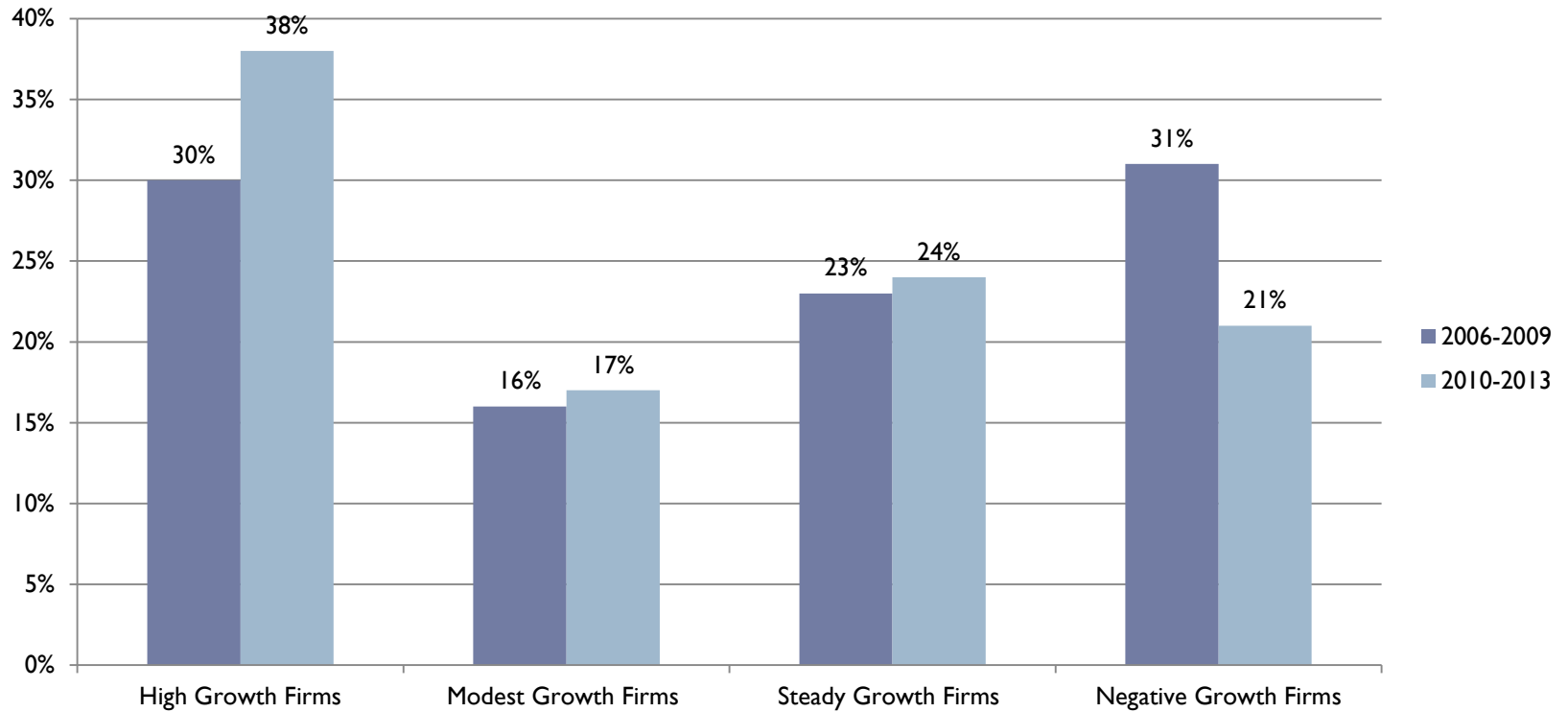
<b>Growth Grouping</b>	<b># HGF<sub>emp</sub></b>	<b>%</b>
<b>Negative Growth</b>	<b>249</b>	<b>10%</b>
<b>Steady Growth</b>	242	10%
<b>Modest Growth</b>	282	12%
<b>High Growth</b>	<b>1.438</b>	<b>60%</b>
<b>NA</b>	171	7%
<b>Total</b>	2.382	100





# Findings

**Graph 3: Growth Performances in Two Periods**





# Findings

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**Table 4: Persistence in Two Periods**

	<b>HGF<sub>emp</sub></b>		<b>HGF<sub>sales</sub></b>	
	#HGFs	%	#HGFs	%
<b>HGFs in two periods</b>	167	<b>24,2</b>	540	<b>55,4</b>
<b>Total HGFs</b>	689	100	975	100

**HGFs are not “one hit wonders”** as Daunfeldt and Halvarsson (2012) have pointed out (0.8% of sustained HG in the next period).





# Findings

**Table 5: Technological Classification\* of HGF<sub>emp</sub>**

Tech. Classification in Manufacturing	HGF <sub>emp</sub> (%)	Total Firm (%)
<b>High-tech</b>	<b>3,33</b>	<b>2,41</b>
Medium high tech	29,98	29,38
Medium low-tech	26,54	28,54
Low-tech	40,14	39,67
Total	100	100

Tech. Classification in Service	HGF <sub>emp</sub> (%)	Total Firm (%)
<b>Knowledge Intensive Services (KIS)</b>	<b>36,45</b>	<b>30,89</b>
Less Knowledge Intensive Services (LKIS)	63,55	69,11
Total	100	100

\* Eurostat



# Findings

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**Table 6: Utilisation of KOSGEB Supports**

<b>Growth Grouping</b>	<b>Growth in Employment (Average)</b>	<b>Growth in Sales (Average)</b>
<b>Negative Growth Firms</b>	24.332 TL	22.652 TL
<b>Steady Growth Firms</b>	30.502 TL	24.785 TL
<b>Modest Growth Firms</b>	31.122 TL	29.832 TL
<b>High Growth Firms</b>	<b>31.257 TL</b>	<b>30.738 TL</b>



# Conclusion

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- ▶ HGFs are relatively young and small, while most of the growth is generated by firms with less than 20 employees, larger firms are responsible for most of job losses
- ▶ HGFs' representation in High-tech industries is slightly higher than overall firm representation, but notably much more higher in service industries
- ▶ High growth is not linear, but not that much one-time event as found in prior studies. HGFs in this study tend to have higher persistence in their outstanding performance, which allows much more room to narrowly targetted HGFs programmes.
- ▶ Each definition and variable provide a different cohort of HGFs, thus policy makers have to adopt optimum definition for their own objectives.



# Conclusion

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- ▶ We generally comprehend the R&D or innovation as a technical problem so the policies in this respect focus on solving them. Growth is usually being ignored.
- ▶ HGFs are faced with real challenges mostly in organizational and managerial fields which is hard to cope with it by their own. “Growth accelerator” programmes are being used in some countries dealing with these issues.
- ▶ Therefore, we should integrate some growth aspects into R&D and innovation policies.



Thank you for your attention ...

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