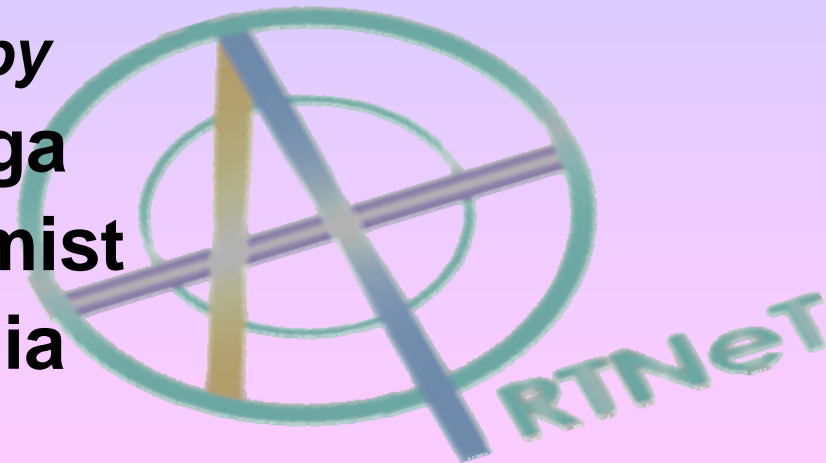


Trade-led Growth in Times of Crisis
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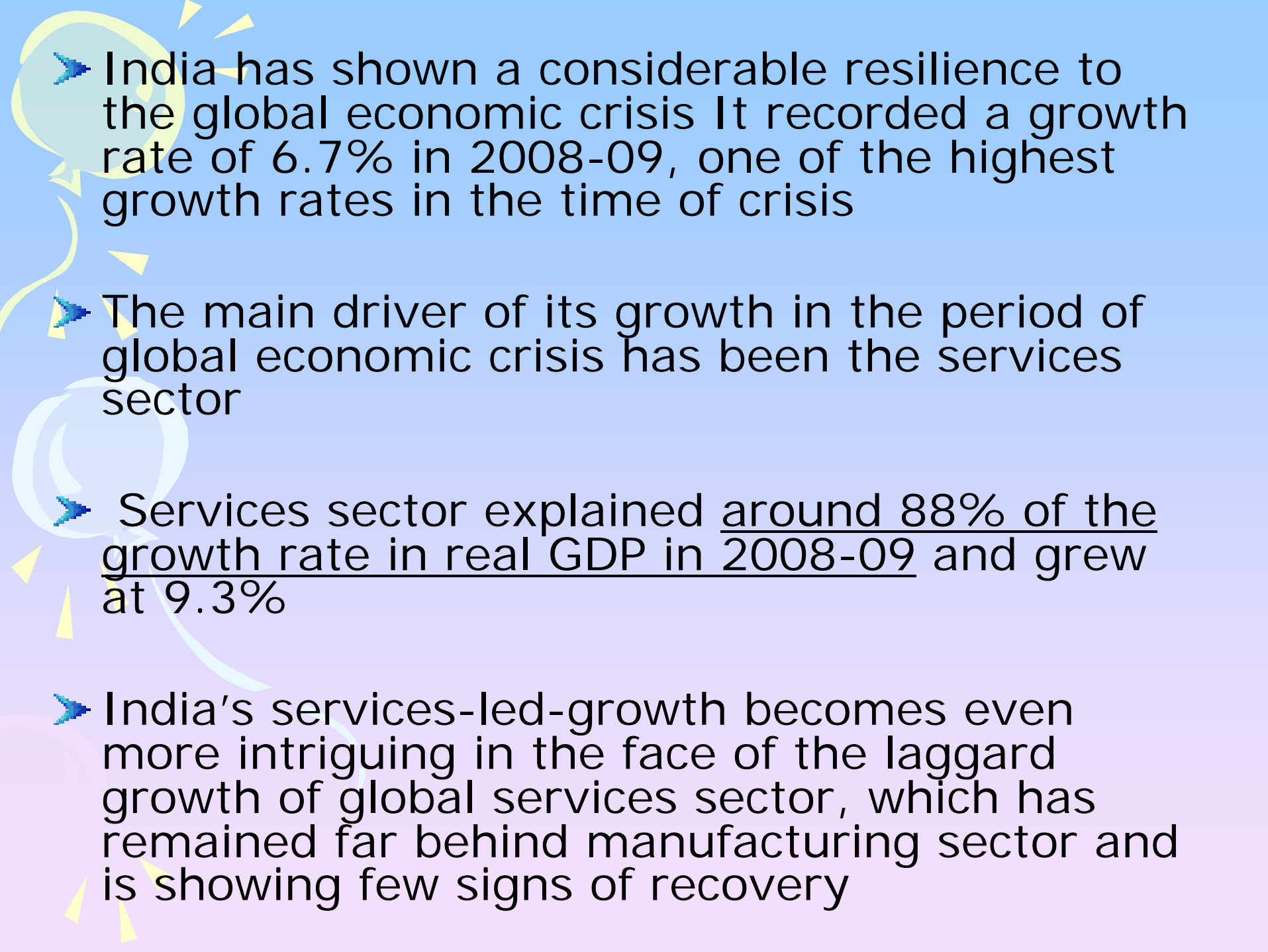
**Global Economic Crisis: Implications and
Restructuring of Services Sector in India**

Presentation by
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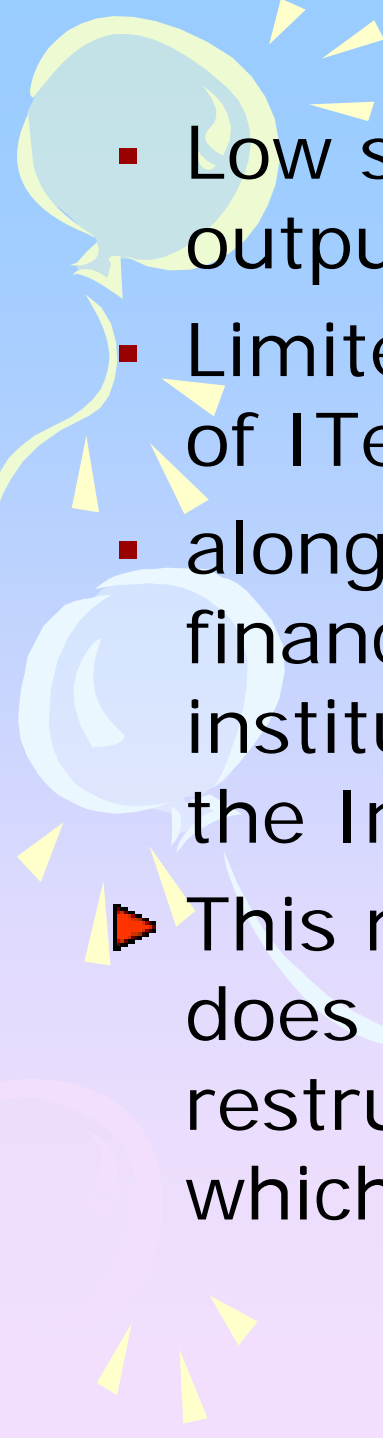


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- India has shown a considerable resilience to the global economic crisis. It recorded a growth rate of 6.7% in 2008-09, one of the highest growth rates in the time of crisis.
 - The main driver of its growth in the period of global economic crisis has been the services sector.
 - Services sector explained around 88% of the growth rate in real GDP in 2008-09 and grew at 9.3%.
 - India's services-led-growth becomes even more intriguing in the face of the laggard growth of global services sector, which has remained far behind manufacturing sector and is showing few signs of recovery.

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- Services sector contributes 64.5% of GDP
 - Of this, exports of services comprise around 16% of the services GDP and has less than 10% share in total GDP.
 - Of this, ITeS-BPO constitute almost 45% of total services exports of India.
 - In 2008-09, exports of this sector increased by 28% from the previous year and reached USD 40.8 billion out of the total services exports of USD 90.1 billion

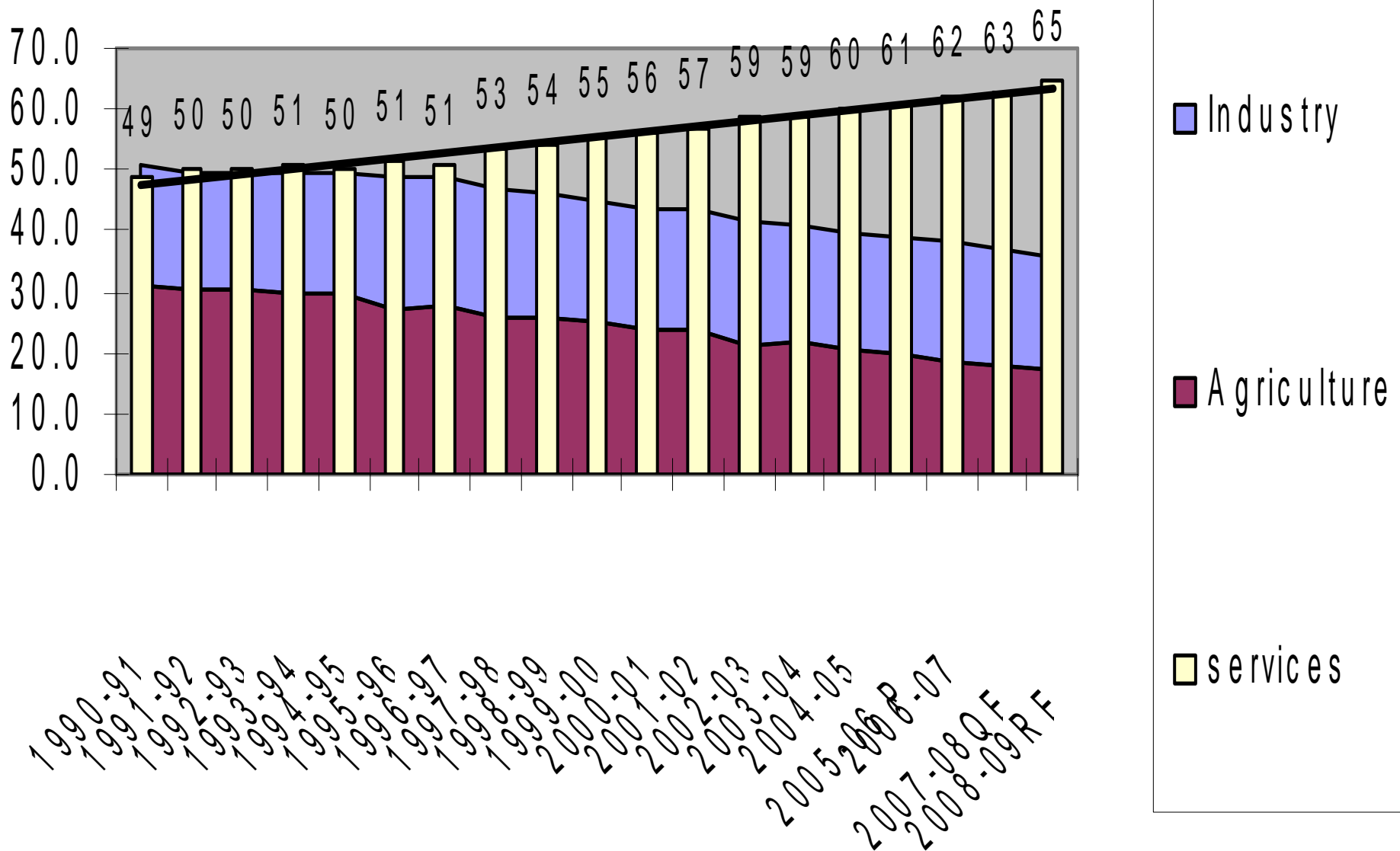
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- Low share of exports of services in total output generated by services sector;
 - Limited impact of global crisis on exports of ITeS-BPO services;
 - along with limited exposure of Indian financial sector to international financial institutions can to a large extent explain the Indian services growth miracle.
- ▶ This macro picture of the services sector does not reflect the dynamics of restructuring of the India's services sector which has taken place over time.



Objectives

- Analyse the implications of global crisis on India's services sector and the changing composition of this sector
 - Identify key services that impact services growth
 - Role of Domestic Demand and External Demand in Restructuring of the Services
 - Role of Supply side factors—Productivity Growth in Services
 - Policy recommendations on improving productivity growth in key services sectors
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Change in Sectoral Shares in GDP:1990-91 to 2008-09





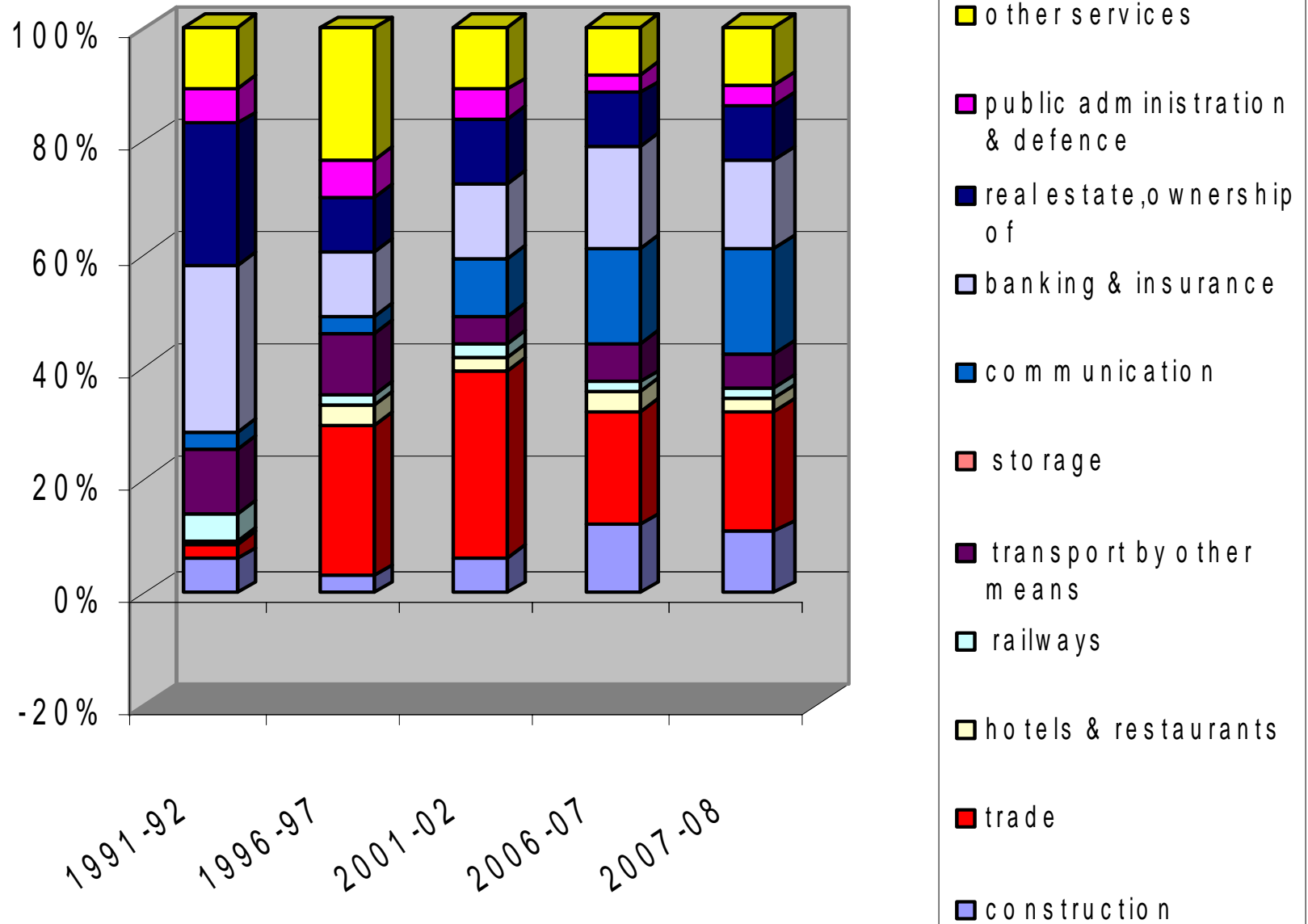
Sectoral Decomposition of GDP Growth

	Growth of GDP at factor cost	Agriculture	Industry	Services
2000-01	4.4	-0.1	1.3	3.2
2001-02	5.8	1.5	0.5	3.8
2002-03	3.8	-1.7	1.3	4.3
2003-04	8.5	2.1	1.2	5.2
2004-05	7.5	0.0	1.7	5.8
2005-06	9.5	1.2	1.6	6.7
2006-07	9.7	0.8	2.1	6.9
2007-08	9.0	0.9	1.4	6.7
2008-09	6.7	0.3	0.5	5.9

Sectoral Decomposition of GDP Growth:

	2001-02	2006-07	2007-08	2008-09
construction	0.23	0.83	0.72	0.47
trade	1.28	1.40	1.42	-14.35
hotels & restaurants	0.10	0.23	0.17	-1.56
railways	0.08	0.12	0.11	-1.18
transport by other means	0.19	0.46	0.40	-5.18
storage	0.00	0.00	0.00	-0.06
communication	0.39	1.17	1.25	-5.65
banking & insurance	0.51	1.24	1.03	-7.09
real estate,ownership of	0.44	0.66	0.65	-7.53
public administration & defence	0.20	0.23	0.23	-5.18
other services	0.42	0.57	0.68	-7.96
Total Services(5+6+7+8+9)	3.85	6.90	6.67	5.82

Sectoral Decomposition of GDP Growth:



Key Services-Drivers of GDP Growth

- The maximum contribution to GDP growth rate in 2007-08, which was 6.7%, has come from **domestic trade sector (retail and wholesale), which contributed 1.42 percentage**
- This was followed by **communication services** (which include telecommunication and software services) which contributed 1.25 percentage points
- and **banking & financial services** contributing 1.03 percentage points respectively.
- Contribution of other services was low

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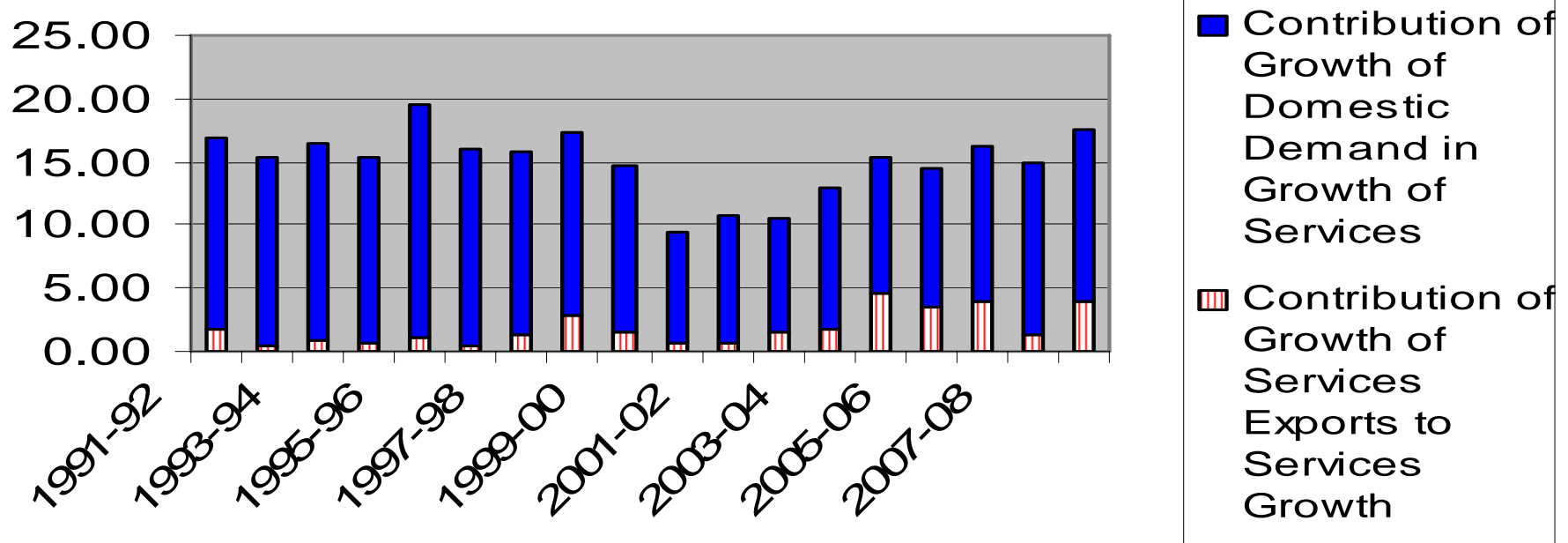
Implications of Global Economic Crisis on India's Exports of Services:

Role of External Demand

Share of India's Exports of Services in Total Services Output and GDP

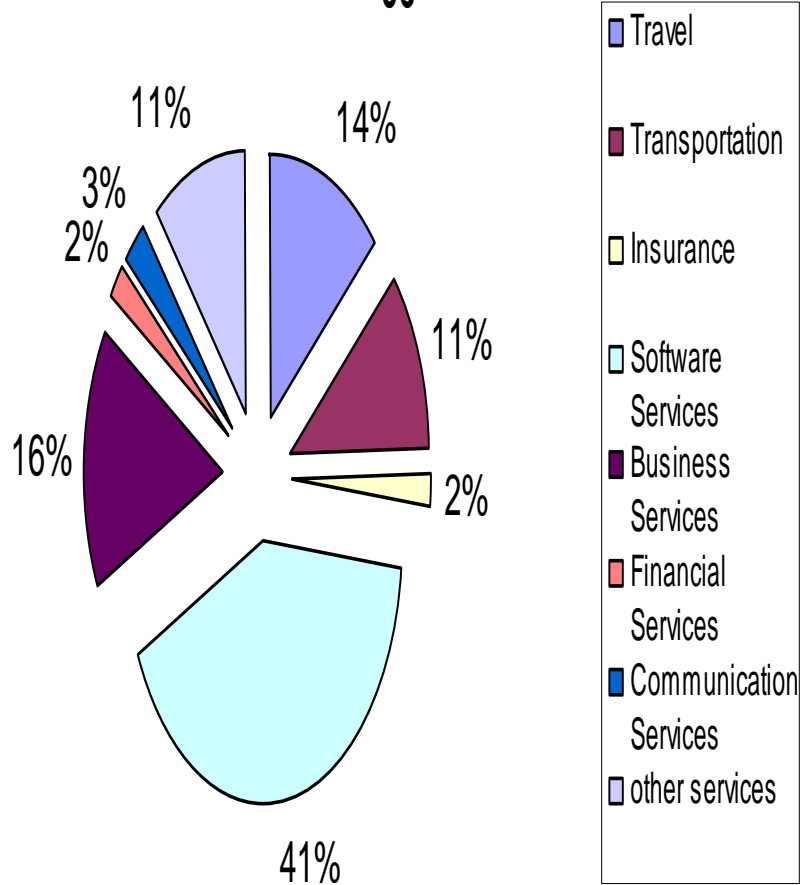
- Indian services exports grew at a compounded annual growth rate (CAGR) of 17% during 1993-2000 and at a much faster pace recording CAGR of about 24% during 2001-2008.
- The exports of services grew from US \$ 20.8 billion in 2002 to US \$ 90.1 billion in 2007-08 and further to US\$101 billion in 2008-09.
- But exports of services still remains around 15.1% of total services output and around 9.4 % of total GDP of the economy

Decomposition of Growth of Services into Growth of Exports of Services and Growth in Domestic Demand

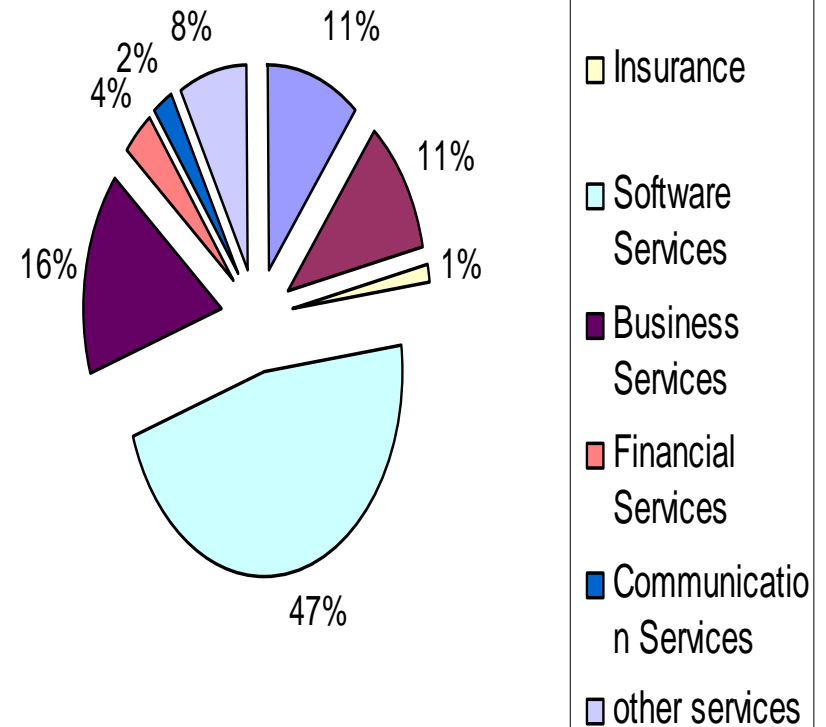


This does indicate that though exports of services is becoming important for India's services sector, it may not be the main driver of its growth.

Composition of India's Export Basket: 2005-06




India's Export Basket: 2008-09



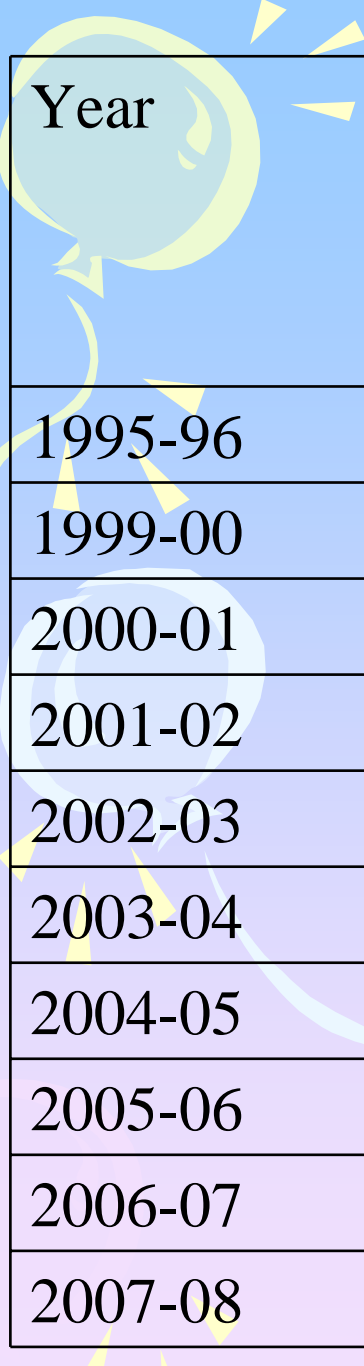
Income Elasticity of Demand for Export of India's Services

- Estimate standard export demand function, exports depend on price competitiveness as measured by the real exchange rate and global income as measured by global GDP
- $LNEXP SERINDIA_t = \alpha_1 + \alpha_2 LNGDP WORLD_t + \alpha_3 LNREER_t + ut$
- $t = 1970$ to 2008
- Where $LNEXP SERINDIA$ is log of real exports of services of India to the world; $LNGDP WORLD$ is log of real world GDP; and $LNREER$ is a product of effective exchange rate and relative prices.



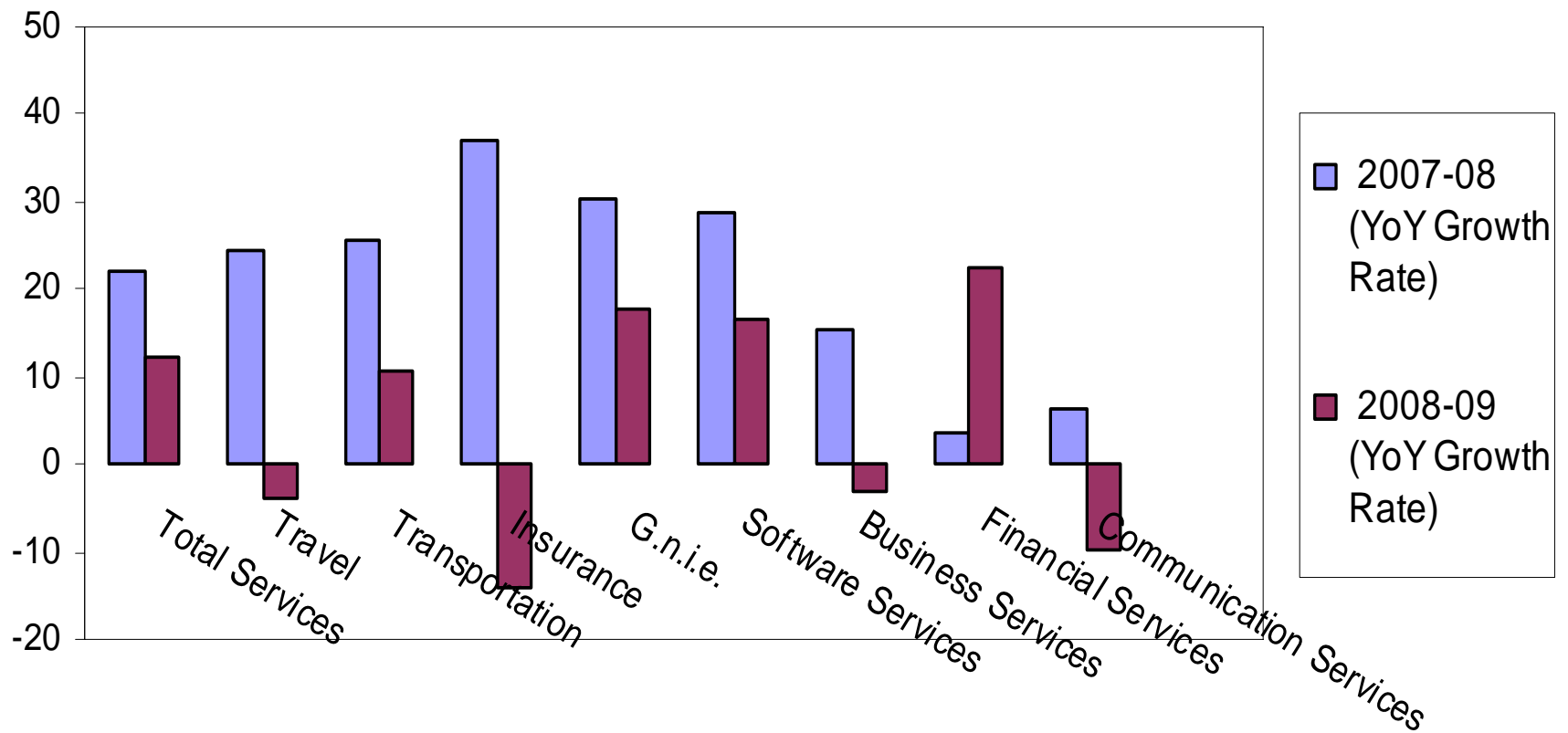
Countries	Income demand elasticity for Exports of Services	Price Elasticity for Exports of Services
Aggregate Services	3.22*	-0.56**
Transportation Services	1.98*	-0.57*
Travel Services	3.54*	-0.95*
Financial Services	2.37*	-0.64
Software Services	6.04*	-0.23

For software services, income elasticities estimated with respect to US, are found to be most responsive.



Year	IT Services Exports	ITES-BPO Exports	Total Software Services Exports (US \$ million)
1995-96	754	—	754
1999-00	3,397	565	3,962
2000-01	5,411	930	6,341
2001-02	6,061	1,495	7,556
2002-03	7,100	2,500	9,600
2003-04	9,200	3,600	12,800
2004-05	13,100	4,600	17,700
2005-06	17,300	6,300	23,600
2006-07	22,900	8,400	31,300
2007-08	29,400	10,900	40,300

Growth Rate (YoY) of India's Exports of disaggregated Services



India's Market Share in Exports of IT Services

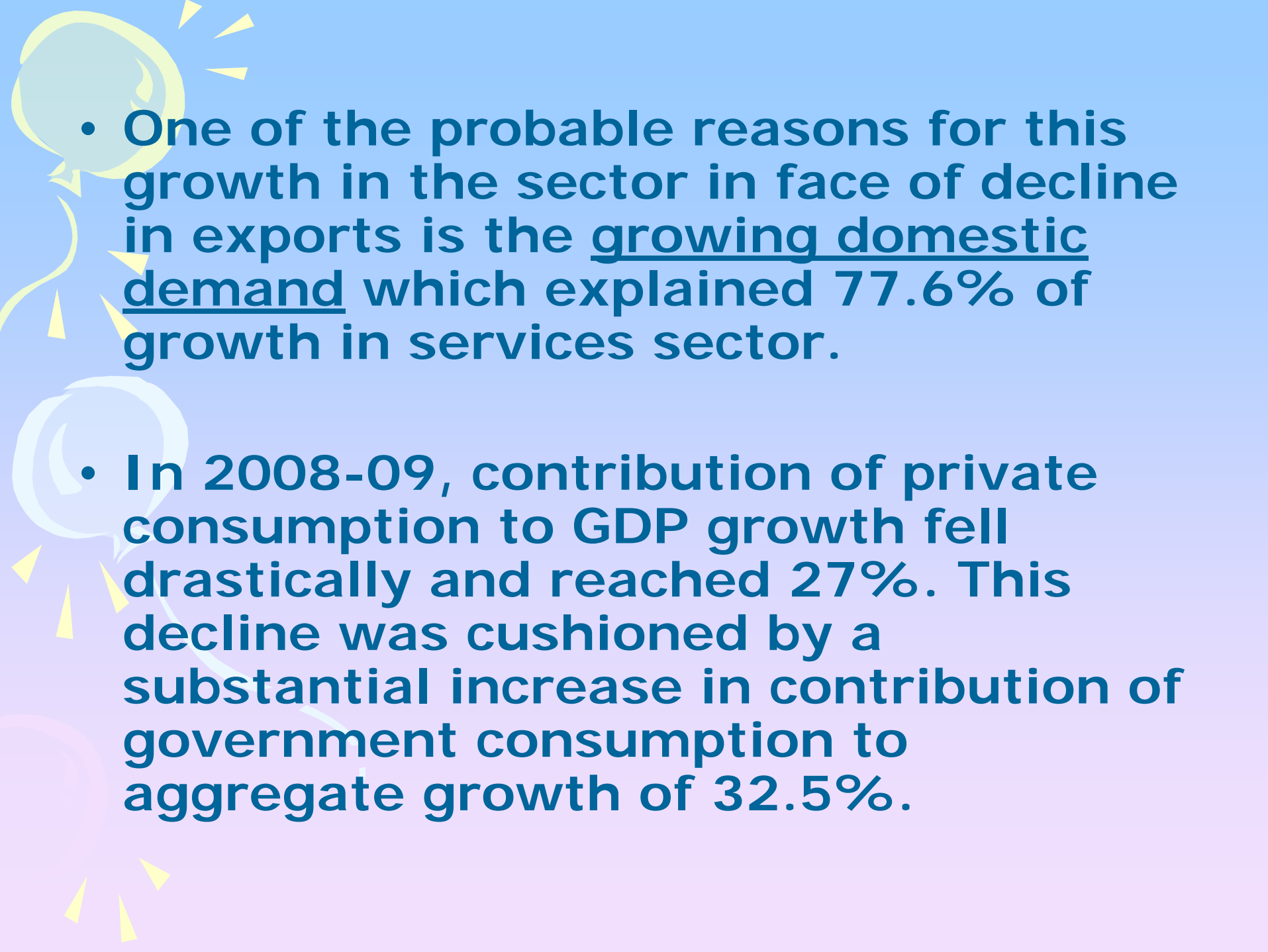
- India has been termed as one of the most dynamic exporters of IT and ICT-enabled services by the ***Information Economy Report 2009: Trends and Outlook in Turbulent Times***.
- Between 2000 and 2007, India reported the largest growth in export market share in IT and ICT Enabled services.
- India's exports of such services rose from \$10 billion to an estimated \$69 billion, increasing its market share from 1.6 to 4.2 per cent.

Resilience of India's Software Exports

- Growth in software services which constitute close to 50% of India's exports of services has shown remarkable resilience to the global slowdown in demand (16% in 2008-09)
- It should be pointed out that, cost cutting becomes a top priority in times of the current economic deterioration. This may make outsourcing more attractive.
- US (60 per cent) and the UK (19 per cent) remain the largest IT-BPO export markets in FY2008, but the industry footprint is steadily expanding to other geographies - Continental Europe in particular
- The industry's vertical market exposure has been well diversified across several mature and emerging sectors. Banking, Financial Services and Insurance remained the largest vertical market for Indian IT-BPO exports

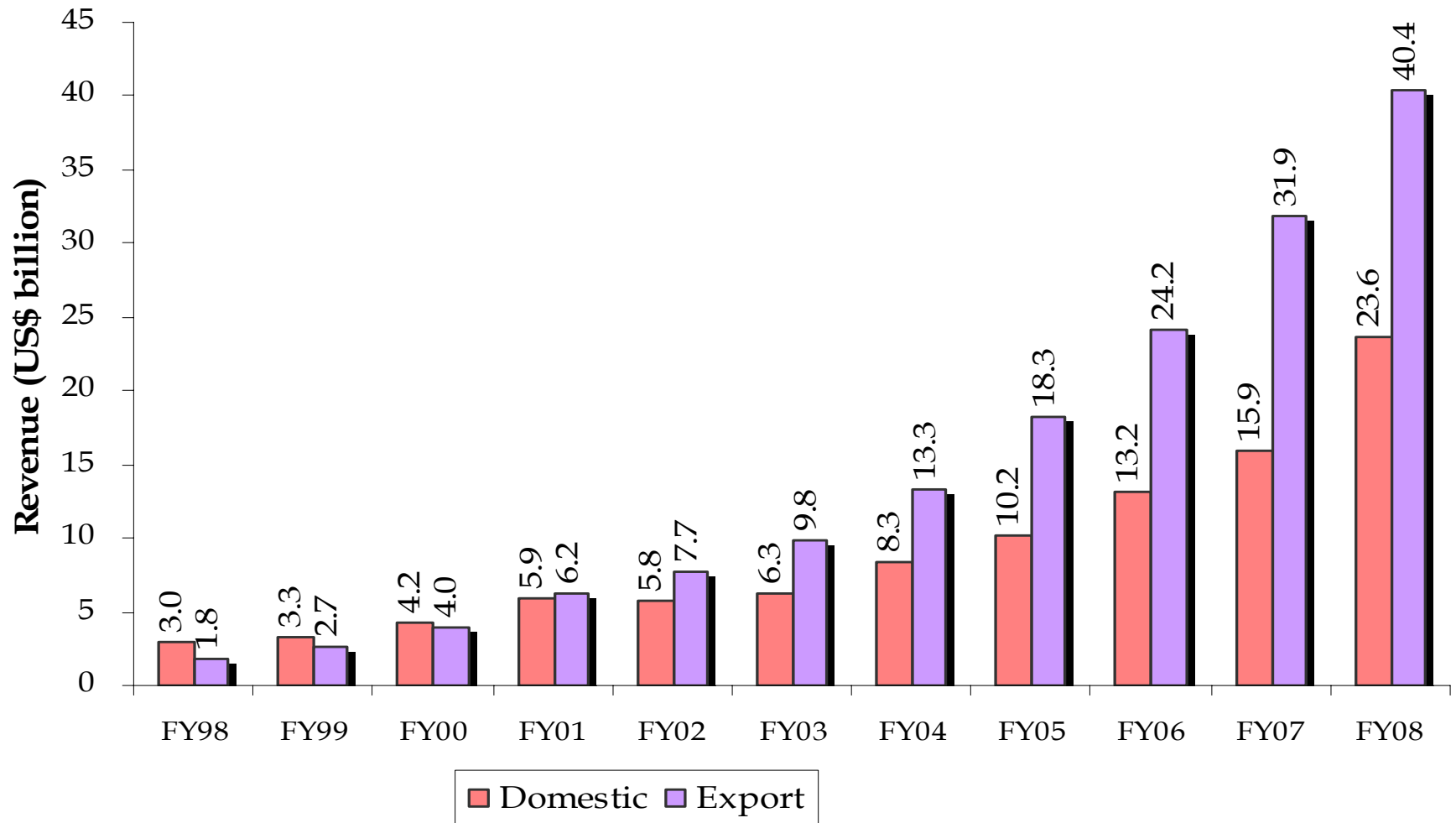


Global Economic Crisis : Role of Domestic Demand

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- One of the probable reasons for this growth in the sector in face of decline in exports is the growing domestic demand which explained 77.6% of growth in services sector.
 - In 2008-09, contribution of private consumption to GDP growth fell drastically and reached 27%. This decline was cushioned by a substantial increase in contribution of government consumption to aggregate growth of 32.5%.

	Growth of GDP					
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
GDP at market t prices	8.4	8.3	9.3	9.7	9.1	6.1
Consumption (pvt.)	5.9	5.2	7.1	6.3	8.5	2.9
Consumption (Govt)	2.6	3.6	6.2	5.5	7.4	20.2
Gross capital formation	17.6	21.8	19.5	13.2	14.7	na
Gross fixed capital formation	13.6	18.9	17.6	14.5	12.9	8.2
Change in stocks	-8.0	140.1	61.9	5.4	51.7	2.9
Exports	9.6	27.2	17.6	21.1	2.1	12.8
Imports	13.8	22.2	41.1	24.5	6.9	17.9
	Contribution to growth (per cent)					
Consumption (pvt.)	45.1	38.8	46.3	38.7	53.8	27.0
Consumption (Govt)	3.6	4.8	7.1	5.8	8.0	32.5
Gross capital formation	52.4	71.3	63.8	45.6	55.7	na
Gross fixed capital formation	38.4	56.4	51.3	43.9	43.6	42.5
Net exports	-6.3	10.1	-41.1	-13.2	-14.0	-29.5
	Relative share (per cent)					
Consumption (pvt.)	62.3	60.5	59.3	57.5	57.2	55.5
Consumption (Govt)	11.1	10.6	10.3	9.9	9.8	11.1
Gross capital formation	27.1	30.5	33.3	34.4	36.2	na

Indian IT industry revenue




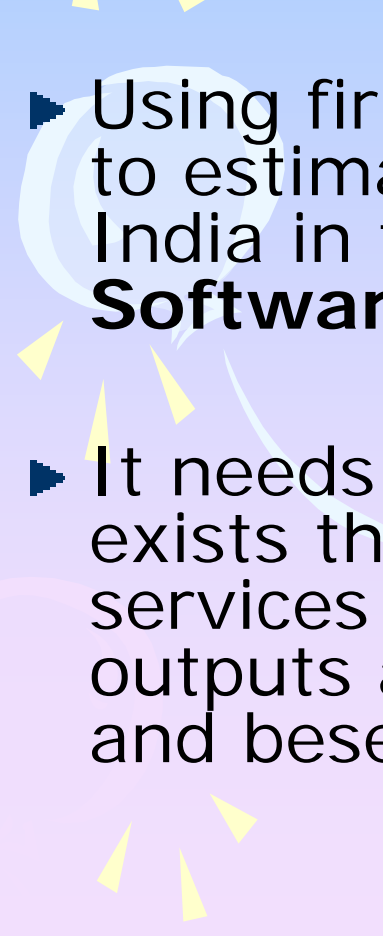
Domestic demand also provided the much needed support to the growth of ITES and BPO services.

Growth in Domestic Demand and Exports in India's ITeS-BPO Services: 2005-2008

	FY2005	FY2006	FY2007	FY2008
IT Services-Exports	37.0	33.0	35.3	28.3
IT Services-Domestic	12.9	28.6	22.2	43.6
ITES-BPO-Exports	48.4	37.0	33.3	29.8
ITES-BPO-Domestic	100.0	50.0	22.2	45.5
Engineering Services and R&D, Software -Exports	24.0	29.0	22.5	30.6
Engineering Services and R&D, Software -Domestic	75.0	85.7	23.1	37.5
Total Software and Services Revenues Of which, exports are	37.2	33.3	32.6	29.1




Role of Productivity Growth in India's Services Sector

- 
- ▶ Mere presence of demand may not be sufficient for a sector to grow.
 - ▶ **Productivity growth of a sector is an important factor**
 - ▶ Using firm-level data, an attempt has been made to estimate productivity growth in services firms in India in three sectors- **Retail/wholesale Trade; Software Services; and Banking Services**
 - ▶ It needs to be noted that very limited literature exists that estimates productivity growth in services as identification and measurement of outputs and inputs of services sectors are difficult and beset with conceptual problems.
- 




Productivity Measurement: Methodology

☞ **Data Envelopment Analysis (DEA), has been most widely used for estimating productivity in services sectors.**





☞ **DEA enables examination of sources of productivity growth, i.e., whether total factor productivity has increased due to technological progress (technical change or innovation) and/or due to pure efficiency improvements and/or scale economies.**





Strengths and Weaknesses of DEA

- 
- ➡ **Strengths**- DEA does not require a preconceived structure or specific functional form to be imposed on the data
 - ➡ DEA technique when it has been shown that a commonly agreed functional form relating inputs to outputs is difficult to prove or find.
 - ➡ **Drawbacks**-efficiency is measured in a relative way
 - ➡ the main weakness of DEA is that it assumes data are free from measurement errors.
- 



Productivity Growth in IT firms

- A panel of 18 firms for 14 years (1994-95 to 2007-08) is used
- Data has been extracted from *Capital Line* database which provides data for all listed firms in India.
- For estimating productivity total income has been used as an output; number of employees, expenditure on plant & machinery and buildings have been used as inputs

	Malmquist indices (TFP)	Change in Technology	Change in Pure Efficiency	Change in Scale
1995-96	0.4364	0.0444	1.1203	0.272
1996-97	0.5931	0.0698	0.9746	0.5487
1997-98	0.6108	0.7473	0.9273	0.9363
1998-99	1.0867	0.5411	1.3126	1.233
1999-2000	0.7603	0.8774	0.976	0.9069
2000-01	1.2369	1.2167	0.9273	1.093
2001-02	1.9272	2.2118	0.9341	0.7813
2002-03	1.1584	1.2123	0.9978	0.9483
2003-04	1.2587	0.9545	1.2892	1.015
2004-05	1.7232	1.6808	1.3962	0.6462
2005-06	1.5249	0.4714	1.2354	1.8182
2006-07	1.3189	1.3961	0.9781	0.9448
2007-08	0.5736	0.7905	0.7234	1.0597
Annual Growth (1995-2000)	-33.4%	-74.4%	5.34%	-3.01%
Annual Growth (2000-2008)	27.3%	13.34%	3.92%	-0.42%


The slide features a light blue to light purple gradient background. On the left side, there are three stylized balloons: a yellow one at the top, a white one in the middle, and a pink one at the bottom. Each balloon has a white outline and is surrounded by several small, yellow, triangular streamers or confetti pieces.

Growth Re-balancing: Role of Government Policies




Recommendations for Improving Productivity Growth in Software Services


- I. It is important for the IT-BPO services providers to build a strong and unmatched value proposition for themselves in specific, focused niche segments. Policy incentives need to be built for encouraging IT-BPO services to enter such specialty segments.
- II. IT-BPO services are also increasing in width by bringing new areas into their ambit, e.g., legal process outsourcing, clinical research outsourcing (CRO), mobile applications, and energy efficiency and climate change. These new areas require massive investments and knowledge creation. It is recommended that the government takes initiative and encourages IT firms into entering these areas by making creating policy incentives.



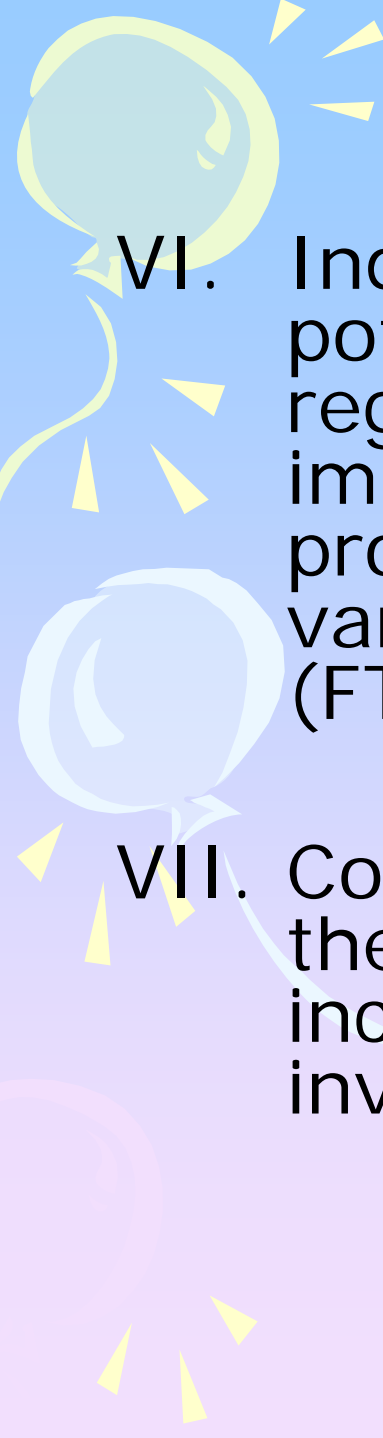
III. what is also needed for the sustained productivity growth of the sector is innovation. In line with providing incentives for R&D activities to the manufacturing sector, the government should also focus on developing incentives for innovations in IT services.



IV. Collaborative research between industry, academia and government is needed



V. A direct support that can be given by the government is by greater outsourcing to BPO services providers and creating direct demand.

A decorative graphic on the left side of the slide features a yellow sun with rays at the top, a light blue balloon in the middle, and a pink balloon at the bottom, all with yellow streamers.

VI. Indian software services sector has the potential to emerge as an IT hub in the region. But for that to happen, it is important for the government to provide the opportunities within its various bilateral Free Trade Agreements (FTAs).

VII. Concessions for IT service providers in these countries can be negotiated to increase their exports as well as investments in other countries.



Summary and Conclusions

- ➡ India's Services sector has shown remarkable resilience in the current global economic crisis.
- ➡ Much of this is due to the fact that domestic demand played an important role along with external demand.
- ➡ Services which are mainly exported (software services) showed a double digit growth rate in spite of crisis.
- ➡ Productivity growth in services has been instrumental in sustaining growth in key services sectors.
- ➡ High Productivity growth needs to be maintained in services sectors for which government can make important contribution.



Thank You