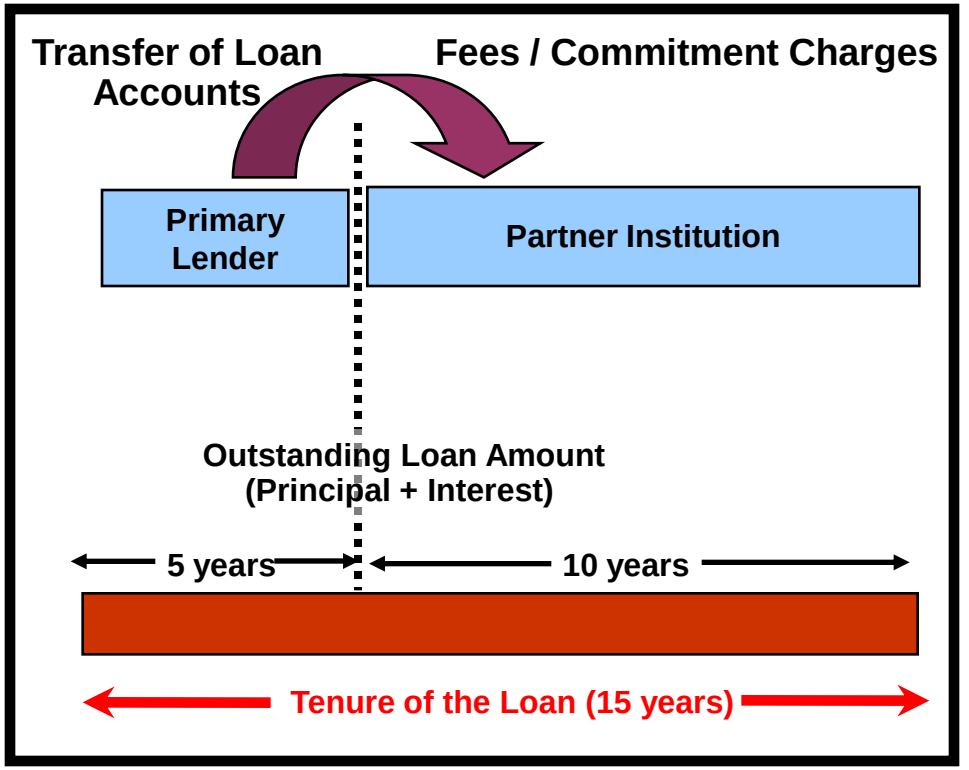
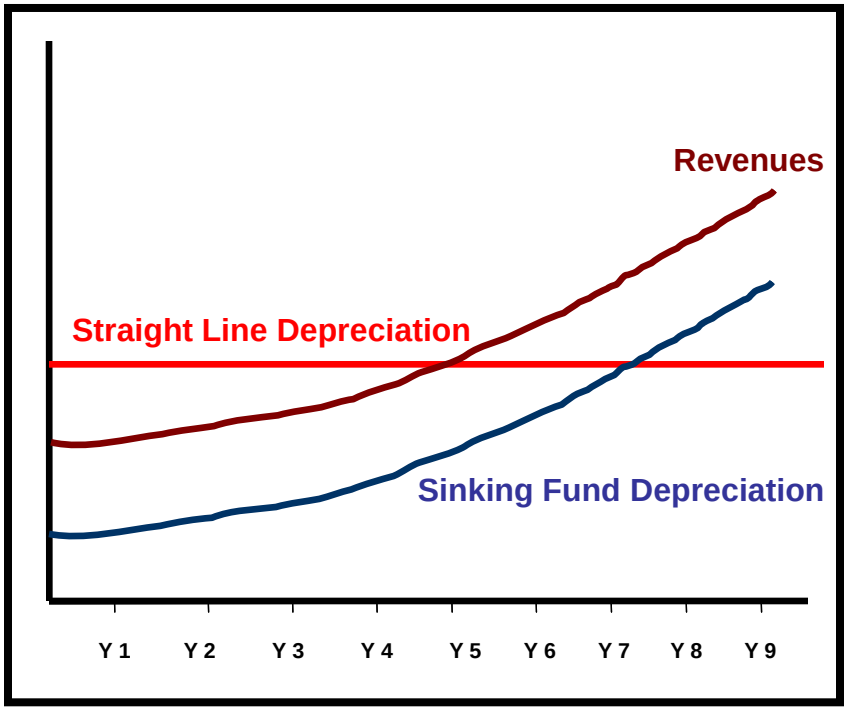
Take Out Financing

- Banks are unable to loan funds to infrastructure projects beyond certain tenor thresholds
- Bank Loan maturities may not match cash flow profile of the Project
- Therefore, at the end of the Bank Loan maturity, the loan is 'Taken Out' by another financial institution to prevent asset – liability mismatch
- Take Out Financing enhances the credit rating of a security
- Example
  - Vadodara – Halaol Toll Road Project (VHTRL)
    - The Deep Discount Bond (DDB) Holders for the Project contracted with Infrastructure Development Finance Corporation (IDFC) and IL&FS for a Put Option after the 8th year
  - NTBCL
    - The Project Company contracted with Infrastructure Development Finance Corporation (IDFC) and IL&FS for a Put Option after the 5th and 9th year



Sinking Fund Depreciation

- Early returns to shareholders increases the confidence and participation of the stakeholders
- Traditional method of depreciation restricts payment of dividend till certain asset-related and lender covenants are met
- This leads to shareholders not being able to draw early dividends, making projects less attractive to investors
- The sinking fund method allocates more depreciation to the later years
- Example:
  - NTBCL
    - Sinking Fund Depreciation was used to ensure early returns to shareholders
    - This approach was however, abandoned after the introduction of Minimum Alternate Tax (MAT) by the Government



Risk Participation Structures

- Risk Participation Structures are non fund based guarantees
- It allocates risks to several entities for fee
- Risk Participation Structures allow the Sponsor to take larger exposures in infrastructure projects and allow longer tenure funding from institutions
- Example
  - Tirupur Water Supply Project
    - Prudential Norms in India restrict Institutions from having more than 25% exposure of their networth to a project
    - IL&FS contracted a part of its exposure to risk participants for a fee, thereby meeting the regulatory requirements

Securitisation

- Securitisation
  - Securitisation is a funding strategy that involves funding based on asset value and cash flow characteristics of the asset pool which are not supported by the firm's equity
  - When a Project's technical, commercial and financial risks have been largely mitigated (MATURE PROJECTS), it can be positioned to raise incremental resources by discounting its future receivables
  - Structured debt offerings provide significant pricing advantage and improve shareholder returns
  - In several cases, it enable the shareholders to take-out entire equity and a substantial component of future equity returns upfront - allowing for re-investment in new projects
- Example
  - The cash flows of the Annuities have been securitised after accounting for O&M expenses

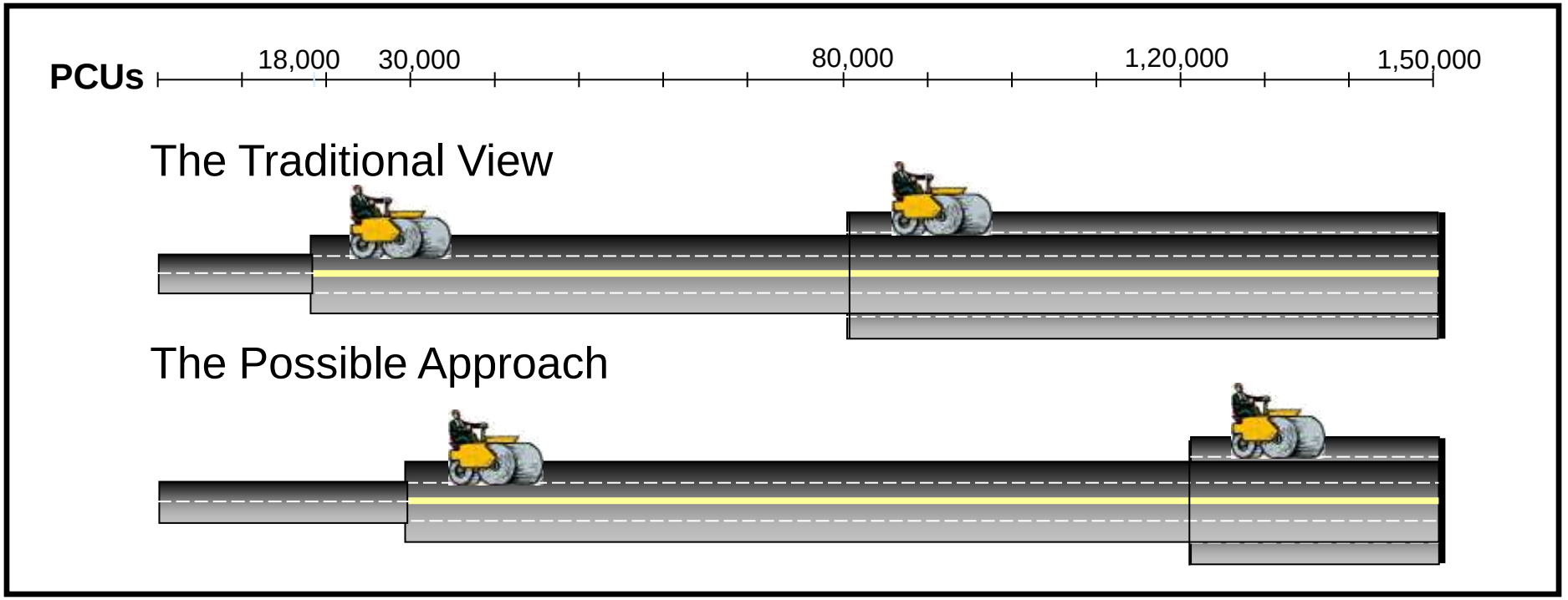
Stage III: Design/Solution

Innovation in Design/Solution

- Privatization involves a paradigm shift in the approach to development of infrastructure:
  - Private Participation in the Commercial Funding and the Operation of the Project
  - Private Participation in the Design and Solution
- Although Projects have been developed on a commercial format; the Government has specified technical parameters
- The Cost of developing infrastructure is similar across the world, however, the ability to pay is not
- Therefore, the optimal design solution will be a function of available resources
  - Engineering driven solutions can generate the required capacity at lower costs
  - Management solutions can yield significant savings

- For instance, in the road sector, on the increase of traffic above a threshold, additional lanes were recommended
- However, alternative Models for Implementing Road Stretches with lower Traffic Densities can be adopted

Road Design – A Possible Approach



- Examples
  - East Coast Road (ECR)
    - The Concession for the up gradation of ECR provided for addition in capacity and not conversion of a two lane facility to a four lane road
    - Tamil Nadu Road Development Company Limited, the Project Company, added capacity through value engineering and provision of safety features. It included amongst others:
      - Geometric correction of critical curves
      - Construction of bus bays and truck terminals
      - Widening only the high-density corridors
      - Overtaking lanes in specific sections
      - High Luminosity Reflectors

The East Coast Scenic Beachway

Low Cost, High Luminosity, Reflectors

- Tirupur Water Supply Project
  - The design capacity of the Tirupur Water Supply Project is 185 Million Litres/Day (MLD)
  - Provision for additional capacity would have required additional off take and pipeline infrastructure
  - The capacity of the Project can be increased to 215 MLD by recycling water for industrial use with marginal capital investment

Oversight and Program Management

- EPC contracts have a cap on the penalties to be paid by the Contractor. Further, there are significant upsides in completing projects on or before time:
  - Increase in Operations Period, enabling higher Lifetime Revenues
  - Lower Interest During Construction, reducing the Landed Project Cost
  - Early start to Project Cash Flows, enabling earlier debt repayment and returns to the shareholders
- Program management does not differ fundamentally from project management, except that it usually encompasses a much larger, more comprehensive set of roles and responsibilities than a single project
- Project Management ensures:
  - Quality Assurance & Quality Control
    - Compliance with scope, design criteria, quality, schedule and budget as outlined in the Concession Agreement, the EPC Contract and the O&M Contract
  - Effective Contracts Administration
    - This includes contracts preparation, selection oversight, change order processing, claims and dispute resolution and settlement, inter-contract and inter-discipline construction integration

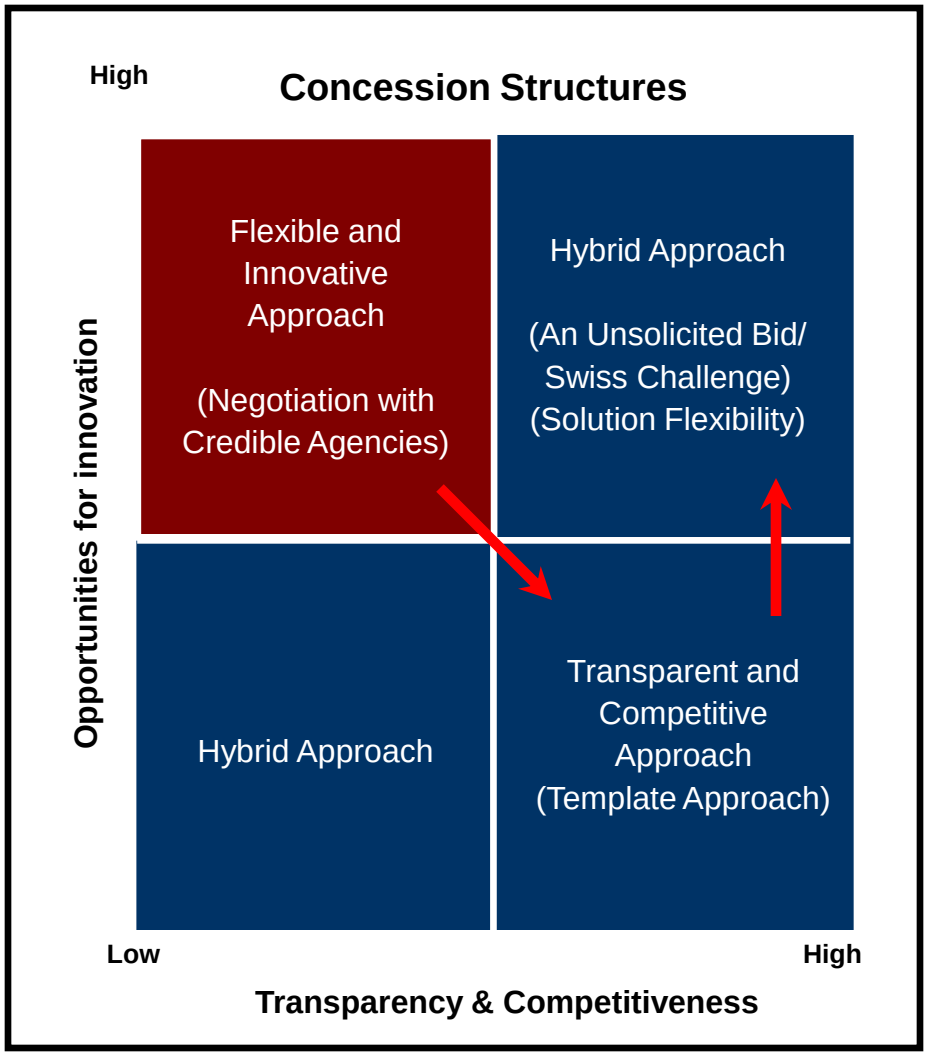
- Optimal Risk Management
  - BOT Projects face variety of risks that could impact the complex program–from technical, quality or performance risks, operational risks, to force majeure risks, such as earthquakes, flooding or civil unrest
  - A Risk Management Plan is devised to identify potential risks, set a criteria for rating risk levels, and set procedures for responding to and monitoring risk response, thereby increasing preparedness
- Environmental and Social Impact Mitigation for better community relationships
- Effective Delivery of the Project ensuring protection of the Sponsor's reputation and Brand Equity

- Example – North Karnataka Expressway
  - IL&FS undertook Oversight and lifecycle Program Management for the North Karnataka Expressway. Its responsibilities included:
    - Contract Management
    - Supervision of Project Design
    - Obtaining Environmental Clearance and Compliance with Environment Management Plan
    - Monitoring and supervision of Construction Activities
    - Resource Leveling and Allocation
    - Coordination with EPC Contractor, Independent Engineer and NHAI
    - Oversight of Operations and Maintenance
  - The Project was completed within budgeted costs and 5 months ahead of schedule

Stage IV A: Evolution of the Concession

The Concession Agreement

- Early BOT projects were developed as Joint Ventures between the State or Central Governments and the Private Sector
- Subsequently, “Model” Concession Agreements are being developed resulting in increasingly standardized concession structures for BOT projects across sectors
- This “Template” approach has lead to a greater familiarity amongst the private sector developers and financiers - reducing the turnaround time for both bidding and project financing
- However, despite the merits of the current system, it is increasingly being suggested that the process of project definition allow for a flexibility of approach by the bidder



- The Hybrid approach, while being more subjective, ensures flexibility in design and project structuring
- The subjectivity can be largely mitigated by ensuring wide representation on the selection committee – and substantial opportunities for debate before finalization
- Further, a more rigorous Rewards/Penalties regime ensures the delivery of the project to cost, quality and time - and subsequently the maintenance of performance standards and service levels
- Several State Governments have incorporated provision for Unsolicited Bids in their respective Infrastructure Acts enabling the Private Sector to suggest innovative implementation methodologies
- The Projects may then by bid out by the government on a “Swiss Challenge”

- Example: The Mega Highways Project, Rajasthan
  - The Mega Highways Project is the single largest road project under the Public Private Partnership (PPP) framework in the country
  - The Project envisages upgradation of 1,053 km of key State Roads to 2 lane paved shoulder configuration
  - The Project is domiciled in RIDCOR, a Special Purpose Vehicle incorporated as a 50:50 Joint Venture between Government of Rajasthan (GoR) and IL&FS
  - RIDCOR has the support of the Government of Rajasthan and the institutional backing of IL&FS
    - Management
      - The Management of RIDCOR comprises the management team of Tamil Nadu Road Development Corporation that implemented the 113 km East Cost Road on a similar format in Tamil Nadu
    - Engineering, Price Negotiations and O&M
      - Revalidation of engineering studies and price negotiation with the contractors was conducted by IL&FS Transportation Networks Limited - a company that owns over 500 km of Toll Roads in India

- Environmental and Social Management
  - Ecosmart India Limited has been retained for identifying and developing Environmental and Social Risk mitigation measures
- Financial Resourcing
  - Government of Rajasthan, IL&FS, IL&FS Investsmart

Stage IV B: Viability Gap Funding

Viability Gap Funding

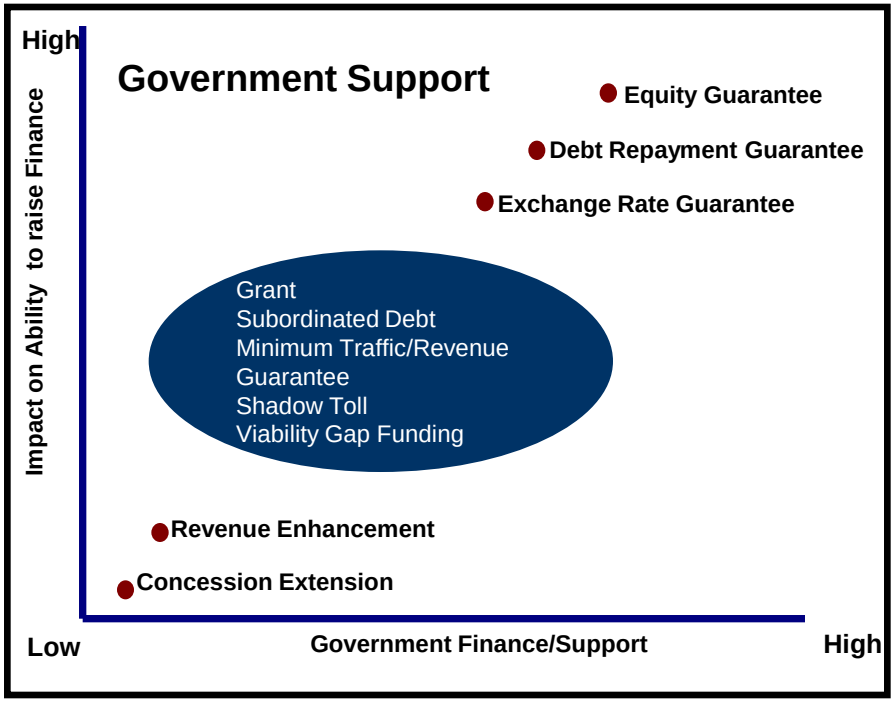
- Traditional View of Infrastructure Development held Financial Viability as a prerequisite for Private Sector Participation
- Private Participation in financially unviable projects:
  - Brings in the efficiencies of the Private Sector
  - Subjects subsidies to competition
  - Subjects the Project to capital market's scrutiny and discipline
  - Brings in "Best Practices" and encourages Corporate Governance

The “Scheme for Financial Support to Public Private Partnerships (PPPs) in Infrastructure”

- The Government of India has devised the Scheme to provide financial support to bridge the viability gap of infrastructure projects undertaken under the PPP format by financing upto 20% of the Project Cost by way of Capital Grant
- Administered by the Ministry of Finance, the Scheme will be a Plan Scheme and suitable budgetary provisions will be made in the Annual Plans on a year-to-year basis
- Eligibility Criteria for Support:
  - Projects in the following sectors implemented by the Private Sector are eligible for funding:
    - Roads and bridges, railways, seaports, airports, inland waterways
    - Power
    - Urban transport, water supply, sewerage, solid waste management and other physical infrastructure in urban areas
    - Infrastructure projects in Special Economic Zones
    - International convention centres and other tourism infrastructure projects

Viability Gap Funding by NHAI

- To leverage commercial funding for marginally viable projects, the National Highway Authority of India (NHAI) has initiated the Viability Gap Funding mechanism, where the Authority provides support to project during the initial period of the Concession
- NHAI has also identified projects that combine the construction of a Greenfield project with the rehabilitation and upgrading of an existing stretch. This addresses the problem that the new stretches have low traffic volumes
  - The Western Gujarat Expressway is the first Project in the country that includes a Greenfield alignment and a Brownfield expansion



Section IV : Current Status

The Road Sector

Initiatives

- Programs
  - In order to meet the additional requirement, the Central Government has initiated significant programs through PSP:
    - USD 52 billion, 7-Phase National Highways Development Program (NHDP) covering 65,000 km of Highways
    - The USD 26 billion Pradhan Mantri Gram Sadak Yojana (Village Connectivity Program), to construct 368,000 km of new roads and upgrade 370,000 km of existing roads
  - National Highways Authority of India (NHAI) was operationalised in 1995 with the mandate of developing, maintaining and managing the National Highways
  - National Highway Development Plans (NHDP) were announced in the year 1998. NHDP's prime focus is on developing International standard roads with facilities for uninterrupted flow of traffic
- Policy Initiatives
  - 100% FDI permitted in the road sector
  - State Support Agreement to
    - Provide clearances
    - Highway patrol
    - Non-compete for 8 years
  - The government introduced a Cess on fuel in the year 2000. The Cess supports the development/ maintenance of national and state highways and the development of rural roads

- Fiscal Initiatives
  - Provision of subsidy of 40% of project cost
  - Provision for encumbrance free site (ie Government to bear expenses for land and pre-construction activities)
  - Exemption of Capital Gains Tax from NHAI
  - NHAI to subscribe to up to 30 % of equity of the Project

Highways Under Development

As on July 31, 2006

Project	Length (km)	Already 4-Laned (km)	Under Implementation (km)	To be Awarded (km)
GQ Phase II	5846	5145	701	-
NS&EW Phase II	7300	836	5158	1306
Phase IIIA	4015	30	1096	2889
Port Connectivity	380	111	248	21
Others	945	287	638	20
Total	**18486**	**6679**	**7571**	**4236**