

# **The Financial and Economic Impact of Terrorism-Suicide Attacks December 2013**

**Prof. Rafi Eldor and Prof. Rafi Melnick**

# Main Finding (1990-2003)

Suicide attacks 109 (91), Armed Assault 379 (272), Cold weapon 57(11), Bombing 69 (46), Kidnapping 19 (3)

**Not all terror attacks are alike.**

DAMAGE RATE: Suicide attacks 4.7 (34.7), Armed Assault 1.4 (3.5), Cold Weapon 1.1 (0.4), Bombing 1.1 (9), Kidnapping 1.1

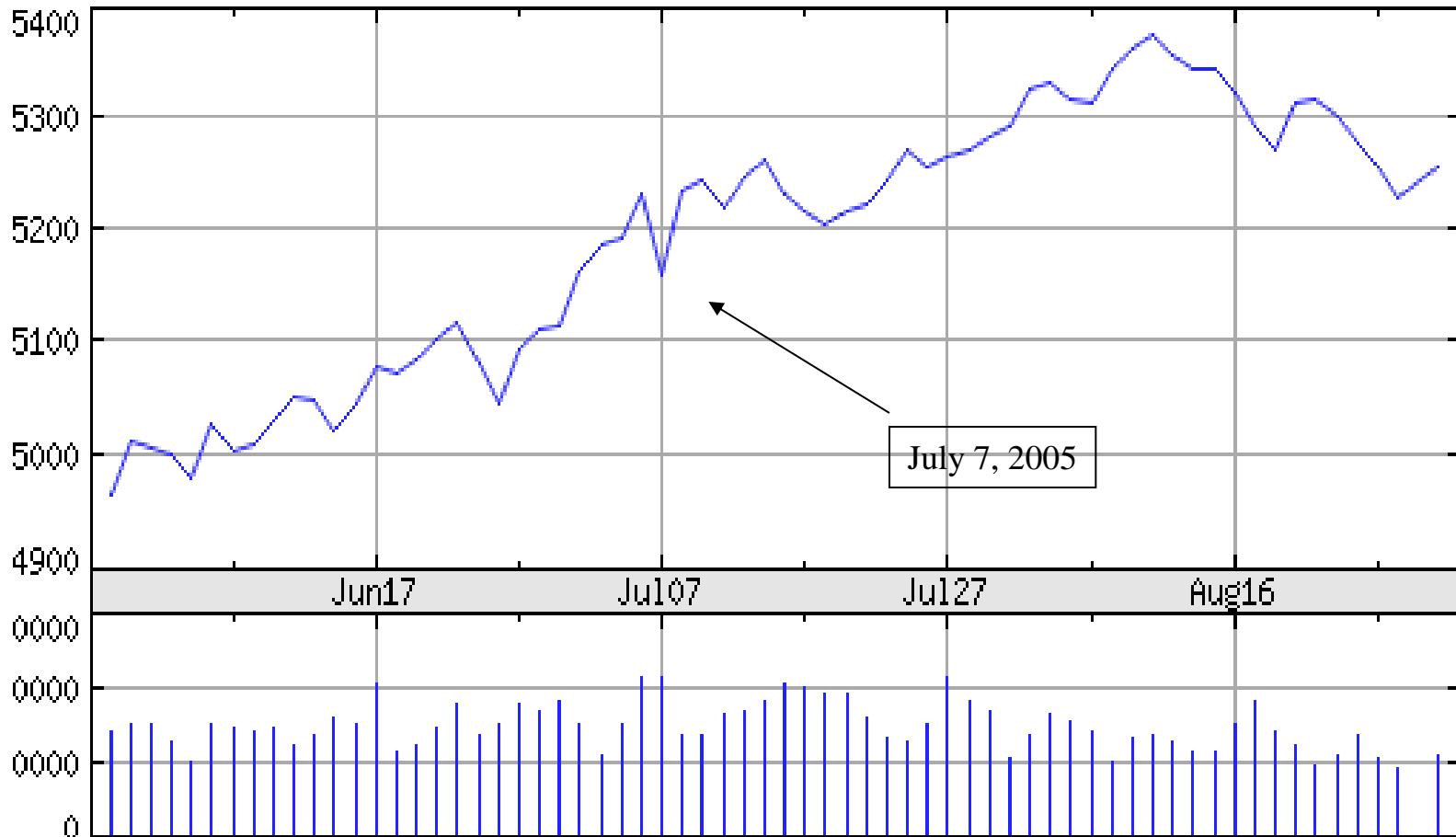
➤ Suicide attacks have a permanent effect on stock prices, while other types of attack don't.

# London Stock Exchange – FTSE 100

(Daily Data - June 2005 – August 2005)

FTSE 100 INDEX

as-of 30-Aug-2005

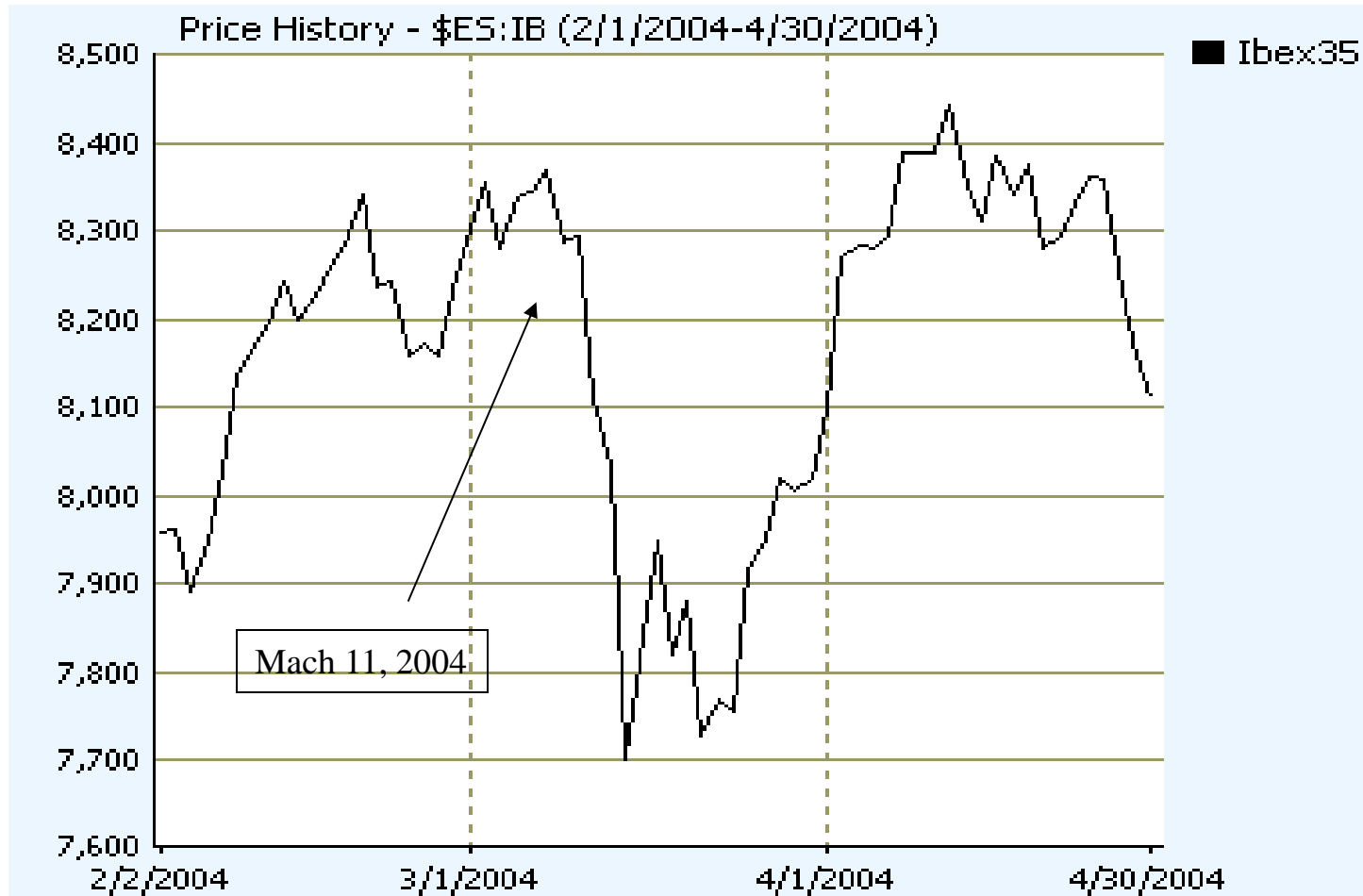


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# Madrid Stock Exchange – IBEX 35

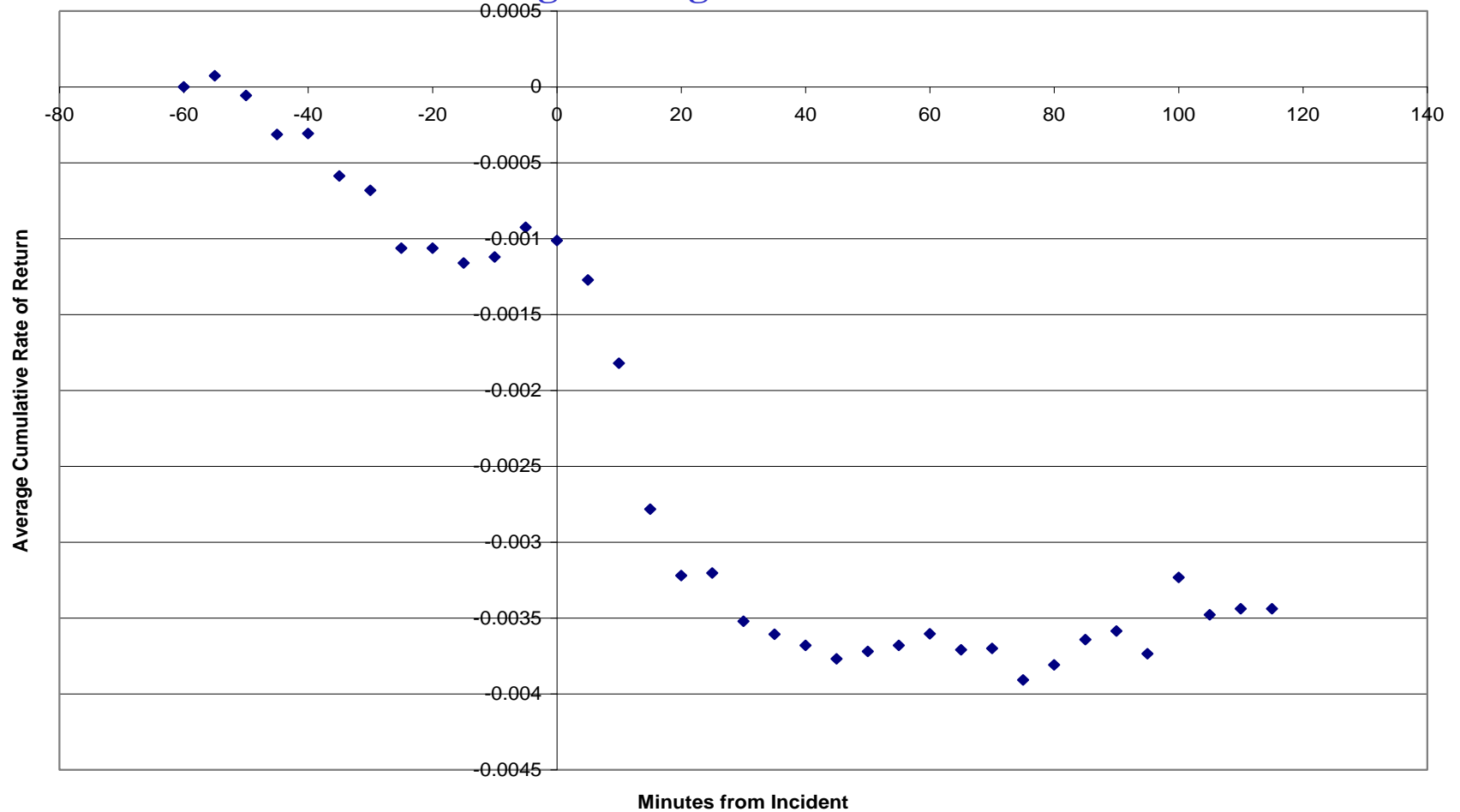
(Daily Data – February 2004 – April 2004)



# Main Findings - cont...

## Returns

Average Cumulative Rate of Return  
During Trading Hours



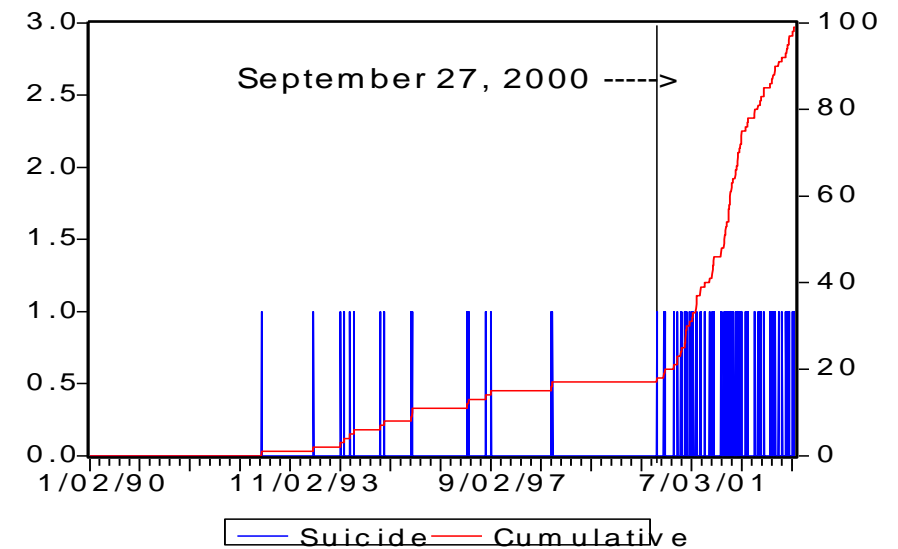
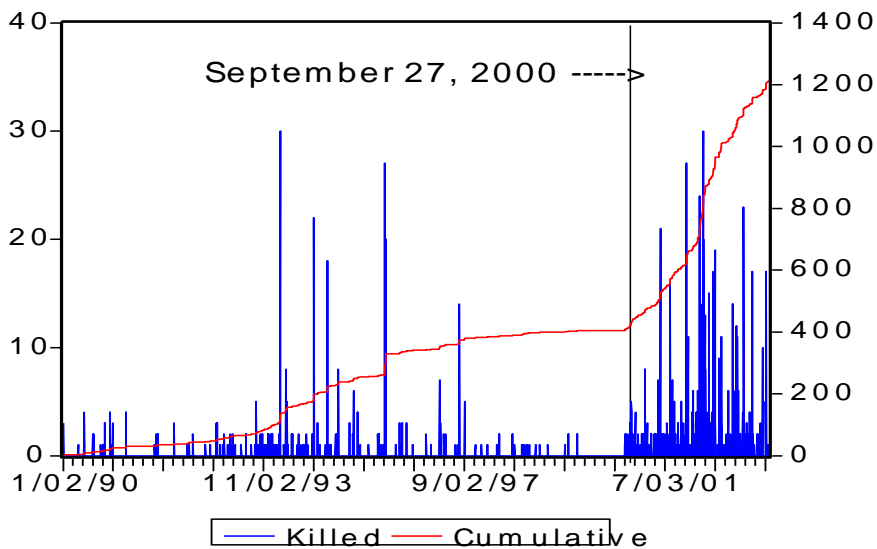
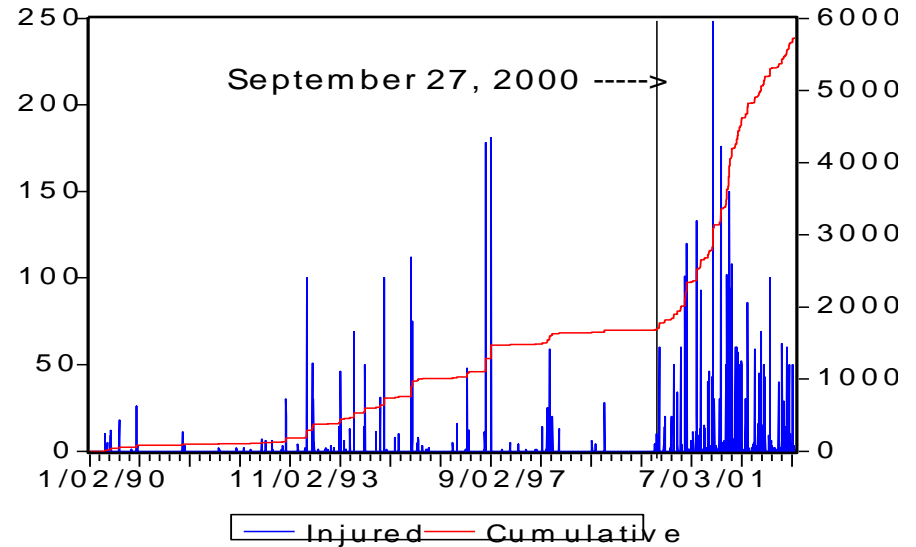
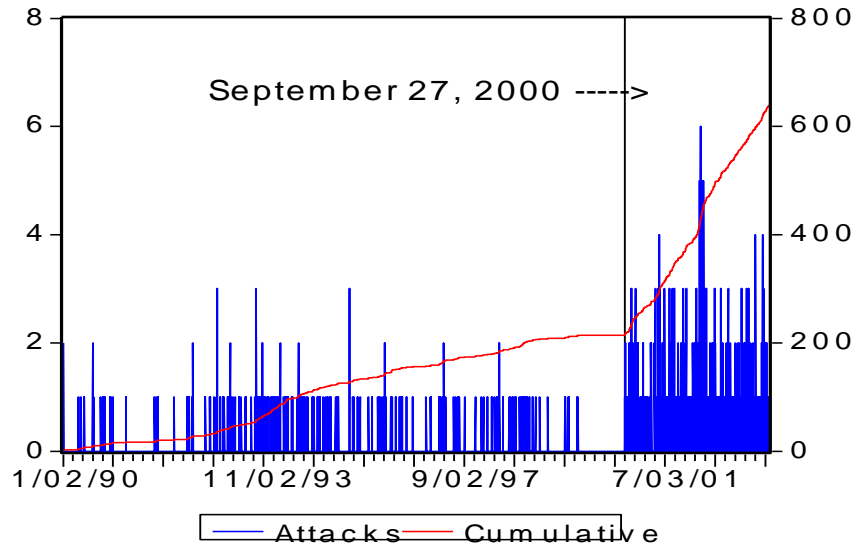
# A Methodological Observation

**Single events, like the terror attacks in London and Madrid, can not be used to make inferences about the impact of terrorism on the economy.**

**Inference requires more data.**

**Unfortunately, the Israeli case provides a large enough sample for statistical inference.**

Figure 1. Terror Attacks, Victims Injured, Victims Killed and Suicide Attacks



# Theoretical Considerations

- **The value of stocks represents expectations about firms' future profitability.**
- **In an efficient and competitive market, new information is rapidly incorporated in the valuation of stocks.**
- **According to this logic, stock prices are a natural informative measure of terrorism's impact on the economy.**
- **The differential impact of a terror attack on the stock market reveals the expectation of its economic impact.**



# BACKGROUND

## Real economic activity and Share Prices during the *Intifada* in comparison with other periods

Period	Annual Change in Stock Prices	Annual Rate of Change in GDP
All Period: 1/1990-3/2005	8.73%	4.62%
9/2000-1/1990	10.24%	5.99%
Intifada: 10/2000-12/2003	1.02%	-0.5%
3/2005-1/2004	18.58%	5.82%

# Main Findings

- The intensification of terrorism in Israel after September 27, 2000, had a permanent and strongly negative effect on the stock market.

## **Not all terror attacks are alike.**

- Suicide attacks have a permanent effect on stock prices, while other types of attack don't.

# Main Findings - cont...

- Attacks on major cities have no special effect.
- The number of victims injured and killed have permanent effects on the market.
- The markets incorporate new terrorism information efficiently (no lagged effects).
- We found no evidence that the impact of terrorism diminishes over time.
- Terrorism affects resource allocation in the economy. Not all industries are affected the same way.

# Main Findings - cont...

- On average, stock prices fall by 0.4% following a terror attack.
- During trading hours, stock prices fall within 20 minutes of the attack.
- Outside of trading hours, stock prices fall within the first few minutes of the next trading day.

# Main Findings - cont...

- The stock market responds efficiently – we didn't find evidence that there is an initial panic that turns into chaos.
- On average, there is no overshooting and correction.
- It appears that the impact does not change significantly over time.
- The results are the same whether the market is trending up or down prior to the terror attack.

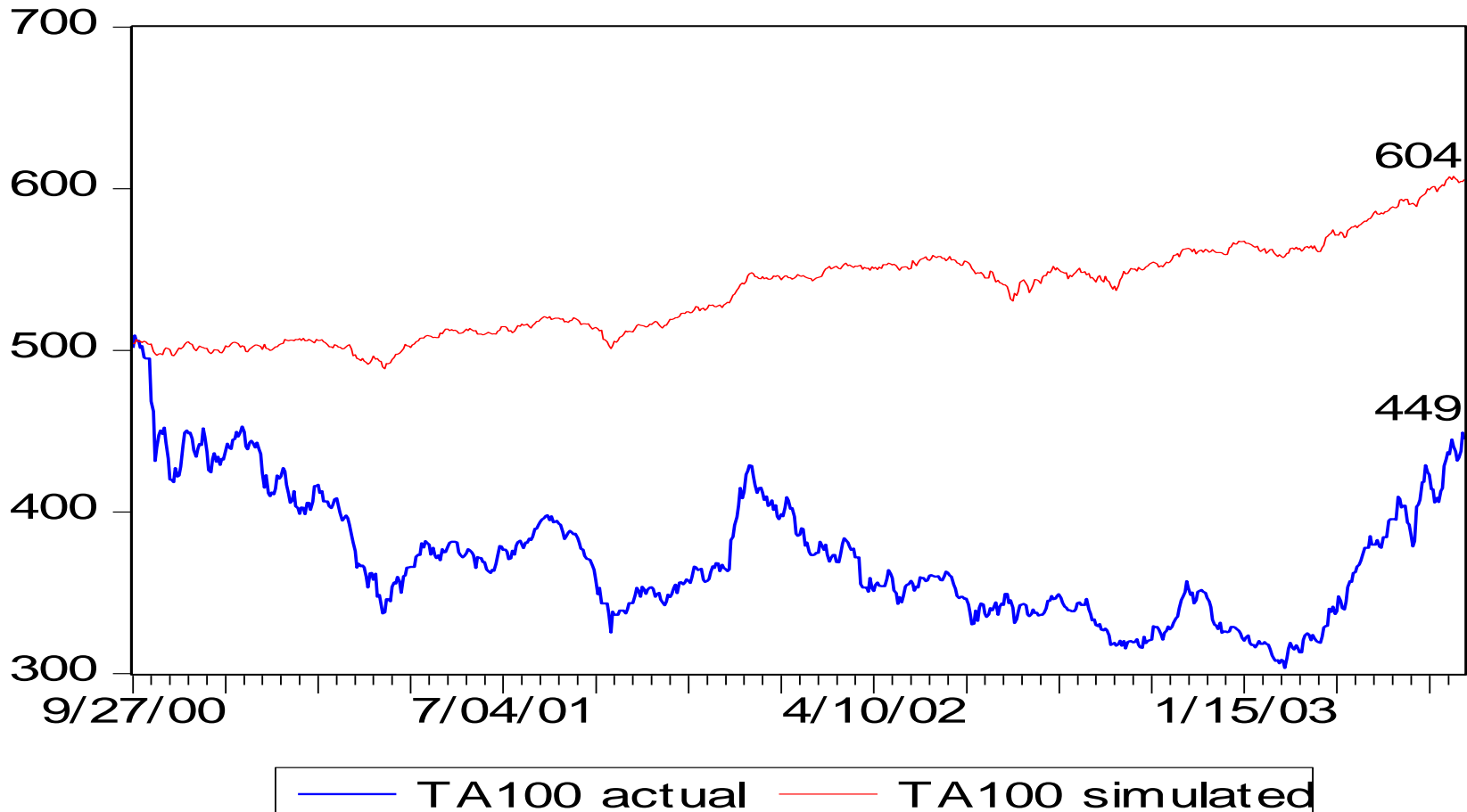
# Main Results

**Stock prices fall more dramatically when:**

- (-) Terror attack in green line**
- (-) It is a suicide attack**
- (-) The more casualties there are**
- (-) Terror attack is covered in 1<sup>st</sup> page of newspaper**

# Stock Market Simulation

Figure 6. Tel Aviv 100 Index - Actual and Simulated with the pre-September 27, 2000 fundamental equation  
September 2000 - June 2003



**Thank You**