UNIVERSITI PUTRA MALAYSIA

DETERMINANTS AND CONVERGENCE INCIDENCE OF CRIME

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2012

DETERMINANTS AND CONVERGENCE INCIDENCE OF CRIME

by

BAHAROM ABDUL HAMID

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

March 2012

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DEDICATION

This work is dedicated,

To my beloved wife Sa'adah Abdul Rahim, my handsome sons, Adib Aiman, Adib Ammar, Adib Irshad, my lovely daughters, Siti Aisyah, Siti Aminah and Siti Umairah, not forgetting my ever supporting parents Abdul Hamid and Alimah…….. **"It would not be possible…without your support….".**

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Abstract of Thesis Presented to the Senate of Universiti Putra Malaysia
in fulfillment of the requirement for the degree of Doctor of Philosophy

DETERMINANTS AND CONVERGENCE INCIDENCE OF CRIME

By

BAHAROM ABDUL HAMID

March 2012

Chairman: **Professor Muzafar Shah Habibullah, PhD**
Faculty: **Economics and Management**

This study aims of investigating the economics of crime in selected 21 countries in the world which include Australia, Austria, Canada, Cyprus, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Japan, Netherland, New Zealand, Norway, Poland, Spain, Sweden, United Kingdom and United States of America. The specific objectives are, firstly, to investigate determinants of crime, especially the impact of socio-economic variables on crime incidence and occurrence. Secondly, to investigate the impact of crime on nation's economic growth and finally the convergence of crime incidence. As for the first objective of investigating the relationship between socio-economic variables and crime, independent variables we're chosen carefully by studying theories of crime causation as well as past literatures and we decided to employ income level, unemployment rate, and inflation rate. On top of that, we also included political violence, both domestic and regional in order to enrich the study. As for the theoretical background of the study we started by adapting the model and framework that was

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introduced by Viren (2001) based on Becker (1968), Block and Heineke (1975). We made slight modification by rephrasing the model in order to not only capture the long run relationship but also the short run dynamics. As for the investigation of the impact of crime on nations economy we begun with the classic framework of Solow-Swan growth model, we progressed with the recommendation by Cellini (1997) and took into account of Islam (1995). Panel-error-correction based cointegration (Persyn and Westerlund (2008)) was employed to investigate the linkages between socio-economic variables and crime as per our main aim, as well as for the second aim of understanding the impact of crime on nation's economic growth. As for the final aim of investigating the convergence of crime incidence, we formulated the benchmark, which is the average crimes rate as per the group of countries namely, all countries, transition and developed economies and we proceed to measure the difference of crime rates of the respective economies and the benchmark, and finally, the difference or the gap that was obtained, were tested for their statistical properties. For this analysis, we employed a panel unit root test that caters for cross sectional dependence (Pesaran CADF test). The scope of the study covers 21 countries with data spanning for 41 years (1960 to 2001)

We could conclude a number of observations from our study. Firstly, the results revealed a negative long run relationship between income level and crime, incidence, which translates literally to a notion that a higher income would enable the people to enjoy a better life, and vice versa worsening income could induce strain and create pressure on society. The result also indicated a positive long run relationship between inflation and crime, the logical explanation is almost the same, whereby while higher prices would enable firm and business to receive much higher return and profit. However, majority of

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people, who are actually fix income earners, would definitely feel the pinch due to high prices which translate to worsening purchasing power, which will induce strain; Similar positive results were also obtained for the relationship between unemployment and, crime as well as lending rate and crime. Losing source of income would means that one has to fend elsewhere in order to survive, some might take the shortcut, namely committing a crime. A steep lending rate is a nuisance for people since the cost of repayment is burdensome. As for the political violence variable, domestic political violence seems to be negatively related; on the contrary regional political violence is positively related. We believe this might be attributed to the spillover effect. All these signs are as anticipated and justified in this study and are concurrent with most of the past literatures. Secondly, it is found that as anticipated, crime indeed has a negative impact on economic growth as showed by the results of the estimation. As for the convergence of crime, the results clearly shows that for all three cases, there are no convergence (all, transition and developed economies). It proves the point that crime occurrences are country or economy specific, the incidence of crime is indeed correlated with number of factors. Different economic background, differing punishments, various regulations, diverse culture plays a part in occurrence of crime. Some policy implications of this study are that the policy makers needs to cautiously and carefully plane crime policies, rather than focusing on punishments, they should look at avenues of prevention, and this study had shown that if the socio-economic conditions are improved it would lead to reduction of crime rates.

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Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PENENTU DAN INSIDEN PENUMPUAN JENAYAH

Oleh

BAHAROM ABDUL HAMID

Mac 2012

Pengerusi : Profesor Muzafar Shah Habibullah, PhD
Fakulti : Ekonomi dan Pengurusan

Kajian ini dijalankan adalah untuk menyiasat ekonomi jenayah di 21 negara terpilih di dunia merangkumi Australia, Austria, Kanada, Cyprus, Denmark, Estonia, Finland, Peranchis, Greece, Hungary, Ireland, Itali, Jepun, Belanda, New Zealand, Norway, Poland, Sepanyol, Sweden, United Kingdom dan Amerika Syarikat. Objektik spesifiknya adalah, yang pertama, untuk menyiasat penentu kejadian jenayah, khasnya kesan pembolehubah sosio-ekonomi keatas kejadian dan insiden jenayah. Kedua, adalah untuk menyiasat kesan jenayah terhap pertumbuhan ekonomi sesebuah negara dan akhirannya penumpuan insiden jenayah. Untuk objektif pertama, iaitu menyiasat hubungan diantara pembolehubah sosio-ekonomi dan jenayah, pembolehubah bebas yang dipilih setelah menghalusi teori penyebab jenayah dan kajian lampau, kami membuat keputusan untuk memilih kadar pendapatan, kadar pengangguran dan kadar inflasi. Lebih dari itu, kami juga memasukkan keganasan politik, merangkumi tempatan dan wilayah. untuk memperkayakan kajian..Untuk tunjang teoretikal kajian, kami

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bermula dengan model dan kerangka sepertimana yang diperkenalkan oleh Viren (2001), bersandarkan Becker (1968), Block dan Heineke (1975). Kami melakukan sedikit pengubahsuaian dengan menyusun semula agar bukan sahaja hubungan jangka panjang dikaji malah juga penyesuaian dinamik. Untuk penyiasatan impak jenayah terhadap ekonomi sesebuah negara kami bermula dengan kerangka klasikal model pertumbuhan Solow-Swan, dan kami teruskan dengan saranan Cellini (1977) serta mengambil kira Islam (1995). Kami menggunakan kointegrasi berasaskan pembetulan ralat panel (Persyn dan Westerlund (2008) untuk menyiasat hubungan diantara pembolehubah sosio-ekonomi dan jenayah sepertimana matlamat utama kami dan juga untuk matlamat kedua iaitu untuk memahami impak jenayah terhadap ekonomi sesebuah negara.. Untuk matlamat terakhir, untuk menguji penumpuan insiden jenayah, kami membina tanda aras, iaitu kadar jenayah purata (keseluruhan negara, negara transisi, negara membangun mengikut turutan), kami maju untuk mendapatkan mendapatkan perbezaan kadar jenayah ekonomi tertentu dan tanda aras tersebut, dan mengkaji ciri-ciri statistik perbezaan ini. Untuk analisa ini kami menggunakan ujian punca satu panel yang mengambil kira masalah kebergantungan rentas bahagian (ujian Pesaran CADF). Skop kajian mencakupi 21 negara dengan data melangkaui 41 tahun (1960 hingga 2001)

Kami dapat merumuskan beberapa dapatan dari kajian ini. Pertama, hasil kajian menunjukkan hubungan negatif jangka panjang diantara kadar pendapatan dan jenayah, menyarankan pendapatan yang tinggi dapat membolehkan kita menikmati kehidupan yang lebih baik dan sebaliknya pendapatan yang menurun memberi tekanan kepada masyarakat. Dapatan juga mengindikasikan bahawa terdapat hubungan jangka panjang diantara kadar inflasi dan jenayah, dan penerangan logik adalah hampir sama iaitu

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tingkat harga yang tinggi menolong firma dan perniagaan mencatatkan pulangan yang tinggi dan sebaliknya individu yang menerima pendapatan yang tetap akan tertekan akibat dari kuasa membeli mereka yang berkurangan dan ini akan menambah tekanan Hubungan positif yang sama dicatatkan untuk hubungan diantara kadar pengangguran, kadar pinjaman dan hubungan mereka dengan jenayah. Kehilangan punca pendapatan, mengakibatkan mereka beralih arah untuk menyara hidup dan berkemungkinan mendorong mereka terjerumus ke kancah jenayah. Kadar pinjaman yang tinggi juga memeritkan kerana kos membayar balik yang tinggi. Kekacauan politik tempatan berhubung secara songsang dengan jenayah manakala kekacauan politik wilayah menunjukkan hubungan positif. Kami percaya ini mungkin disebabkan kesan kelimpahan. Kesemua tanda hubungan adalah seperti dijangkakan dan dijustifikasikan didalam kajian ini dan ianya selari dengan kebanyakan kajian lampau. Kedua, seperti diramal, jenayah mempunyai kesan negatif terhadap pertumbuhan ekonomi sesebuah negara sepertimana dapatan kajian. Untuk penumpuan kejadian jenayah pula, hasil kajian secara jelas menunjukkan tidak terdapat penumpuan untuk ketiga-tiga kes (keseluruhan, ekonomi transisi dan membangun). Ini menunjukkan kejadian jenayah adalah spesifik negara atau rantau, dan kejadian jenayah adalah dipengaruhi oleh pelbagai faktor. Kepelbagaian asas ekonomi, hukuman yang berbeza, peraturan berbeda, budaya berlainan memainkan peranan didalam tercetusnya kejadian jenayah. Implikasi polisi hasil kajian ini ialah para penggubal polisi haruslah berhati-hati dan teliti didalam menggubal polisi jenayah, dari memfokus kearah hukuman, mereka harus melihat ruang untik mencegah dan kajian ini telah menunjukkan bahawa jika kondisi sosio-ekonomi dibaiki maka ianya akan menyumbang kepada pengurangan jenayah.

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I certify that an Examination Committee has met on 16th of March 2012 to conduct the final Examination of Baharom bin Abdul Hamid on his Doctor of Philosophy thesis entitled "Determinants and Convergence of Crime: International Evidence" in accordance with Universities and College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, of is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institutions.

BAHAROM BIN ABDUL HAMID

Date : 16th March 2012

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