# Operationalizing Economics for Counterinsurgency and Stability Operations

A Monograph by Major Thomas J. Barrett U.S. Army



School of Advanced Military Studies United States Army Command and General Staff College Fort Leavenworth, Kansas

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Major Thomas J. Barrett

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This monograph was defended by the degree candidate on 4 May 2009 and approved by the monograph director and reader named below.

Approved by:

Michael W. Mosser, Ph.D.

Monograph Director

Thomas S. Hollis, COL, IN

Monograph Reader

Stefan J. Banach, COL, IN

Director, School of Advanced Military Studies

Robert F. Baumann, Ph.D.

Director, Graduate Degree Programs

# Abstract

OPERATIONALIZING ECONOMICS FOR COUNTERINSURGENCY AND STABILITY OPERATIONS by MAJOR Thomas J. Barrett, U.S. Army, 54 pages.

Economics is a critical component of military operations and will continue to be so in the future. Understanding this is vital to successful military operations. The military requirement for understanding economics and its application in operations is outlined in both national strategy and doctrine. The military has means, motive, and opportunity for the application of economics in operations. Successful campaigns and achievement of the national strategic end state requires the integration of economics throughout all operations and across the levels of war.

Military doctrine provides poor guidelines and limited reference for economic operations and concepts. Military doctrine does not agree on economics, the few definitions published limit usefulness as a guide for operations. The definitions also fail to facilitate common understanding across levels of war and the spectrum of conflict. Commanders at all levels must understand basic economic theory and key concepts to effectively execute counterinsurgency and stability operations. The monograph recommends using Developmental Economics as the framework for the operationalization of economics by the military. Developmental Economics is a theory of economics that grew from the failures of classical economics to effectively explain development in third-world nations. This must be the framework the military uses when planning and designing campaigns for both counterinsurgency and stability operations.

Economics is not one of several lines of operation, but the overarching framework for the design of counterinsurgency and stability operations. Viewing development as freedom, described by Amartya Sen provides an improved foundation for military operations and a more complete campaign framework. Within these definitions and responsibilities, the military will find the links it needs to execute independent operations. Additionally, the military will have the tools required to support, enable, and lead organizations in execution of counterinsurgency and stability operations using the military application of the economic component of national power, or the (*m*)*E* (*military application of Economics*). The implication of this concept means the military does not apply the economic element of national power, but applies economics in the conduct operations.

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## Introduction

Fort Leavenworth serves as a historical marker near the Missouri River. The Army's oldest fort west of the Mississippi sits at a critical point on the Santa Fe Trail. A marker on the post reminds readers the history of the United States Army and its role in opening up the west, in particular the involvement in economics, known as trade at the time. Troops stationed at Fort Leavenworth had the task of maintaining both peace on the frontier and protecting trade on the newly established Santa Fe Trail.<sup>1</sup> This mission remains consistent with the stability and other military operations executed in modern times by the Department of Defense. The United States Military is currently involved in two major conflicts, Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), in addition to conducting numerous smaller operations and many other missions throughout the world. The dominant operations in OIF and OEF are counterinsurgency and stability operations.<sup>2</sup> Counterinsurgency (COIN) operations are actions taken by a government to defeat an insurgency. These include military, paramilitary, political, economic, psychological, and civic actions.<sup>3</sup> Stability operations provide security and essential services, to meet the needs of the population.<sup>4</sup> These operations center on people, and require more than just the military application of national power to succeed. Long-term success in these operations is dependent on economic development, institution building, rule of law, infrastructure development, essential services and security.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup>Robert Walter, "Fort Leavenworth," Kansas State Library, http://skyways.lib.ks.us/history/ ftleav2.html (accessed February 2, 2009).

<sup>&</sup>lt;sup>2</sup>Headquarters, Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, 2008), 2-11.

<sup>&</sup>lt;sup>3</sup>Ibid., 2-11.

<sup>&</sup>lt;sup>4</sup>Department of Defense, Department of Defense Directive 3000.05, *Military Support for Stability, Security, Transition, and Reconstruction (SSTR)* (Washington, DC: Government Printing Office, 2005), 2.

<sup>&</sup>lt;sup>5</sup>Robert M. Gates, "Beyond Guns and Steel: Reviving the Nonmilitary Instruments of American Power," *Military Review*, Special Edition, Interagency Reader (June 2008): 30.

Economics is a critical component of these types of operations and centers around human behavior. The field of study focuses on decisions and actions individuals or groups make. A clear understanding of this fact is an absolute requirement for the implementation of effective counterinsurgency and stability operations and in the conduct of campaigns by the military in support of national objectives. The study of economics helps commanders and planners at all levels understand individuals and their actions.

The U.S. military has critical responsibilities in the application of the economic element of national power. The *National Security Strategy (NSS)* of the United States serves as the foundation for the use of economics as an instrument of national power by the whole of government. The military responsibility for employment of economics begins with the *National Defense Strategy (NDS)*, Department of Defense Directive (DoDD) 3000.05. Application guidelines continue through joint doctrine to the operational and tactical doctrine of the U.S. Army. The importance of economics is specifically highlighted in the Army's recently published doctrine. These manuals include FM 3-0, *Operations* (2008) and supporting manuals, FM 3-24 (2006), *Counterinsurgency*, and FM 3-07, *Stability Operations* (2008). The U.S. military has the means, motive, and opportunity to effectively use economics policy and tools, specifically in counterinsurgency, stability and reconstruction operations, ultimately supporting U.S. national policy objectives. Understanding the elements of national power, in particular economics, strengthens military element of national power and the employment of all elements of national power.

Successfully planned and integrated within the campaign design of the commander, economic policies and tools create the conditions for success. Misused, these same policies and tools can generate irreparable damage. Commanders Emergency Response Program (CERP) funds and Provincial Reconstruction Teams (PRTs) are two of the most commonly used tools in current operations. Employment of these and other tools have direct and possibly lasting economic consequences. Therefore, these tools and intended effects require a thorough

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understanding and integration into the campaign plan for effective synchronization across operations, specifically from counterinsurgency to stability and reconstruction operations. The recognition of economics as a critical component of military operations is evident throughout joint publications and recognized by leaders executing these operations. The study and understanding of economics is critical for military leaders at all levels to understand, since it is present everywhere and affects all operations at all levels of war.

This monograph does three things. First, it reviews national strategy and military doctrine searching for a coherent concept of economics. Second, it establishes a consistent definition of economics and associated terms for military operations. Third, the monograph recommends using Developmental Economics as the framework for the operationalization of economics by the military. Developmental Economics is a branch of economics that grew out of the failure of previous economic theories to effectively explain development in third-world nations. Classical economic development models were ill suited to deal with the complex problems of developing countries and a new approach was required. The debate regarding the merits of different economic theories in particular Classical, neo-Classical, or Keynesian economics, to name a few, continues today. Debate regarding which particular theory is superior is beyond the scope of this monograph and is generally the responsibility of policy makers. This monograph suggests developmental economics as the lens for the military to execute counterinsurgency and stability operations.<sup>6</sup>

Counterinsurgency and stability operations occur in these poorer developing nations of the world. Respected international relations theorist, Thomas P. M. Barnett refers to these

<sup>&</sup>lt;sup>6</sup>Economics in counterinsurgency and stability operations remains focused on economic development as a means to enhance security or for security alone. Security and economic development were the focus of conferences at both RAND and SAIC this author attended in March 2009. The narrow focus of providing jobs for security overlooks the broader framework of viewing a campaign through an economic lens. Developmental economics provides the broad framework for COIN and stability operations.

developing countries and their position in the world as the non-integrating gap. This nonintegrating gap has seen many major military operations ranging from combat, show of force, and evacuation to peacekeeping.<sup>7</sup> Development described by Amartya Sen is based on a concept that promotes freedom, a cornerstone of democracy and U.S. national policy. The concept of "development as freedom" fits within the framework of the national strategy and while consistent with military lines of operation it requires a significant change. Economics is not one of several lines of operation, but the overarching framework for the design of counterinsurgency and stability operations. Economics cannot be a single line of effort or task within a campaign plan. It is the overarching centerpiece for the campaign in counterinsurgency and stability operations. The other lines of effort, security, governance, rule of law, information, and infrastructure enable economic development.

*Development as Freedom* lists five freedoms that are essential for development.<sup>8</sup> These are political freedom, economic freedom, social opportunities, transparency guarantees, and protective security.<sup>9</sup> The freedoms described by Sen can serve as an effective framework for military application of economics in counterinsurgency and stability operations. Viewing development as freedom provides an improved foundation for military operations and a more complete campaign framework. This expanded view of development if adopted by the military for COIN and stability operations has the potential to create lasting success for countries facing complex challenges.

Integrating the understanding of economics with the policies and tools available from all agencies in the government insures tactical, operational, and strategic unity of effort. This

<sup>&</sup>lt;sup>7</sup>Thomas P. M. Barnett, *The Pentagon's New Map* (New York, NY: Penguin Group, 2004), 448.

<sup>&</sup>lt;sup>8</sup>Amartya Sen is a Nobel Prize winning economist who has written extensively on developmental economics and is a recognized expert in the field of study.

<sup>&</sup>lt;sup>9</sup>Amartya Sen, *Development as Freedom* (New York: Alfred A. Knoph, Inc., 1999), 10.

increases the chances for operational success by the military in their use and execution of economics. The military, an organization with the means, motive, and opportunity to employ economic policy and tools combined with a deeper grasp of economics, will contribute more effectively to the development nations where the military conducts operations. A nation capable of caring for its people and integrated with the world instead of one dependent on the state or the U.S. military and draining resources from the world. Effective military application of the economic power is a requirement for this to happen. National strategies and presidential directives define responsibilities by agencies of government in COIN and stability operations. Within these definitions and responsibilities, the military will find the links it needs to support, enable, and lead these organizations in execution of COIN and stability operations using the military application of the economic component of national power, or the (*m*)*E* (*military application of Economics*). This is a significant change in both concept and definition. The implication of this concept means the military does not apply the economic element of national power, but applies economics in the conduct operations.

### **Roles and Responsibilities**

The elements of national power are the tools of diplomacy, information, military, and economics used by the government separately or in an integrated fashion in support of policy.<sup>10</sup> Employment of the economic element of national power throughout history and in the current world environment by the United States shapes much of the nation's interaction with the world and with individual nation states. The economic element of national power is a distinct component of the National Security and Military Strategies. Trade sanctions, embargos, monetary policies, and other tools have been used to shape and influence the behavior of nation states in the

<sup>&</sup>lt;sup>10</sup>Department of Defense, Joint Publication (JP) 1-0, *Doctrine for the Armed Forces of the United States* (Washington, DC: Government Printing Office, 2007), I-10.

international arena in addition to insuring the growth and security of the United States. These tools are primarily used as incentives or inducements. Economic tools can be both positive and negative depending on the nature of the policy objective pursued by the United States.<sup>11</sup> These policy objectives and strategies define the roles and responsibilities for agencies.

National strategic documents recognize the importance of economics and create a coherent frame of guidance for the application of the economic element of national power. This broad approach is intended to create a coherent grand strategy for policy execution by the United States. This grand strategy is not without debate. Many writings in both political and military circles consider the integration of national strategy throughout the whole of government approach to be broken today. There is no coherent focus, approach or link between the agencies their policy and goals. Without a clearly linked strategy between and among agencies, it may be difficult to synchronize policy at the strategic level and operationalize down to the tactical level. This monograph does not debate the coherency of the system or the effectiveness of the links. The purpose of the monograph is to identify the importance of economics and its thread through our national strategic documents and seeks to provide a useful economic framework for military operations. The strategic understanding of economics must be understood if the military is going to successfully operationalize economics.

#### Published Strategies (NSS, NMS, QDR, and DoDD 3000.05)

2.

The foundation for a military understanding and use of economics is found within the national strategy documents. These documents seed the responsibility and establish the requirements for the military concerning economics. Economics is threaded through the national and military strategies and the involvement of each agency is critical with this aspect of national

<sup>&</sup>lt;sup>11</sup>Meghan L. O'Sullivan, *Shrewd Sanctions* (Washington, DC: Brookings Institution Press, 2003),

power. The strategic framework sets the foundation for the military understanding of economics and provides context for operations executed by the military and whole of government.

National strategy defines how the United States uses all elements of power. Military doctrine describes how the United States wages war, a critical component of foreign policy, by employing all elements of national power. At the strategic level, the conceptual delineation between these elements is relatively clear, although in execution the line is blurred. The elements of national power are referred to as the DIME (Diplomatic, Informational, Military, and Economic). Diplomacy, primarily conducted by the Department of State (DoS) is the engagement with other nation states and various other entities in the pursuit of U.S. policy objectives. Information is the free flow of ideas shaped by strategic communication activities. The military component is composed of the armed forces used to fight and win the nation's wars. Economics is concerned primarily with the production and distribution of goods and services, but also includes finance, financial institutions, and monetary aid. The elements of national power depend on each other for successful implementation. Diplomacy facilitates all elements of national power and insures effective execution of U.S policy. The DIME construct implies independent lines through which the U.S. applies elements of national power. Diplomacy, information, military and economics are dependent on each other for successful execution and are rarely implemented individually. In particular, the economic element of national power depends on diplomacy for execution.

The economic element of national power at the strategic level encompasses numerous activities. At this macro level, application of the economic element of national power by the United States attempts to influence behavior or shape the actions of other nation states. It is dependent on diplomacy for successful implementation. The economic element of national power includes financial aid and restrictions, foreign aid, trade sanctions, market access and tariffs

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which are only a few of the economic tools available in support of national policy objectives.<sup>12</sup> Economic tools support bringing stability to weak states, promoting equitable development, and building institutions, helping to solidify agreements between nations or for punishing support of terrorist organizations and illegal activities.<sup>13</sup> Agreements, sanctions, and foreign aid all depend on diplomacy and information for their implementation. Diplomacy insures nations to abide by sanctions, negotiates treaties and enables collective action by nations. The objectives of U.S. policy are met though an integrated application of DIME, not by the components acting independently.

The stated objectives of the 2006 *National Security Strategy of the United States* are the promotion of freedom, democracy, and economic development.<sup>14</sup> This strategy is the foundation of United States foreign policy.<sup>15</sup> Economic development advances our national security by helping to promote responsible sovereignty, not dependency on the United States by other nations.<sup>16</sup> Two core tasks associated with this strategy are to "ignite a new era of global economic growth through free markets and trade and to expand the circle of development by opening societies and building the infrastructure of democracy."<sup>17</sup> These tasks go hand in hand. A stable

<sup>&</sup>lt;sup>12</sup>David A. Anderson, "The Economic Instrument of National Power and Military Operations," *Military Review* 87, no.5 (September-October 2007), 74.

<sup>&</sup>lt;sup>13</sup>Ibid., 3.

<sup>&</sup>lt;sup>14</sup>It is the policy of the United States to seek and support democratic movements and institutions in every nation and culture, with the ultimate goal of ending tyranny in our world. In the world today, the fundamental character of regimes matters as much as the distribution of power among them. The goal of our statecraft is to help create a world of democratic, well-governed states that can meet the needs of their citizens and conduct themselves responsibly in the international system. This is the best way to provide enduring security for the American people. *The National Security Strategy of the United States of America* (2006).

<sup>&</sup>lt;sup>15</sup>The White House, *The National Security Strategy of the United States of America* (Washington, DC: Government Printing Office, 2006), 1.

<sup>&</sup>lt;sup>16</sup>Jeffrey Sachs, *Common Wealth; Economics for a Crowded Planet* (New York: Penguin Press, 2008), 280.

<sup>&</sup>lt;sup>17</sup>The White House, *The National Security Strategy of the United States of America*, 1.

economic system supports and enables a democracy and a stable democracy enables economic growth. In this manner liberty and economic growth create a stable democracy.<sup>18</sup>

Democracy and economic growth do not come in a particular order. They must grow intertwined together, each reinforcing the other one, strengthening the nations they support. The strength of the linkages from economic progress to democracy and reduced conflict are powerful. Economic development has been found to promote stability, while poverty and disease promote state failure.<sup>19</sup> The writings of Jeffery Sachs, Thomas Sowell, Paul Collier, Amartya Sen, the World Bank, and many others articulate the importance of democratic principles and economic development. Understanding the economic element of national power at the strategic level and the options available to support the policies of the United States is critical not only for policy makers but for the military who in many instances executes the policy of the United States.

The Department of Defense (DoD), is the primary agent responsible for the military application of national power to support of the national strategy. After analyzing the documents which define and shape the mission of the defense department, it is evident the military is responsible for more than just the military component of national power. The *National Defense Strategy*, *National Military Strategy*, and DOD Directive 3000.05 serve as a foundation for defense responsibilities and operations.

The *National Defense Strategy* (*NDS*) is the blueprint for the Defense Department's responsibilities and contributions to achieve the objectives outlined in the *National Security Strategy*. This document outlines the responsibilities required to provide for the common defense and reflects the results of the *Quadrennial Defense Review* (*QDR*). It describes the requirement for the military to protect the American people with five key objectives: defend the homeland,

<sup>&</sup>lt;sup>18</sup>Barnett, The Pentagon's New Map, 184.

<sup>&</sup>lt;sup>19</sup>Sachs, Common Wealth; Economics for a Crowded Planet, 280.

win the long war, promote security, deter conflict, and win the nations wars.<sup>20</sup> Effectively accomplishing four out of five requires the economic element of national power. While the use of force is a core component of all objectives, it is likely to be secondary to programs that develop economies, promote governance, and solve grievances.<sup>21</sup> The *NDS* recognizes that success in these programs must involve the whole of government but views the military as a vital component to this approach. This includes understanding core competencies, roles and missions of other organizations. The military must work together with these agencies to achieve common goals. The *NDS* also recognizes the defense department must have the capabilities to meet new challenges. One of these capabilities must be the military application of economics--(m)E. This capability must be further developed and refined for successful counterinsurgency and stability operations. Innovative capabilities, concepts and organizations support operations in complex environments. Economic development is one of the most complex operations undertaken within the already complex environment of counterinsurgency and stability operations.

The *National Military Strategy (NMS)* further reinforces the responsibility of the military to understand economics and its integration into these types of operations. The 2004 *NMS* states that military post-conflict operations will integrate conflict termination objectives with diplomatic, economic, financial, intelligence, law enforcement, and information efforts at the operational level.<sup>22</sup> This supports a thorough integration and synchronization of military and interagency operations in addition to the requirement to understand (*m*)*E* as the military shifts between major combat operations and stability operations. Reinforcing the requirement for the

<sup>&</sup>lt;sup>20</sup>Department of Defense, *National Defense Strategy* (Washington, DC: Government Printing Office, 2008), 6.

<sup>&</sup>lt;sup>21</sup>Ibid., 8.

<sup>&</sup>lt;sup>22</sup>Department of Defense, *National Military Strategy of the United States of America* (Washington, DC: Government Printing Office, 2004), 14.

military to understand and use the economics and the limits of element of national power by the military is the *Quadrennial Defense Review (QDR)* of 2004.

"The QDR recognizes Stability, Security, Transition, and Reconstruction (SSTR) as a U.S. government wide mission of increasing importance and identifies military support to SSTR as a core mission."<sup>23</sup> Effective military support to this mission is critical. While this statement from the Chairman of the Joint Chiefs of Staff recognizes the whole of government approach to the problem, it does not eliminate the requirement for the understanding economics within the inherent responsibilities of the military.

Reinforcing the Defense Departments responsibility is Department of Defense Directive (DoDD) 3000.05 published in 2005. DoDD 3000.05 specifically states that stability operations are a core U.S. military mission for which the department shall be prepared to conduct and support.<sup>24</sup> This document directs the DoD to elevate stability operations to a priority comparable to that of combat operations. The military is the responsible entity. These missions will be a priority and integrated across all DoD activities. These activities include training, organization, education, leadership, and planning, among many others. While the directive recognizes that stability operations are best performed by civilian agencies, non-governmental agencies, and civilian experts from outside the DoD, and in many cases outside the U.S. government, it establishes the responsibility of the military to lead, plan, and perform these stability operations when civilian agencies are unable.<sup>25</sup> This directive does not diminish the responsibilities of other organizations within the whole of government; it complements other organizations and

<sup>&</sup>lt;sup>23</sup>Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Government Printing Office, 2006), 18.

<sup>&</sup>lt;sup>24</sup>Department of Defense, Department of Defense Directive 3000.05, 2.
<sup>25</sup>Ibid., 3.

recognizes interagency cooperation as critically important to counterinsurgency and stability operations.

The directive published by the Department of Defense establishes the military as a lead agency in stability operations. This involves the development of civil-military teams and the inherent responsibility the military has for integrating and working closely with international organizations, the private sector and other U.S. governmental agencies.<sup>26</sup> Combined with the other written components of our national and defense strategies, it becomes clear that the military has an obligation to understand its application of the economic element of national power. To effectively execute this application the military cannot act alone, and must act with other government agencies in both counterinsurgency and stability operations. To effectively act with the whole of government the military must first understand other agency roles and responsibilities. Those roles are described in the specific strategies and presidential directives of those agencies. Integration and unity of effort across the whole of government ultimately creates conditions favorable to the security of the United States in support of the national security objectives.

The documents that serve as the foundation of the foreign policy and national security strategy state the importance of the economic element of national power. These documents reinforce the importance of economics as a component to our national security and as a component in the solution to conflicts and the creation of democracy. The national strategic documents provide a general basis for the application of the economic element of national power, but do little to provide a structure for operationalizing and understanding of economics by the military in counterinsurgency or stability operations. The *NMS* states that the department will

<sup>26</sup>Ibid.

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position itself to both respond to and reduce uncertainty.<sup>27</sup> Dealing with uncertainty requires improvement of the military's capacity to understand trends, the interaction and range of risks the in operations the military executes. The military must develop capabilities, institutional agility and flexibility to plan early and respond effectively alongside interdepartmental, non-governmental and international partners.<sup>28</sup>

Critical to military operations and its capacity to hedge against uncertainty and complexity is the whole of government. Interagency cooperation is critical and military operations must be integrated with other government agencies in every operation. This integration is critical in the application of the economic element of national power. The *NDS* states the DoD will continue to play a key-supporting role in the interagency effort. To accomplish this, the DoD must develop its own capabilities and an understanding of interagency roles, missions and capabilities. Understanding the other agencies roles and responsibilities regarding economics is critically important, as the DoD will continue to work with, lead and integrate operations with them in the contemporary and future operating environment.

#### Other Government Agencies, (DOS, S/CRS, USAID) and NSPD-44

Failed or failing states and post-conflict areas pose a significant security challenge to the United States and create unique challenges for multiple agencies individually and collectively. While the military has defined roles and responsibilities within the U.S. government in both COIN and stability operations, this does not minimize or neglect other agencies in the U.S. Government from inherent and specifically defined responsibilities. Current military leadership recognizes the military cannot solve the complex problems of counterinsurgency and stability alone. In these types of operations, other agencies and organizations have an even greater

<sup>&</sup>lt;sup>27</sup> Department of Defense, National Military Strategy of the United States of America, 15.

<sup>&</sup>lt;sup>28</sup>Department of Defense, *National Defense Strategy*, 5.

responsibility. The military does not have the expertise or experience in the arenas such as development, governance, law, and infrastructure development. All of these areas are critical requirements of these operations. The military has an obligation to effectively employ the economic aspect of national power, but it cannot do so without an understanding of the roles and responsibilities of other organizations.

The roles and responsibilities of the other agencies are described in the National Security Presidential Directive (NSPD-44), the U.S. Government Counterinsurgency Guide, the Joint Strategic Plan for the Department of State and Agency for International Development (USAID), and USAID's Fragile States Strategy. NSPD-44 defines the lead interagency for stabilization and reconstruction operations and helps further the National Strategy of the United States. This document clearly puts the responsibility of coordinating and leading all stability and reconstruction operations on the U.S. Department of State, but recognizes the importance of synchronizing efforts across the complete range of government agencies, in particular with the Department of Defense. NSPD-44 recognizes the complexity of transitions, the spectrum of conflict, failed and failing states, and the requirement to harmonize U.S. Government efforts to promote internal security, economic well-being, justice and reconciliation.<sup>29</sup> The directive requires the other agencies in government to coordinate with and work with the Coordinator for Reconstruction and Stabilization. According to the National Security Presidential Directive 44 (NSPD-44), the Secretary of State shall coordinate and lead the integrated effort of the United States to plan and prepare for stability and reconstruction operations. The Department of Defense is the United States Government organization with the most resources, people, organization, ability to project its capabilities anywhere in the world, and has command and control capabilities. Further stated in NSPD-44, the efforts of the Department of State and Defense must

<sup>&</sup>lt;sup>29</sup>The White House. National Security Presidential Directive/NSPD-44, 3.

be harmonized across the spectrum of conflict.<sup>30</sup> This creates a tension with the DoS holding the authority, and the DoD holding the resources.

The U.S. State Department, the U.S. Agency for International Development (USAID), and the Office of the Coordinator for Reconstruction and Stability (S/CRS) have extensive depth and expertise in development. The office of S/CRS (Office of the Coordinator for Reconstruction and Stabilization) was created specifically to coordinate U.S. civilian response to countries in conflict or civil strife.<sup>31</sup> *The Joint Strategic Plan* of the State Department and USAID, revised in 2007, recognizes development and lays the foundation for economic prosperity and democracy.<sup>32</sup> Specifically the mission statement focuses on advancing freedom, helping to build and sustain a more democratic, secure and prosperous world composed of well governed states that respond to the needs of their people, reduce widespread poverty, and act responsibly within the international system.<sup>33</sup> The plan also outlines the strategic goals that support this mission. Four of the seven goals compliment Amartya Sen's five freedoms described in *Development as Freedom* and military's lines of effort for counterinsurgency and stability operations. These four goals are achieving peace and stability, governing justly and democratically, investing in people, promoting economic growth and prosperity.<sup>34</sup>

<sup>30</sup>Ibid.

<sup>&</sup>lt;sup>31</sup>United States Agency for International Development, *Fragile States Strategy*, (2005): 2. http://www.usaid.gov/policy/2005\_fragile\_states\_strategy.pdf (accessed August 10, 2008).

<sup>&</sup>lt;sup>32</sup>U.S. State Department, U.S. Agency for International Development, *Strategic Plan, Fiscal Years* 2007-2012 (Washington, DC: Government Printing Office, 2007), 5.

<sup>&</sup>lt;sup>33</sup>Ibid., 9.

<sup>&</sup>lt;sup>34</sup>The listed example stability lines of effort in FM 3-07 are, establish civil security, establish civil control, restore essential services, support to governance and support to economic/infrastructure development. Headquarters Department of the Army, Field Manual (FM) 3-07, *Stability Operations* (Washington, DC: Government Printing Office, 2008), 4-10.

Individuals from DoS, S/CRS, and USAID have a deeper and more experienced understanding of economics in both international development and fragile states.<sup>35</sup> USAID is the U.S. government's primary resource for international development. Fully integrating personnel from both S/CRS and USAID throughout current operations in Provincial Reconstruction Teams (PRTs) and Embedded Provincial Reconstruction Teams (EPRTs) is critical to the economic line of effort. It is the policy of USAID to fully cooperate with DoD in planning and execution of operations in countries transitioning from violent conflict.<sup>36</sup> Integration of individuals with military operations in PRTs, EPRTs, and as advisors to commanders at all levels is the operationlization of USAID's policy. These advisors to military operations and planning increases the military's understanding of economics and set the conditions for more effective implementation of the (**m**)**E**.

Both the military and civilian leadership recognizes this capability and its importance in counterinsurgency and stability operations. The military has to be careful when working with these organizations not to outsource responsibility and understanding. This is why the military must understand economics and the military responsibility for employment of economics. Successful integration of other government agency capabilities and resources requires the military to understand economics and its own responsibilities. In addition to responsibilities published in the national strategies and DoD Directive 3000.05, doctrine outlines the military responsibility for economics in counterinsurgency and stability operations.

<sup>&</sup>lt;sup>35</sup>Ibid., 1. USAID uses the term fragile states to refer generally to a broad range of failed, failing, and recovering states.

<sup>&</sup>lt;sup>36</sup>United States Agency for International Development, *Civilian Military Cooperation Policy*, (2008), 3. http://www.usaid.gov/policy/ USAID\_Civilian-Military\_Cooperation\_Policy\_07282008.pdf (accessed May 4, 2009).

### The Military

Military forces have specific responsibilities in the application of the economics in the execution of policy and the conduct of operations. The military has means, motive, and opportunity for the military application of economics. The U.S. Military is a worldwide deployable organization whose capabilities exceed those of any other organization or nation in the world. Integrated logistics and support capabilities combined with an unrivaled command and control capability provide the means. Logistical support enables continuous worldwide operations that have no rival or peer. Military presence, command and control, and logistics capabilities generally result in the military becoming the de facto lead in stability type operations, since other agencies lack these capabilities.<sup>37</sup>

Motive, found in the current national strategy threads all the way through joint and army doctrine, in particular the Army's new manual FM 3-0, *Operations*. This recent manual elevates stability operations to a level equal with offense and defense for the Army. Opportunity stems from the location and quantity of military operations throughout the world. From 1990 through 2003, the U.S. military executed approximately 140 named operations. These operations ranged from evacuation, peacekeeping and humanitarian relief, contingency positioning, show of force, and combat operations.<sup>38</sup> The means and opportunity embedded within military operations does not generally change based on operations, as means are constant. The military continues to have both opportunity and means, opportunity--location of operations; and means--logistical support infrastructure for the (**m**)**E**. Mechanisms and locations generally do not change when executing full spectrum operations. The Defense Department is the primary element in the whole of

<sup>&</sup>lt;sup>37</sup>JP 3-0, Joint Operations, V-25.

<sup>&</sup>lt;sup>38</sup>Barnett, *The Pentagon's New Map*, 144.

government with the most consistent means, motive, and opportunity to execute these types of operations. Motive changes with doctrine and strategic guidance. Doctrine is critical at this point.

Doctrine plays a role in integrating military efforts in support of the national strategy and becomes critical for whole of government approaches to complex problems found in economic development during stability and reconstruction operations. These critical requirements and responsibilities are outlined in JP 3-0, *Operations*, which states U.S. military forces should be prepared to lead the activities necessary to accomplish stability operations tasks when host nation, U.S. government agencies, multinational or international organizations are incapable or do not exist. Currently and in the past, the defense department has found itself as the leader in stability and reconstruction operations. This will most likely be the case in the future as the world finds itself more in military operations other than large wars, in particular irregular warfare. The understanding of non-military activities taking a predominant role in conflict is not new. In 2000 the Chairman of the Joint Chiefs stated in his testimony before Congress that the DoD needs to give greater attention to non-military activities, including economics in defense planning.<sup>39</sup>

Joint Doctrine recognizes the importance of stability operations and its integration in planning and operations. A Joint Force Commander (JFC) synchronizes stability operations throughout each phase of operation with both offense and defense operations.<sup>40</sup> JP 1-02 defines stability operations as "an overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental

<sup>&</sup>lt;sup>39</sup>Department of Defense, Joint Publication (JP) 3-08, *Interagency, Intergovernmental Organization, and Nongovernmental Organization Coordination during Joint Operations Vol I* (Washington, DC: Government Printing Office, 17 March 2006), II-17.

<sup>&</sup>lt;sup>40</sup>JP 3-0, *Joint Operations*, V-1.

services, emergency infrastructure reconstruction, and humanitarian relief."<sup>41</sup> Army doctrine is integrated with joint doctrine in terms of stability operations.

Recently, the publication of the Army's new capstone manual elevated stability operations equal to offense and defense. "The Army's operational concept is full spectrum operations: Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results."<sup>42</sup> This is a shift within Army doctrine and recognizes the complexities of the current operating environment facing the military. Two other new manuals, Army and Marine Corps Field Manual 3-24, *Counterinsurgency*, and Army Field Manual 3-07, *Stability Operations*, help codify this paradigm shift. In addition to recognizing the importance of integrating stability operations with offense and defense, these manuals stress the importance of other elements of national power.

The other components of national power and the whole of government are required for success in these types of operations, in particular economics. Successful campaigns and achievement of the national strategic end state requires the integration of economics across all operations and is critical in counterinsurgency and stability operations.

The military has an inherent responsibility implied by the directives and strategies of the United States, the Defense Department and its doctrine to understand the elements of national power at the operational and tactical level and their integration in and across counterinsurgency and stability operations. Both of these types of operations involve a battle to gain support of the people, and understanding economics is a critical component in this battle. Economics is the

<sup>&</sup>lt;sup>41</sup>Department of Defense, Joint Publication 1-02, *Department of Defense Dictionary of Military* and Associated Terms (Washington, DC: Government Printing Office 2001), 508.

<sup>&</sup>lt;sup>42</sup>Headquarters Department of the Army, FM 3-0, *Operations*, 3-1.

science of understanding people and the decisions they make with scarce resources.<sup>43</sup> Vital to effective economic understanding are essential principles and concepts, which should guide decisions and operations ultimately ensuring long-term success. Commanders at all levels must understand basic economic theory and key concepts to effectively execute counterinsurgency and stability operations. A deeper appreciation of economics, in particular developmental economics, by military leaders will enhance understanding of the environment. Developmental economics operationalizes the application of economics by the military. A functioning nation capable of responding to the needs of its people and interacting responsibility with the world is a desired endstate. Effective military application of economics, (**m**)**E**, becomes a means to this end. Economic growth must not be seen as the end, but becomes the means to the end.<sup>44</sup>

## **Economics and Military Operations**

National strategies, military doctrine, and the strategies of other governmental organizations recognize the importance of economics in counterinsurgency and stability operations. The military has an established responsibility for understanding and employing the economic element of national power as described in the national and defense strategies of the United States and military doctrine. Other agencies, in particular the Department of State and USAID, also have responsibilities as outlined in the same national strategy, their own strategies and doctrine. The military has a responsibility to harmonize and integrate operations across the spectrum of operations and with the operations of the other agencies.<sup>45</sup> The difficulty lies in defining economics for the military and the (*m*)*E* (*military application of Economics*). Joint

<sup>&</sup>lt;sup>43</sup>Paul A. Samuelson and William D. Nordhaus, *Economics*, 13th ed. (New York: McGraw-Hill Book Company, 1989), 4.

<sup>&</sup>lt;sup>44</sup>Geoff Harris, ed., *Recovery from Armed Conflict in Developing Countries* (London: Routledge, 63.

<sup>&</sup>lt;sup>45</sup>Department of Defense, National Military Strategy of the United States of America, 14.

Doctrine does not have a coherent definition for economics below the application of national power. Army doctrine vaguely defines economics. The Army defines economics in terms of helping to analyze and understand the operational environment rather than use economics to shape the operating environment. To effectively execute counterinsurgency and stability operations successfully, the military must first come to a coherent and comprehensive understanding of economics.

If the defense department and services cannot come to a common understanding economics, then successful employment in counterinsurgency and stability operations is a significant challenge. Economics is a critical component of both operations and requires a coherent understanding by the military. Lacking a clear understanding in doctrine of economics creates planning and synchronization difficulties among and between operations. Joint and Army doctrine recognize the importance of economics but conceptualize the concepts in different manners. A proposed joint definition of economics for the military is difficult and lengthy process and beyond the scope of this monograph. This monograph recommends using Amartya Sen's theories of developmental economics as starting point for both the understanding and operationalized application of economics by the military.<sup>46</sup>

Economics is one of the most complex systems and concepts in the world today. Economics is both a science and an art that deals with human behavior and the use of scarce resources.<sup>47</sup> The complexity in and surrounding economics requires understanding on multiple levels if successful integration from the strategic to the tactical is going to occur. Military

<sup>&</sup>lt;sup>46</sup>Amartya Sen's theories on developmental economics fit into the framework of our national strategy, primarily freedom. Other leading developmental economists include, Paul Collier, Jeffery Sachs, and William Easterly. Each have written extensively on the subject and have different views on what development is and the role of government and other agencies in development. Sen's view is remarkably different from the others. His approach is market based and focuses on the freedom individuals have, enabling them to use those markets. Collier and Sachs focus more on development aid, policy and sustainability.

<sup>&</sup>lt;sup>47</sup>Samuelson and Nordhaus, *Economics*, 4.

doctrine provides a guide for military operations and a framework for common understanding. Military doctrine does not agree on economics, and the definition limits its use a guide for operations and common understanding. Writings in joint publications are general and focused on the application of economics as an element of national power. Army publications see economics as a component of the operating environment. Military doctrine needs to have a consistent grounded understanding of basic economics before it can successfully execute economics in complex operations such as counterinsurgency and stability operations. Military definitions do not contradict with academic definitions, but they are incomplete and are different throughout multiple publications. While this is an inherent result of the broad field of economics, it creates confusion and limits the successful integration and focus of operations across all levels of war.

Economics and associated terms used without recognition of the specific theories and ideas which underlie the discipline opens the door for confusion and misinterpretations.<sup>48</sup> These misunderstandings create confusion in the application of economic principles throughout operations and planning. Once an understanding of the fundamentals of economics occurs, only then can the military move forward to successfully execute counterinsurgency and stability operations. The recommended theory for counterinsurgency and stability operations is developmental economic theory prescribed by Sen.

#### **Joint Doctrine**

Joint doctrine prescribes a systems approach to enhance understanding in joint operations. This systems perspective recognizes the interrelationships of a group of elements forming a complex whole. These are commonly referred to as the political, military, economic,

<sup>&</sup>lt;sup>48</sup>Sarah Lumley, "Interpreting Economics, Rhetoric and Sustainable Development: Some Implications for Policy Determination," *Australian Geographer* 30, no. 1 (March 1999), 46, http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=1743382&site=ehost-live.

social, information, infrastructure (PMESII) and shape the systems perspective in joint operations.<sup>49</sup> These elements compose and help to define the complex interconnected system joint operations occur in.<sup>50</sup> One component of this system, economics cannot easily be separated from the other elements in PMESII. Economics exists in and influences the other components. Economics has multiple fields of study that recognize this. These fields include politicaleconomics, socio-economics and economic geography to name a few. Because of this interaction with other elements, economics should be the lens through which the entire system is viewed and understood.

Economics cannot be isolated from the socio-political and other components of a system. "While economic principles are important, economic actions take place within a framework of laws and government policy that are shaped by political principles, which may or may not be consistent with economic principles."<sup>51</sup> Economics is also closely interrelated and tied to other systems. Economics and infrastructure are closely related and in many cases interdependent. Commerce depends on roads and conduits of information, and conversely these same components of infrastructure shape centers of trade, trade routes and movement of people and goods. These systems are all interrelated and connected through a complex web of connectivity. These connections effect military operations and create conditions necessary for commanders to understand economics on both the micro- and macro-scale.

The joint operating environment, where the Joint Force Commander operates, is one that is composed of everything that effects the commander's decisions and employment of the

<sup>&</sup>lt;sup>49</sup>JP 3-0, Joint Operations, II-23.

<sup>&</sup>lt;sup>50</sup>A complex system has many components. These components are independent, yet interdependent. Their interaction and interdependence creates the complex adaptive system. The results of the interaction, from inputs are not predictable or repeatable. Dr Alex Ryan and Daniel Bilusich. "Complicated or Complex?" (Monograph, School of Advanced Military Studies, Fort Leavenworth, Robert Axelrod and Michael D. Cohen, *Harnessing Complexity* (New York: The Free Press, 2000), 7.

<sup>&</sup>lt;sup>51</sup>Thomas Sowell, *Applied Economics* (New York, NY: Basic Books, 2009), 1.

nations' capabilities.<sup>52</sup> One of these critical components is economics. The capstone joint publication, JP 1-0 defines economics vaguely as it frames the economic instrument of national power in terms of the U.S. economy and the blend of finance into economics. This quasidefinition creates confusion and blurs the concept of economics with the U.S. economy as the instrument of national power. Doctrine defines the economic element of national power as our economy and the government's financial management ways and means. JP 1-0 defines the

economic component of national power as:

The responsibility of the USG lies with facilitating the production, distribution, and consumption of goods and services worldwide. A strong U.S. economy with free access to global markets and resources is a fundamental engine of the general welfare, the enabler of a strong national defense, and an influence for economic expansion by U.S. trade partners worldwide.

The USG's financial management ways and means support the economic instrument of national power. The Department of the Treasury, as the steward of U.S. economic and financial systems, is an influential participant in the international economy. It is responsible for a wide range of activities including advising the President on economic and financial issues, promoting the President's growth agenda, and enhancing corporate governance in financial institutions. In the international arena, the Department of the Treasury works with other federal agencies, the governments of other nations, and the international financial institutions to encourage economic growth, raise standards of living, and predict and prevent, to the extent possible, economic and financial crises."<sup>53</sup>

Seeking a more coherent definition from JP 1-02 yields little clarity. There are three

definitions related to economics in JP 1-02, DoD's Dictionary of Military and Associated Terms.

These terms are economic action; economic potential, and economic warfare. The definitions of

each vaguely clarify of economics as an element of national power. JP 1-02 defines economic

action as "The planned use of economic measures designed to influence the policies or actions of

<sup>&</sup>lt;sup>52</sup>Department of Defense, Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 398.

<sup>&</sup>lt;sup>53</sup>Department of Defense, Joint Publication (JP) 1-0, *Doctrine for the Armed Forces of the United States* (Washington, DC: Government Printing Office 2007), I-10.

another state, e.g., to impair the war-making potential of a hostile power or to generate economic stability within a friendly power."<sup>54</sup> This definition works by providing a basic national level understanding of economic power, but provides little framework for economic actions at the operational level or tactical level. These definitions generally describe the action component of economics in relation to other nations or a nation's capacity to produce goods and services and provide little understanding for a joint force commander applying military capabilities through an economic lens.<sup>55</sup>

Other manuals also fail to clarify economics. Joint Publication 3-0, *Operations*, does not define the economic element of national power or economics. The publication describes the use of economics to achieve national objectives, as a component of national power for advantage in operations, as a component of the interconnected operational environment, and as a target to attack.<sup>56</sup> Joint publications use and describe economics from a national perspective and provide little understanding for a Joint Force Commander in the execution of his theater strategic and operational requirements. Army doctrine does not significantly improve on the definitions of economics either. Field Manual 3-0, *Operations*, simply defines economics as one of the variables in the operational environment.

#### Land Forces Doctrine

The operational variables used describe the environment in FM 3-0 are, political, military, economic, social, information, infrastructure, physical environment and time (PMESII-PT). The focus of economics within this context is on understanding it within operational

<sup>&</sup>lt;sup>54</sup>Department of Defense, JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 175.

<sup>&</sup>lt;sup>55</sup>Economic potential--The total capacity of a nation to produce goods and services. Economic warfare--Aggressive use of economic means to achieve national objectives. Ibid., 177-178.

<sup>&</sup>lt;sup>56</sup>JP 3-0, Joint Operations, II-22.

environment and not as a component of operations. Defining economics as a variable that encompasses individual and group behaviors related to producing, distributing, and consuming resources and that global and local economies is different. The definition of economics in FM 3-0 has two significant oversights. First, the definition of economics lacks one of the most important components of economic theory--scarcity.<sup>57</sup> Second, by attempting to simply create a distinction between the local and national economy the explanation overlooks the complexity of markets and the interaction and connections between the two.<sup>58</sup> Further explanation of economics continues with a list of factors that influence economics. Some of these include industrial organizations, trade, finance, monetary policy, geography, legal, decentralized capital flows, investment, price fluctuations, debt, financial instruments, and protection of property rights.<sup>59</sup> Economics as an operational variable used by planners to describe and understand the environment is one of most difficult variables to understand. These operational variables and their understanding help shape military campaigns and operations. Truly understanding them is critical. Campaigns and operations link the tactical employment of forces to national and military strategic objectives.<sup>60</sup> Successful execution of operations and real understanding of the environment requires commanders, leaders and their staffs to understand these variables, specifically economics. This difficulty is reflected in the lack of clarity in Army counterinsurgency and stability doctrine regarding the field and study of economics.

<sup>&</sup>lt;sup>57</sup>The law of scarcity is a principle states most things people want are available in limited supply. Thus goods are generally scarce and must somehow be rationed, by price or some other means. Samuelson and Nordhaus, *Economics*, 982.

<sup>&</sup>lt;sup>58</sup>The world economies are becoming interdependent, local economies differ. Headquarters Department of the Army, FM 3-0, *Operations*, 1-7.

<sup>&</sup>lt;sup>59</sup>Ibid., 1-6.

<sup>&</sup>lt;sup>60</sup>JP 3-0, *Joint Operations*, II-2.

FM 3-07, Stability Operations and FM 3-24, Counterinsurgency both mention economics neither really defining it. Both manuals focus on economics as a line of operation, "support to economic and infrastructure development."<sup>61</sup> Stability Operations frames economics in terms of development, incentives, growth, factors and opportunity. *Counterinsurgency* describes economics in terms of economic activity, economic development, as an element of power and as a component of national power. Promisingly, both publications recognize the importance of economics in those types of operations and clearly state it. FM 3-07, Stability Operations states, "the most effective long-term measure for conflict prevention and resolution is the promotion of democracy and economic development."62 Stability Operations stresses the importance of sound economic policies setting the stage for equitable and sustainable growth. Military forces must maintain an understanding of the economic sector, the impact of their activities on the economy, and the proper method to lay a stabilizing foundation that will support future sustainability and development.<sup>63</sup> This statement recognizes the importance of the military's contribution to economics but does nothing to expand understanding of economics for commanders and planners or providing them an understanding of economics to work within. FM 3-24 contributes little to enhance an understanding of economics, recognizing only that it is critically important in counterinsurgency operations. This limitation leads to economic development in support of security, rather than a focus on a long-term functioning economic system providing processes and opportunities for the population.<sup>64</sup> Misunderstanding economics leads to catchy phrases, such as "money is ammunition," without truly understanding the impact or long-term implications of

<sup>&</sup>lt;sup>61</sup> Headquarters Department of the Army, FM 3-07, *Stability Operations*, 2-5. Headquarters Department of the Army, FM 3-24, *Counterinsurgency*, 5-6.

<sup>&</sup>lt;sup>62</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 1-11.

<sup>&</sup>lt;sup>63</sup>Ibid., 3-14.

<sup>&</sup>lt;sup>64</sup>Sen, *Development as Freedom*, 17. Processes allow freedom of actions and decisions. Opportunities are things people have given personal and social circumstances.

phrase.<sup>65</sup> These phrases have the potential to become a failed strategy, becoming only short-term solution and failing to solve the root problem or problems. Current doctrine fails to help leaders understand this critical component of contemporary operations.

This gap in knowledge contributes to DoD's difficulty in executing stability and reconstruction operations and successful transition from counterinsurgency operations to other operations. The gap of economic knowledge spans the operational application of economics for the military and influences its ability to successfully accomplish stability and reconstruction operations. Creating a firm understanding of economics within the military will provide commanders and leaders the capability they require to lead these types of operations in addition to setting the conditions and enabling the whole of government to execute these types of operations. These inconsistencies create confusion.

Confusion leads to incomplete application of national power through other elements of national power, in particular the military's execution or implementation of economics either directly or in directly. Senior leaders, in particular, generals, admirals, ambassadors, and politicians who establish policy and strategy, commonly state there is no military solution to the wars in both Iraq and Afghanistan. The solutions are social, political, and economic. This solution starts with the understanding of key economic principles and terms for use by the military as it leads and integrates with the other agencies operating in counterinsurgency and stability operations. President John F. Kennedy noted in his remarks to the Annapolis class of 1961:

You [military professionals] must know something about strategy and tactics and ... logistics, but also economics and politics and diplomacy and history. You must know everything you can know about military power, and you must understand the limits of military power. You must understand that few of the

<sup>&</sup>lt;sup>65</sup>David H. General Petraeus, "Mulit-National Force- Iraq Commander's Counterinsurgency Guidance," *Military Review* 86, no. 5 (September-October 2008): 2.

important problems of our time have . . . been finally solved by military power alone.  $^{66}$ 

What held true in the time of Kennedy continues to hold true today. The greatest foreign policy challenges of today are political and economic; and are unsolvable by military means alone.<sup>67</sup>

#### **Principles of Economics**

Knowing something about economics begins with basic economic principles and terms. Economics is the study of human behavior and the decisions made by individuals to produce and distribute goods with in a constrained environment. Creating a functioning society is one of the most complex operations that our nation can undertake.<sup>68</sup> Providing military leaders a comprehensive overview of economic theories and relevant concepts, in particular developmental economics establishes a foundation of understanding required for operations in this complex environment. Economics has many different components adding to its complexity. These components go beyond the basic concepts of macro- and micro-economics. Components of economics include but are not limited to supply, demand, economic fallacies, the law of scarcity, opportunity cost, property rights, markets, capital, and monetary policies. These are but a few significant economic concepts that contribute to the complex subject of economics. While many people consider economics a difficult subject mostly composed of graphs and statistics, its basic principle are simple.<sup>69</sup> These simple concepts are critical in creating effective economic

<sup>&</sup>lt;sup>66</sup>Headquarters Department of the Army, FM 3-24, *Counterinsurgency* (Washington, DC: Government Printing Office, 2006), 2-14.

<sup>&</sup>lt;sup>67</sup>Sachs, 272.

<sup>&</sup>lt;sup>68</sup>Yaneer Bar-Yam, *Making Things Work; Solving Complex Problems in a Complex World* (Cambridge, MA: Knowledge Press, 2004), 215.

<sup>&</sup>lt;sup>69</sup>Robert H. Frank, *The Economic Naturalist: In Search of Explanations for Everyday Enigmas* (NewYork, NY: Basic Books, 2007), 2.

understanding. This discussion of economic concepts has lead to the publication of many papers, books, and numerous hours of study and debate. This monograph will only focus on a few key concepts that military doctrine overlooks. The purpose is to attempt to clarify critical concepts for operationalization of economics by the military. Concepts were selected based on their applicability to both individual and collective decision-making. These concepts are scarcity, opportunity cost, and common economic fallacies.

A common foundation of terms is missing from the current discussion of economics and its application in counterinsurgency and stability operations. Numerous articles continue to be published regarding economics in current operations, particularly in *Military Review*. There are articles about mircro-finance, the requirement for other organizations to take the lead in the economic development, and articles that discuss the macro implications of the economic element of national power. All of these are relevant, and help to define and frame arguments for use and application of this element of national power. However, none clarify economics for the (*m*)*E* (*military application of Economics*).

Understanding economic issues is a requirement for comprehension of relevant issues and to make progress dealing with them.<sup>70</sup> Without a systematic study of economics, campaign plans will be incomplete. Paul Samuelson, a leading economist and author of one of the most widely used textbooks on economics, suggests economic knowledge serves individuals both in their personal lives and as policy makers forming an understanding of society leading to the design of better economic policies.<sup>71</sup> Once a clear understanding of economics is developed, operationalization by the military becomes possible. Samuelson's textbook, *Economics*, serves as

<sup>&</sup>lt;sup>70</sup>Samuelson and Nordhaus, *Economics*, 10.<sup>71</sup>Ibid.

an excellent foundation for general economic theory and common terms.<sup>72</sup> Thomas Sowell's writings on applied economics and economic fallacies also provide an excellent reference to reinforce many basic economic concepts. Both of these economists provide a solid foundation for an understanding of economics with easily understood concepts, and with useful and relevant definitions.

The first thing the military requires is an improved definition of economics as a foundation for operations and application. Joint doctrine describes and defines the economic element of national power. Army doctrine describes economics as an operational variable. These definitions, when compared with academic definitions highlight a gap in the military application of economics, (**m**)**E**. This gap is evident in the new stability operations manual, which treats economics as a sector requiring increased capacity and growth, provided by sound economic policies. Treating economics as a sector creates confusion with terms and concepts. Questions quickly arise about what an economic sector and economy are, how they interact, and which sound economic policies to pursue. Without clear definitions for these terms, operationalization is difficult. Confusion is bound to occur not only in the application by the military, but also more importantly with the integration of the military, other government agencies, and international organizations, all of which are required for success.

FM 3-07 divides the role of the military for local or tactical operations at the operational level, and provides limited one-sentence explanations pertaining to economics. Operations at the tactical level set the stage for a broad national recovery and include generating employment opportunities, infusing monetary resources, stimulating market activities, microeconomics, and

<sup>&</sup>lt;sup>72</sup>Paul Samuelson and William D. Nordhaus's textbook *Economics* is in its 15th edition, most recently published in 2004. The original was published in 1984. It remains a standard in both high school and colleges for teaching basic economics According to Mark Skouson in a review of Samuelson's book, His 15 editions have sold over four million copies and have been translated into 41 languages. The 13th edition was used for this monograph.

restoration of physical infrastructure. The operational level focuses on strengthening the national economy, primarily through banking and infrastructure improvements.<sup>73</sup> One-sentence explanations create confusion and do not increase understanding, but only add to economic rhetoric and jargon used by the military.<sup>74</sup> "Money is ammunition," a phrase coined by General Petraeus is an example of this rhetoric and jargon.<sup>75</sup> Additionally, the oversimplified statements written in doctrine perpetuate myths and fallacies.

Oversimplifications further confusion and inconsistencies in the use of economics by the military. Two examples stand out in the section "Support to Economic and Infrastructure Development." The first is the statement that sound economic policies promote equitable, sustainable growth, noting this is the key to remedying underlying tensions in society. These vague statements generate many questions. For example, who and what defines sound economic policy? Are these policies only successful if growth occurs? What is defines growth? The second example is the "unanticipated demand on local markets (by military forces) may cause prices to spike, thus making products cost prohibitive for the people."<sup>76</sup> This statement over simplifies the impact of demand on price. Clarification of terms is critical for the military application of economics in today's multi-agency complex operations.

A recommended definition of economics for use by the military is one found in the introduction of Samuelson's textbook. Economics is the "study of how societies use scarce resources to produce valuable commodities and distribute them among different groups."<sup>77</sup> This definition furthers the military understanding of both the economic element of national power and

<sup>&</sup>lt;sup>73</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 3-14.

<sup>&</sup>lt;sup>74</sup>Lumley, 43.

<sup>&</sup>lt;sup>75</sup>Robinson, Linda. *Tell Me How this Ends: General David Petraeus and the Search for a Way Out of Iraq.* (New York, NY: Perseus Books Group, 2008), 79.

<sup>&</sup>lt;sup>76</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 3-14.

<sup>&</sup>lt;sup>77</sup>Samuelson and Nordhaus, 5.

the military application of economics at the operational level. The strength of our nation using the economic instrument of national power comes from the United States ability to collectively use scarce resources effectively and influence other nations who do not have resource and distribution capabilities. The concept is the same for smaller nations, regions and communities, as all try to manage scarce resources for use by individuals and groups. Scarcity shapes multiple aspects across counterinsurgency and stability operations.

Military writings about economics must include scarcity since it is a term central to the concept of economics. Scarcity is a fundamental truth throughout the world. Resources, and as a result goods, are constrained by limited resources. These resources include, labor, time, raw materials, and means of production (factories, natural resources, equipment and the compound effect they have each other.) The law of scarcity states that goods are scarce because there are not enough resources to produce all the goods that people want to consume.<sup>78</sup> Scarcity drives more than just basic supply and demand. It affects choice individuals and groups make, influences, and shapes and potentially creates illicit markets. Colonel Peter Mansoor's experience with scarcity in Baghdad highlights the impact of scarcity at the individual and community level with implications at the theater strategic and national level.

Liquid propane gas, used for cooking fuel is a highly prized commodity for the citizens of Baghdad. It was in short supply. Citizens waited in long lines for a limited quantity of gas. The price of gas set by the government was well below the market price, and created opportunities for corruption, intimidation and extreme profits for these who could take advantage of the system.<sup>79</sup> Scarcity in this case played a significant role in shaping the interactions of the individual Iraqi, the Iraqi governments and the U.S. military response. The Iraqi government viewed cheap gas as

<sup>&</sup>lt;sup>78</sup>Ibid., 26.

<sup>&</sup>lt;sup>79</sup>Peter R. Mansoor, *Baghdad at Sunrise: A Brigade Commander's War in Iraq* (New Haven, CT: Yale University Press, 2008), 195.

an entitlement and continued to maintain the price subsidy, creating the opportunity for corruption and black market profits. Individual Iraqis needed gas for cooking, creating a high demand for an artificially low priced commodity. These factors fed on each other creating more disruption in both the local, national and international trade. Ultimately, the liquid propane gas market affected the economic dynamics of stability operations in Iraq.

Bringing in the concept of scarcity into the military's definition of economics helps not only further the understanding of economics but also the decisions that people and even nations make. These decisions are critical to understanding by the military when conducting operations that focus on people. Scarcity is just one of many economic concepts that is critical to the military's understanding of economics and its application in operations. Scarcity drives a second critical component of economics, opportunity cost. Opportunity cost is one of the more important concepts in introductory economics and helps explain human behavior patterns.<sup>80</sup>

Opportunity cost occurs because choosing one thing in a world defined by scarcity requires giving something else up. The opportunity cost is the value of a good given up.<sup>81</sup> A simple example for understanding opportunity cost is found in *The Economic Naturalist* by Robert Frank. Imagine you have won a free ticket to see an Eric Clapton concert. The ticket cannot be resold. There is also a Bob Dylan concert playing that same night that you are considering. This is the only other activity you consider doing. The Dylan ticket costs \$40 and you would pay as much as \$50 to see the Dylan concert. The only thing that must be sacrificed to see the Clapton concert is the Dylan concert. By not attending Dylan concert you miss something that is worth \$50 to you, but avoid spending \$40 for the ticket. The opportunity cost is \$10 (\$50-\$40 = \$10). If the seeing the Clapton concert is worth \$10, you should see Clapton concert, if not

<sup>&</sup>lt;sup>80</sup>Frank, 4.

<sup>&</sup>lt;sup>81</sup>Samuelson and Nordhaus, 33.

you should see the Dylan concert. Opportunity cost, the cost of engaging in an activity is the value of everything you must give up to pursue that activity.<sup>82</sup> These two basic concepts are critical to economics and must be included in the military's comprehension of economics for COIN and stability operations. Scarcity and opportunity cost drive and shape every decision individuals and groups make. With a basic understanding of scarcity and opportunity cost fallacies reviewed. Understanding typical economic fallacies are critical for planning.

In the field of economics, fallacies not taken into consideration can create problems for planning and operations, by leading to unintended consequences. These fallacies affect everything from housing to trade.<sup>83</sup> Some of the most common fallacies in economics include the *fallacy of composition, post hoc*, and *zero-sum fallacy*. The *fallacy of composition* is one of the most common within economics. What is true for individuals may not always be true for societies as a whole. This fallacy is illustrated using a baseball game. Individuals can see better, when they stand up, but once everybody is standing the view is no longer better. Another common fallacy in economics is the *post hoc* fallacy. This fallacy occurs because of erroneous linkage of cause and effect. This one has the potential to severely affect the military application of economics in operations. Misunderstanding the cause and effect relationship can lead to what may appear to be short-term successes that hide long-term failures. The third economic fallacy to understand is the zero-sum fallacy. The zero-sum fallacy implies that if someone gains something, someone else loses something. This contradicts the premise of transactions and the cost benefit principle.

<sup>&</sup>lt;sup>82</sup> Frank, 4.

<sup>&</sup>lt;sup>83</sup>Thomas Sowell, *Economic Facts and Fallacies* (New York, NY: Basic Books, 2008), 2.

by individuals or groups are only taken if the cost is less than the benefit.<sup>84</sup> Understanding these fallacies is critical for the military's application of economics.

In addition to the fallacies discussed, economic concepts and theories discussed and recommended are not the result of an exact science. Economic laws hold true only on the average, not as exact relationships.<sup>85</sup> This infers that the models used in one part of the world with a unique economic system, should not be applied to another situation in the same manner. This is a critical point for stability operations. Context is critical and no two operations or situations are the same. Each strategy pursued must be adapted to the unique operational characteristics and context of the situation where forces find themselves conducting stability operations.<sup>86</sup> While each situation is unique and individually requires a unique strategy, developmental economic theory described by Amartya Sen provides a framework for the military to operationalize the application of economics in counterinsurgency and stability operations.

## **Operationalizing of Economics**

Economic application by the military in counterinsurgency and stability operations is a complex undertaking, but one is of the military's many responsibilities when conducting those types of operations. "The military needs to have sufficient economic capability to execute a coherent economic development program during the golden hour that will be consistent with the overall objectives of the stability operation and consistent with follow-on efforts of other government agencies."<sup>87</sup> Currently in OIF and OEF, economic tools are used as weapons at the operational level supporting both counterinsurgency and stability operations. In many cases,

<sup>&</sup>lt;sup>84</sup> Frank, 10.

<sup>&</sup>lt;sup>85</sup>Samuelson and Nordhaus, 9.

<sup>&</sup>lt;sup>86</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 1-18.

<sup>&</sup>lt;sup>87</sup>Andrew Timothy Wallen, "Structuring Economic Power for Stability Operations" (Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, Year), 55.

weapons are employed without regard to understanding the effects. Capabilities of the military must go beyond economic tools employed in operations. With a solid foundation of basic economics, theories, and key concepts, the military can more effectively operationalize the application of economics in counterinsurgency and stability operations. Effective operationalization of economics becomes a means to an end. The end is a functioning nation capable of responding to the needs of the population and interacting responsibly with the world. Economic growth cannot be seen as an end, but as a means to an end.<sup>88</sup> This is a critical distinction and changes the focus regarding economic development for the military.

Economic development becomes more than just growth or a line of operation. Economics becomes the foundation of the entire campaign plan. Viewed through freedom, economics is the entire framework which operations are executed under. These freedoms, political (free speech and elections), social (education and health care), and economic (opportunity for trade and production) enable individuals to shape their own lives and the lives of others.<sup>89</sup> Economic development currently framed by the military with its limited understanding views the endstate as an objective sought for its own sake, rather than as a means to improvement of human welfare.<sup>90</sup> This is where failure to understand economics becomes critical and hinders long-term success. The military focuses on short-term economic growth based on security requirements, instead of comprehensive development focused on enabling individual freedom and opportunity.

## Development

Growth, development, economic development and developmental economics are terms that all have different meaning, but in many cases they are used interchangeably. Distinctions

<sup>&</sup>lt;sup>88</sup>Harris, *Recovery from Armed Conflict in Developing Countries*, 63.

<sup>&</sup>lt;sup>89</sup>Sen, Development as Freedom, 11.

<sup>&</sup>lt;sup>90</sup>Harris, Recovery from Armed Conflict in Developing Countries, 63.

among them are required. Growth is an increase in output. Gross Domestic Product (GDP) generally measures growth at the national level.<sup>91</sup> Development is an improvement in the ways and means of producing output. These can be technological, managerial, or organizational improvement or changes.<sup>92</sup> The process of improving the standard of living and well being of the population of developing countries by raising per capita income is the general definition of economic development.<sup>93</sup> It is a complex interplay of market forces and public-sector plans and investments.<sup>94</sup> Developmental economics is a branch of economic theory that deals with the unique issues of developing countries and is discussed in a later section.

Growth supported by resources, infrastructure, and foreign direct investment (FDI) generally creates security. This model for "development" focuses on increasing GDP through infrastructure development and security.<sup>95</sup> The military line of effort in both stability and COIN operations that supports economic and infrastructure development focuses primarily on solving these types of problems. Unemployment, property rights, the rule of law, infrastructure, and security become the center of military operations. Using this model economics becomes its own individual line of operation.

Open markets, enforcement of property rights, and macroeconomic stability all aid this growth.<sup>96</sup> Jeffrey Sachs describes the four basic stages economic growth and progress. The stages of economic growth for countries are subsistence economy, commercial economy, emerging-market economy, and a technology-based economy. Each stage represents a higher level of well-

<sup>&</sup>lt;sup>91</sup>Samuelson and Nordhaus, *Economics*, 971.

<sup>&</sup>lt;sup>92</sup>Thomas Sowell, *Applied Economics* (New York, NY: Basic Books, 2009), 239.

<sup>&</sup>lt;sup>93</sup>David W. Pearce et al., *The Dictionary of Modern Economics* (London: The Macmillan Press LTD, 1981), 123.

<sup>&</sup>lt;sup>94</sup>Sachs, Common Wealth; Economics for a Crowded Planet, 219.
<sup>95</sup>Barnett, The Pentagon's New Map, 205.
<sup>96</sup>Ibid.

being for citizens and a higher level of capital per person. Unfortunately, the process of development is not as simple as enabling the market. No country pursues development in this manner, in particular the poor underdeveloped countries with limited or damaged infrastructure. Yet, this is the focus of the economic line of operation pursued by the military. FM 3-07, Stability Operations, focuses on these exact lines. The example lines of effort include establishing civil control, restoring essential services, support to governance, economic and infrastructure development.<sup>97</sup> Jeffery Sachs contends that we have no governmental capacity to understand the interconnected problems of poverty, environmental, and political instability in the developing world. We have "explained" those problems as being the result of tyrants and thugs rather than the results of politics, economics, and ecology.<sup>98</sup> A sound development strategy for any country requires attention to three geographic dimensions: the rural (largely agricultural sector), the urban (largely manufacturing and service sector), and the national infrastructure (gird, roads, power, telecoms). These dimensions link together all parts of the economy, and connect the economy with neighbors and world markets. Development must go beyond the simple lines of effort described in the Stability Operations manual. Each country faces a distinctive challenge based on its own unique geography, demography, and history.<sup>99</sup>

Developing countries depend on outside aid from both government and non-government organizations. In many cases, countries require military intervention. The result of these efforts in many cases is not development, but results in the country becoming dependent on aid and outside assistance, mired in the category of low income and little growth. Countries with economic

<sup>&</sup>lt;sup>97</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 4-10.

<sup>&</sup>lt;sup>98</sup>Sachs, Common Wealth; Economics for a Crowded Planet, 284.
<sup>99</sup>Ibid.

characteristics of low income, slow growth, and who are dependent on commodity exports are prone to conflict, in particular civil wars.<sup>100</sup>

Tools such as military intervention, international standard setting, and trade policy will have to be drawn upon to prevent the security nightmare looming before the developing countries. Understanding by the agencies that employ these tools, even though they have no interest is paramount for their successful employment.<sup>101</sup> The military may have limited interest understanding nation building and development, but those concepts are critical to understand when the military is employed in those situations. Development has to go beyond just developing a market economy and a stable capitalist democracy. The current trends and effort continue to move all organizations in the right direction, integrating and unifying efforts. The focus of economic development is to change these trends, and it is the how that becomes important. Beyond the metric of growth must be the how. The how is developmental economics.

## **Developmental Economics**

The challenges of poor underdeveloped countries hindered by conflict, which in many cases can seem insurmountable, require a new approach to development by the military operating those countries. Economic development is different from developmental economics and must be clarified and expanded on to assist understanding. Developmental economics is a field of study within economics that focuses on the components of the development process in poor countries. It is about overcoming destitution, deprivation and oppression faced by populations and enabled by the unique structural components in individual countries.

In the last seventy-five years most successful countries gradually came to understand that their own citizens share a common fate, requiring the active role

<sup>&</sup>lt;sup>100</sup> Paul Collier, *The Bottom Billion: Why the Poorest Countries are Failing and What Can be Done About It* (New York: Oxford University Press, 2007), 22.

<sup>&</sup>lt;sup>101</sup>Ibid., xi.

of government to ensure that every citizen has the chance and means (through public education, public health, and basis infrastructure) to participate productively within the society, and to curb societies dangerous encroachments on the physical environment.<sup>102</sup>

The complex reality of the world today requires more than a focus on economic and infrastructure development, therefore a new framework is required for the (m)E (military application of Economics). This framework should serve as the foundation for military operations in counterinsurgency and stability operations.

Development defined by Amarty Sen is the process of increasing the freedoms that individuals enjoy. Expansion of freedom from this perspective becomes both the primary end and the means for development.<sup>103</sup> This new perspective provides a framework for the employment of economics by the military. Stability operations defined by Joint Publication 3-0 and FM 3-0 "is an overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief."<sup>104</sup> The definition of stability operations does not include growth as a component. Economic and infrastructure development encompasses many elements, but all are focused purely on economic growth. This line of operation focuses on support to economic growth and development. Commerce, enterprise creation, monetary institutions, national treasury operations, public sector investment, private sector investment, protection of natural resources, agriculture and infrastructure are all sub-components of this line

<sup>&</sup>lt;sup>102</sup>Jeffrey Sachs, Common Wealth; Economics for a Crowded Planet, 4.

<sup>&</sup>lt;sup>103</sup>Sen, Development as Freedom, xii.

<sup>&</sup>lt;sup>104</sup>JP 3-0, Joint Operations, II-2

of operation.<sup>105</sup> Support to economic and infrastructure development defined by the military are only one component of Sen's concept of "development as freedom."

Five freedoms compose the concept of "development as freedom" and see development much more holistically than the simple line described in military doctrine. These instrumental freedoms defined by Sen are those freedoms that contribute to a person's ability to live more freely, increasing individual and collective opportunity. These freedoms do not stand alone, independent. They are woven tightly together, strengthening their importance and connectivity.<sup>106</sup> The freedoms are political freedom, economic facilities, social opportunities, transparency guarantees, and protective security.<sup>107</sup> Economic facilities refer to the opportunities that individuals respectively enjoy utilizing economic resources for the purpose of consumption, or production, or exchange.<sup>108</sup> Stability and reconstruction operations by their very nature focus on concepts in accordance with most writings on developmental economics, and in particular in Sen's writings. Paul Collier, another prominent economist in the field, also recognizes that a whole of government approach is required, although more for development and less for counterinsurgency and stability operations but he notes it is easily adapted to those types of operations.

Development is a complex problem and is central to counterinsurgency and stability operations. A crisis must be understood as a failure of development first, and only secondly as a failure of politics. Trying to solve such crises through peacekeepers and sanctions alone, without the prospects of long-term development, is like putting a Band-Aid on an infected wound. "The

<sup>&</sup>lt;sup>105</sup>Headquarters Department of the Army, FM 3-07, *Stability Operations*, 3-18.

 <sup>&</sup>lt;sup>106</sup>Amartya Sen, *Development as Freedom* (New York: Alfred A. Knoph, Inc., 1999), 38.
 <sup>107</sup>Ibid.

<sup>&</sup>lt;sup>108</sup>Ibid., 39.

bleeding might stop temporarily, but the risk of continuing infection, even death remains."<sup>109</sup> Sen's writings on development reinforce the concepts published in the *National Security Strategy*. Both the strategy and theory supports the link between development and freedom. Two essential tasks written in the *NSS* are to ignite a new era of economic growth and trade and a new era of development to open and establish the infrastructure of democracy.<sup>110</sup> Developmental economics provides an alternative framework for the military to effectively execute COIN and stability operations while working to achieve the two essential tasks described in the strategy of the United States.

# Conclusion

Basic theories and principles of economics formed into a coherent understanding, coupled with developmental economic theory as modeled by Amartya Sen, provides a way forward for military commanders to successfully apply economics in the execution counterinsurgency and stability operations. Developmental economics facilitates the transition between operations. Seamless transition ensures the long-term goals are not only aligned, but also integrated. Beyond security, essential ingredients of long-term success include economic development, institution building, and the rule of law, as well as promoting internal reconciliation, good governance, providing basic services to the people, training and equipping indigenous military and police forces, and strategic communications. Not only must our military capabilities be robust, but also reinvigorate other important elements of national power and develop the capability to integrate, tailor, and apply these tools as needed. We must tap the full strength of America and its people.<sup>111</sup> Understanding the elements of national power, in particular

<sup>&</sup>lt;sup>109</sup>Sachs, Common Wealth; Economics for a Crowded Planet.

<sup>&</sup>lt;sup>110</sup>The White House, *The National Security Strategy of the United States of America*, 1.

<sup>&</sup>lt;sup>111</sup>Department of Defense, National Defense Strategy, 17.

economics, helps strengthen our military capabilities and the results from the employment of these capabilities in concert with the other elements.

Economics is a critical component of military operations and will continue to be so in the future. Understanding this critical component is vital to successful military operations. This understanding starts with a basic knowledge of economic terms, supported by a common language in both the military and interagency. Critical to understanding is a common definition of economics and clarity of key economic concepts. Military professionals must grasp a definition of economics, and the understanding of scarcity, opportunity cost, and common economic fallacies.

Economics is the study of how individuals and societies use scarce resources in the production and distribution of goods and services. Scarcity is the result of constrained resources. There are not enough resources in the world to produce all the goods and services populations demand. Opportunity cost the cost of choice in a world defined by scarcity. The value of a good given up is the opportunity cost. Economic fallacies perpetuate myths and misunderstandings in the application of economics creating policy failures. Once fundamentals of economics are grasped, commanders can improve the incorporation of economics into campaign plans using the framework provided by developmental economics as described by Amartya Sen.

This monograph is not a call to nation building by the Department of Defense. The military has a requirement for understanding basic economics and its application in counterinsurgency and stability operations. Knowledge of economics, in particular developmental economic theory by Amartya Sen, serves the military providing a better understanding of societies, decisions individuals make and the application of economic policies. It is clear through policy and doctrine the military has specific responsibilities to understand economics and in particular, the military application of economics, or (**m**)**E**. Understanding the military has more than just a contributing and facilitating role regarding the application of economics in counterinsurgency and stability operations is critical.

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Current professional education emphasizes the application of economics as element of national power, but needs to be expanded to include basic economic fundamentals and theories, specifically developmental economics for military professionals. How and where this is accomplished is another area for further study. Recommendations and research for interagency solutions for the application of economic instruments in stability or other operations must also continue. Economics is a rich field of study with many applications in counterinsurgency and stability operations at both the macro- and micro-economic levels. This area is full of topics that provide other opportunities for further research and writing. This includes the previously mentioned development of a definition of economics for military operations beyond the one mentioned in this monograph. Further topics for study also include leveraging economics for tactical employment in complex operations (COIN and stability operations), and more effectively integrating and enabling the whole of government in these operations using economics. Further integration of the whole of government into operations, will continue to improve unity of effort for these types of operations. The world continues to integrate itself economically. The integration is occurring at the national and local level and is becoming increasingly tighter.<sup>112</sup> Study of economics is critical. It should be maximized to increase the effectiveness of the military application of economics in complex operations.

Economics and its application is both a mission requirement and a leadership responsibility of the military. Military officers must not only understand the economic implications of their decisions, but how those decisions will shape the nations they operate in. Faced with the strategic reality that the military will be operating in around the globe, it is crucial that understanding of the operational environment occurs by commanders and leaders at all levels of the military for more effective execution of counterinsurgency and stability operations.

<sup>&</sup>lt;sup>112</sup>Barnett, *The Pentagon's New Map*,108.

Understanding starts with a clear definition of economics and its application by the military--

(m)E (military application of Economics)--using the framework of developmental economics as the foundation for operations and campaigns.

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